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POLICY BRIEF

Sustainable Finance Literacy Training: Impact on Investment Decisions

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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) showed 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.[1]

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

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[1] 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

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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.[2]

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).

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,

[2] 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).

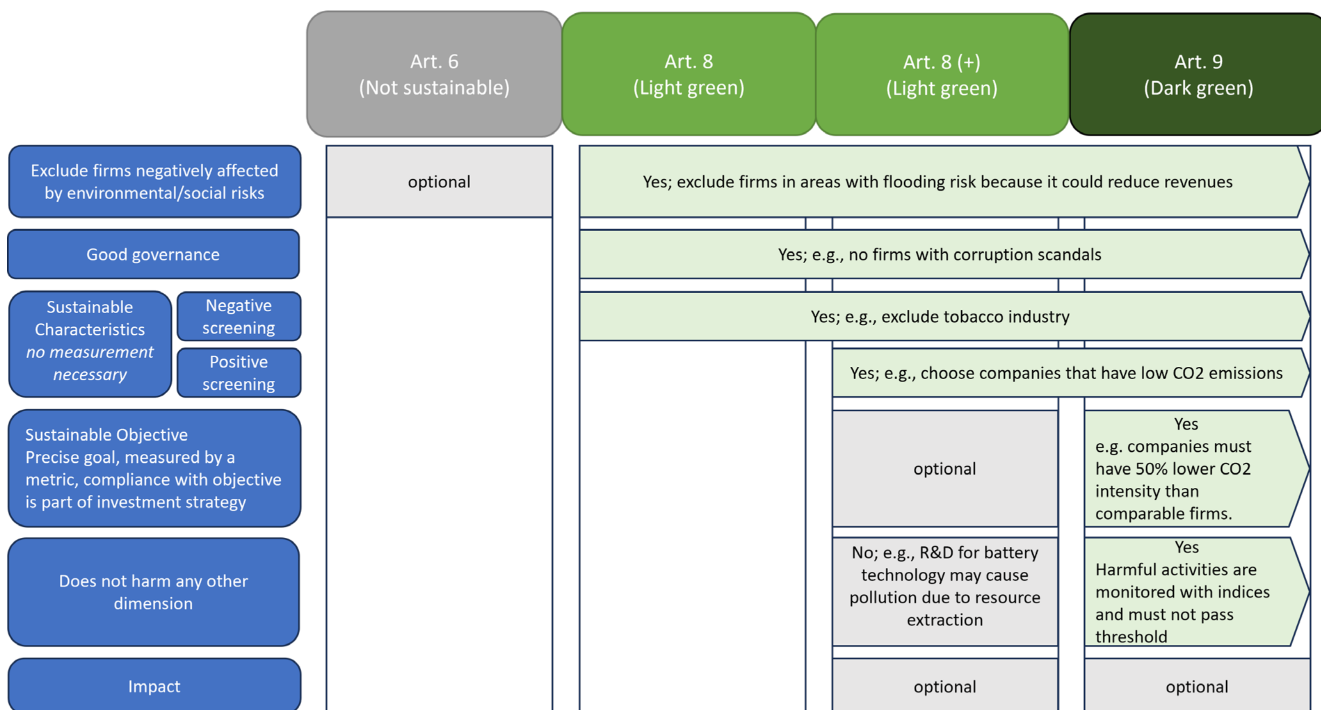

Figure 1: : Authors› interpretation of the EU SFDR.

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.[3] 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.[4] Additionally, many EU investors in Swiss funds fall under SFDR, requiring Swiss asset managers to comply with these rules.
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 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 (sustainable in Switzerland) could fall under the EU-SFDR 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 as factor, 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

[3] https://marketstudy2023.sustainablefinance.ch/wp-content/uploads/2023/06/SSF_2023_MarketStudy.pdf
[4] https://www.lexology.com/library/detail.aspx?g=071c5f1d-e7c1-497c-8b7a-402fef1befc4#:~:text=The%20SFDR%20is%20an%20EU,the%20scope%20of%20the%20SFDR.

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.

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.

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Appendix A - Educational Text (English)

Q1: WHAT IS SUSTAINABLE FINANCE?

Sustainable finance considers **environmental, social, and governance (ESG)** characteristics along-side 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 CO_2 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")?

- I**n 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 CO_2 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 CO_2 EMISSIONS)?

A sustainable fund (light or dark green) i**s not obliged to influence the firms' sustainability strategy**, e.g., CO_2 emissions may remain unchanged following investment.

A fund only impacts the sustainability of firms by:

- Obliging **low-sustainability firms to change** (e.g., introducing clean technologies, like CO_2-neutral production).
- Investing in **new ventures** (e.g., building a new wind park).

Appendix B - Educational Text (German)

Q1: 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.

Q2: 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.**

Q3: 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).

Q4: WAS ZEICHNET EINEN FONDS MIT DEM ANLAGEZIEL «NACHHALTIGE INVESTITIONEN» AUS (AUCH "DUNKEL-GRÜN" 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 kon-trollieren (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).

Q5: WANN HAT EIN FONDS EINEN DIREKTEN EINFLUSS AUF DIE NACHHALTIGKEITSLEISTUNG VON UNTERNEHMEN (Z. B. AUF CO2-EMISSIONEN)?

Ein nachhaltiger Fonds (hell- oder dunkelgrün) muss n**icht zwingend Einfluss auf die Nachhaltigkeitsstrategie** der Unternehmen haben, z. B. können die CO2-Emissionen nach der Investition un-verändert bleiben.

Ein Fonds wirkt sich nur auf die Nachhaltigkeit der Unternehmen aus, indem er:

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

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