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Abstract

A first-order concern regarding sustainable finance is that it may crowd out individual support for more effective, policy-driven approaches to address societal challenges. We test the validity of this concern in a pre-registered experiment in the context of a real referendum on a climate law with a representative sample of the Swiss population (N=2,051). We find that the opportunity to invest in a climate-conscious fund does not erode individuals' support for climate regulation. While sustainable finance may resemble a placebo in the sense that individuals appear very optimistic about its societal impact, it is not a dangerous placebo that crowds out political engagement.

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1 Introduction

In recent years, policymakers and citizens have increased their pressure on the financial industry to actively contribute to addressing critical societal challenges, such as climate change. Nowadays, many investors expect their money to be managed in a way that promotes positive environmental and social change (e.g., Haber et al., 2022; Giglio et al., 2023).

Given these expectations, there is a growing interest in understanding the *real* impact of the "sustainable finance" phenomenon. The recent literature has focused on whether people like sustainable investment products (e.g., Hartzmark and Sussman, 2019; Heeb et al., 2023), when sustainable finance can be welfare enhancing (e.g., Hart and Zingales, 2017), or whether it can effectively influence firm behavior (e.g., Berk and van Binsbergen, 2021; Broccardo et al., 2022; Edmans et al., 2022; Heath et al., 2023).

A so far overlooked aspect is the spillover effect of sustainable finance on the likelihood of advancing formal sustainability-related regulation: Is sustainable finance a "dangerous placebo", i.e., a red herring drawing off energy and attention from more effective solutions, as some of its critics argue? Or is it a way to partially compensate for inefficiently lax regulation, not crowding out, and possibly crowding in, traditional political efforts? Understanding whether sustainable finance substitutes or complements sustainability-related political engagement is of first-order importance to understanding its impact on society.¹

¹In recent years, the interpretation of sustainable finance as a dangerous placebo has been brought to the spotlight of the public attention by Tariq Fancy – a former chief sustainable investing officer at BlackRock (e.g., Fancy, 2021). Edmans (2021) provides some early critical assessment of this claim.

Prior research makes no clear prediction about the spillovers of sustainable investing on political behavior. On the one hand, we may encounter moral licensing, meaning that the perceived pro-social act of investing sustainably may liberate investors from behaving less pro-social in future decisions (Miller and Effron, 2010; Merritt et al., 2010). For example, List and Momeni (2021) shows that employees misbehave more when their employer engages in corporate social responsibility (CSR). On the other hand, the literature also emphasizes moral consistency as an important self-signaling tool to reinforce our identity (Akerlof and Kranton, 2000; Bodner and Prelec, 2003; Bénabou and Tirole, 2011; Gneezy et al., 2012). Thus, a sustainable investment may, contrarily, increase the probability of subsequent prosocial behavior. Hence, which behavior emerges in reaction to sustainable investing remains an empirical question.

This paper provides experimental evidence leveraging a popular vote on a climate law in Switzerland held on June 18, 2023.² In a pre-registered experiment with a representative sample of the Swiss population, we explore how the option to invest in a climate-conscious fund affects participants' support for the climate law. The Swiss democratic system is ideal for our experimental strategy. Whereas in most countries, voters can only indirectly decide on specific regulations, the Swiss electorate can directly vote on single-issue public referenda. We measure active political engagement on sustainability issues in terms of net donations to

²The legislation at stake in the 2023 Swiss climate referendum aimed to accelerate the country's transition to renewable energies and achieve climate neutrality by 2050. See, e.g., SWI SwissInfo.ch, "Swiss voters to decide on country's energy transition", April 13, 2023. The final result saw the approval of the climate law with 59.1% votes in favor and a 42% turnout, e.g., SWI SwissInfo.ch, "Swiss approve net-zero climate law", June 18, 2023.

the campaign promoting the approval of the climate law.

We recruited a sample of 2,051 respondents representative of the Swiss population. The survey was conducted in May 2023, during the main campaigning phase, finishing right before the onset of voting by mail.

In the first step ("Investment stage"), we randomly assign participants to a control and a treatment group. In the treatment group, participants are given the opportunity to express their climate preferences in a private investment decision. We ask participants to allocate 1,000 CHF (1,100 USD) to either of two real investment funds. In the control group, we provide participants only with information on the standard financial characteristics of the two investment options. In the treatment group, we reveal that one of the two funds is a "Climate fund" and provide information about both funds' climate-related performance. We make this decision consequential: We randomly extract 10 participants, invest 1,000 CHF in their selected fund, and pay them the resulting capital after one year.

In the second step ("Political stage"), we provide participants with an overview of the upcoming climate referendum and a neutral summary of the main arguments of the proand anti-climate-law campaigns. We then offer participants the opportunity to donate part
of their payout to either of the two campaigns. Our main dependent variable of political
engagement is the net donation supporting the climate law – with the donation to the anticlimate-law campaign scaled negatively.

In the third step ("Survey stage"), we assess respondents' perception of the climate

impact of the funds, their emotional response to their investment decision, and their financial expectations regarding the investment options. In addition, we collect various preferences and demographic characteristics.

The results of the experiment are as follows. First, we confirm individuals' preferences for sustainable investment products (e.g., Hartzmark and Sussman, 2019; Ceccarelli et al., 2023): Respondents are almost three times more likely to choose the climate fund when it is explicitly labeled as such in the treatment group (76% vs. 30%). This indicates the salience of our treatment. We also find that investing in the climate fund is perceived as both economically costly and emotionally rewarding, resembling a moral act.

Second, we find that the average net donation in favor of the pro-campaign is greater in the treatment group than in the control group (35.1 CHF vs. 31.2 CHF). This difference is not statistically significant. We observe a similar positive but non-statistically significant treatment effect on the intention to vote for the climate law. We find a marginally significant positive treatment effect on respondents' stated alignment with the pro-campaign. These results clearly fail to support the narrative that climate-conscious investing erodes political support for climate regulation.

Third, we find that investors, on average, are very optimistic about the societal impact of sustainable investing. Respondents believe an investment in the climate fund makes a significantly greater contribution to climate protection than an investment in its top ten holdings. This establishes two important facts. First, participants do believe sustainable investing to be an effective tool to address the climate crisis, yielding a rational reason to potentially trade off sustainable investing with political engagement. Second, these beliefs appear highly optimistic, which makes such a trade-off welfare-reducing if it were to occur.

Finally, we explore the cross-sectional heterogeneity of the results. We find no evidence of a differential effect of sustainable finance on individual political engagement along the political spectrum of the climate fund. These analyses further support the interpretation that sustainable finance is unlikely to crowd out political engagement.

In summary, sustainable investing may be a placebo in the sense that investors appear very optimistic about its societal benefits. However, it does not seem to be a dangerous placebo that crowds out political engagement.

Our paper contributes to three streams of research. First, it links to the conceptual and theoretical literature on the interaction of formal regulation and private socially responsible actions, like corporate social responsibility (CSR). In a highly influential article, Friedman (1970) argues that "the social responsibility of business is to increase its profit." According to Friedman, CSR is an inefficient way to deal with negative externalities, harmful both to corporate profits and society at large: Elected politicians are better positioned and more democratically legitimate than corporate managers to deal with political issues.³ Other

³Along similar lines, according to Maxwell et al. (2000), CSR can be strategic self-regulation of firms to preempt more stringent political action, a view also empirically supported by Malhotra et al. (2019). Bertrand et al. (2020) find evidence consistent with the role of charitable giving, a form of CSR, as a means of corporate political influence. Bebchuk and Tallarita (2020) conceptually argue that stakeholder governance raises illusionary hopes around the positive effects for stakeholders, weakening pressures for stakeholder-oriented policy reforms. Chater and Loewenstein (2022) and Hagmann et al. (2023) argue that policy interventions targeting individual behavior lower support for systemic policy changes like taxes or

scholars argue that when governments fall short in the provision of public goods and control of negative externalities, CSR can emerge endogenously as a welfare-improving strategy to overcome political failures (Besley and Ghatak, 2007; Bénabou and Tirole, 2010; Egorov and Harstad, 2017; Hart and Zingales, 2017). These two opposing views of CSR also influence the current debate on the "political economy" consequences of sustainable finance. Some recent studies have started exploring the strategic interactions between sustainable finance and government regulation and their potential consequences in theoretical frameworks (Allen et al., 2023; Biais and Landier, 2022). However, whether or not sustainable finance crowds out regulation remains an empirical question. Our paper provides experimental evidence.⁴

Second, the paper contributes to the literature on investor behavior on sustainability issues. Several contributions show investors' strong appetite for socially responsible investment products (e.g., Anderson and Robinson, 2022; Barber et al., 2021; Bauer et al., 2021; Bollen, 2007; Geczy et al., 2021; Hartzmark and Sussman, 2019), often driven by personal values and pro-social preferences (e.g., Hong and Kostovetsky, 2012; Riedl and Smeets, 2017). Recently, some contributions have started addressing the question of whether sustainable investors are consequentialists, who want to have a real societal impact through their invest-

mandates. Colonnelli et al. (2023) and Kim et al. (2023) study how CSR influences citizens' support for legislative proposals.

⁴While we are the first to study the effect of sustainable investing on political engagement, a few contributions in the extant literature analyze the impact of sustainable investing on charitable giving. Graff Zivin and Small (2005) develops a theoretical model in which investments in responsible firms crowd out investors' philanthropic donations. Riedl and Smeets (2017) show that responsible investors donate more to charities than conventional investors, suggesting a complementary effect between responsible investments and charitable donations, while An et al. (2023) provides evidence consistent with a substitution effect.

ments, or warm-glow optimizers, who are content with feeling good about their decisions (Bonnefon et al., 2022; Brodback et al., 2021; Heeb et al., 2023). In both cases, the focus has been limited to financial decision-making and its intended outcomes. Our paper advances this literature by studying the spillover effect of climate-conscious investing on individuals' environmental engagement in the political realm. Contrary to the prior literature, we do not look at warm glow or consequentialism as two mutually exclusive drivers of sustainable investments, as even a mere warm glow motivation may conceal and influence individual efforts to make a real impact outside financial decision-making.

Finally, the paper links to the political economy literature on the drivers of individual support for climate policies (see Drews and Van den Bergh, 2016, for a review of the earlier literature). Besley and Persson (2023) theoretically study the interactions between political and market failures in influencing the energy transition. Using a large-scale international survey, Dechezleprêtre et al. (2022) show that citizens' support for different climate policy tools depends on effectiveness, inequality, and self-interest considerations. Our project investigates whether individual support for climate policy also depends on the availability of investment products "privately" addressing climate change.

2 Experimental Design

Prior studies document a general positive correlation between sustainable investing and proenvironmental political behavior (e.g., Hong and Kostovetsky, 2012; Riedl and Smeets, 2017; Giglio et al., 2023 among others). However, this correlation does not exclude the possibility that sustainable investing may crowd out individual pro-environmental political engagement. After all, both behaviors are, to a large extent, driven by personal beliefs and moral values. For this reason, we address our research question through a pre-registered between-subject experiment specifically designed to vary the level of exposure to sustainable investing.⁵

The experiment is framed in the context of a real climate-related political campaign.

This section describes the political context and our experimental and sampling procedures.

2.1 Political context

The Swiss political context is crucial for our experimental strategy. In most countries, political votes are only indirectly related to climate change. For example, climate policy was particularly salient in the 2016 and 2020 US elections (as also studied, for instance, through the lens of financial markets in Ramelli et al., 2021), but these events also related to other political issues. Conversely, the Swiss electorate regularly expresses their preferences on specific matters, including climate policy, through single-issue public referenda which do not usually overlap with general elections.⁶ This provides us with a setting in which we can observe the effect of sustainable investing on an actual climate-related political decision.

⁵The pre-registration is available at https://aspredicted.org/blind.php?x=VW5_B33.

⁶For a brief overview of the peculiarities of Switzerland's direct democracy, see https://www.swissinfo.ch/eng/politics/direct-democracy/47697554. Of course, other examples of climate-related referenda exist. For instance, in a referendum in 2010, 62% of California's citizens voted in favour of the state's main climate change legislation (Global Warming Solutions Act) passed in 2006. Washington State had two carbon tax referendums in 2016 and 2018, known as Initiative 732 and Initiative 1631, respectively.

In 2017, Switzerland joined the Paris Agreement to reduce greenhouse gas emissions. In June 2021, the revision and continuation of an existing climate law—that was intended to implement Switzerland's commitments under the Paris Agreement—failed in a popular referendum.⁷ A renewed attempt to translate the Paris Commitments into Swiss law was launched by the "Glacier Initiative", which resulted in another popular referendum on the "Federal Act on Climate Protection Goals, Innovation and Strengthening Energy Security" on June 18, 2023. The public vote on this latter law is the subject of our study, we refer to it for simplicity as the climate law.

The 2023 climate law⁸ contains several measures with the overall goal of ensuring that the impact of man-made greenhouse gas emissions in Switzerland is zero by 2050. Measures include the reduction of greenhouse gas emissions and application of negative emission technologies, adaptation to and protection from the impacts of climate change, targeting financial flows toward low-emission and climate change-resilient development, and replacing fossil-fuelled heating systems with heat generation from renewable energies.

Ahead of the 2023 referendum, two political committees were established and launched extensive campaigns for and against the climate law. Both campaigns maintained a strong public presence, with the upcoming vote intensely debated in Swiss media.⁹ Figure 1 displays

⁷See, e.g., SWI SwissInfo.ch, "Swiss CO2 law defeated at the ballot box", June 13, 2021.

 $^{^8{\}rm The~original~document}$ in German is available on https://www.admin.ch/gov/de/start/dokumentation/abstimmungen/20230618/klimagesetz.html

⁹For instance, according to Dow Jones Factiva data, in May 2023, around 1,400 articles covered the topic of climate change in Swiss newspapers, twice the monthly average of around 700 articles over the previous 12 months.

snapshots of the two campaigns' websites, advertising the law's pros and cons and raising funds to support the campaigns. Advertisements with these themes were prominent on billboards all over Switzerland and in social media feeds during our survey period.

There are several indications that the outcome of the referendum was contested. First, the prior attempt at passing a climate law in 2021 failed narrowly, despite polls predicting its passage, with 51.59% of votes against it. Second, official polls on behalf of the Swiss Broadcasting Corporation registered a decline of voters in favor of the climate law from 72% in mid-May 2023, down to 63% in early June 2023 (GFS.Bern, 2023a,b). Third, poll respondents themselves expected the law to pass with just 52% of votes on average. In other words, it was a situation in which anyone who cared about the outcome of the referendum had a strong reason to vote.

Eventually, 59.1% of Swiss voters approved the climate law, with a 42% turnout. Our experiment took place in the weeks before the vote, during the time when citizens formed their views and had the option to engage politically by donating to their favored campaign.

2.2 Procedures

The experiment consists of three steps: an incentivized investment decision ("Investment Stage"), a political decision related to the upcoming Swiss climate referendum ("Political Stage"), and a survey of participants' perceptions and preferences ("Survey Stage").

2.2.1 Investment Stage

In the Investment Stage, we administer the treatment. All participants choose between two investment funds, only those in the treatment group are informed that one of the funds is a climate fund. We ask participants to allocate 1,000 CHF (1,100 USD) to either one of two investment funds. We offer the same funds, Fund A and Fund B, to the treatment and control groups, randomizing their positioning on the screen and the color in which the price chart is presented to avoid ordering effects. We use two real investment funds to source the information displayed: the iShares MSCI World ETF and its climate-conscious version, the iShares MSCI World Paris-Aligned Climate ETF.¹⁰

Both in the control and treatment groups, we provide participants with standard information on the financial characteristics of the two funds, namely the category, volume, fees, risk class, and past return, similar to the information commonly reported in fund descriptions. While the financial characteristics of the funds are very similar, the past performance of the climate fund is lower (-10.44% rather than -8.08% over 12 months, based on actual past performance). The real names of the funds and any other climate-related characteristics remain hidden in the control group. Figure A3 in the Appendix shows the funds' fact sheets for the control group.

In the treatment group, we reveal the fund names and provide respondents with additional

¹⁰Details about the two funds are available at https://www.ishares.com/ch/individual/en/products/251882/?switchLocale=Y and https://www.ishares.com/ch/professionals/en/products/318383/ishares-msci-world-paris-aligned-climate-ucits-etf.

information on the funds' climate-related performance. Participants see that one of the two funds is a climate-conscious fund ("Climate fund") aligned with the Paris Agreement's goal of limiting global warming to below 1.5 degrees Celsius. We base the climate-related information on the actual funds' sustainability characteristics disclosed by MSCI on the basis of its carbon footprint and "Implied Temperature Rise" methodology. Figure A2 in the Appendix shows the funds' fact sheets for the treatment group.

Hence, our experimental design contrasts a setting where participants can express their climate-consciousness in an investment decision with a setting in which they can not. We test whether political engagement differs across these two settings. Importantly, we make the investment decision consequential: We informed participants that we would implement their decision for ten randomly selected participants and pay them the resulting capital after one year. Thus, to the extent that participants believe investing in a climate fund has consequences, there is a chance that we realize these consequences.

2.2.2 Political Stage

In the Political Stage, participants can engage politically in the context of the upcoming vote on the climate law. First, we introduce the legislative proposal based on the official description provided to voters by the Swiss government. We then outline the main arguments of the pro- and anti-campaigns based on language provided by the websites of the two campaigns. We randomize whether participants first see the arguments of the pro- or the anti-

campaign. We then ask the respondents to indicate which of the campaign aligns most with their views. Depending on the answer, we give participants the opportunity to donate up to 250 CHF (275 USD) to the selected campaign. For the ten randomly selected participants, we implement the chosen donation immediately and deduct the amount donated from their future payout.

The decisions in the political stage of our experiment are also consequential. Donations are essential for financing referendum campaigns. Since the survey closed one month before the actual vote, participants can reasonably expect their donation to influence voter opinion, voter mobilization, and, ultimately, the outcome of the vote.

Our main outcome variable is the net donation to the pro-campaign, where donations for the pro-campaign are scaled positively and donations to the anti-campaign are scaled negatively (*Net pro-campaign donation*). As secondary outcome variables, we elicit participants' stated alignment with either of the campaigns on a 6-point Likert scale (*Pro-campaign alignment*) and voting intentions at the referendum on a 7-point Likert scale (*Voting intention*).

2.2.3 Survey Stage

In the Survey Stage, we assess participants' perceptions of the impact of the climate fund. To do so, we randomly assign participants in the treatment group to one of two subgroups. We ask participants in the first subgroup whether they think an investment in the climate fund is

¹¹This range covers most amounts commonly donated. The campaign homepages themselves suggest donations of 10, 50, and 100 CHF.

making a relevant contribution to climate protection (*Expected impact climate fund*, based on a 7-point Likert scale). For participants in the second subgroup, we list the companies that comprise the top ten positions of the climate fund without revealing that these are holdings of the fund. For each of these companies, we ask the participants whether they think an investment in the company is making a relevant contribution to climate protection (*Expected impact holdings*, based on a 7-point Likert scale). ¹² In addition, for all respondents, we assess their emotional response to the investment decision and their financial expectations regarding the investment options. We also collect data on demographics and political preferences.

2.3 Sample

We recruited a representative sample of the Swiss electorate with the support of an independent Swiss survey agency (Intervista). The data collection took place between May 5 and May 18, 2023, in the middle of the political campaign on the upcoming climate-related referendum and around one week before voters received their ballots. We administered the survey in the three major Swiss languages (German, French, and Italian). We collected 2,051 complete responses.¹³ Table 1 shows the sample's demographic characteristics. The control

¹²Specifically, the survey question regarding the perceived impact of the climate fund reads: "How strongly do you agree with the following statement? Investing in Fund A [iShares MSCI World Paris Aligned Climate ETF fund] makes a relevant contribution to climate protection." The questions regarding the perceived impact of individual firms read: "How strongly do you agree with the statement below? An investment in this company makes a relevant contribution to climate protection".

¹³In the preregistration, we stated that we would collect 2,000 responses. The survey agency collected 2,051 responses to ensure a representative sample; we consider all responses in our analysis. Our results also hold if we restrict the sample to the first 2,000 responses.

and treatment groups are well-balanced in terms of demographics and political preferences.

- Table 1 -

To qualitatively validate our survey, Figure A1 in the Appendix shows the correlation between our survey-based measures of climate political engagement and the official percentage of Yes votes to the climate law registered in the referendum held on June 18, 2023, in the respondents' Swiss canton of residency. The official percentage of Yes votes at the Cantonal level positively correlates with the survey-based stated support for the pro-campaign (0.43, p < 0.05) and intention to vote for the climate law (0.46, p < 0.05), indicating that our sample is indeed representative. The average canton-level net pro-campaign donations also correlate positively with the official results but not statistically significantly (.16, p > 0.1). This result indicates that, as expected, Net pro-campaign donation captures a more active level of climate political engagement beyond mere political affiliation and intentions to vote.

3 Results

This section presents the main results of the experiment. First, we provide evidence that the treatment was salient and triggered substantial demand for sustainable finance. Second, we present the main results for the effect of the treatment on political engagement. Finally, we present findings on participants' perceived societal impact of the climate fund.

3.1 Demand for sustainable finance

Figure 2 shows the fraction of investment in the climate fund in the treatment and the control group. The climate-related information treatment strongly shifted investor demand from the conventional to the climate fund. In the treatment group, 76% of the respondents opted for the climate fund, compared to only 30% in the control group, where participants did not receive any climate-related information.

The treatment increased demand for the climate fund almost by a factor of three, confirming that information about funds' sustainability characteristics strongly affects investment allocations. This strong change in investment behavior confirms the salience of our treatment.

3.2 Treatment effect on political engagement

Figure 3 and Table 2 show the main result on the causal effect of sustainable finance on political engagement.

We find that the opportunity to invest in a climate-conscious fund did not erode participants' support for climate regulation. Our main outcome variable is the net donation to the pro-climate-regulation campaign (*Net pro-campaign donation*)¹⁴. On average, participants

¹⁴As preregistered, we use a net measure of donations, scaling pro-regulation campaign donations positive and anti-regulation campaign donations negative. Results for pro-regulation campaign donations and anti-regulation campaign donations separately can be found in Figure A5 and Figure A6

in the treatment group donated 35.1 CHF (38.5 USD), while participants in the control group donated 31.2 CHF (34.3 USD). While treated participants donated more, the positive difference is not statistically significant (Mann–Whitney U test, p=0.285). Regarding the share of participants that donated, 34.1% of participants in the treatment group donated to the pro-climate-regulation campaign, versus 33.1% in the control group. The difference between these values is not significant (Mann–Whitney U test, p=0.639). At the same time, 9.4% of participants in the treatment group donated to the anti-climate-regulation campaign, versus 11.9% in the control group; this difference is significant at the 10% level (Mann–Whitney U test, p=0.062).

We obtain similar inferences when employing two alternative measures of political engagement (see Panels (b) and (c) in Figure 3). For participants' stated alignment with the pro campaign (*Pro-campaign alignment*), we observe a positive treatment effect statistically significant at the 10% level (Mann–Whitney U test, p = 0.079). When looking at participants' voting intentions (*Voting intention*), individuals in the treatment group are more likely to state an intention to vote for the climate law; however, the difference to the control group is not significant (Mann–Whitney U test, p = 0.142).

Table A2 in the Appendix reports the results of OLS regressions of our climate political engagement measures on the treatment indicator also controlling for various demographic

characteristics: age, gender, education, income, net worth, urban residency, and linguistic region. Unsurprisingly, given the successful randomization, the results of the OLS regressions confirm those of the non-parametric tests.

In sum, we do not find any evidence in support of sustainable investing crowding out political engagement for climate regulation. If anything, our results suggest a small crowding-in effect. An important question is whether our experimental setting provides the necessary conditions for a crowding-out to occur—if it were to exist. In the following subsections, we show that investing in the climate fund is perceived as a costly but morally satisfying act and that respondents have relatively optimistic beliefs about the investment's impact. Thus, both participants' emotional experiences, as well as their rational beliefs provide plausible reasons for a crowding-out effect to occur, which adds weight to our empirical findings on the absence of such an effect.

3.3 Treatment effect on expected return, risk, and emotions

Table 2 compares treatment and control groups with regard to participnats financial expectations and positive emotions. In the control group, the climate fund (without the climate information being visible) is perceived as generating higher risk, lower return, and less positive emotions compared to the conventional fund. In the treatment group, the climate fund is seen as significantly less risky than in the control group (across subjects), but still slightly more risky than the conventional fund (within subjects). Return expectations for the climate

fund are unaffected by the treatment and significantly lower than for the conventional fund. This implies that the average participant in the treatment group saw investing in the climate fund as the financially less attractive choice. This rules out that participants donate more as a consequence of feeling richer in the treatment group. At the same time, the reported positive emotions associated with the climate fund are considerable and significantly greater in the treatment group. This indicates that participants in the treatment group experience a warm glow from investing sustainably. In sum, we find that respondents perceived the option to invest in the climate fund as economically costly yet emotionally rewarding. This indicates that it had the characteristics of a moral act in our experiment, in line with prior research (Riedl and Smeets, 2017). Thus, the key precondition for potential moral licensing behavior is given in our setting.

3.4 Impact perception

Apart from perceiving an investment in the climate fund as morally satisfying, participants may also believe such an investment to be effective in addressing climate change. With such a belief, it could be rational to trade off sustainable investments with political engagement. A crowding-out would be particularly problematic if those impact beliefs on the investment's impact were over-optimistic.

Of course, measuring the real impact of a climate fund sustainable investing is extremely

difficult and is out of the scope of this study.¹⁵ Our goal here is to understand whether individuals attribute some welfare-improving properties to the climate fund, an essential pre-condition for potentially influencing political engagement, and how realistic those beliefs are given the participants' view on the fund's holdings.

For this purpose, we randomly divide the treatment group into two subgroups. In the first subgroup, we assess participants' perception of the societal impact of the climate fund (Expected impact climate fund). In the second subgroup, we assess participants' perception of the societal impact of investing in the fund's largest investee firms (Expected impact holdings). The rationale of this exercise is to test how investors' perception of an investment in the climate fund relates to their perception of an investment in its individual holdings.

Figure 4 shows the results. The first result is that respondents, on average, tend to agree with the statement that investing in the climate fund makes a meaningful contribution to climate protection. The second result is that this belief seems optimistic given respondents' beliefs about the impact of the fund's main holdings. On average, respondents state a positive belief on the "climate protection" impact of an investment in the climate fund, of +.691, over a scale ranging from -3 to 3. At the same time, respondents, on average, state negative beliefs on the impact of investments in the fund's top ten holdings, of -0.503 on the same scale. ¹⁶ We obtain similar results when weighting the perceived impact of individual

¹⁵Recent contributions exploring this question through the lens of firm value and/or environmental and social outcomes include Akey and Appel (2020), Bolton and Kacperczyk (2021), Berg et al. (2022), Berk and van Binsbergen (2021), Edmans et al. (2022), Heath et al. (2023), and De Angelis et al. (2022), among others.

¹⁶The detailed holding level impact expectations are shown in Figure A4 in the Appendix.

companies by their actual weighting in the climate fund.

- Figure 4 -

The result of this simple test is consistent with the idea that many responsible investors have very optimistic expectations regarding the societal benefits of sustainable investing. Two main factors may be behind this generous impact perception: A fundamental misunderstanding about the climate fund's main holdings and/or the anticipation of positive, fund-specific effects beyond capital allocation, as, e.g., shareholder engagement (see Broccardo et al., 2022; Kakhbod et al., 2023).

3.5 Interpretation

Overall, based on a representative sample of the Swiss population shortly before an important real referendum on climate policy, our experiment indicates that the opportunity to invest climate-consciously does not erode individuals' political support for climate regulation.

Given that political engagement in favor of climate regulation in the treatment group is greater than in the control group, the results clearly fail to support the crowding-out narrative. If anything, the evidence is more consistent with a crowding-in effect of sustainable finance on sustainability-related political engagement. What could explain such a positive, although not statistically significant, spillover? Two different mechanisms may be at play. The first is a positive priming effect (Cohn and Maréchal, 2016): The climate fund makes

climate change particularly salient, increasing pro-climate-law donations in the treatment group. This additional "priming effect" is most likely small, considering that respondents in the control group are also explicitly exposed to the topic of climate change before making their political decisions. It would, therefore, only be a marginal priming. The second potential mechanism is moral consistency (Mullen and Monin, 2016; Gneezy et al., 2012): Choosing the climate fund in the Investment stage makes it more costly for investors not to undertake another (perceived) moral action in the Political stage.¹⁷

4 Cross-sectional heterogeneity

This section explores potential sources of cross-sectional heterogeneity of the treatment effect.

First, we investigate the cross-sectional heterogeneity of the treatment effect along political preferences in Table 3. We elicit political leanings using a 7-point Likert scale and combine the lower three options to generate the dummy variable *Politics: right* and the upper three options for *Politics: right*. The middle option represents swing voters, which serve as the baseline in the regression. In all specifications, support for the climate law is positively related to a left-wing political affiliation and negatively related to a right-wing

¹⁷Another potential mechanism may be a "skin in the game" effect: People who invested in the climate fund have financial incentives to get the law passed. While we find this channel conceptually interesting, it is unlikely to drive our results for two main reasons. First, our climate fund is an investment in a global portfolio, unlikely to be directly influenced by Swiss law. Second, the law's potential direct economic consequences for a Swiss citizen (in terms of taxes, wages, and prices) are significantly larger than any potential financial benefits through the Climate fund. Thus, for individuals voting strictly according to their private financial interests, the law's direct economic consequences are likely to trump any potential green investment benefits.

political affiliation.

One may be concerned that while sustainable finance does not crowd out political engagement for the average voter, it could still lead to such a crowding out among "swing voters" who do not have strong political views regarding climate policy. Such a sub-group effect could still have decisive consequences on political outcomes when the vote is closely contested, and swing voters are pivotal. To test this possibility, in column 2, we interact our treatment indicator with the *Politics: left* and *Politics: right* indicators. The estimate on *Treatment* then indicates the treatment effect on swing voters. We do not find significant interactions between the treatment variable and either left or right political orientation. For *Pro-campaign alignment*, we find a slight crowding-in effect on swing voters (explaining the results with the full sample in Table A2). In sum, we can rule out that a significant crowding-out effect on one part of the political spectrum is masked by an opposing effect on other parts of the spectrum.

- Table 3 -

Second, focusing only on the treatment group, we investigate the decision to invest in the climate-conscious fund using Logit regressions, shown in Table 4. In column (1), we observe that respondents are more likely to invest in the climate fund when they perceive it as more profitable and less risky, and associate choosing the climate fund with positive emotions. In column (2), we see that those who perceive the climate fund as more beneficial for climate protection tend to invest in it, while their perception of the impact of the climate fund's individual holdings is unrelated to their investment decision (column 3). Finally, in column 4, we confirm the strong role of political preferences in driving sustainable investment decisions, in line with basic intuition and the extant literature.

- Table 4 -

Finally, we explore the drivers of political engagement within the sub-sample of green investors, that is, those participants in the treatment group who chose the climate fund. We know that the decision to invest in the climate fund and climate political engagement are positively correlated, presumably because people in this sub-sample have strong preferences for climate action in general (see Table A3 in the Appendix). The results in Table 5 provide additional insights into differences within the group. In column 1, we observe no clear relationship between net pro-campaign donations and the risk and return expectations of the climate fund. This provides further evidence that even green investors' donations are unlikely to be influenced by a wealth effect triggered by their investment decision.¹⁸

- Table 5 -

Moreover, if people were really to perceive investments in the climate fund to be a substitute for political engagement, we should expect such an effect to be stronger (i.e., more

¹⁸The relationship between the return expectations associated with the climate fund and the two alternative measures of climate political engagement (*Pro-campaign alignment* and *Voting intention*) is negative and statistically significant. We interpret this result as confirming that those green investors who see the green fund as more costly tend to be more supportive of climate regulation.

negative) the more positively green investors perceived the climate fund. We test this prediction in column 2. Believing that the climate fund brings larger climate protection benefits is not associated with a lower level of political engagement, as the positive, non-statistically significant coefficient on *Expected impact climate fund* indicates. In addition, the more positive the emotions green investors associate with their investment, the more they donate to the pro-campaign, which is the opposite of what a moral licensing behavior would predict.

Overall, the above results are consistent with the absence of a crowding-out effect of sustainable finance on political engagement in the whole sample, as well as among those individuals who should be most subjected to it if such an effect were at play.

5 Conclusion

Some observers argue that sustainable finance is a dangerous placebo that crowds out individual support for policy-driven solutions to societal challenges and that, as such, it is counterproductive from a welfare point of view. Others see sustainable finance as a second-best solution to compensate for policy failures (e.g., the difficulty of adopting a global carbon tax) that does not reduce—and potentially even increases—people's engagement to solve such failures through the course of political processes. In this paper, we explore which of these competing views of sustainable finance better describes individual behavior with a pre-registered experiment exploiting a real-world climate policy referendum in Switzerland.

We find that the opportunity to invest in a climate-conscious fund does not crowd out

individual political engagement and costly efforts to advance formal climate policy.

Our results have important practical implications. One of the most powerful criticisms against the sustainable investing movement is that it not only has little direct environmental and social impact, but also distracts us from adopting harder-to-implement but more efficient political solutions to societal problems. Our experiment suggests that this appealing narrative fails to describe actual individual behavior. Although sustainable investing is a placebo if it fails to drive positive societal change, it does not appear to be a dangerous one in the sense of distracting people from engaging on the political front.

Of course, the likelihood of advancing climate regulation also depends on how sustainable finance is perceived by policymakers and regulators: as either a call for action or an outsourcing of their responsibilities. Our experiment informs them that, on average, voters do not consider sustainable finance a substitute for political action.

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Figures

Figure 1: Switzerland's pro- and anti-climate-law 2023 referendum campaigns The panel on the left is the slogan of the pro-climate-law campaign, which translates to "Protect what is important to us. Vote Yes.". The panel on the right is the slogan of the anti-climate-law campaign, which translates to "Exacerbate the energy crisis? No to the electricity-eater-law". Both campaign web pages prominently feature a "donate" button.



https://klimaschutzgesetz-ja.ch/



https://stromfresser-gesetz-nein.ch/

Figure 2: Salience of the treatment

This graph shows the fraction of respondents choosing the climate fund in the control and treatment groups. Participants received climate-related information about the two funds only in the treatment group. The bars indicate 95% confidence intervals.

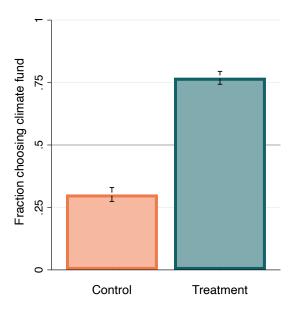
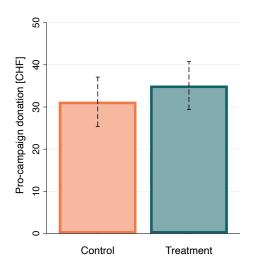
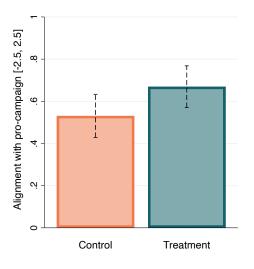


Figure 3: Political engagement in the treatment and control groups

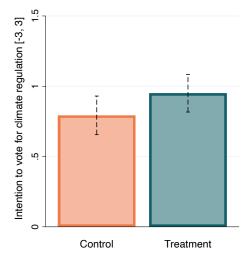
These figures show the effect of our sustainable finance treatment on individual political engagement. Panel (a) shows the average net pro-campaign donation (treating donations to the anti-campaign as negative) in CHF in the control and treatment groups. Panel (b) shows the pro-campaign alignment on a 6-point Likert Scale. Panel (c) shows the average intention to vote at the referendum in favor of the climate law on a 7-point Likert Scale. The bars indicate 95% confidence intervals.



(a) Net pro-campaign donation

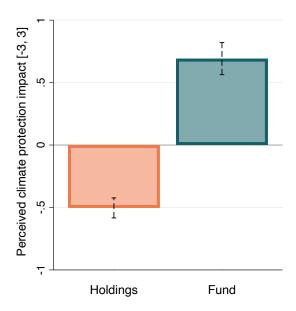


(b) Pro-campaign alignment



(c) Voting intention

Figure 4: Perceived climate impact of the climate fund vs. individual holdings This figure shows the average perceived climate protection impact of investing in the climate fund compared to the average perceived impact of investing in its ten largest holding companies. Impact perceptions are assessed for the treatment group; fund and holdings level perceptions are measured separately in two randomly assigned subgroups. The perceived impact is measured on a 7-point Likert scale; positive values indicate agreement with an investment making a meaningful contribution to climate protection; negative values indicate disagreement. The bars indicate 95% confidence intervals.



Tables

Table 1: Demographics and political preferences by treatment group

This table presents the mean values of the demographic variables for our representative sample of the Swiss electorate in the treatment and control groups. The first two columns report the mean of the variables in the two groups; the third column reports p-values of a Mann–Whitney U test on the difference between the two.

	Mean	Values	Mann-Whitney U Test
	Control	Treatment	(Control =
	(n=1030)	(n=1021)	Treatment)
Age [years]	47.8	47.9	p = .917
Gender [%]:			
Female	49.7	50.0	p = .913
Male	49.9	49.9	p = .982
Other	0.4	0.2	p = .420
Highest education	Secondary	Secondary	p = .297
Income [CHF]	8,001-12,000	8,001-12,000	p = .407
Net worth [CHF]	250,000-1M	250,000-1M	p = .781
Municipality [%]:			
Rural	33.7	34.9	p = .574
Urban	66.3	65.1	p = .574
Language region [%]:			
German	70.6	70.7	p = .948
French	24.4	24.6	p = .910
Italian	5.0	4.7	p = .715
Political preference [left: -3,	0.197	0.235	p = .550
right: 3]			

Table 2: Sustainable investing and climate policy support

This table reports the effects of the treatment on our measures of climate political engagement, as well as respondents' investment decision and their expectations regarding the two investment options. For the campaign donations, donations to the pro-campaign are treated as positive, and donations to the anti-campaign as negative. The share of participants donating to the pro-campaign and the anti-campaign are reported separately. For the campaign alignment, positive values indicate alignment with the pro-campaign, and negative ones with the anti-campaign. For the voting intention, positive values indicate an intention to vote for the climate law, and negative values indicate an intention to vote against it. For risk expectations, return expectations, and positive emotions, positive values indicate that respondents have a more favorable view of the climate fund; negative ones indicate that they have a more favorable view of the conventional fund. The first two columns report mean values of the variables, by group; the third column reports p-values of a Mann–Whitney U test, testing for differences between the two treatments.

	Mean V	Values	Mann-Whitney U Test
	Control	Treatment	C (Control =
	(n=1030)	(n=1021)	Treatment)
Main results			
Net pro-campaign donation [CHF]	31.2	35.1	p = 0.285
Share of pro-campaign donors [%]	33.1	34.1	p = 0.639
Share of anti-campaign donors [%]	12.3	9.2	p = 0.063
Pro-campaign alignment [-2.5, 2.5]	0.531	0.669	p = 0.079
Voting intention [-3, 3]	0.793	0.950	p = 0.142
Investment decision			
Climate fund selected [%]	30.2	76.9	p < 0.001
Climate fund:			
Risk expectations [-3, 3]	-0.399	080	p < 0.001
Return expectations [-3, 3]	-0.347	-0.340	p = 0.690
Positive emotions [-3, 3]	-0.396	1.10	p < 0.001

Table 3: Treatment effect heterogeneity along political preferences

This table shows the results of OLS regressions testing the cross-sectional heterogeneity of the treatment effect on political engagement based on respondents' political affiliation. t statistics based on robust standard errors are reported in parentheses. ***, ***, and * indicate that the parameter estimate is significantly different from zero at the 1%, 5%, and 10% level, respectively.

	Net pro-ca	1 0	Pro-cam		Voting in	tention
	donat	ion	alignn	nent		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	3.644	3.942	0.133**	0.227*	0.150*	0.235
	(0.93)	(0.64)	(2.09)	(1.78)	(1.75)	(1.23)
Politics: left	50.46***	50.49***	1.222***	1.316***	1.567***	1.628***
	(10.96)	(7.68)	(16.02)	(11.94)	(14.48)	(10.50)
Politics: right	-19.06***	-18.63***	-0.574***	-0.546***	-0.636***	-0.591***
	(-4.15)	(-2.78)	(-6.32)	(-4.22)	(-4.90)	(-3.18)
Treatment		-0.0707		-0.187		-0.125
\times Politics: left		(-0.01)		(-1.22)		(-0.58)
Treatment		-0.865		-0.0549		-0.0922
\times Politics: right		(-0.09)		(-0.30)		(-0.35)
Constant	16.45***	16.30***	0.208***	0.161*	0.317***	0.275**
	(4.48)	(3.69)	(2.89)	(1.74)	(3.01)	(2.02)
Observations	2051	2051	2051	2051	1726	1726
R^2	0.107	0.107	0.229	0.230	0.239	0.239

Table 4: Decision to invest in the climate fund

This table reports the results of Logit regressions of the decision to invest in the climate fund in the treatment group on respondents' financial expectations about the climate fund, its perceived climate protection benefits, and respondents' political affiliation. All regressions also control for respondents' demographic characteristics (age, gender, education, income, net worth, rural/urban area, and language region). t statistics based on robust standard errors are reported in parentheses. ***, **, and * indicate that the parameter estimate is significantly different from zero at the 1%, 5%, and 10% level, respectively.

	Investment in climate fund			
	(1)	(2)	(3)	(4)
Risk expectations	0.377***			
	(3.69)			
Return expectation	0.667***			
	(5.91)			
Positive emotions	1.111***			
	(11.52)			
Expected climate impact fund		0.603***		
-		(7.49)		
Expected climate impact firms			0.00404	
			(0.03)	
Politics: left				1.005***
				(4.81)
Politics: right				-0.274
Ŭ				(-1.49)
Constant	0.502	0.638**	0.767***	0.399
	(1.33)	(2.19)	(2.75)	(1.29)
Observations	1021	1021	1021	1021
Pseudo-R-squared	0.373	0.0791	0.0153	0.0589
Demographics	Yes	Yes	Yes	Yes

Table 5: Political engagement of climate-conscious investors

This table shows OLS regressions for the subsample of participants in the treatment group who chose to invest in the climate fund. We regress political engagement on expected profitability, positive emotions, and perceived climate protection impact associated with the climate fund. All regressions also control for respondents' demographic characteristics (age, gender, education, income, net worth, rural/urban area, and language region). t statistics based on robust standard errors are reported in parentheses. ***, **, and * indicate that the parameter estimate is significantly different from zero at the 1%, 5%, and 10% level, respectively.

	Net pro-ca	1 0	Pro-cam		Voting in	tention
	donat (1)	(2)	alignm (3)	(4)	(5)	(6)
Risk expectations	-1.968	-2.083	0.0323	0.0294	0.00546	0.00483
	(-0.62)	(-0.66)	(0.68)	(0.63)	(0.09)	(0.08)
Return expectation	-0.244	0.238	-0.126***	-0.118**	-0.121*	-0.122**
	(-0.08)	(0.08)	(-2.68)	(-2.52)	(-1.92)	(-1.99)
Positive emotions		13.90***		0.297***		0.427***
		(4.05)		(6.13)		(6.17)
Expected climate impact fund		3.010		0.128***		0.181***
pact fund		(0.89)		(2.70)		(3.11)
Constant	47.34***	24.25***	0.964***	0.438***	1.282***	0.506***
	(13.71)	(3.80)	(18.00)	(4.45)	(17.62)	(3.52)
Observations	785	785	785	785	667	667
R-squared	0.000554	0.0337	0.00936	0.0832	0.00582	0.104
Demographics	Yes	Yes	Yes	Yes	Yes	Yes

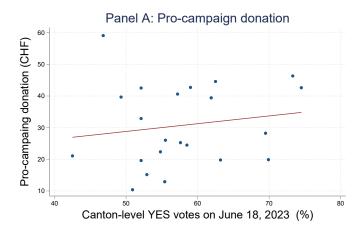
Appendix

Table A1: Variable definitions

Variable	Description
Political engagement Net pro-campaign donation	CHF amount donated to the pro-climate-law campaign (pro-campaign) given that the respondent's values align with it. Donations to the anti-climate-law campaign (anti-campaign) are coded as negative.
Pro-campaign alignment	Answer to the question "Which of the committees (rather) represents your personal opinion?" on a 6-point Likert scale. Values are scaled from -2.5 (values align with the anti-campaign) to 2.5 (values align with the procampaign).
Voting intention	Answer to the question "Do you already know how you will vote on the referendum on the Federal Act on Climate Protection Targets, Innovation, and Strengthening Energy Security?" on a 7-point Likert scale (with the possibility of not disclosing the intention). Values are scaled from -3 (strong intention to vote against the climate law) to 3 (strong intention to vote for the climate law).
Financial expectations a	
Treatment	Indicator equal to 1 for respondents in the treatment group.
Risk expectations	Answer to the question "How do you assess the risk of Fund A and Fund B in comparison?" on a 7-point Likert scale. Values are scaled from -3 (the climate fund is perceived as significantly more risky) to 3 (the climate fund is perceived as significantly less risky), reflecting the actual randomized position of the climate fund as Fund A or B.
Return expectations	Answer to the question "What do you expect from Fund A and Fund B in terms of return?" on a 7-point Likert scale. Values are scaled from -3 (the climate fund is expected to deliver a strongly lower return than the conventional fund) to 3 (the climate fund is expected to deliver a strongly higher return than the conventional fund), reflecting the actual randomized position of the climate fund as Fund A or B.
Positive emotions	Answer to the question "How does it feel to invest in Fund A or Fund B in comparison?" on a 7-point Likert scale. Values are scaled from -3 (it feels much better to invest in the conventional fund) to 3 (it feels much better to invest in the climate fund), reflecting the actual randomized position of the climate fund as Fund A or B.
Investment in climate fund	Indicator equal 1 for respondents who invested in the climate fund in the Investment Stage, and 0 for those who invested in the conventional fund.
$Expected\ impact\ climate\ fund$	[For treatment group only] Agreement with the statement "An investment in the iShares MSCI World Paris Aligned Climate ETF fund [Climate fund] makes a relevant contribution to climate protection." on a 7-point Likert scale. Values are scaled from -3 (strongly disagree) to 3 (strongly agree).

Expected impact holdings	[For treatment group only] Average level of agreement with the statement "An investment in this company makes a relevant contribution to climate protection.", on a 7-point Likert scale, across the top ten holdings of the climate fund. Values are scaled from -3 (strongly disagree) to 3 (strongly agree).
Political preferences	
Political preference	Answer to the question "Where do you place yourself on the political spectrum from left to right?" on a 7-point Likert scale. Values are scaled from -3 (right) to 3 (left).
Politics: right	Indicator equal to 1 if the respondent chooses -3, -2, or -1 on the Likert scale of political preferences, and 0 otherwise.
Politics: left	Indicator equal to 1 if the respondent chooses 1,2, or 3 on the Likert scale of the political preference, and 0 otherwise.
Demographics	
Age	Self-reported age in full years.
Gender	Self-reported gender.
Male	Indicator equal 1 for male respondents, and 0 otherwise.
$Highest\ education$	Self-reported level of education.
Higher education	Indicator equal to 1 if the respondent reported a tertiary education, and 0 otherwise.
Income	Self-reported personal monthly gross income, with options ranging from "up to CHF 2,000" to "Over CHF 20,000" in steps of CHF 3,000.
Net worth	Self-reported total liquid assets, with options being "Less than CHF 50,000", "Between CHF 50,000 and 75,000", "Between CHF 75,000 and 200,000", "Between CHF 200,000 and 250,000", "Between CHF 250,000 and 1 million", and "Over CHF 1 million".
High income	Indicator equal to 1 if the respondent reported an above median income, and 0 otherwise.
$Untold\ income$	Indicator equal to 1 if the respondent decided not to self-report the monthly income, and 0 otherwise.
High net worth	Indicator equal to 1 if the respondent declared an above median net worth, and 0 otherwise.
Untold net worth	Indicator equal to 1 if the respondent chooses "No indication" from the options for the self-reported net worth, and 0 if any other category is chosen.
Municipality	The urban or rural status of the municipality of the respondent's principal residence by population density, derived from the postal code indicated by the respondent.
Language region	The primary language in the respondent's principal residence (German, French, or Italian); derived from the postal code indicated by the respondent.
French speaking region	Indicator equal to 1 if the primary language in the respondent's municipality of residency is French, and 0 otherwise.
Italian speaking region	Indicator equal to 1 if the primary language in the respondent's municipality of residency is Italian, and 0 otherwise.

Figure A1: Validation checks: Correlation with official votes at cantonal level These figures show scatter plots of our measures of climate political engagement (*Net procampaign donation* in Panel A, *Pro-campaign alignment* in Panel B, and *Vote intention* in Panel C) against the official percentage of Yes votes registered in the climate referendum on June 18, 2023, in the respondents' Canton of residency. Out of the 26 Swiss Cantons, the graphs exclude four with less than ten respondents to our survey (Appenzell Innerrhoden, Glarus, Obwalden, and Uri).



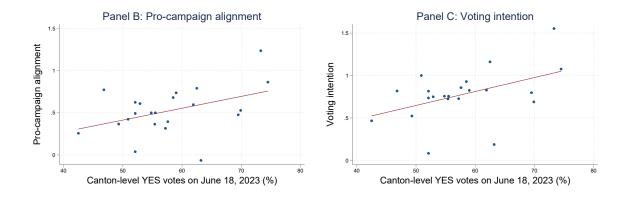
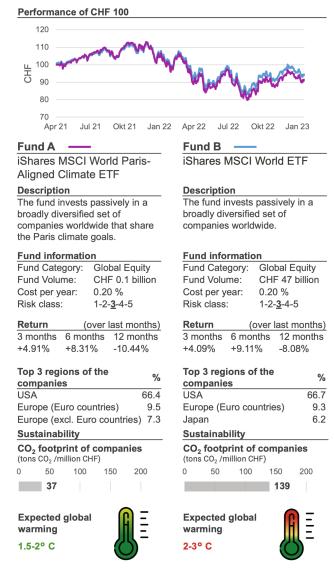


Figure A2: Investment Stage: Treatment group

This figure shows the information shown to the respondents in the treatment group when they are asked to invest CHF 1,000 (USD 1,100). In addition to the information shown in the control group, we reveal the climate focus of Fund A and add explicit climate impact metrics for both funds.



Risk class: Measures how much the fund's returns fluctuate compared to similar investments. Higher risk class means higher fluctuations.

CO₂ footprint: Measures the greenhouse gas emissions of the companies in the fund relative to their sales. High values indicate high CO₂ emissions.

Expected global warming: Measures the alignment of the companies in the fund with the Paris Agreement. This envisages limiting global warming to 2°C. Values above 2°C indicate that companies do not support this target.

Data sources: Morningstar, Fund Manager

Figure A3: Investment Stage: Control group

This figure shows the information the respondents in the control group see when they are asked to invest CHF 1,000 (USD 1,100).



Fund A

Description

The fund invests passively in a broadly diversified set of companies worldwide.

Fund information

Fund Category: Global Equity
Fund Volume: CHF 0.1 billion
Cost per year: 0.20 %
Risk class: 1-2-3/4-5

Return	(over	last months)
3 months	6 months	12 months
+4.91%	+8.31%	-10.44%

Top 3 regions of the companies USA 66.4 Europe (Euro countries) 9.5 Europe (excl. Euro countries) 7.3

Fund B

Description

The fund invests passively in a broadly diversified set of companies worldwide.

Fund information

Fund Category: Global Equity
Fund Volume: CHF 47 billion
Cost per year: 0.20 %
Risk class: 1-2-3-4-5

Return	(over	last months)
3 months	6 months	12 months
+4.09%	+9.11%	-8.08%

Top 3 regions of the	%
companies	
USA	66.7
Europe (Euro countries)	9.3
Japan	6.2

Risk class: Measures how much the fund's returns fluctuate compared to similar investments. Higher risk class means higher fluctuations.

Figure A4: Holdings level climate impact perception

This figure shows participants' perception of the climate protection impact of an investment in each of the top ten holdings of the climate fund. In addition, we also ask participants for their impact perception for the oil major ExxonMobile and wind turbine manufacturer Vestas, to check whether perceptions differ for companies commonly seen as particularly detrimental or beneficial for climate change mitigation. The perceived impact is measured on a 7-point Likert scale; positive values indicate agreement with an investment making a meaningful contribution to climate protection; negative values indicate disagreement. The bars indicate 95% confidence intervals.

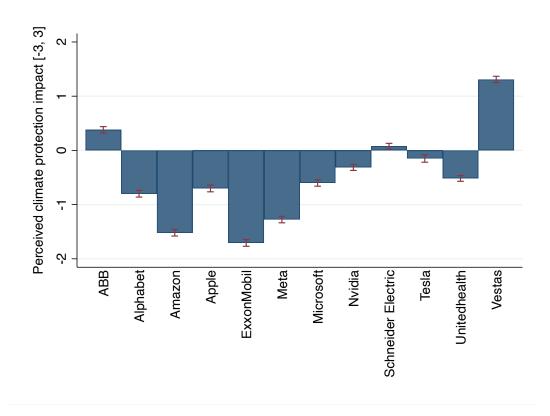


Table A2: Treatment effect on political engagement controlling for demographic characteristics

This table shows the results of OLS regressions of individual climate political engagement on the treatment indicator. Columns 1-2 regress our main measure of political engagement, the donations to the pro-climate-law campaign; columns 2-3 employ the stated alignment with the pro-climate-law campaign; while columns 5 and 6 regress the intention to vote to the pro-campaign. Columns 2, 4, and 5 also control for various demographic characteristics. t statistics based on robust standard errors are shown in parentheses. ***, **, and * indicate that the parameter estimate is significantly different from zero at the 1%, 5%, and 10% level, respectively.

	Net pro-ca donat		Pro-can alignn		Voting in	tention
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	3.843 (0.93)	4.811 (1.19)	0.138* (1.91)	0.163** (2.33)	0.157 (1.61)	0.181* (1.92)
Age		0.0846 (0.68)		0.00287 (1.24)		0.00392 (1.26)
Male		-4.330 (-1.04)		-0.260*** (-3.59)		-0.306*** (-3.15)
Higher education		30.58*** (6.85)		0.686^{***} (9.35)		0.769*** (7.79)
High income		-1.670 (-0.34)		-0.263*** (-3.01)		-0.343*** (-2.96)
Untold income		-3.263 (-0.39)		-0.245 (-1.60)		-0.458** (-2.04)
High net worth		8.485^* (1.65)		0.207^{**} (2.40)		0.286^{**} (2.45)
Untold net worth		-8.952 (-1.12)		-0.168 (-1.11)		-0.219 (-0.99)
Urban region		19.33^{***} (4.51)		$0.370^{***} $ (4.79)		0.486^{***} (4.63)
French speaking region		-6.960 (-1.51)		-0.116 (-1.42)		-0.0492 (-0.44)
Italian speaking region		-16.83** (-2.01)		-0.200 (-1.19)		-0.172 (-0.82)
Constant	31.24*** (10.48)	3.948 (0.56)	0.531*** (10.20)	0.112 (0.84)	0.793*** (11.33)	0.248 (1.41)
Observations R^2	2,051 0.000	2,051 0.047	2,051 0.002	2,051 0.074	1,726 0.002	1,726 0.072

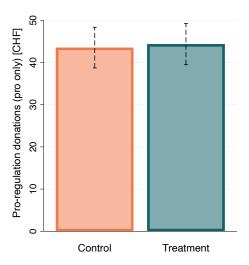
Table A3: Political engagement and investment decisions

This table shows the results of OLS regressions of individual climate political engagement in the treatment group on an indicator equal to one for respondents who invested in the climate fund. t statistics based on robust standard errors are reported in parentheses. ***, ***, and * indicate that the parameter estimate is significantly different from zero at the 1%, 5%, and 10% level, respectively.

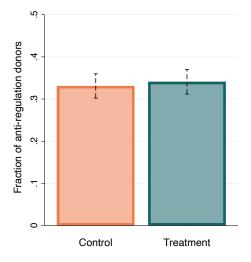
	Net pro-campaign donation	Pro-campaign alignment	Voting intention
	(1)	(2)	(3)
Investment in climate fund	50.26***	1.285***	1.545***
	(8.94)	(10.80)	(8.89)
Constant	-31.34***	-0.798***	-0.973***
	(-3.01)	(-4.29)	(-3.88)
Observations	1021	1021	847
R-squared	0.0919	0.186	0.179
Demographics	Yes	Yes	Yes

Figure A5: Donations to the pro-climate regulation committee

These figures show the effective donations to the pro-climate regulation committee. Panel (a) shows the average pro-campaign donation in CHF in the control and treatment groups. Panel (b) shows the share of respondents who donated to the pro-campaign in the control and treatment groups. The bars indicate 95% confidence intervals.



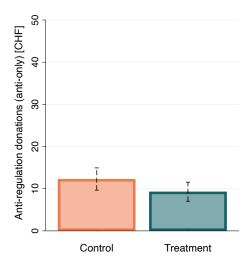
(a) Pro-campaign donation, CHF



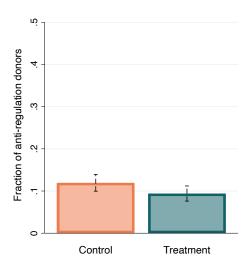
(b) Pro-campaign donation, Share

Figure A6: Donations to the anti-climate regulation committee

These figures show the effective donations to the anti-climate regulation committee. Panel (a) shows the average anti-campaign donation in CHF in the control and treatment groups coded with a minus sign. Panel (b) shows the share of respondents who donated to the anti-campaign in the control and treatment groups. The bars indicate 95% confidence intervals.



(a) Anti-campaign donations, CHF



(b) Anti-campaign donation, Share

A Survey questionnaire

In what follows, we report the English version of the questionnaire used for our experiment.

The survey was run in the three official Swiss languages: German, French, and Italian.

1 Reception

This survey is part of a research project on investment decisions and preferences. It is being conducted jointly by the University of St. Gallen, the University of Zurich, and MIT Sloan.

Your answers will be treated anonymously and confidentially and cannot be linked to you personally. Your participation is voluntary, and you can leave the survey at any time. By clicking "Continue", you confirm that you are of legal age, that you are voluntarily participating in this survey, and that you agree to consent to your answers being used for scientific purposes. During the course of the study, you will have the opportunity to invest real money, which will be made available to you, in an investment option. You do not need any experience in investments to do this. The money invested, including any returns, can - with a bit of luck - be paid out personally (Drawing of the winners).

Please read all the instructions carefully and take enough time to answer as you would in "real life".

It takes about 15 minutes to complete the survey.

2 Screening

Q1 Age - All

How old are you?

Q2 Postcode - All

What is the postcode of your principal residence?

Q3 Gender - All

Please indicate your gender:

- 1. Male
- 2. Female
- 3. Other

3 Investment Stage

Q4 Fund - All

Do you currently have money invested in investment funds?

Infobox

Investment funds are a category of investment transactions. Payments made by many individual investors are invested according to a defined strategy. Depending on the strategy, the fund assets are invested by investment experts on the international securities markets in shares, bonds, and other investments (e.g., real estate, precious metals).

- 1. yes
- 2. no

99. no indication

Group Randomisation into 4 groups (1A 1B 2A 2B)

Structurally identical samples

4 Performance 1 - All

Text

Below we will provide information on two investment funds (Fund A and Fund B).

Subsequently, you can **invest** an amount of CHF 1,000 in **Fund A or Fund B**. This amount will be placed at your disposal.

After the completion of this study, we will draw 10 participants at random. If you are one of the winners, the sponsor of this study will make a real investment of CHF 1,000 in the fund you have chosen. After one year, the investment will be sold at the current market value, and the proceeds will be paid out to you.

So note that your decisions - should you be one of these drawn winners - will trigger real investments and have a direct impact on your payout amount.

Factsheets and questions Q5-Q8 on the same page.

Text

Please read the information on Fund A and Fund B carefully. Here TREATMENT or CONTROL

Text

To ensure that you have read and correctly understood the descriptions, please answer the following questions.

Q5 Fund A - All

What is the return over the last 6 months for Fund A?

- 1. +4.09%
- 2. +4.91%
- 3. +8.31%
- 4. +9.11%
- 99. don't know

Q6 Fund B - All

What is the return over the last 6 months for **Fund B**?

- 1. +4.09%
- 2. +4.91%
- 3. +8.31%
- 4. +9.11%
- 99. don't know

If Sample = TREATMENT / resp. hide if Sample CONTROL

Q7 Fund A - if Group 2A [Group = 2A] or if Group 2B [Group = 2B]

What is the expected temperature increase for Fund A?

- 1. 1.5-2°C
- 2. 1.5-2.5 °C
- 3. 2-3°C
- 4. 3-4°C
- 99. don't know

Q8 Fund B - if Group 2A [Group = 2A] or if Group 2B [Group = 2B]

What is the expected temperature increase for Fund B?

- 1. 1.5-2°C
- 2. 1.5-2.5 °C
- 3. 2-3°C
- 4. 3-4°C
- 99. don't know

5 Performance 2 - if not correct answer

Text

Unfortunately, some of your answers were incorrect or you selected the option "Don't know". Please read the information again carefully and answer the questions again.

[Questions Q8-Q12 on same page]

Q5 Fund A - All

What is the return over the last 6 months for Fund A?

- 1. +4.09%
- 2. +4.91%
- 3. +8.31%
- 4. +9.11%
- 99. don't know [grey out]

Q6 Fund B - All

What is the return over the last 6 months for Fund B?

- 1. +4.09%
- 2. +4.91%
- 3. +8.31%
- 4. +9.11%
- 99. don't know [grey out]

If Sample = TREATMENT

Q7 Fund A

What is the expected temperature increase for Fund A?

- 1. 1.5-2°C
- 2. 1.5-2.5 °C
- 3. 2-3°C
- 4. 3-4°C
- 99. don't know

Q8 Fund B

What is the expected temperature increase for Fund B?

- 1. 1.5-2°C
- 2. 1.5-2.5 °C
- 3. 2-3°C
- 4. 3-4°C
- 99. don't know

6 Investment Stage

Q9 Investment Decision - All

You can now invest CHF 1,000. In which fund would you like to invest this amount?

Infobox

After the completion of this study, we will draw 10 participants at random. For the winners, a real investment of CHF 1,000 will be made by the client of this study in the fund you have chosen. After one year, the investment will be sold at the current market value and the proceeds will be paid out to them.

So note that your decisions - should you belong to these drawn winners - trigger real investments and directly affect their payout amount.

- 1. Fund A
- 2. Fund B

7 Political Stage

Text - All

In the next part of the survey, we are interested in your opinion about an upcoming political event.

On 18 June 2023, the Swiss electorate will vote on a new law: The "Federal Act on Climate Protection Goals, Innovation and Strengthening Energy Security".

This Act aims to achieve the following objectives:

- The reduction of greenhouse gas emissions and application of negative emission technologies
- Adaptation to and protection from the impacts of climate change
- Targeting financial flows toward low-emission and climate change-resilient development
- Replacing fossil-fuelled heating systems and electric heating systems with heat generation from renewable energies and energy efficiency measures

These targets are in line with the international climate targets set in Paris. Overall, the Confederation shall ensure that the impact of man-made greenhouse gas emissions in Switzerland is zero by 2050 (net zero target).

Text box

In the run-up to the vote, **two committees hold opposing views** on this law. Below we show you the main arguments of the Yes and the No committees. Please read them carefully.

Text No Committee - All



The committee "Electricity-eater-law NO" is campaigning for the ${\bf rejection} \ {\bf of} \ {\bf the} \ {\bf law}.$

Arguments of the committee "Electricity-eater-law NO":

- Exploding electricity prices: With this law, electricity and energy become a luxury for the rich. Industry
 has to limit its production or relocate abroad. Homeowners will have to invest massively, and flat rents
 will rise.
- Phase-out without a plan: This extreme law leads to a de facto ban on fossil fuels such as heating oil, petrol, diesel and gas. This without a plan on how to produce enough affordable electricity for electric cars, heat pumps, etc.
- Security of supply at risk: The haphazard phase-out endangers our security of supply! We will become
 even more dependent on the weather and resources from abroad.



The committee "Climate Protection Law YES" is campaigning for the law to be adopted.

Arguments of the committee "Climate Protection Law YES":

- Doing nothing exacerbates climate damage the consequential costs are rising: The longer we wait, the worse the damage from climate change will become. If we invest in climate protection today, we will save a lot of money in the future.
- With the climate targets, Switzerland is taking responsibility: Switzerland is setting itself climate targets and freeing itself from dependence on oil and gas from abroad. In this way, we are taking responsibility for future generations.
- Tackling climate protection, seizing opportunities: The Climate Protection Act promotes innovative
 technology for climate protection. This generates added value at home and markets for the export
 industry.

Q10 Support - All

Which of the committees (rather) represents your personal opinion?

The Committee					The "Climate
"Electricity-eater-law					Protection Law YES"
NO" Committee					Committee
1	2	3	4	5	6

If Q10 <= 3.

Q11.B Support - [If Q10 = 1, 2 or 3]

You now have the opportunity to support the committee "Electricity-eater-law NO" with a donation of up to CHF 250.

A donation enables the No Committee to take various measures to convince voters of their arguments before the vote. The committee uses your donation, for example, to distribute flyers, place advertisements or put up posters.

Note: If you are one of the ten winners for whom we invest CHF 1,000, we will donate the selected amount immediately. We will later deduct the donation amount from the payout to you.

How much CHF would you like to donate to the "Stromfresser-Gesetz NEIN" committee?

Type in the desired CHF amount.

If Q10 >= 4.

Q11.A Support - [If Q10 = 4, 5 or 6]

You now have the opportunity to support the committee "Climate Protection Law YES" with a donation of up to CHF 250.

A donation enables the Yes Committee to take various measures to convince voters of their arguments before the vote. The committee uses your donation, for example, to distribute flyers, place advertisements, or put up posters.

Note: If you are one of the ten winners for whom we invest CHF 1,000, we will donate the selected amount immediately. We will later deduct the donation amount from the payout to you.

How much CHF would you like to donate to the "Climate Protection Law YES" committee?

Type in the desired CHF amount.

Q12 Voting - All

Do you already know how you will vote on the referendum on the "Federal Act on Climate Protection Targets, Innovation, and Strengthening Energy Security"?

I will vote for the law						I will vote against the law
1	2	3	4	5	6	7

- 97. I will not vote.
- 98. I am not entitled to vote.
- 99. not specified

Q13 Reconciliation Forecast All

How do you think the Swiss electorate will decide in the vote on the "Federal Act on Climate Protection Targets, Innovation and Strengthening Energy Security"?

Likert Scale:

- 1. the law will certainly be adopted.
- (2 6)
- 7. the law will certainly be rejected.

8 Survey Stage

If Sample = TREATMENT

Q14 Impact Expectations Fund

Text

Below you can see the two funds again:

Question

How strongly do you agree with the following statement?

"An investment in the iShares MSCI World Paris Aligned Climate ETF (Fund A/B) fund makes a relevant contribution to climate protection."

Likert Scale:

1. do not agree at all

(2. - 6.)

7. fully agree

Q15 Impact Expectations Companies - All

The following question refers to investments in individual companies. For each of the companies mentioned, how strongly do you agree with the statement below?

"An investment in this company makes a relevant contribution to climate protection."

			Do n agree	ot e at al	I			agree vholehe	artedly
	Company	Description	1	2	3	4	5	6	7
[1]	ABB Ltd	Energy and automation technology group	•	O	0	0	O	•	O
[2]	Alphabet Inc	Technology company formerly known as Google	O	O	0	0	0	0	O
[3]	Amazon Com Inc	Online mail order company	•	O	O	0	O	•	O
[4]	Apple Inc	Software developers and technology companies	O	O	O	0	O	O	O
[5]	ExxonMobil Corp	Oil company	O	O	0	0	O	O	O
[6]	Meta Platforms	Technology company formerly known as Facebook	•	O	0	0	0	•	O
[7]	Microsoft Corp	Hardware and software developer	•	O	O	0	O	•	O
[8]	Nvidia Corp	Technology company	•	O	0	0	O	•	0
[9]	Schneider Electric	Electrical engineering group	•	O	0	0	O	•	0
[10]	Tesla Inc	Car manufacturer	O	O	\mathbf{c}	0	O	•	O
[11]	Unitedhealth Group Inc	Insurance group with focus on health insurance	O	O	O	0	O	•	O
[12]	Vestas Wind Systems AS	Wind turbine manufacturer	O	O	O	O	O	O	O

New page

Q16 Expectations Risk - All

How do you assess the risk of Fund A and Fund B in comparison?

The way you assess the risk of rana rana B in comparison.							
An investment in						An investment in Fund	Can't judge
Fund A is much						B is much riskier.	
riskier.							
1	2	3	4	5	6	7	99

Q17 Expectations Return - All

What do you expect from Fund A and Fund B in terms of return?

Fund A will achieve a much higher return.						Fund B will achieve a much higher return.	Can't judge
1	2	3	4	5	6	7	99

Q18 Feeling - All

How does it feel to invest in fund A or fund B in comparison?

It feels much better to invest in fund A.						It feels much better to invest in fund B.	Can't judge
1	2	3	4	5	6	7	99

9 Survey Stage (Political Orientation)

Q19 Vote - All

Where do you place yourself on the political spectrum from left to right?

Likert Scale:

1. Left

(2-6)

7. Right

99. not specified

Q20 Party - All

Which party or parties did you vote for in the last National Council elections (2019)?

1. Swiss People's Party (SVP)

2nd Social Democratic Party (SP)

3. FDP. Die Liberalen.

4th Green Party of Switzerland (GPS)

5. Christian Democratic People's Party (CVP)

6. green liberal party (GLP)

7th Evangelical People's Party (EPP)

8. civic democratic party (BDP)

9. federal democratic union (EDU)

10 Lega dei Ticinesi

11 Ensemble à Gauche

12th Party of Labour Switzerland (PDA)

98. others: [text box]

99. I have not voted.

100. i am not eligible to vote.

101 I can't remember.

102. no indication

Q21 Votes - All

How have you voted on environmental issues in past votes?

- 1. Vote on the revised CO2 Act (13 June 2021)
- Popular Initiative for Responsible Business to Protect People and the Environment (Corporate Responsibility Initiative) (29 November 2020)
- 3. Popular Initiative for Clean Drinking Water and Healthy Food (Drinking Water Initiative) (13 June 2021)

[in columns]

- 1. In favour [Yes]
- 2. Against [No]
- 3. Included / not voted
- 97. I am not entitled to vote.
- 98. I can't remember.
- 99. no indication

10 Survey Stage (Statistics)

Text - All

Finally, we would have some statistical questions.

Q22 Sustainable investment products - All

Are you currently investing in sustainable investment products?

- 1. yes, I invest all my assets exclusively in sustainable investment products
- ${\bf 2. \ yes, I \ invest \ a \ substantial \ part \ of \ my \ assets} \ in \ sustainable \ investment \ products$
- 3. yes, I invest a **small part of my assets** in sustainable investment products 4. no, I do **not** invest in **sustainable** investment products
- 98. don't know
- 99. No information.

Q23 Assets - All

In which asset class do your personal liquid assets fall?

Infobox

Liquid assets are amounts that you have invested in accounts or securities and that are in your name. They do not include real estate, tied pension assets and insurance policies that are only available in the long term.

Single Choice

- 1. less than CHF 50,000
- 2. between CHF 50,000 and 75,000
- 3. between CHF 75,000 and 200,000
- 4. between CHF 200,000 and 250,000
- 5. between CHF 250,000 and 1 million
- 6. over CHF 1 million
- 99. no indication

Q24 Gross income - All

In which income class does your ${\bf personal}\ {\bf monthly}\ {\bf gross}\ {\bf income}\ {\bf fall?}$

Info:

Pension benefits are also considered income.

Single Choice

- 1. up to CHF 2'000
- 2. CHF 2'001 CHF 5'000
- 3. CHF 5'001 CHF 8'000
- 4. CHF 8'001 CHF 12'000
- 5. CHF 12'001 CHF 16'000
- 6. CHF 16'001 CHF 20'000
- 7. over CHF 20,000
- 98. don't know
- 99 No specification

Q25 Interest in investment topics

How interested are you in the topic of investing or investment transactions?

Single Choice

1. I am not interested at all (2-6)

7. I am very interested

Q26 Education - All

What is the highest education you have completed with a certificate or diploma?

- 1. compulsory school (primary, secondary, Real- district school, Pro-, Untergymnasium)
- 2. vocational apprenticeship or full-time vocational school (for example, commercial school, school for nursing, school for medical assistants, school for nurses, training workshop)
- 3. baccalaureate school, primary teacher training
- 4. higher technical or vocational training (e.g., master craftsman's diploma, higher technical examination, federal certificate)
- 5. university of applied sciences (formerly, for example, HTL/HWV/HKG)
- 6. university, ETH
- 7. other training
- 8. no school education or vocational training

11 Closing

You have now reached the end of the questionnaire. Thank you very much for your participation.

If you are drawn, and you are one of the winners, we will contact you in June 2023.

Factsheet 1A

Performance of CHF 100



Fund A Description

The fund invests passively in a broadly diversified set of companies worldwide.

Fund information

Fund Category: Global Equity
Fund Volume: CHF 0.1 billion
Cost per year: 0.20 %
Risk class: 1-2-3-4-5

Return(over last months)3 months6 months12 months+4.91%+8.31%-10.44%

Top 3 regions of the companies USA 66.4 Europe (Euro countries) 9.5 Europe (excl. Euro countries) 7.3

Fund B

Description

The fund invests passively in a broadly diversified set of companies worldwide.

Fund information

Fund Category: Global Equity
Fund Volume: CHF 47 billion
Cost per year: 0.20 %
Risk class: 1-2-3-4-5

Return(over last months)3 months6 months12 months+4.09%+9.11%-8.08%

Top 3 regions of the	%
companies	/0
USA	66.7
Europe (Euro countries)	9.3
Japan	6.2

Risk class: Measures how much the fund's returns fluctuate compared to similar investments. Higher risk class means higher fluctuations.

Factsheet 1B:

Performance of CHF 100



Fund A —

Description

The fund invests passively in a broadly diversified set of companies worldwide.

Fund information

Fund Category: Global Shares
Fund Volume: CHF 47 billion
Cost per year: 0.20 %
Risk class: 1-2-3-4-5

Return(over last months)3 months6 months12 months+4.09%+9.11%-8.08%

Top 3 regions of the companies	%
USA	66.7
Europe (Euro countries)	9.3
Japan	6.2

Fund B

Description

The fund invests passively in a broadly diversified set of companies worldwide.

Fund information

Fund Category: Global Shares
Fund Volume: 0.1 billion CHF
Cost per year: 0.20 %
Risk class: 1-2-3-4-5

Return(over last months)3 months6 months12 months+4.91%+8.31%-10.44%

Top 3 regions of the	%
companies	,,
USA	66.4
Europe (Euro countries)	9.5
Europe (excl. Euro countries)	7.3

Risk class: Measures how much the fund's returns fluctuate compared to similar investments. Higher risk class means higher fluctuations.

Factsheet 2A:

Performance of CHF 100



Fund A

iShares MSCI World Paris-Aligned Climate ETF

Description

The fund invests passively in a broadly diversified set of companies worldwide that share the Paris climate goals.

Fund information

Fund Category: Global Equity
Fund Volume: CHF 0.1 billion
Cost per year: 0.20 %
Risk class: 1-2-3-4-5

 Return
 (over last months)

 3 months
 6 months
 12 months

 +4.91%
 +8.31%
 -10.44%

Top 3 regions of the companies	%
USA	66.4
Europe (Euro countries)	9.5
Europe (excl. Euro countries)	7.3

Sustainability

${ m CO_2}$ footprint of companies (tons ${ m CO_2}$ /million CHF)



Expected global warming

1.5-2° C



Fund B

iShares MSCI World ETF

Description

The fund invests passively in a broadly diversified set of companies worldwide.

Fund information

Fund Category: Global Equity
Fund Volume: CHF 47 billion
Cost per year: 0.20 %
Risk class: 1-2-3-4-5

Return	(over	last months)
3 months	6 months	12 months
+4.09%	+9.11%	-8.08%

Top 3 regions of the	%
companies	/0
USA	66.7
Europe (Euro countries)	9.3
Japan	6.2

Sustainability

CO₂ footprint of companies (tons CO₂ /million CHF)

			139		
0	50	100	150	200	
(tono oo ₂ /mmon or ii)					

Expected global warming

2-3° C



Risk class: Measures how much the fund's returns fluctuate compared to similar investments. Higher risk class means higher fluctuations.

CO₂ footprint: Measures the greenhouse gas emissions of the companies in the fund relative to their sales. High values indicate high CO₂ emissions.

Expected global warming: Measures the alignment of the companies in the fund with the Paris Agreement. This envisages limiting global warming to 2°C. Values above 2°C indicate that companies do not support this target.

Factsheet 2B:



Risk class: Measures how much the fund's returns fluctuate compared to similar investments. Higher risk class means higher fluctuations.

 ${
m CO_2}$ footprint: Measures the greenhouse gas emissions of the companies in the fund, relative to their sales. High values indicate high ${
m CO_2}$ emissions.

Expected global warming: Measures the alignment of the companies in the fund with the Paris Agreement. This envisages limiting global warming to 2°C. Values above 2°C indicate that companies do not support this target.

Swiss Finance Institute

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