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Sustainable investment preferences and the green transition in Switzerland

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Summary

Large investments in renewable energy technologies and energy efficiency are necessary to promote sustainable development. These investments depend on the support of the financial sector and financial actors, such as private investors. We analyzed the market for sustainable finance products from the consumer perspective in two work packages. The main goal of the first work package was to elicit investor preferences for different types of sustainable financial products. We surveyed 505 Swiss retail investors in 2024 and assessed their attitudes toward different sustainable investment dimensions, such as green energy, biodiversity, or fair wages. Using a conjoint analysis, we econometrically estimated their willingness to pay for a hypothetical sustainable investment. Our results indicate that retail investors prioritize sustainable investments in renewable energies and favor standardized sustainability disclosures. Moreover, the stated choice experiment suggests that Swiss retail investors are willing to forgo between 1 and 1.6 percentage points of annual return for sustainable finance products. In the second work package, we analyze the level of knowledge about sustainable investments and the effect of short educational interventions on this knowledge. We conducted a second survey experiment with 2021 Swiss retail investors in 2024. In a randomized controlled trial (RCT), some participants received an educational treatment that explained sustainable finance, while others served as the control group. We found that the educational intervention increased investors' knowledge of sustainable finance. Moreover, investors were asked to choose among four investment funds with different sustainability levels. The results showed that the educational intervention increased the share of investors choosing green funds by about 6%.

Zusammenfassung

Um eine nachhaltige Entwicklung zu fördern, sind umfangreiche Investitionen in Technologien für erneuerbare Energien und Energieeffizienz erforderlich. Diese Investitionen sind auf die Unterstützung des Finanzsektors und von Finanzakteuren wie privaten Investoren angewiesen. In zwei Arbeitspaketen analysierten wir den Markt für nachhaltige Finanzprodukte aus der Verbrauchersicht. Hauptziel des ersten Arbeitspakets war es, die Präferenzen der Anleger für verschiedene Arten von nachhaltigen Finanzprodukten zu ermitteln. Wir befragten 505 Schweizer Privatanleger im Jahr 2024 und untersuchten deren Einstellungen zu verschiedenen Aspekten nachhaltiger Geldanlagen wie grüne Energie, Biodiversität oder faire Löhne. Mit Hilfe einer Conjoint-Analyse berechneten ökonometrisch wir die Zahlungsbereitschaft für eine hypothetische nachhaltige Investition ökonometrisch. Unsere Ergebnisse deuten darauf hin, dass Privatanleger nachhaltige Investitionen in erneuerbare Energien bevorzugen und standardisierte Nachhaltigkeitsinformationen bevorzugen. Zudem zeigte das Stated-Choice Experiment, dass Schweizer Privatanleger bereit sind, für nachhaltige Finanzprodukte auf 1 bis 1.6 Prozentpunkte der jährlichen Rendite zu verzichten. Im zweiten Arbeitspaket analysierten wir den Wissensstand über nachhaltiges Investieren und die Wirkung von kurzen Informationsmassnahmen auf dieses Wissen. Wir führten dazu im Jahr 2024 ein zweites Umfrageexperiment mit 2021 Schweizer Privatanlegern durch. In einer randomisierten kontrollierten Studie (RCT) erhielt ein Teil der Teilnehmenden eine Bildungsintervention zu nachhaltigen Geldanlagen, während die anderen Teilnehmenden als Kontrollgruppe dienten. Wir konnte zeigen, dass die Bildungsintervention das Wissen der Anleger über nachhaltiges Finanzwesen erhöhte. Zusätzlich wurden die Anleger gebeten, zwischen vier Investmentfonds mit unterschiedlichem Nachhaltigkeitsgrad zu wählen. Die Ergebnisse zeigten, dass die Bildungsintervention den Anteil der Anleger, die grüne Fonds wählten, um etwa 6% erhöhte.

Résumé

Des investissements importants dans les technologies des énergies renouvelables et l'efficacité énergétique sont nécessaires pour promouvoir le développement durable. Ces investissements dépendent du soutien du secteur financier et des acteurs de ce secteur, tels que les investisseurs privés. Nous avons analysé le marché des produits financiers durables du point de vue du consommateur dans le cadre de deux modules de recherche. L'objectif principal du premier module était d'identifier les préférences des investisseurs pour différents types de produits financiers durables. Nous avons fait un sondage auprès de 505 investisseurs privés suisses en 2024 afin d'évaluer leurs attitudes à l'égard de différentes dimensions de l'investissement durable, telles que l'énergie verte, la biodiversité ou les salaires équitables. Grâce à une analyse conjointe, nous avons estimé leur volonté de payer pour un investissement durable hypothétique en utilisant une analyse économétrique. Nos résultats indiquent que les investisseurs particuliers privilégient les investissements durables dans les énergies renouvelables et qu'ils sont favorables à des informations normalisées sur le développement durable. De plus, l'analyse des choix déclarés suggère que les investisseurs privés suisses sont prêts à renoncer à 1 à 1,6 point de pourcentage de rendement annuel pour des produits financiers durables. Dans le deuxième module, nous avons analysés le niveau de connaissance des investissements durables et l'effet de courtes interventions éducatives sur ce savoir. Nous avons mené une deuxième enquête auprès de 2 021 investisseurs particuliers suisses en 2024. Dans le cadre d'un essai contrôlé randomisé (ECR), certains participants ont reçu un traitement éducatif leur expliquant la finance durable, tandis que d'autres ont servi de groupe de contrôle. Nous avons constaté que l'intervention éducative augmentait les connaissances des investisseurs. En outre, les investisseurs ont été invités à choisir entre quatre fonds d'investissement présentant différents niveaux de durabilité. Les résultats ont montré que l'intervention éducative a augmenté la part des investisseurs optant pour des fonds verts d'environ 6 %.

Main findings («Take-Home Messages»)

- **Preference for Sustainable Investments**: Swiss retail investors favor investments that align with the Swiss government’s energy transition goals, particularly those in renewable energy sources like solar, wind, and hydropower.
- **Transparency and Oversight**: Investors prioritize transparency and government oversight to combat greenwashing and support standardized sustainability disclosures, including detailed ESG criteria.
- **Trust in Government-Backed Labels**: Investors prefer labels covering multiple dimensions of sustainable finance products, similar to the Swiss Climate Scores. In addition, investors prefer mandatory and government-issued labels.
- **Need for Financial Education**: Short educational programs are effective in improving sustainable financial literacy among Swiss investors, focusing on sustainable finance terms, fund evaluation, and the regulatory landscape.

Contents

List of abbreviations

SFOE	Swiss Federal Office of Energy

1 Introduction

1.1 Context and motivation

Promoting sustainable development implies fostering investments that consider the three dimensions of sustainable development: environmental, social, and economic. Large investments in new technologies are necessary to transform the current energy system based on fossil fuels into a system grounded in renewable energy sources. Financial actors, such as private and institutional investors, play a crucial role in supporting large sustainable investments through mutual funds concentrating on sustainable firms. In this context, investments with different degrees of sustainability will play a pivotal role in transforming the energy system.

In recent years, sustainable investments have become increasingly common on the financial market, and directing funds toward environmentally friendly assets is crucial in fostering the green transition. The scope of sustainable options is broad, especially with the recent EU taxonomy that allows for a wide range of products to be promoted as sustainable along the “ESG”-characteristics (environmental, social, and corporate governance). According to the FINMA, this complex market situation with a lack of clear rules puts consumers at risk of unsubstantiated claims about the sustainability of these investments, which is also referred to as “greenwashing” (FINMA Guidance, May 2021).

Private investors play a crucial role in this market because they directly invest in these products and influence institutional investors and policymakers with their preferences. Most consumers, however, have little knowledge of sustainable finance products, as shown by the authors in Filippini et al. (2021). Low knowledge and misperceptions about these products are associated with lower levels of sustainable investments.

1.2 Project objectives

To address these barriers to sustainable investments, our research project aims to analyze the knowledge and preferences for sustainable finance products and how to improve the level of knowledge about these products. In this context, obtaining information on the knowledge and perceptions of several sustainability characteristics is important. From a scientific point of view, the first step consists of identifying and applying a sound method to obtain the preferences of private investors for ESG products, which we plan to cover in Work Package 1 (WP1). In a second work package (WP2), we plan to identify through a randomized control trial if an educational treatment on sustainable finance impacts private investor knowledge and decision-making.

This project will generate expected impacts at the scientific level through the working papers generated from the different modules. These will be transformed into peer-reviewed journal articles in high-impact journals. More specifically, we have designed our research program around the concept of sustainable finance literacy, intending to provide concrete policy recommendations to the following questions:

1. Which sustainable investment options are preferred by retail investors, and are these preferences in line with the energy transition planned by the Swiss government?
2. How should we target short information and education programs to Swiss investors to address the lack of financial knowledge influencing sustainable investment choices?
3. How do private investors perceive different dimensions of labels for sustainable finance products?
4. What are the main concerns of private investors regarding sustainable investments, and what policies would they favor?

1.3 Structure of the report

In this report, we summarize our research findings in three policy briefs. These policy briefs are based on this project's academic research papers, which are available online. These research papers describe the methodological approach, results, and a detailed discussion. The policy briefs summarize our findings for interested experts and policymakers.
The report is structured as follows:

In Work Package 1 (WP1), we analyzed a survey of Swiss retail investors to gather their preferences for sustainability and assess their perceptions of various electricity production technologies, including nuclear and gas. Additionally, we analyzed the preferences for local versus global investments. To obtain an overview of investor attitudes about labels, we presented survey respondents with different attributes covered by the Swiss Climate Scores.

In WP2, we organized a randomized control trial with a second sample of private investors to analyze if a short information treatment about sustainable finance products effectively improves sustainable finance literacy. For this purpose, we informed respondents about regulations concerning sustainable finance products. We then conducted an incentivized choice experiment to analyze participants' investment behavior.

2 Approach, method, results and discussion

WP1 Sustainability Preferences of Swiss Retail Investors[1]

Massimo Filippini, Katharina Holzheu, and Tobias Wekhof[2]

Executive Summary

- We surveyed Swiss retail investors about their preferences regarding sustainable investments.
- Within the ESG dimensions (Environmental, Social, Governance), environmental factors were most important to investors.
- Renewable energy sources such as solar, wind, and hydropower are perceived as the most sustainable forms of energy.
- Investors prefer labels covering multiple dimensions of sustainable finance products, similar to the Swiss Climate Scores. In addition, investors prefer mandatory and government-issued labels.
- Investors are willing to forgo approximately 1.6% of returns for highly sustainable products and 1% for moderately sustainable investment funds.

Outline

As Sustainable Responsible Investing strategies (SRI) gain traction in Switzerland, the need for a regulatory framework for sustainable finance becomes more pronounced. Policymakers play a pivotal role in this process, and understanding investors' preferences, particularly their prioritization of environmental, social, and energy characteristics, is crucial for designing sustainable regulatory frameworks that meet their needs.

This policy brief provides retail investors' perspectives regarding their preference for sustainable finance products and current regulatory efforts. The Swiss Federal Council has started to define a pathway towards regulation for sustainable finance and to prevent greenwashing.[3] With the Swiss Federal Council's efforts to define green finance and prevent greenwashing, our research provides complementary information on aligning regulatory efforts with investor attitudes and preferences.

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[1]The analysis and figures presented in this policy brief are based on two publications:
Katharina Holzheu and Tobias Wekhof, Bank-Advisor Certification and Willingness to Pay for Sustainable Finance Products, CER-ETHZ WP 25/396 (2025). Link: https://ethz.ch/content/dam/ethz/special-interest/mtec/cer-eth/cer-eth-dam/documents/working-papers/wp-25-396.pdf
Katharina Holzheu's Master Thesis, conducted at the Centre for Energy Policy and Economics (CEPE) at ETH Zurich and supervised by the present authors within the project's activities. The MA thesis is available under the following link: https://www.zora.uzh.ch/id/eprint/261882/
This research is financed by the Swiss Federal Office of Energy under contract number SI/502534-01. It has been conducted at the Centre for Energy Policy and Economics at ETH Zurich and at the University of Zurich. This policy brief contributes to Work Package 1 of the project. Any opinions, findings, conclusions, or recommendations expressed in this material are those of the authors and do not necessarily reflect the view of the funding agency

[3] *For further information: https://www.newsd.admin.ch/newsd/message/attachments/83722.pdf and https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-98351.html*

We present a summary of findings from an empirical study based on a household survey conducted in Switzerland. The study, organized by the Centre of Energy Policy and Economics at ETH Zurich, encompassed a representative sample of 505 retail investors in the German-speaking region of Switzerland from November 2023 to January 2024. The survey used a combination of open- and closed-ended questions to analyze, using statistical methods. We elicited retail investors' general attitudes toward the key characteristics of sustainable finance products (i.e., being positive or negative about an attribute) and inferred investor preferences (i.e., what attributes are most important) for sustainable financial products.

Our findings indicate that investors value sustainable investing, particularly emphasizing the environmental dimension. Additionally, they regarded solar energy, wind power, and hydropower as the most sustainable forms of energy. Participants also expressed a preference for comprehensive labels issued by the government. Finally, retail investors were willing to forgo up to 1.6 percentage points of annual return for sustainable investment products.

Open-ended question on sustainable characteristics in investment products:

We used open- and closed-ended questions to understand investors' attitudes toward sustainable investment characteristics. Specifically, we asked investors at the end of the survey to describe which sustainability elements are important for them when selecting a sustainable investment product, which we analyzed using artificial intelligence to gain deeper insights. Figure 1 presents a wordcloud with the most frequently mentioned words to describe the most important characteristics for sustainable investments (words with a larger font were mentioned more frequently).

Figure 1: Word cloud with most frequently mentioned words to describe sustainable investment priorities.

Table 2 presents the shares of topics mentioned in the open-ended answers at the end of the survey, after having answered the closed-ended questions. Most investors (67%) consider environmental factors, such as CO2 reduction and clean energy (solar, wind, hydropower), as crucial sustainable characteristics in an investment product. Social topics followed behind, with 39% of respondents mentioning them. In contrast, only a small percentage (4%) expressed concerns about the weapons and arms industry. Interestingly, a minority of respondents (1.20%) indicated interest in more traditional energy forms, such as nuclear energy, in their investment products. Based on these topic frequencies, we can conclude that investors generally place a higher importance on the environmental characteristics and, on average, prefer them over social attributes.

Table 2: Topics in open-ended survey questions on sustainable characteristics in investment products

	Percentage
Environment (total)	67.13%
Environment (general)	43.20%
CO2 reduction	26.30%
Clean energy	19.00%
Social	38.60%
Exclude weapons	3.60%
Traditional energy forms	1.20%

Note: This table indicates the topics mentioned when asked about the preferred characteristics of sustainable financial products. The percentages do not add up to 100%, as participants could mention several topics.

Preferences for ESG components:

To determine which attributes among the Environmental, Social, and Governance dimensions (ESG) investors consider the most valuable, we asked survey participants to rate the importance of several sustainable investment aspects with a closed-ended question format. These aspects were grouped into three categories: "Environment," "Social," and "Local/Global Orientation." Participants rated the elements on a scale of 1 to 7, with higher ratings indicating greater importance.

Using closed-ended questions is another approach to get information of the attitudes of the investors. The main difference concerning the open-ended questions used previously for getting information on the same attitudes is that close-ended questions can prime individuals, i.e., invite them to mention some characteristics that may not be so important.

Table 1 illustrates that respondents generally place the greatest importance on the environmental aspect when investing sustainably. Specifically, pollution, recycling, waste reduction, and preservation of oceans were considered the most important aspects of a sustainable investment. Among the social topics, fair wages received the highest average rating. Finally, we asked participants to rate the importance of focusing on local and global companies in sustainable investments. On average, local investments are of higher importance than globally focused ventures.

Compared to the results in Table 1 with open-ended responses, we can observe that there is no clear hierarchy among the elements of sustainability. Although there are differences, they are relatively minor, suggesting that the answers may be affected by elicitation bias or priming participants with closed-ended answering options. However, we can infer that generally, investors have a slight preference for environmental over social topics. Within environmental topics, there is no clear preference, while the “fair wages” topic received the highest rating among the social topics.

Table 1: Preferences among sustainability elements

	mean		
Environment [1-7]		***Social [1-7]***	
Environmental pollution	5.99	**Gender equality**	5.02
Biodiversity	5.50	**Fair wages**	5.64
Green energy	5.38	**Poverty reduction**	5.32
Water scarcity	5.81	**No weapons and arms industry**	4.75
Recycling and waste reduction	5.84	**No animal testing**	4.74
Protection of oceans and marine environment	5.94	**Active in the local community**	4.63
Orientation of investment [1-7]			
Local Companies	5.49		
Global companies	4.88		

Note: Participants rating of different aspects of environmental, social, and local/global orientation when investing in sustainable options. The scale ranges from 1 to 7, with 7 indicating the highest importance.

Preferences for energy forms

Next, participants rated different forms of electricity generation for potential investments based on their sustainability level. Table 3 shows their responses, which can be categorized into three groups: the first group with the most preferred energy forms, were solar energy, wind power, and hydropower, rated as the most sustainable sources, with a mean value between 6 and 7 on a scale of 1-7. Investors showed the lowest preference for oil and coal, which were rated the lowest, with a mean value between 1 and 2, indicating that they are not considered sustainable. The ranking for nuclear and gas was in the middle. Nuclear energy had the most varied ratings, ranging from 1 to 7, with a mean of 3.02, indicating that people are still actively debating the sustainability of nuclear energy.

Table 3: Perception of energy production technologies for sustainable investments

Energy forms [1-7]	*mean*
Solar energy	6.35
Wind	6.33
Hydropower	6.32
Nuclear	3.02
Gas	2.28
Oil	1.55
Coal	1.37

Note: We asked the respondents how sustainable they considered different forms of electricity generation for sustainable investments, rating them from 1 (not sustainable) to 7 (very sustainable).

Willingness to pay for sustainable finance products

Using conjoint analysis, we elicited the willingness to pay (WTP) for sustainable mutual funds using mathematical and statistical methods. This type of analysis provides information on the preferences for sustainable and non-sustainable financial products because investors are asked to choose between two products with different characteristics. We presented respondents with three hypothetical mutual funds with three sustainability levels, described as follows:

- None: This fund includes shares that are representative of the entire global market
- Moderate: This fund invests in companies with low CO2 emissions and that pay fair wages
- High: This fund invests in companies with low CO2 emissions and that pay fair wages; additionally, the fund invests in companies that actively seek to reduce CO2 emissions, like building new wind parks.

Participants chose one fund for their hypothetical investment. Importantly, we repeated this exercise eight times per respondent and randomly varied the expected returns for the funds each time. This design allowed us to estimate the willingness to forgo returns for the two sustainable investments compared to the traditional investment product. The analysis showed that investors are willing to accept approximately 1 percentage point less return for the moderately sustainable fund than the unsustainable product and 1.6 percentage points less return for the highly sustainable product. Due to the hypothetical nature of the experiment, these results could be an overestimation of the WTP and should be considered as an upper bound.

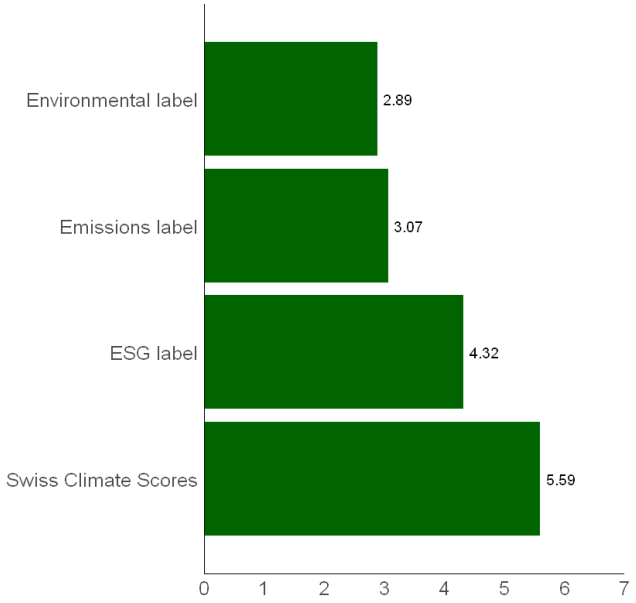
Preferences for sustainable finance labels

Labels on sustainable investment products have significantly increased to address transparency issues. However, the large number of labels, each following different criteria, risk to create confusion among retail investors. We presented four different label descriptions, each highlighting various sustainability dimensions. Participants selected the most helpful label format.

The first label considered environmental, social, and governance (ESG) aspects, the second focused only on environmental factors, the third displayed only CO2 emissions, and the last included six labels with detailed CO2 emissions information, such as current fossil fuel usage. This last option referred to the Swiss Climate Scores (SCS), launched by the Swiss government in June 2022 to enhance transparency on the Paris alignment of financial investments (SIF, 2022).

Figure 1 shows that the average score of the six combined labels (a proxy for the SCS) received the highest ranking, followed by a label covering the three ESG dimensions. The results indicate a preference for labels providing information on multiple dimensions. Therefore, the Sustainable Climate Scores (SCS) can promote transparency among sustainable investment products by offering comprehensive environmental, social, and governance information, helping investors make informed decisions.

Figure 1: Label designs



Note: The respondents were asked which label design they preferred for sustainable financial products. The scale ranged from 1 to 7, with 7 being the best possible rating.

While the Swiss Climate Scores are voluntary best practice recommendations, most participants (72%) generally prefer mandatory labels over voluntary ones (18%). Additionally, the majority (79%) favor more detailed scores on labels, as opposed to simple yes/no labels (9%). Regarding defining the labels, 83% indicated an important positive attitude toward government-recognized labels rather than those defined by individual banks (4%).

Policy Implications

Swiss retail investors are increasingly considering sustainable finance for their investments. Among the various ESG elements, the environmental dimension is most important for investors in sustainable investing. Areas such as pollution control, waste reduction, and ocean protection are of particular concern to investors who prioritize the environment in their investment decision-making process. While the environmental dimension seems to outweigh social and governance aspects in investor preferences, the overall differences are relatively small.

Furthermore, participants in our study have consistently shown that they consider renewable energy sources like solar, wind, and hydropower the most sustainable. This finding is consistent with the results of open-ended responses that emphasize clean energy and environmental factors. Further, retail investors were willing to forgo up to 1.6 percentage points of annual return for higher sustainability.

Investors prefer mandatory governmental labels, particularly those resembling comprehensive descriptions like the Swiss Climate Scores. Policymakers can introduce labels tailored to the sustainability dimensions that investors are interested in. This will align with investors' preferences and could lead to a higher inflow of investment by retail investors and higher political support for sustainable finance. These findings indicate that sustainable investing is gaining momentum, and investors are increasingly looking for ways to make a positive impact through their investment choices.

WP2 Sustainable Finance Literacy Training: Impact on Investment Decisions[4]

Massimo Filippini, Markus Leippold, and Tobias Wekhof

Executive Summary

- Sustainable Finance Literacy (SFL) is the knowledge and skill investors use to identify and assess sustainable finance products.
- We designed a short educational intervention to increase SFL among Swiss retail investors, based on EU regulations.
- The educational intervention is effective and increases the investors` SFL level.
- The number of retail investors investing in the most sustainable fund increased by 6% when receiving the education.
- The educational intervention decreased the portfolio shares of less sustainable funds between 2.5% and 3%.
- The treatment effect was about 50% larger for investors with sustainability-friendly attitudes.

Outline

On the financial markets, we see an increase in financial products, such as funds, with relatively different sustainability characteristics across products, including environmental or social aspects or a combination of both. This implies that for retail investors, it is complex to identify the exact level of sustainability of a financial product and, therefore, to make sound and informed financial decisions.

A previous study by Filippini et al. (2024)[5] shows that retail investors lack Sustainable Financial Literacy (SFL), i.e., the knowledge and skill of identifying and assessing financial products according to their reported sustainability-related characteristics. This lack of knowledge represents a barrier to investment.

Our study proposes an educational treatment as a possible solution to increase the level of SFL of retail investors. Using a randomized controlled trial (RCT), we empirically show that educational treatment impacts the level of SFL and investment choices toward more sustainable financial products. We designed an educational intervention to explain the key concepts from the European Union Sustainable Finance Disclosure Regulation (SFDR) while considering the Swiss Federal Council's position to prevent greenwashing.[6]

This policy brief presents findings from an empirical study based on a household survey in Switzerland, conducted by the Centre of Energy Policy and Economics at ETH Zurich and funded by the Swiss Federal Office for Energy (SFOE). The survey, conducted in March 2024, included a representative sample of 2021 retail investors in the German-speaking region. It used an incentivized

[4] This research is financed by the Swiss Federal Office of Energy under contract number SI/502534-01. It has been conducted at the Centre for Energy Policy and Economics at ETH Zurich and the University of Zurich. Any opinions, findings, conclusions, or recommendations expressed in this material are those of the authors and do not necessarily reflect the view of the funding agency. This policy brief contributes to Work Package 2 of the project and summarized the following publication:
Filippini, Massimo and Leippold, Markus and Wekhof, Tobias, The Impact of Sustainable Finance Literacy on Investment Decisions, Swiss Finance Institute Research Paper No. 24-57 (2024). Link: https://dx.doi.org/10.2139/ssrn.5001691
[5] Filippini, Massimo, Markus Leippold, and Tobias Wekhof. "Sustainable finance literacy and the determinants of sustainable investing." Swiss Finance Institute Research Paper 22-02 (2021).
[6] For further information: https://www.newsd.admin.ch/newsd/message/attachments/83722.pdf and https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-98351.html

investment experiment and a randomized control trial (RCT) to analyze the causal effect of sustainable finance education on SFL levels and investment choices.

Our findings indicate that the SFL educational treatment improves literacy and increases investments in sustainable funds while decreasing the proportion of funds with a lower level of sustainability. While the treatment effect was significant for all participants, it was more pronounced for investors with green attitudes. The study also provided suggestive evidence that higher SFL leads to more realistic perceptions of fund sustainability and less pursuit of high returns.

Educational Intervention:

This study's educational treatment is the authors' interpretation of the current industry practices after consulting experts from regulatory authorities, the financial industry, academia, and NGOs. The treatment considers the legal framework in the European Union (the Sustainable Finance Disclosure Regulation, SFDR) and the Swiss Federal Council's position on greenwashing. The SFDR requires banks to disclose sustainability information for their financial products under the EU jurisdiction.[7]

The EU regulation aims to increase transparency on financial products and prevent greenwashing and false sustainability claims. Under the SFDR, a fund can be categorized as an article 6, 8, or 9 fund based on its disclosed sustainability characteristics, which can be generally summarized as follows:

- Article 6: funds that do not support ESG goals and sustainability in investment strategy; only information on whether ESG risk is integrated (or not) is disclosed.
- Article 8: funds, often called "light green," that promote investments with positive social and environmental characteristics but do not have a sustainable investment objective such as reducing CO2 emissions.
- Article 9: funds, often called “dark green,” with a sustainable investment objective, e.g., the conservation of natural resources. Moreover, most of the portfolio comprises investments with positive social and environmental characteristics.

Article 8 funds can be further differentiated as “Article 8 plus,” disclosing more than necessary but not enough for Article 9. These funds often follow active investment strategies based on sustainability criteria but may not monitor sustainability quantitatively, potentially violating the “do not significantly harm” (DNSH) criteria. For example, a fund focusing on R&D for battery technology could cause pollution due to resource extraction.

Figure 2 shows the authors` more detailed interpretation of the different types of disclosures from the EU-SFDR. While the EU-SFDR categories do not indicate a level of sustainability, the information can help with a qualitative assessment. Notably, the different types of disclosure also give insights when specific characteristics are not disclosed. The first column shows the funds’ characteristics related to the EU-SFDR. For example, for a fund to be classified as “dark green,” the information shown must ensure the investor that the fund contains all characteristics listed in the first column (apart «impact»). On the other hand, a fund that only considers ESG risks, controls good governance, and considers investments with sustainable characteristics by excluding controversial sectors (e.g., tobacco) would fall under Art. 8 (light-green).

[7] Our SFL treatment does not consider the EU Taxonomy as it is still in development and only covers some investment areas. Art 9 funds must disclose the share of their assets falling under the EU Taxonomy. However, fund managers can perform their own screenings to determine if their investments follow the taxonomy criteria. Many Art 9 funds have low or zero shares of assets listed in the EU Taxonomy and instead apply their own screenings to determine sustainable investments (Badenhoop et al., 2023).

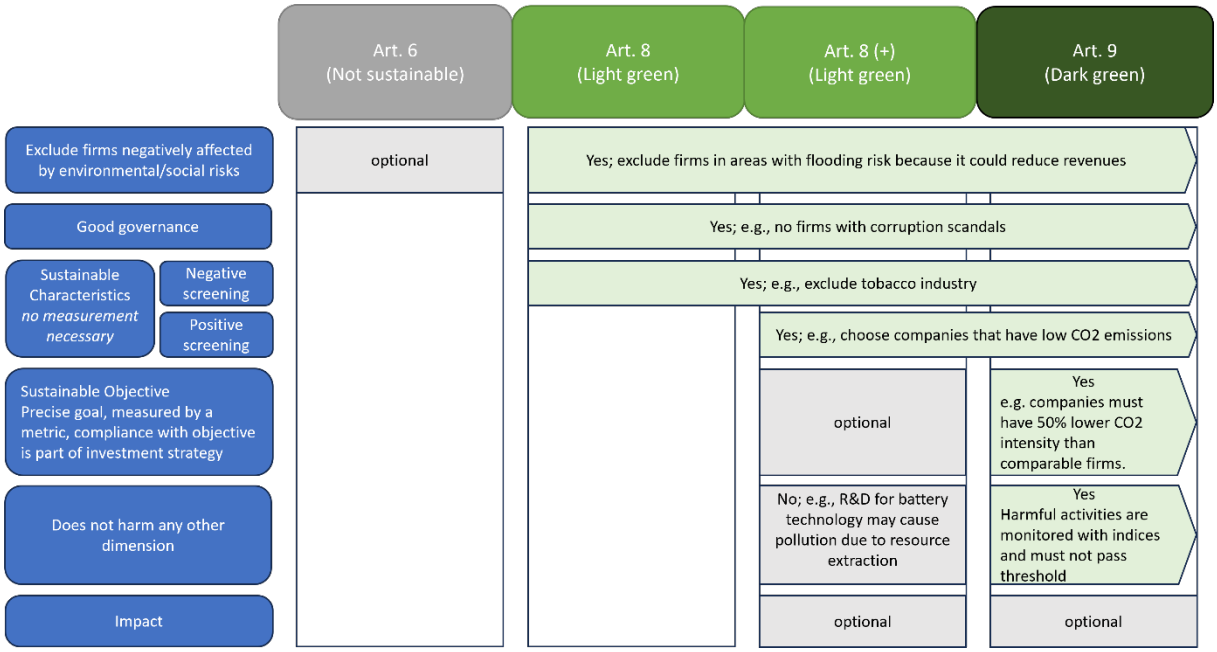


Figure 2: Authors' interpretation of the EU SFDR.

The first fund characteristic in Figure 1 describes ESG risk integration, which usually means excluding firms that could be negatively affected by environmental or social risks. For example, firms in areas with flooding risks could be excluded because it could reduce revenues. Financially motivated ESG-risk integration must be disclosed under all EU-SFDR articles; for Art. 6, disclosure is necessary but does not mean that these products must practice ESG integration. The Swiss Federal Council's position states that exclusion on a mere financial basis is not sufficient for a product to be marketed as "sustainable."

Negative screening (i.e., exclusion) of firms with bad governance (e.g., corruption scandals) is sufficient for an Art. 8 product ("light green") but not for the Swiss Federal Council. The same applies to environmental or social-based negative screening (e.g., excluding tobacco companies).

Positive screening implies actively choosing companies based on their sustainability characteristics. For example, a fund might explicitly select firms with low CO2 emissions or focus on a specific theme, like R&D in new energy technologies. Such funds are often referred to as "Article 8 plus."

Art. 9, or "dark green," fund applies two additional criteria: First, the fund must have a sustainable objective, which implies a precise goal measured by a metric and part of the investment strategy. For example, companies could have a 50% lower CO2 intensity than comparable firms. Second, these funds must satisfy the "do not significantly harm" criteria: harmful activities of the firms are monitored and must not exceed a quantitative threshold.

The EU-SFDR does not consider impact investing, which refers to a fund's influence on a firm's sustainability practices. This is because the regulation primarily covers investments in the secondary financial market, such as stocks and bonds from existing companies. Impact can be generated through active ownership, where investors vote in favor of sustainability-related strategies, or by supporting new business ventures in the primary financial market. Therefore, the EU-SFDR articles do not provide insights into the impact of a financial product.

Our educational treatment explains the different types of disclosures and their relevance to qualitative sustainability assessments. Importantly, we also emphasize the disclosures' limitations—in other

words, it is crucial to consider the information that is not disclosed when making a qualitative assessment. Retail investors should understand:

- No uniform ratings or standards for sustainable finance products exist.
- Sustainability risk integration alone is insufficient for a sustainable fund.
- A sustainable fund does not guarantee an impact on firms' sustainability performance.
- "Light green" funds use sustainability criteria without defining a concrete quantitative objective.
- "Dark green" funds must include a concrete sustainability objective and follow DNSH criteria.

Swiss Regulatory Background

The Swiss Sustainable Investment Market Study 2023 revealed that only 18% of Swiss fund volumes are not subject to EU regulations. This implies that the remaining 82% are likely subject to the EU Sustainable Finance Disclosure Regulation (SFDR), even if many have not yet disclosed whether they are Article 8 or Article 9 funds.[8] Swiss financial market players are exempt from SFDR if their products are domiciled in Switzerland and are not offered to EU customers. However, most investment funds are domiciled in Luxembourg or Liechtenstein for tax reasons, thus falling under EU regulations.[9] Additionally, many EU investors in Swiss funds fall under SFDR, requiring Swiss asset managers to comply with these rules.[10] Therefore, our study focuses on EU-SFDR regulations while considering the Swiss context.

In December 2022, the Swiss Federal Council released its position on greenwashing, stating that sustainable investment products must align with a sustainability goal (e.g., CO2 reductions per the Paris Agreement) or contribute to a sustainability objective (e.g., impact investing). In the EU-SFDR context, such funds could fall under either Art. 8 ("light green") or Art. 9 ("dark-green"). The Swiss definition does not consider the "do not significantly harm" criteria, so a fund focusing on battery technology could fall under Art. 8 despite its impact due to possible reliance on polluting raw materials.

We consider the Swiss Federal Council's position by including impact investing, which is not covered by the EU-SFDR. Additionally, we have incorporated the Federal Council's position that merely integrating sustainability factors into financial risk management is insufficient to classify a product as sustainable.

Choice Experiment

After the educational treatment, respondents made an incentivized investment choice, allocating a hypothetical budget of 1000 Swiss Francs (about 1100 USD) among four mutual funds, which varied in sustainability characteristics. Respondents could spend the sum on any combination of funds, with a minimum investment of 50 Swiss Francs.

The choice cards displayed real mutual fund information. The experiment was incentivized with a lottery, where four winners had their investments realized. After one year, winners would receive the portfolio value (1000 CHF plus or minus development). Thus, 4000 CHF was invested in four mutual funds, with portfolio shares chosen by lottery winners.

[8] https://marketstudy2023.sustainablefinance.ch/wp-content/uploads/2023/06/SSF_2023_MarketStudy.pdf
[9] https://www.lexology.com/library/detail.aspx?g=071c5f1d-e7c1-497c-8b7a-402fef1befc4#:~:text=The%20SFDR%20is%20an%20EU,the%20scope%20of%20the%20SFDR.
[10] https://lindemannlaw.ch/strongsustainable-finance-disclosure-regulation-sfdr-and-its-application-to-asset-managers-strong/
https://kpmg.com/ch/de/blogs/home/posts/2021/03/sfdr-financial-institutions.html

Results:

The results show that the SFL treatment effectively increased knowledge. The SFL treatment increased the average number of correct answers from 2.2 to 3.2 out of five. When retail investors invested in funds with different levels of sustainability, the SFL treatment generally made them invest more in highly sustainable funds and less in less sustainable ones.

The results show that the SFL treatment led to 6% more new investors in the dark-green fund (Art. 9), from initially 69% considering this fund for their portfolio to 75%. At the same time, the SFL education lowered the amount invested in light-green and non-green products (Art. 8 (+) and Art. 6) between 2-5% and 3%. The size of this effect is similar to the effect of gender, which shows a similar pattern with women investing more in the most sustainable option and less in non-green products.

For most funds (except Art 8 (+)), sustainable attitudes were the most important factor in explaining investments: positive for the dark-green fund, with an increase of 20% for sustainability-friendly investors, and negative for light-green and non-green, with a reduction between 5% and 20%, for both deciding to invest and how much to invest. The effect of the educational treatment was about 50% higher for investors with sustainable attitudes but only for deciding how much to invest.

Policy Implications

The working definitions of sustainable finance and sustainable financial products pose significant challenges for retail investors. To make informed and sound investment decisions in financial markets with a high share of products that show or claim to consider sustainability characteristics, it is important to have a good level of SFL. Previous studies have highlighted a lack of understanding of Sustainable Financial Literacy (SFL).

The findings of our study indicate the following:

1. A brief educational program on sustainable finance can raise sustainable finance literacy (SFL) among retail investors.

2. Retail investors with a high level of SFL are inclined to invest in funds that demonstrate a higher commitment to sustainability.

In the future, our SFL treatment could have broader applications in the financial industry. Under current EU regulations (MiFID-II), banks must ask about investors' interest in sustainability, but financial advisors are not required to explain sustainable finance. Our educational treatment could address this gap. It is concise (less than 400 words) and has been reviewed by experts. Our results indicate that previously uninterested investors may choose more sustainable funds while decreasing the amount invested in less sustainable products. Providing similar SFL information to financial advisors could be a valuable option to overcome retail investors' barriers to participating in sustainable finance. Finally, it is also possible to think about digitalizing our treatment, e.g., through videos or apps.

3 Conclusions and outlook

Swiss retail investors prefer sustainable investments that align with the Swiss government's energy transition goals. When choosing sustainable investments, their primary concern is the environmental impact, which matches the Energy Strategy 2050. Investors favor renewable energy sources like solar, wind, and hydropower, supporting the goal of increasing renewable energy's share. Nuclear and gas power are less preferred, and coal and oil power are significantly less preferred. Additionally, "dark green" funds, with clear sustainability objectives such as CO2 reduction, are particularly appealing. This alignment suggests that investor demand can drive growth in renewable energy and other environmentally focused sectors, supported by the Swiss Federal Council's stance on greenwashing.

Our results showed that Swiss retail investors prioritize transparency and government oversight in sustainable investments. Their main concerns include greenwashing, where misleading sustainability claims exist, and the lack of standardized information, making it difficult to compare products effectively. To address these issues, they favor policies that mandate comprehensive sustainability disclosures, requiring detailed and standardized information on Environmental, Social, and Governance (ESG) criteria, including alignment with the Paris Agreement and CO2 impact. Additionally, they advocate for mandatory government-backed labels to enhance trust and accountability, seeing such involvement as vital to preventing greenwashing. The preference for labels modeled after Swiss Climate Scores reflects a desire for thorough information on sustainability dimensions. Altogether, these preferences underscore the need for a strong regulatory framework in Switzerland that fosters transparency, standardization, and oversight, enabling investors to make informed decisions for a sustainable future.

Swiss private investors show clear preferences for labels on sustainable finance products, favoring those that provide comprehensive information encompassing environmental, social, and governance (ESG) aspects. They welcome detailed insights over simplistic labels, as seen with the Swiss Climate Scores, which include multiple CO2 emission indicators. Additionally, investors prefer government-backed and mandatory labels over voluntary ones, reflecting higher trust in regulated standards. The Swiss Climate Scores exemplify these preferences, offering a multi-dimensional view of sustainability and benefiting from government involvement, which enhances investor confidence in their reliability. However, labels alone cannot substitute for Swiss retail investors' lack of knowledge about sustainable finance.

Short information and education programs should focus on several key areas to address the lack of financial knowledge, influencing sustainable investment choices among Swiss investors. The content of these programs should clarify sustainable finance terms and definitions, breaking down categories of sustainable funds aligned with EU and Swiss regulations in straightforward language. Educating investors on critically evaluating fund disclosures is essential, emphasizing the importance of understanding limitations and gaps in the provided information. Programs should also explain how different funds can influence companies' sustainability practices, clarifying that investing in a sustainable fund does not always lead to improved performance. Additionally, educational content should be tailored to Switzerland's regulatory landscape, explaining EU-SFDR regulations and addressing the potential for greenwashing. By targeting these areas and delivering content through trusted channels, these programs can enhance sustainable financial literacy and empower Swiss investors to make informed, sustainable investment decisions.

4 National and international cooperation

Dr. Tobias Wekhof conducted a three-month research visit at Stanford University from March to May 2024, hosted by the Program on Energy and Sustainable Development (PESD). This research visit was partly funded by the European Union's Horizon 2020 research and innovation program under the Marie Skłodowska-Curie grant agreement No 870245.

5 Publications and other communications

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Link: http://dx.doi.org/10.2139/ssrn.5001691

Holzheu, Katharina and Wekhof, Tobias*, Bank-Advisor Certification and Willingness to Pay for Sustainable Finance Products*, CER-ETHZ WP 25/396 (2025)

Link: https://ethz.ch/content/dam/ethz/special-interest/mtec/cer-eth/cer-eth-dam/documents/working-papers/wp-25-396.pdf

6 References

Filippini, M., Leippold, M., and Wekhof, T. (2024). Sustainable finance literacy and the determinants of sustainable investing. Journal of Banking & Finance.

Badenhoop, N., Hackmann, A., Mücke, C., and Pelizzon, L. (2023). Quo vadis sustainable funds? sustainability and taxonomy-aligned disclosure in Germany under the sfdr. Technical report, SAFE White Paper

SIF (11.12.2023). Swiss Climate Scores. State Secretariat for International Finance SIF. https://www.sif.admin.ch/swissclimatescores Stand: 03.05.2024

7 Appendix

Educational Treatment (English)

Q1: What is sustainable finance?

Sustainable finance considers **environmental, social, and governance (ESG)** characteristics alongside traditional financial risk and return analysis. The level of **sustainability varies** across financial products.

Due to the **lack of standardized sustainability ratings**, government guidelines aim to increase transparency. European and Swiss authorities issued **guidelines for the disclosure** of sustainability characteristics that apply to most investment funds sold in Switzerland.

Q2: What are funds that account only for sustainability risk alongside financial risk and return analysis?

These funds consider ESG-related issues that can **negatively impact a firm's financial performance.** For example, reducing financial risks by not investing in firms exposed to natural disasters because of climate change or firms negatively affected by climate-related laws (e.g., higher CO2 taxes).

A fund that considers **sustainability-related risks** in addition to the financial risk analysis pursues a purely financial investment objective and **is not considered a sustainable fund.**

Q3: What are funds with a medium degree of sustainability (also called "light green")?[11]

- **In addition to financial returns**, these funds also take sustainability into account as an additional criterion.
- These funds include firms that show **positive environmental or social characteristics** (e.g., low carbon emissions or fair wages).
- The firms **do not need to meet a specific sustainability target** (e.g., a specific emission goal).

Q4: What are funds with a high degree of sustainability (also called "dark green")?

These funds have **two goals**: to meet a **sustainability objective** and to achieve **financial gains**. For sustainability, they must meet two conditions:

1. Declare and monitor a **sustainable objective:** firms in these funds must contribute to either a specific environmental or social objective (e.g., meet a specific target for CO2 emissions)
2. The **firms in the fund do not harm any other sustainability dimension** (e.g., a fund promoting fair wages must ensure that its firms do not cause any environmental harm).

Q5: When does a fund directly impact the sustainability performance of firms (e.g., on CO2 emissions)?

A sustainable fund (light or dark green) is **not obliged to influence the firms' sustainability strategy**, e.g., CO2 emissions may remain unchanged following investment.

A fund only impacts the sustainability of firms by

[11] Note that these explanations are the author's interpretation of the EU-SFDR. This footnote was not displayed in the experiment, we provided however a disclaimer at the survey's beginning, stating that all information is the author's interpretation.

A. Obliging **low-sustainability firms to change** (e.g., introducing clean technologies, like CO2-neutral production).

B. Investing in **new ventures** (e.g., building a new wind park).

Educational Treatment (German)

F1: Was ist nachhaltiges Investieren?

Nachhaltiges Investieren bezieht neben der üblichen Finanzanalyse auch Umwelt-, Sozial- und Governance-Aspekte ein (**ESG, für Environmental, Social, and Governance**). Der Grad der Nachhaltigkeit kann dabei zwischen verschiedenen Finanzprodukten erheblich variieren.

Aufgrund **fehlender einheitlicher Nachhaltigkeitsratings** streben staatliche Richtlinien danach, die Transparenz zu erhöhen. Die europäischen und schweizerischen Behörden **Richtlinien für die Offenlegung von Nachhaltigkeitsmerkmalen** erlassen, die für die meisten in der Schweiz vertriebenen Investmentfonds gelten.

F2: Was bedeutet es, wenn Fonds neben der finanziellen Risikoanalyse auch Nachhaltigkeitsrisiken berücksichtigen?

Diese Fonds nehmen ESG-Aspekte in Betracht, die die **finanzielle Rentabilität eines Unternehmens beeinträchtigen** könnten. Sie berücksichtigen beispielsweise, ob ein Unternehmen negativen Auswirkungen von Klimagesetzen ausgesetzt ist (z. B. höhere CO2-Steuern), oder vermeiden Investitionen in Unternehmen die häufig von Naturkatastrophen aufgrund des Klimawandels betroffen sind.

Ein Fonds, der neben der finanziellen Risikoanalyse **nur nachhaltigkeitsbezogene Risiken** berücksichtigt, verfolgt ausschliesslich ein finanzielles Anlageziel und gilt **nicht als nachhaltiger Fonds**.

F3: Was zeichnet einen Fonds mit «nachhaltigen Merkmalen» aus (auch "hellgrün" genannt)?

- **Neben finanzieller Rendite** berücksichtigen diese Fonds auch Nachhaltigkeit als Zusatzkriterium.
- Sie investieren in Unternehmen mit **positiven Umwelt- oder Sozialmerkmalen,** wobei **nur eine Dimension** nötig ist (z.B. entweder niedrige CO2-Emissionen oder faire Löhne).
- **Spezifische Nachhaltigkeitsziele** sind jedoch **nicht erforderlich** (wie z.B. genaue CO2-Emissionsziele).

F4: Was zeichnet einen Fonds mit dem Anlageziel «nachhaltige Investitionen» aus (auch "dunkelgrün" genannt)?

Diese Fonds verfolgen **zwei Ziele**, **nachhaltige Investitionen** und finanzielle **Rendite**. Sie müssen zwei Kriterien erfüllen:

1. Sie müssen ein **spezifisches Ziel im Bereich Umwelt oder Soziales** festlegen und kontrollieren (z.B. Unternehmen im Fonds weisen ein bestimmtes Level an CO2-Emissionen auf).
2. Sie dürfen **keine anderen Aspekte der Nachhaltigkeit** erheblich **negativ** beeinflussen (z.B. ein Fonds, der sich für gerechte Löhne einsetzt, sollte keine stark umweltschädlichen Unternehmen im Portfolio enthalten).

F5: Wann hat ein Fonds einen direkten Einfluss auf die Nachhaltigkeitsleistung von Unternehmen (z. B. auf CO2-Emissionen)?

Ein nachhaltiger Fonds (hell- oder dunkelgrün) muss **nicht zwingend Einfluss auf die Nachhaltigkeitsstrategie** der Unternehmen haben, z. B. können die CO2-Emissionen nach der Investition unverändert bleiben. Ein Fonds wirkt sich nur auf die Nachhaltigkeit der Unternehmen aus, indem er

A. Unternehmen **zu Veränderungen anregen** (z. B. zur Einführung sauberer Technologien, wie CO2-neutraler Produktion).

B. Investitionen in **neue Vorhaben** (z. B. Bau eines neuen Windparks).