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## Quo vadis sustainable funds? Sustainability and taxonomy-aligned disclosure in Germany under the SFDR

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# Quo Vadis Sustainable Funds? Sustainability and taxonomy-aligned disclosure in Germany under the SFDR

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# Quo Vadis Sustainable Funds? Sustainability and taxonomy-aligned disclosure in Germany under the SFDR\*

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August 2023

## *Abstract*

*This paper analyzes the current implementation status of sustainability and taxonomy-aligned disclosure under the Sustainable Finance Disclosure Regulation (SFDR), which aims to improve the classification of sustainability credentials of financial products and thereby prevent greenwashing. Moreover, it considers the development of the SFDR categorization of funds offered via banks in Germany between September 2022 and March 2023. Examining data provided by WM Gruppe, which consists of more than 10,000 investment funds and 2,000 index funds, we have observed a significant proportion of Article 9 (dark green) funds transitioning to the group of Article 8 (light green) funds, particularly among index funds. As a result of this process, the profile of the SFDR classes has sharpened, which is reflected in an increased share of sustainable investments in the group of Article 9 funds. When differentiating between environmental and social investments, the share of environmental investments has increased, but the share of social investments has decreased in the group of Article 9 funds at the beginning of 2023. The share of taxonomy-aligned investments is very low, but increases slightly for Article 9 funds. However, as of March 2023, only about 1,000 funds have reported their sustainability proportions, and this picture may change due to regulatory changes that will require all funds within the scope of the SFDR to report these proportions in their annual reports being published after 1 January 2023.*

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## I. Introduction

According to recent estimates by the International Renewable Energy Agency (IRENA), meeting the climate goals of the Paris Climate Agreement, in particular, limiting the mean global temperature increase to 1.5°C above pre-industrial levels, will require investments of 5.7 trillion USD per year by 2030.<sup>1</sup> In terms of finance, the Parties of the treaty agreed on “making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development”<sup>2</sup>.

In light of these ambitious goals, in March 2018, the European Commission presented a Sustainable Finance Action Plan with a strategy to further link finance and sustainability. This includes a wide range of new and improved regulations, such as the Sustainable Finance Disclosure Regulation (SFDR)<sup>3</sup>, which aims to better classify the sustainability credentials of financial products, the EU Taxonomy, which defines a list of environmentally sustainable economic activities, and the integration of individual sustainability preferences under the Markets in Financial Instruments Directive (MiFID II)<sup>4</sup>. As shown by Becker et al. (2022), the introduction of the SFDR and the associated increase in transparency of sustainability incentivized mutual funds to increase their ESG efforts and thus their ESG scores. Furthermore, the authors show that the introduction led to positive investment inflows in the Article 8 and Article 9 fund groups relative to less sustainable funds.

At the same time, in response to this new regulatory environment, there has been much public debate about the accuracy and practicability of the newly implemented legal requirements. Many asset managers argued that the SFDR lacks a clear definition of sustainability, forcing them to downgrade their financial products from Article 9 to Article 8.<sup>5</sup> This criticism was echoed in the Securities and Markets Stakeholder Group’s (SMSG) advice to European Securities and Markets Authority (ESMA) on the European Supervisory Authorities’ Call for Evidence on Greenwashing in January 2023. The SMSG states the need to clarify important terminology, such as “sustainable investment”, and to further clarify the scope of Article 8 and Article 9 funds.<sup>6</sup> In response to these requests, the French Financial Markets Authority (AMF) proposed minimum environmental standards for Article 8 and Article 9 products in February 2023 to reduce greenwashing.<sup>7</sup>

This paper sheds light on the current sustainability and taxonomy-aligned investment disclosures under the SFDR, as well as the evolution of the SFDR categorization of funds offered via banks in Germany. Based on data collected by WM Gruppe, we examine how more than 10,000 investment

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<sup>1</sup> IRENA (2022).

<sup>2</sup> [Paris Agreement](#) Article 2.1c.

<sup>3</sup> [Regulation \(EU\) 2019/2088](#).

<sup>4</sup> [Directive 2014/65/EU](#).

<sup>5</sup> Financial Times (2023).

<sup>6</sup> [SMSG advice](#) (p. 9).

<sup>7</sup> [AMF proposal](#).

funds and 2,000 index funds offered via banks in Germany disclose sustainability matters under the SFDR between September 2022 and March 2023. We analyze the share of sustainable investments, including social and environmental investments, as well as taxonomy-aligned investments, and examine the dynamics between Article 6 (conventional or grey), Article 8 (light green), and Article 9 (dark green) funds between September 2022 and March 2023.

## II. Legal environment

As part of the European Green Deal and the Sustainable Finance Strategy of the EU, the Sustainable Finance Disclosure Regulation (SFDR) aims to improve transparency in the market for sustainable investment products and to prevent greenwashing. Greenwashing is the practice of misleading the public by falsely representing a company or product as being environmentally responsible. In addition to misleading investors, such practices constitute unfair competition vis-à-vis compliant competitors and undermine trust in the general green finance market, thereby jeopardizing the ambitious aim to help tackle climate change.<sup>8</sup> To counter this, the SFDR requires from financial market participants and financial advisers pre-contractual and ongoing disclosures regarding the integration of sustainability risks and the consideration of adverse sustainability impacts. Due to the different levels of ambition of sustainable products, the SFDR distinguishes between different product categories:

- *Article 6 (conventional or grey) products* do not have a sustainability scope.
- *Article 8 (light green) products* promote social and/or environmental characteristics, and may invest in sustainable investments, but do not have sustainable investment as their core objective.
- *Article 9 (dark green) products* have sustainable investment as their objective.

The SFDR defines sustainable investment as an investment in an economic activity that contributes to an environmental or social objective that does no significant harm to any other environmental or social objective and on condition that the investee company follows good governance practices.<sup>9</sup> Environmental objectives can be measured by key resource efficiency indicators and include the use of energy, renewable energy, raw materials, water and land, the production of waste, and greenhouse gas emissions, or the impact on biodiversity and the circular economy.<sup>10</sup> Social objectives include tackling inequality or fostering social cohesion, social integration and labor relations, human capital or economically or socially disadvantaged communities.<sup>11</sup> Good governance practices aim at sound

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<sup>8</sup> Badenhoop (2022, p. 20).

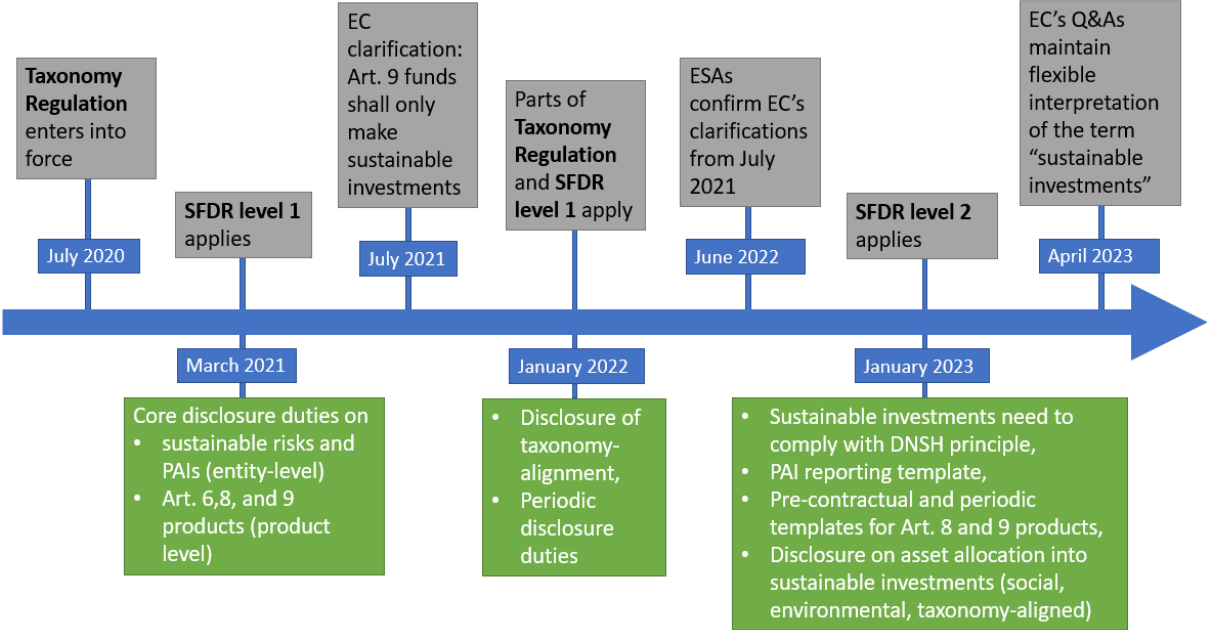
<sup>9</sup> Article 2(17) SFDR.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

management structures, employee relations, remuneration of staff and tax compliance.<sup>12</sup> The SFDR does not prescribe specific minimum requirements for the contribution to environmental or social objectives. Instead, it leaves the assessment to financial market participants and only requires them to disclose their underlying assumptions.

**Figure 1: Key regulatory changes and SFDR reporting requirements**



The SFDR mandates specific pre-contractual disclosures. Under Article 6 SFDR, financial market participants have to disclose how sustainability risks are integrated into their investment decisions and financial advisors have to show how they integrate sustainability risks into their investment or insurance advice. They further have to explain whether and how a financial product considers principal adverse impacts (PAIs) on sustainability factors, i.e. environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery matters.<sup>13</sup> Regarding Article 8 products, financial market participants and financial advisers must disclose how the product meets the promoted environmental or social characteristics, and if they use an index, how that index is consistent with these characteristics. For Article 9 products, they must disclose how the objective is to be met with or without an index. The core disclosure duties on sustainability risks and principal adverse impacts at the entity-level and on Article 6, 8, and 9 products at a product-level are governed by the SFDR itself (SFDR level 1) and have applied since 10 March 2021 (see Figure 1).

<sup>12</sup> Ibid.

<sup>13</sup> Articles 7 and 2(24) SFDR.

In addition, the SFDR mandates periodic disclosure in annual reports. Annual reports must show how Article 8 products meet the envisaged target and, for Article 9 products, their overall sustainability-related impact by means of relevant sustainability indicators or, in the case of an index, by comparison with the sustainability indicators of a broad market index.<sup>14</sup> The periodic disclosure duties have applied since 1 January 2022.<sup>15</sup>

As of 1 January 2023, further rules apply to the content, methodology, and presentation of entity- and product-level disclosures of the SFDR as specified in the Regulatory Technical Standards (RTS) adopted by the European Commission by way of a Delegated Regulation from April 2022 (SFDR level 2).<sup>16</sup> The standards require sustainable investments to comply with the “do not significant harm” (DNSH) principle and specify the content and presentation of the information in relation to this principle. The RTS and their Annexes also comprise the entity-level principal adverse impact reporting template and indicators and the mandatory pre-contractual and periodic templates for Article 8 and 9 products. Regarding periodic disclosures, the implementation of these new rules is mandatory only in the annual reports issued after 1 January 2023.

For the periodic and pre-contractual disclosures financial products need to report their asset allocation into sustainable investments, subdivided by social, other environmental, and taxonomy aligned investments.<sup>17</sup> The RTS define environmentally sustainable investments as a percentage share of all investments on a market value base.<sup>18</sup>

While SFDR level 1 and level 2 require Article 9 products to disclose their minimum share of sustainable investments in pre-contractual documents as well as the actual value in periodic reports, only a sub-category of Article 8 funds must fulfil these requirements. Article 8 products which commit to making sustainable investments are required to disclose sustainable investments.<sup>19</sup> There are multiple names for this subgroup of Article 8 funds, such as, “Article 8.5”, “Article 8 plus”, or “mid green”.<sup>20</sup>

Since 1 January 2022, certain elements of the Taxonomy Regulation<sup>21</sup> regarding climate change mitigation and adaptation have applied to the disclosure obligations set out by the SFDR.<sup>22</sup> Article 8 products which promote environmental characteristics need to disclose the alignment with the

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<sup>14</sup> Article 11(1) SFDR.

<sup>15</sup> Article 20(3)(d) SFDR.

<sup>16</sup> [Commission Delegated Regulation \(EU\) 2022/1288](#).

<sup>17</sup> For periodic reports: Article 53, 55, 56, 61 and 52 and Annexes IV and V Commission Delegated Regulation (EU) 2022/1288. For pre-contractual reports: Articles 15 to 17 and Annexes II and III Commission Delegated Regulation (EU) 2022/1288.

<sup>18</sup> Article 17 Commission Delegated Regulation (EU) 2022/1288.

<sup>19</sup> Article 51 Commission Delegated Regulation (EU) 2022/1288.

<sup>20</sup> Steuer (2022). The remainder of this paper uses the name “Article 8.5” products.

<sup>21</sup> [Regulation \(EU\) 2020/852](#).

<sup>22</sup> Article 27(2)(a) Taxonomy Regulation.

Taxonomy Regulation.<sup>23</sup> Article 9 products, having sustainable investments as their objective, need to disclose whether these investments are in activities aligned with the Taxonomy Regulation.<sup>24</sup> In 2021, the European Commission clarified that Article 9 funds can only make sustainable investments.<sup>25</sup> The RTS clarify that environmentally sustainable economic activities under the SFDR are such economic activities that comply with the following criteria of the Taxonomy Regulation.<sup>26</sup> The Taxonomy Regulation provides a classification system (taxonomy) for environmentally sustainable economic activities and lays down four cumulative criteria for an economic activity to be considered “environmentally sustainable”:

- 1) It contributes substantially to one or more defined environmental objectives;
- 2) it does not significantly harm any of the environmental objectives (DNSH);
- 3) it complies with a series of minimum social safeguards; and
- 4) it complies with certain performance thresholds (“technical screening criteria”).

The six environmental objectives defined by the Taxonomy Regulation are climate change mitigation, climate change adaptation, the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, the protection and restoration of biodiversity and ecosystems. The Taxonomy Regulation entered into force on 12 July 2020. Currently, two Delegated Acts have been adopted regarding the technical screening criteria for eligible activities. The Climate Delegated Act defines economic activities which can make a substantial contribution to the first two environmental objectives, climate change mitigation and adaptation.<sup>27</sup> It focuses on the most relevant sectors for climate neutrality, namely energy, manufacturing, transport, and buildings. The Complementary Climate Delegated Act adds nuclear and gas energy activities.<sup>28</sup> On 13 June 2023, the Commission approved in principle the Environmental Delegated Act that spells out technical screening criteria for the other four environmental objectives that are not climate-related, i.e. sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, the protection and restoration of biodiversity and ecosystems.<sup>29</sup>

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<sup>23</sup> Article 6 Taxonomy Regulation.

<sup>24</sup> Article 5 Taxonomy Regulation.

<sup>25</sup> [European Commission, SFDR Q&A](#), (14 July 2021, p. 5).

<sup>26</sup> Article 1(4) Commission Delegated Regulation (EU) 2022/1288.

<sup>27</sup> [Commission Delegated Regulation \(EU\) 2021/2139](#).

<sup>28</sup> [Commission Delegated Regulation \(EU\) 2022/1214](#).

<sup>29</sup> Commission Delegated Regulation (EU) .../... of XXX supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to the sustainable use and protection of water and marine resources, to the transition to a circular economy, to pollution prevention and control, or to the protection and restoration of biodiversity and ecosystems and for determining whether that economic activity causes no significant harm to any of the other environmental objectives and amending Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities ([C\(2023\) 3851 / 2](#)).



In April 2023, the European Commission published further Q&As regarding the SFDR and its interpretation. It maintains its flexible interpretation of the term “sustainable investments”, does not prescribe a specific approach for determining the contribution of an investment to environmental or social characteristics, and thus confirms that it is for the financial market participants to decide whether investments are “sustainable investments”.<sup>30</sup> The Commission states that financial market participants must disclose the methodology used for this assessment.<sup>31</sup>

Compliance with the disclosure duties under the SFDR is supervised by national competent authorities. In the case of funds offered by banks in Germany, i.e., in our data sample, the Federal Financial Supervisory Authority (BaFin) supervises them. If financial market participants or financial advisers infringe their duties under the SFDR, BaFin can impose sanctions on them to make them comply, including administrative penalties. In addition to BaFin’s public law enforcement, failures to comply with the disclosure duties can lead to damages claims of investors under private law enforcement.<sup>32</sup>

### III. The fund universe

We rely on a dataset provided by the WM Gruppe, a leading provider of financial information and data, which contains five date snapshots of a large share of funds offered in Germany.<sup>33</sup> These snapshots are taken on 21 September 2022, 15 December 2022, 16 January 2023, 15 February 2023, and 15 March 2023. The fund providers deliver their product data to WM Gruppe, which is only responsible for the distribution. This is a collection of data for financial products, which has to be provided mandatorily when offering investment products in Germany under the Markets in Financial Instruments Directive (MiFID II).<sup>34</sup> As of 2 August 2022, entities subject to MiFID II must assess sustainability risks, factors, and preferences throughout their organizations and operations in order to prevent mis-selling and “greenwashing” in accordance with the Commission’s Delegated Regulation of 21 April 2021.<sup>35</sup> Specifically, according to Article 1 of this regulation, investment advisers and portfolio managers need to assess their clients’ sustainability preferences by either asking for a preferred minimum share of taxonomy investments, a minimum share of sustainable investments (according to the SFDR), or preferred Principal Adverse Impact factors (PAIs) considered in the investment process.<sup>36</sup>

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<sup>30</sup> [European Commission, ESAs \(2023\)](#), Consolidated Q&As on SFDR and SFDR Delegated Regulation (May 2023), pp. 6-7.

<sup>31</sup> Ibid, p. 6.

<sup>32</sup> Badenhoop (2020a); Badenhoop (2020b).

<sup>33</sup> We cover around 50% of the funds available for sale in Europe based on numbers from a Morningstar Q1 2023 Review (Morningstar, 2023).

<sup>34</sup> We aggregated the data on the fund level by Morningstar’s fund ID and left out products which did not have a fund ID to prevent possible double counting on the fund level.

<sup>35</sup> [Commission Delegated Regulation \(EU\) 2021/1253](#).

<sup>36</sup> Ibid.

Table 1 shows the coverage of the dataset with respect to the two different fund categories examined in our paper, as well as their SFDR classification on 15 March 2023. For this date, the dataset contains a total of 12474 funds.<sup>37</sup> Investment funds are the largest fund category with a total number of 10505 funds, followed by the group of index funds comprising 1969 funds. In terms of the SFDR classification, most funds are categorized as Article 6 funds, closely followed by the group of Article 8 funds (light green) with a share of 46 %. With a share of around 4 % and a total number of 535 funds, a very small group of funds is classified as Article 9 (dark green) funds.

**Table 1: SFDR classifications and reported investments as of 15th March 2023**

	Art. 6	Art. 8	Art. 9	Total
<b>Fund Category:</b>				
Investment Fund	4900	5121	484	10505
Index Fund	1308	610	51	1969
<b>Sustainable investment reporting:</b>				
None	6151	4686	480	11317
Sust. Inv.	29	78	8	115
Taxonomy Aligned Inv.	1	8	0	9
Sust. And Taxonomy Inv.	27	959	47	1033
<b>Total</b>	<b>6208</b>	<b>5731</b>	<b>535</b>	<b>12474</b>

Source: WM Gruppe data, own calculations.

The bottom part of Table 1 shows that by 15 March 2023, 1037 (18%) Article 8 funds had already disclosed an actual share of sustainable investments and 967 (17%) had disclosed the share of taxonomy aligned investments in their periodic reports. In addition, around 10% of Article 9 funds had disclosed a proportion of sustainable investments by March 2023, while 47 funds disclosed their share of taxonomy aligned investments.

Thus, despite the mandatory disclosure requirements since January 2023, only a small share of funds report on their share of sustainable investments as well as their taxonomy-alignment by March 2023. This share is expected to increase during 2023 as more annual reports are published under these new requirements.

**IV. Recent dynamics between SFDR classes**

The SFDR categorization of funds is not constant over time. Instead, there are dynamics between the SFDR classes, which are shown in Figure 2 for the largest class of funds, investment funds. The graph visualizes the flows of funds over time and their dynamics between SFDR classes. The blocks represent the number of funds observed in a category for each period with the actual number shown next to them. The lighter shaded areas or lines between the blocks show the transition of funds between time

<sup>37</sup> The underlying data is on the share class level of the funds and contains 75601 financial products.

periods, i.e., either staying in one class or moving to another. The width of these areas or lines is proportional to the number of funds on that transition path. Note that new funds entering will increase the size of the block, while funds exiting will decrease the size. Considering the width of the blocks, the group of Article 9 funds is much smaller than the Article 6 and Article 8 classes. This is true over the whole period. While the majority of funds remains in the same category, some funds change their classification over time. The most prominent transition paths are given by groups of funds moving from Article 6 to Article 8, as well as groups of Article 9 funds downgrading to Article 8. While the majority of upgrades can be observed in the last quarter of 2022, with 97 Article 6 funds upgrading to Article 8 and 6 Article 8 funds upgrading to Article 9, the downgrades mostly occurred in the first quarter of 2023. Here, 66 funds downgraded from Article 9 to Article 8 and only 3 funds downgraded from Article 8 to Article 6. For each time period, more Article 9 funds downgraded to Article 8 funds than funds moved from other classifications to the Article 9 category. Except in one case, the transitions appear to be gradual, with Article 6 funds only upgrading to Article 8 funds and Article 8 funds only upgrading to Article 9 funds, and vice versa.

**Figure 2: Transition of Investment Funds between the SFDR Categories**

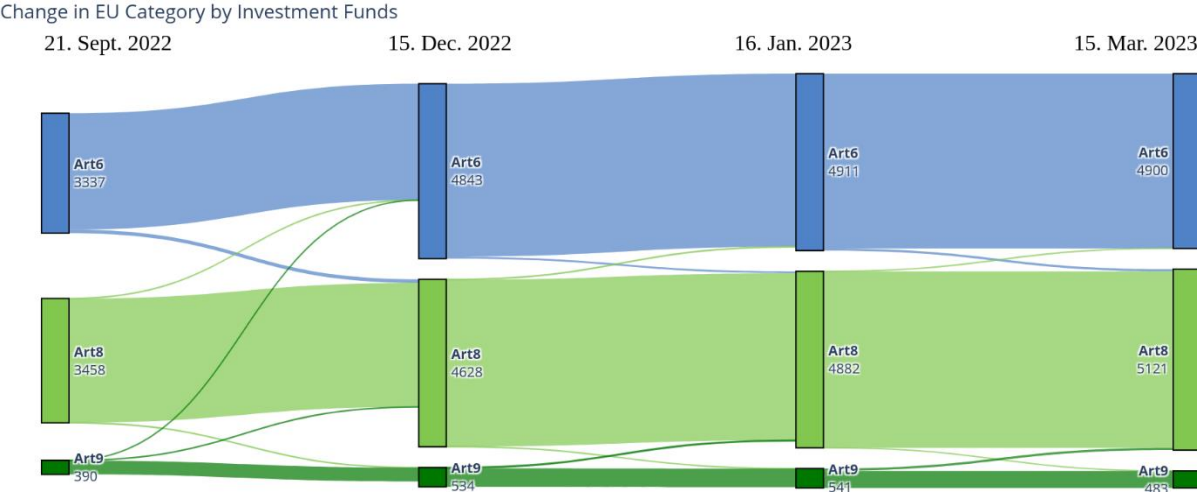


Figure 2: Shows the number of investment funds per SFDR category for four dates and their transitions between the dates for the sample of funds. Source: WM Gruppe data, own calculations.

For the second largest class in the sample, index funds, the flows are shown in Figure 3. Similar to investment funds, the largest class consists of Article 6 funds, followed by Article 8 funds, and Article 9 funds are the smallest group. Most transitions between classes are observed in the last quarter of 2022 and the first quarter of 2023, where downgrades of Article 9 funds make up the majority. In total, 23 Article 9 index funds downgraded between September and December 2022, while 48 funds downgraded between January and March 2023. These Article 9 to Article 8 downgrades are proportionally the largest between January and March 2023, with 48% of funds downgraded, while no Article 9 upgrades occurred during the same period. As a result, the group of Article 9 index funds

decreased significantly from 98 funds in September 2022 to only 51 funds in this category in March 2023.

**Figure 3: Transition of Index Funds between the SFDR Categories**

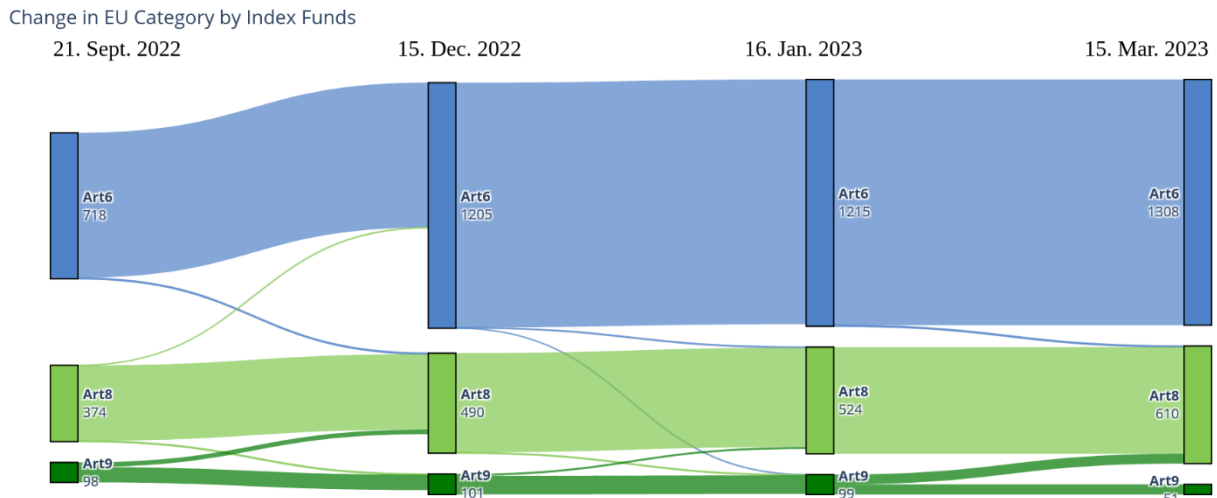


Figure 3: Shows the number of index funds per SFDR category for four dates and their transitions between the dates for the sample of funds. Source: WM Gruppe data, own calculations.

## V. How sustainable are funds marketed via German banks?

In this section, we take a closer look at the share of sustainable investments disclosed from September 2022 to March 2023. As of January 2023, the SFDR requires Article 8 funds with a commitment to sustainable investments (Article 8.5 funds) and Article 9 funds to report their actual share of sustainable investments in the annual report as well as minimum values for their share of sustainable investments in the prospectus.

Figure 4 shows the funds' minimum investment proportions disclosed in the pre-contractual documents, i.e., the prospectus, for Article 8 and Article 9 funds. It covers the four dimensions of sustainable investment: Sustainable investments and its three subgroups, namely socially sustainable investments, environmentally sustainable investments and taxonomy-aligned investments. While the dots show the total number of funds disclosing this information, the bars show the average of all reported values in this category. For Article 8 funds, the total number of funds disclosing the minimum percentage of sustainable, environmental, social, and taxonomy-aligned investments increases over time. At the same time, the average share within this group of funds decreases over time for all four dimensions. Compared to Article 8 funds with an average share of sustainable investments of 10%, the share is significantly higher for Article 9 funds with 56% to 58% between September 2022 and January 2023 and more than 70% in March 2023. The proportion of Article 9 funds that disclose remains relatively high over the period, with 85% of funds disclosing the proportion of sustainable investments in March 2023. The share of taxonomy-aligned investments disclosed in pre-contractual documents is

very low, at less than 5% for both Article 8 and Article 9 funds. The average share of sustainable, environmental, social, and taxonomy-aligned investments is significantly higher for the group of Article 9 funds than for Article 8 funds for all dates considered (see Table A1 in the Appendix).

**Figure 4: Minimum investment proportions**

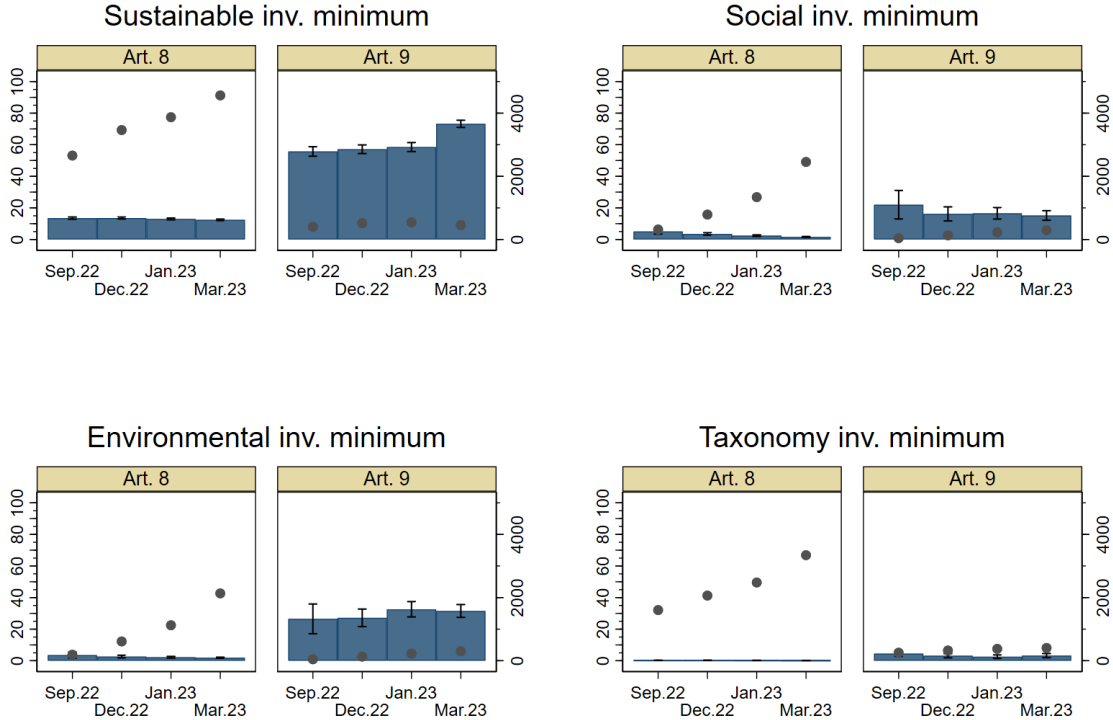


Figure 4: The bars represent the average percentage share in terms of total investments of the most recent minimum values of sustainable investments per fund (lhs), and the dots represent the total number of funds reporting this value (rhs). The whiskers at the top of the bars represent the 95% confidence bands. Source: WM Gruppe data, own calculations.

Figure 5 shows data on the actual values reported by Article 8 and Article 9 funds in their periodic reports. For Article 8 funds, there was a sharp increase in the number of funds disclosing their share of sustainable investments between December 2022 and March 2023. While only 438 funds disclosed their actual sustainable investments values in September, this number increased to 1040 funds in March 2023. However, the average reported levels remained relatively constant between 37% and 39%. Conversely, the average reported values in the group of Article 9 funds increased substantially at the beginning of 2023. The average values increased from around 40% in 2022 to 66% in January 2023 and 84% in March 2023. Table 2 shows that the reported values of Article 8 and Article 9 funds were not significantly different in 2022. This changes at the beginning of 2023, when the group of Article 9 funds has a significantly higher share of sustainable investments by 28 percentage points in January 2023 and 45 percentage points in March 2023 compared to Article 8 funds. Thus, from the beginning

of 2023, Article 8 and Article 9 funds differ significantly at the 1% level in their reported shares of sustainable investments.

**Figure 5: Actual investment proportions**

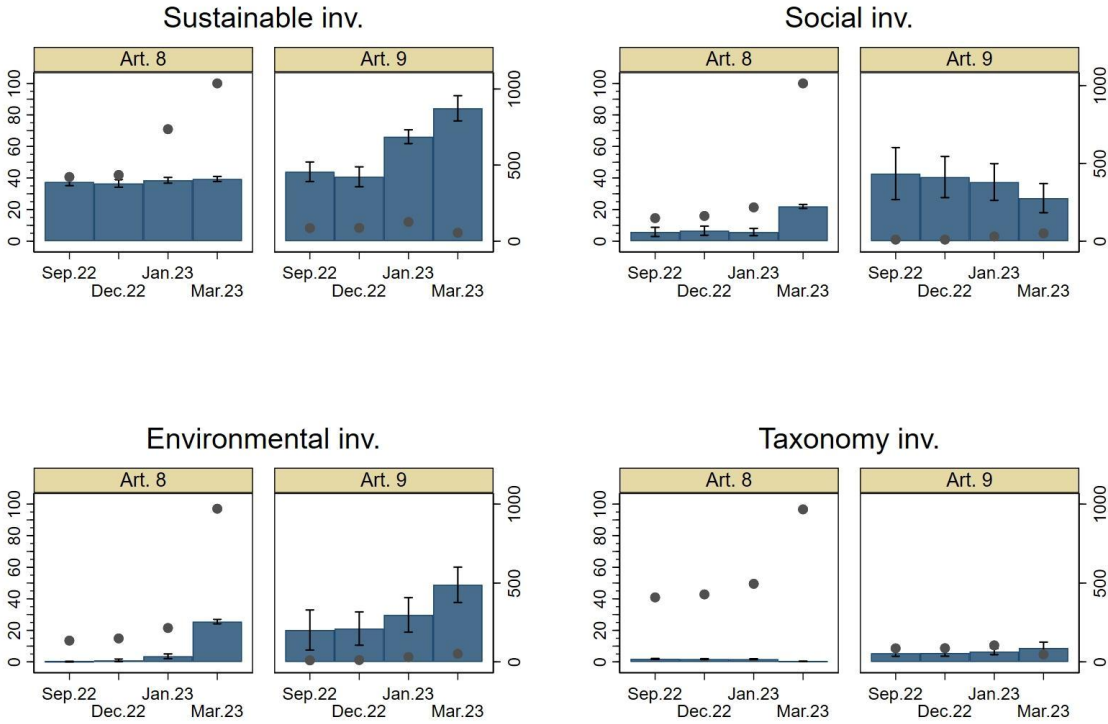


Figure 5: The bars represent the average percentage share in terms of total investments of the most recent actual values of sustainable investments per fund (lhs), and the dots represent the total number of funds reporting this value (rhs). The whiskers at the top of the bars represent the 95% confidence bands. Source: WM Gruppe data, own calculations.

Also noteworthy is the change in the number of reporting Article 9 funds: It rose to 126 in January 2023 and then dropped to its lowest level of 55 in March. This is mainly due to the 88 downgrades of Article 9 funds during this period. These downgraded funds have an average share of sustainable investments of 64%, which is lower than the corresponding value for the remaining Article 9 funds, but higher than the value for Article 8 funds in January 2023. This ordering process explains the increase in the average share of sustainable investments in the group of Article 9 funds in March 2023. At the same time, the downgraded funds had only a small impact on the average share of sustainable investments in the group of Article 8 funds in March 2023, as this inflow represented a small fraction (8%) of the total number of Article 8 funds reporting in March 2023. These results suggest that the downgrades lead to a sharper sustainability profile for Article 9 funds.

**Table 2: Test of differences in sustainable investments between Article 8 and Article 9 funds periodic disclosures**

	September 2022	December 2022	January 2023	March 2023
Sustainable inv.	-6.338 (-1.90)	-4.269 (-1.26)	-27.70*** (-11.55)	-44.82*** (-10.99)
Environmental inv.	-20.02** (-3.56)	-20.19** (-4.20)	-26.27*** (-4.86)	-23.36*** (-4.16)
Social inv.	-36.98*** (-4.98)	-34.09*** (-5.73)	-31.75*** (-5.47)	-5.279 (-1.14)
Taxonomy inv.	-3.581*** (-3.62)	-3.921*** (-3.79)	-4.810*** (-4.76)	-8.478*** (-4.62)
Observations	510	532	872	1105

*t* statistics in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Source: WM Gruppe data, own calculations.

The socially sustainable investment dimension also shows dynamic behavior, particularly in the first quarter of 2023. While the number of Article 8 funds reporting their share of socially sustainable investments increased only marginally between September 2022 and January 2023, the momentum picked up dramatically thereafter, with a 364% increase in the number of Article 8 funds reporting on this dimension. In addition, the average share of social investments increased significantly from 6% in January 2023 to almost 22% in March 2023. The picture is different for Article 9 funds, with a steady decline in the share of social investments from 43% in September 2022 to 27% in March 2023, with the final drop in March 2023 also being statistically significant at the 5% level. This leads to Article 8 funds catching up with the level of Article 9 funds, and by March 2023 the shares of socially sustainable investments are no longer significantly different (see Table 2).

Turning to the environmental investments, as shown in the bottom left panel of Figure 5, the trend in the number of reporting funds is similar to that for social investments. While the number of Article 8 funds increased sharply between January and March 2023, the increase for Article 9 funds is more gradual over the same period. Table 2 shows, however, that the Article 9 funds have a significantly higher share of environmental investments over the entire time period. The difference ranges from 20 percentage points in 2022 to 26 percentage points in 2023. While the share of environmental investments in the group of Article 9 funds is below 20% in 2022, it rises to 49% in 2023.

Compared to environmental investments, only a very small share of investments is taxonomy-aligned as shown in the bottom right panel of Figure 5. In 2022, Article 8 funds report on average a share of around 1% of taxonomy-aligned investments, and it even drops below this value to 0.35% in March

2023. This share is slightly higher for Article 9 funds, at 5% in 2022, and increases over time to reach 9% of taxonomy-aligned investments in March 2023. The difference between Article 8 and Article 9 funds presented in Table 2 is significant at the 1% level and increases steadily from about 3 percentage points in 2022 to 8 percentage points in March 2023. The number of funds disclosing taxonomy-aligned investments evolves similarly to the number of funds disclosing the share of sustainable investments, as shown in the top left panel of Figure 5, meaning that a large proportion of funds in this group downgraded from Article 9 to Article 8 in 2023. These 75 downgraded funds disclosed an average of 0.6% of taxonomy-aligned investments, while 25 funds remained in the Article 9 classification with an average reported value of 8%.

## **VI. Summary and Policy Implications**

By examining data provided by WM Gruppe on more than 10,000 investment funds and 2,000 index funds offered via banks in Germany between September 2022 and March 2023, this paper describes the evolution and current state of sustainability disclosure under the SFDR. We find that the categorization of funds into the SFDR classes changes over time, with many downgrades from Article 9 to Article 8 funds occurring in the first quarter of 2023, especially for index funds. While the share of sustainable investments for the group of Article 8 funds remained fairly constant over time (37-39%), this share increased for Article 9 funds, especially in the first quarter of 2023, to 84% in March 2023. This led to a significant difference in the share of sustainable investments between these two SFDR classes from the beginning of 2023. On average, the share of taxonomy-aligned investments of Article 9 funds increased over time to 9% in March 2023, while it remains negligible for Article 8 funds. We also observe an increase in the number of funds reporting their share of sustainable investments, with 1,000 funds, representing 8% of all funds considered, having disclosed by March 2023.

### **Policy implications**

#### **1. Transparency**

The provision of data is key to making informed decisions, and the disclosure of the proportion of sustainable investments and their sub-categories required by the SFDR helps customers make financial decisions in line with their sustainability preferences. Due to the SFDR level 2 requirements for Article 9 and Article 8.5 products concerning annual reports published after 1 January 2023, the currently low number of funds reporting on their sustainable investment proportions – 8% of all funds considered in March 2023 – will increase over the course of 2023. While this may result in different sustainability proportions, it will increase transparency in the market for sustainable financial products.

#### **2. EU Taxonomy**



At the time of the data collection for this paper, the EU Taxonomy had been implemented for only two of the six environmental objectives, namely climate change mitigation and adaptation. In addition, it had only been defined for economic activities in the energy, manufacturing, transport, and building sectors, leaving a large portion of total economic activity undefined. Given this very specific scope of the EU Taxonomy, the reported share of taxonomy-aligned investments under the SFDR observed in this paper does not allow conclusions on the actual environmental sustainability of the funds offered. It is therefore to be welcomed that the Commission approved in principle the Environmental Delegated Act on 13 June 2023, that spells out technical screening criteria for the other four non-climate related environmental objectives, i.e. sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, the protection and restoration of biodiversity and ecosystems. These regulatory changes will apply from 1 January 2024 onwards. Broadening the scope of the taxonomy was a necessary step to provide a reliable definition of environmentally sustainable economic activities, and on that basis, a definition of environmentally sustainable funds.

### 3. Accuracy

The requirements under the SFDR are subject to ongoing monitoring and evaluation by the regulatory body, which can result in clarifications and amendments of the regulation where necessary. Recently, these interventions included clarifications on the ESA's draft Regulatory Technical Standards under the SFDR, published in June 2022, which, inter alia, specify that products with sustainable investment as an objective (Article 9 products) should only make sustainable investments. Most importantly, however, the RTS came into effect on 1 January 2023, specifying the content, methodology, and presentation of entity- and product-level disclosures under the SFDR. Given our results, namely the recent downgrades from Article 9 to Article 8 funds along with a higher share of sustainable investments in the group of Article 9 funds, we can conclude that the recent additions to and clarifications of the SFDR have indeed sharpened the profile of the SFDR classifications and increased its accuracy. Conversely, recent Q&As published by the European Commission on 14 April 2023, which maintain a more flexible interpretation of the term "sustainable investments", may give rise to further discussions about the reliability of the SFDR classification system and greenwashing allegations.

Therefore, while this paper aims to shed light on the current state of sustainability disclosure under the SFDR, further research is needed to accompany the implementation of current requirements under the SFDR as well as future adjustments to the regulatory environment for sustainability disclosure.

## Appendix

**Table A1: Test of differences in sustainable investments between Article 8 and Article 9 funds pre-contractual disclosures**

	September 2022	December 2022	January 2023	March 2023
Sustainable inv. minimum	-42.19*** (-26.95)	-43.53*** (-30.50)	-45.48*** (-31.02)	-60.73*** (-51.37)
Environmental inv. minimum	-22.59*** (-4.71)	-24.44*** (-8.62)	-30.27*** (-12.20)	-29.49*** (-14.23)
Social inv. minimum	-17.61*** (-3.92)	-12.98*** (-5.69)	-14.27*** (-7.69)	-13.71*** (-8.83)
Taxonomy inv. minimum	-4.538*** (-4.73)	-3.128*** (-4.44)	-2.517*** (-4.15)	-3.259*** (-4.76)
Observations	3183	4133	4668	5265

*t* statistics in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Source: WM Gruppe data, own calculations.

## References

- AMF (2023), Proposal for minimum environmental standards for financial products belonging to the Art. 9 and 8 categories of SFDR, Autorité des Marchés Financiers, 10 February 2023. <https://www.amf-france.org/sites/institutionnel/files/private/2023-02/AMF%20SFDR%20minimum%20standards%20EN.pdf>
- Badenhoop, N. (2020a), Europäische Bankenregulierung und private Haftung – Die Durchsetzung von System- und Individualschutz mit Mitteln des Privatrechts, Schriften zum Unternehmens- und Kapitalmarktrecht, Band 81, Mohr Siebeck, Tübingen. <https://doi.org/10.1628/978-3-16-159206-5>
- Badenhoop, N. (2020b), Private Law Duties Deriving From EU Banking Regulation and its Individual Protection Goals, European Review of Contract Law, Vol. 16(2), pp. 233–266. <https://doi.org/10.1515/ercl-2020-0013>
- Badenhoop, N. (2022), Green Bonds: An assessment of the proposed EU Green Bond Standard and its potential to prevent greenwashing, Publication for the Committee on Economic and Monetary Affairs of the European Parliament, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. <https://data.europa.eu/doi/10.2861/26821>
- Becker, M. G., Martin, F., Walter, A. (2022), The power of ESG transparency: The effect of the new SFDR sustainability labels on mutual funds and individual investors, Finance Research Letters, Vol. 47, Part B. <https://doi.org/10.1016/j.frl.2022.102708>
- European Commission (2021), Question related to Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector (Sustainable Finance Disclosure Regulation 2019/2088), 14 July 2021. [https://www.esma.europa.eu/sites/default/files/library/c\\_2022\\_3051\\_f1\\_annex\\_en\\_v3\\_p1\\_19300\\_70.pdf](https://www.esma.europa.eu/sites/default/files/library/c_2022_3051_f1_annex_en_v3_p1_19300_70.pdf)

European Commission, ESAs (2023), Consolidated questions and answers (Q&A) on the SFDR (Regulation (EU) 2019/2088) and the SFDR Delegated Regulation (Commission Delegated Regulation (EU) 2022/1288), 17 May 2023. [https://www.esma.europa.eu/sites/default/files/2023-05/JC\\_2023\\_18\\_-\\_Consolidated\\_JC\\_SFDR\\_QAs.pdf](https://www.esma.europa.eu/sites/default/files/2023-05/JC_2023_18_-_Consolidated_JC_SFDR_QAs.pdf)

IRENA (2022), The World Energy Transitions Outlook 2022: 1.5°C Pathway, International Renewable Energy Agency, Abu Dhabi. [https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2022/Mar/IRENA\\_World\\_Energy\\_Transitions\\_Outlook\\_2022.pdf](https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2022/Mar/IRENA_World_Energy_Transitions_Outlook_2022.pdf)

Morningstar (2023), SFDR Article 8 and Article 9 Funds: Q1 2023 in Review, Morningstar, Chicago. [https://assets.contentstack.io/v3/assets/blt4eb669caa7dc65b2/blt7d0ce79d2ebc2c12/SFDR\\_Article\\_8\\_and\\_Article\\_9\\_Funds\\_Q1\\_2023\\_FINAL.pdf](https://assets.contentstack.io/v3/assets/blt4eb669caa7dc65b2/blt7d0ce79d2ebc2c12/SFDR_Article_8_and_Article_9_Funds_Q1_2023_FINAL.pdf)

SMSG (2023), Advice to ESMA – SMSG advice to ESMA on the ESA’s Call for Evidence on Greenwashing, Securities and Markets Stakeholder Group, 18 January 2023. [https://www.esma.europa.eu/sites/default/files/2023-01/esma22-106-4384\\_smsg\\_advice\\_on\\_greenwashing.pdf](https://www.esma.europa.eu/sites/default/files/2023-01/esma22-106-4384_smsg_advice_on_greenwashing.pdf)

Steuer, S. (2022), Grüne Transparenz und nachhaltige Verwirrung – Die produktbezogenen Informationsvorschriften der SFDR, Zeitschrift für Bankrecht und Bankwirtschaft, Vol. 34(1), pp. 31-46. <https://doi.org/10.15375/zbb-2022-0105>

The Financial Times, 2022, European asset managers blame regulatory confusion for downgrade of ESG funds, 22 November 2022. <https://www.ft.com/content/d74445d5-1275-4a1e-a118-70f2750ce7c9>