SFDR Article 8 and Article 9 Funds: Q4 2022 in Review

Article 9 fund assets shrink by EUR 175 billion, or 40%, following a wave of downgrades.

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Contents

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Executive Summary

Almost two years after the European Union's Sustainable Finance Disclosure Regulation came into force in March 2021, the landscape of funds classified as "light green" (Article 8) or "dark green" (Article 9) is going through some radical changes.

In recent months, asset managers have been preparing to implement the SFDR Level 2's regulatory technical standards, or RTS, which came into effect in January 2023 and require managers to disclose more information on their funds' environmental, social, and governance approaches, sustainability risks, and impact in precontractual documents and periodic reports.

Ahead of this upgraded disclosure regime, many managers reviewed their funds' classification and downgraded Article 9 products to Article 8. This report provides an update on the rapidly evolving landscape of Article 8 and Article 9 funds, examining flows, assets, and products. Additionally, we analyze key data shared by asset managers via the European ESG Template, or EET, including minimum sustainable investment and taxonomy alignment exposures as well as principal adverse impact, or PAI, consideration.

Key Takeaways

- Article 8 funds went back into the black in the fourth quarter of 2022, gathering EUR 10.7 billion of net new money. Article 9 funds pulled in the lowest inflows on record, EUR 5.1 billion, partly due to the recent wave of downgrades.
- Assets in Article 8 and Article 9 funds rose by 7.3% over the period to EUR 4.6 trillion, pushing their combined market share higher to 55%.
- About 420 products changed SFDR status since September last year, including 307 that downgraded to Article 8 from 9, representing EUR 175 billion in assets, or 40% of the Article 9 category. More reclassifications are expected as new prospectuses are processed.
- Following the reclassification of sizable index funds and exchange-traded funds tracking EU Climate benchmarks, the market share of Article 9 passive funds shrunk to 5% from 24%.
- Almost two thirds (63%) of Article 9 funds now plan to have more than 70% exposure to sustainable investments. But only 6.3% of Article 9 funds target between 90% and 100%, and only 36 funds in our sample aim for a 100% sustainable investment allocation.
- Just over one fourth (27%) of Article 8 funds with "sustainable" in their names would meet the European Securities and Markets Authority's proposed rule on fund names, while the vast majority (93%) of Article 9 funds would meet the requirement.

The Article 8 and Article 9 Fund Universe

Our Article 8 and Article 9 fund universe in this study encompasses open-end and exchange-traded funds in scope of the Sustainable Finance Disclosure Regulation that state in their prospectuses that they either promote environmental and/or social characteristics (Article 8, "light green" funds) or have a sustainable-investment objective (Article 9, "dark green" funds). We identified these funds using the EU SFDR Fund Type (Article 8 or Article 9) data point in the Morningstar Direct database. Funds in scope of SFDR that are neither Article 8 nor Article 9 are Article 6 funds (Not Stated in Morningstar Direct). This report uses SFDR disclosures collected from prospectuses on 98.2% of funds available for sale in the European Union, excluding money market funds, funds of funds, and feeder funds.

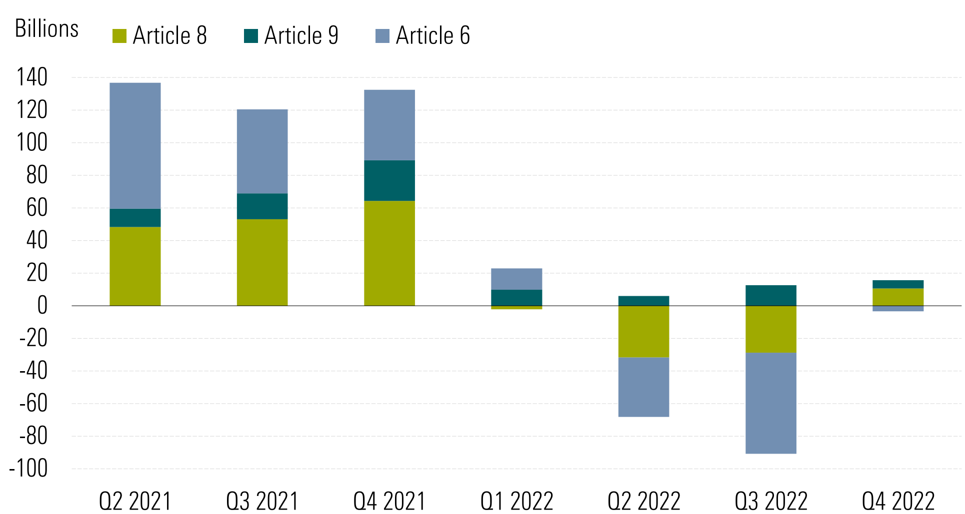
For this report, given the high number of funds that have been reclassified in the past couple of months from Article 9 to Article 8, we have used additional sources, including factsheets, KIIDs, PRIIP KIDs, and fund company websites, to account for funds' latest SFDR status.

Article 8 Fund Flows Back Into the Black; Article 9 Funds Register Lowest Inflows on Record

Following three quarters of outflows, Article 8 funds went back into the black, gathering EUR 10.7 billion of net new money in the fourth quarter of 2022. Meanwhile, Article 9 funds attracted EUR 5.1 billion of fresh capital in the fourth quarter, representing the lowest inflows for Article 9 funds since the introduction of SFDR in March 2021. But this low inflow can be partly explained by the wave of funds that reclassified from Article 9 to Article 8 in the last three months of 2022.

Positive inflows into Article 8 or 9 offerings in the fourth quarter contrast with the EUR 3.3 billion of outflows experienced by Article 6 products, which suffered more from the continuously challenging macro backdrop of inflationary pressures, interest-rate hikes, and lingering recession fears.

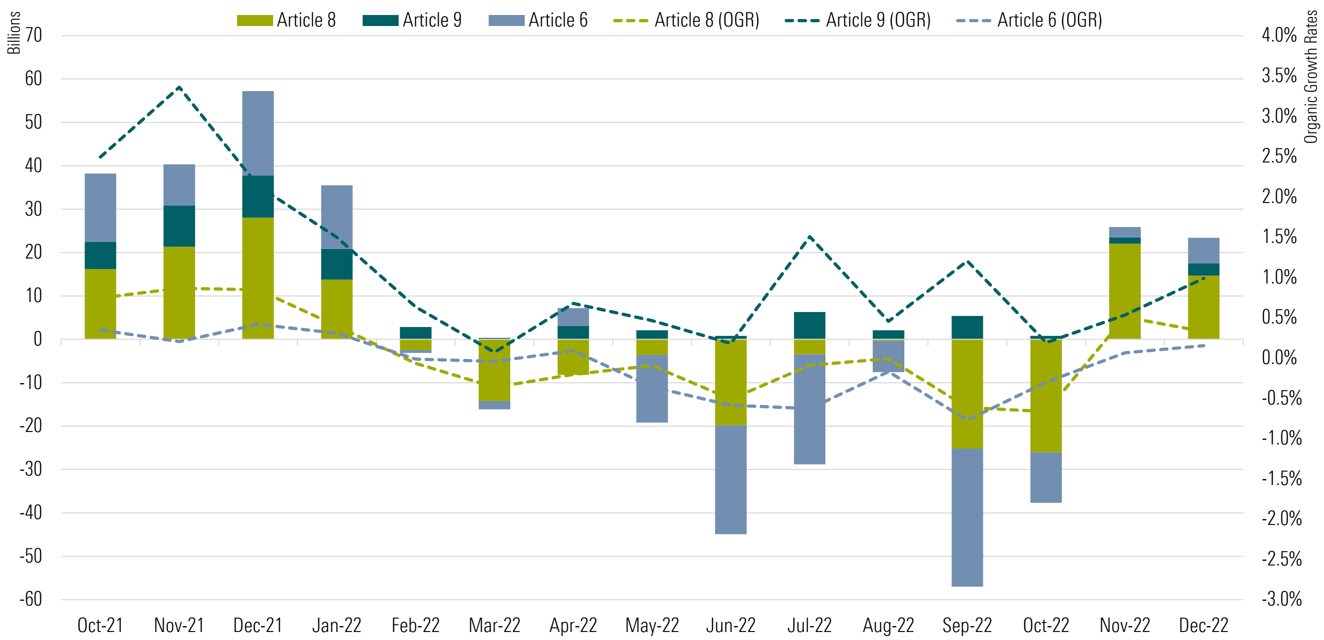
Exhibit 1 Quarterly Flows Into Article 8 and Article 9 Funds Versus Article 6 Funds (EUR Billion)



Source: Morningstar Direct. Data as of Dec. 31, 2022. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, excluding money market funds, funds of funds, and feeder funds.

Monthly data reveals a divided picture, with Article 8 funds registering their largest outflows in October, followed by two months of renewed inflows.

Exhibit 2 Monthly Flows Into Article 8 and Article 9 Funds Versus Article 6 Funds (EUR Billion) and Organic Growth Rates (%)



Source: Morningstar Direct. Data as of Dec. 31, 2022. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, excluding money market funds, funds of funds, and feeder funds.

Organic growth rates almost mirror the findings above. Organic growth rates measure the growth of flows relative to assets[1]. Organic growth rates for Article 9 funds have been consistently positive, while those for Article 8 and Article 6 funds have been much lower or even negative for the most part of the year.

Flows—Leaders and Laggards

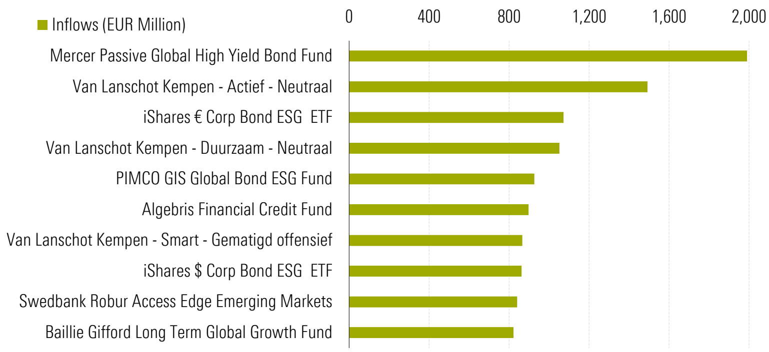
Below are the Article 8 and Article 9 funds that experienced the largest inflows and outflows over the fourth quarter of 2022.

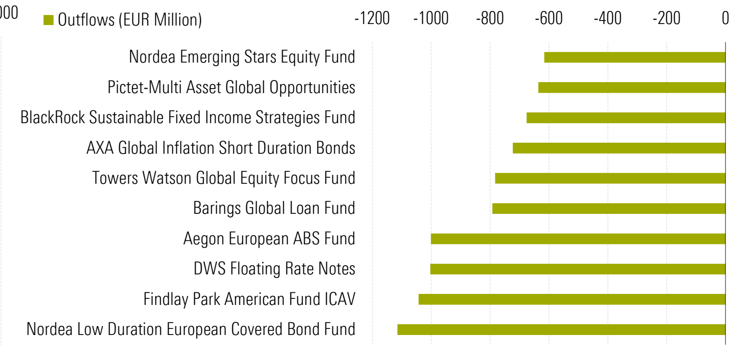
Passive strategies were less represented this time among the best-selling sustainable products. Yet, it's a passive fund that topped the Article 8 leaderboard in the fourth quarter. Capturing an inflow of USD 2.1 billion alone, **Mercer Passive Global High Yield Bond** tracks the J.P. Morgan ESG Global High Yield BB-B Rated Liquid Corporate Index, which, in addition to sector exclusions, screens out securities with low ESG scores.

Meanwhile, the biggest outflow (EUR 1.1 billion) was registered by **Nordea Low Duration European Covered Bond**, which was hurt by the increasing interest-rate environment.

1 Organic growth rate is calculated as followed: current period flows divided by beginning-of-period net assets.

Exhibit 3 Article 8 Funds With the Largest Inflows and Outflows in the Fourth Quarter of 2022

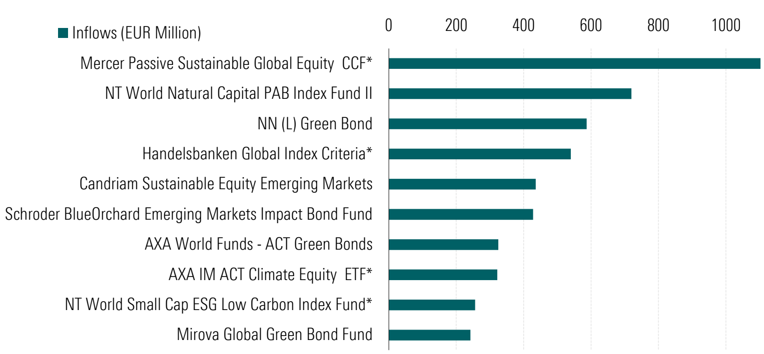


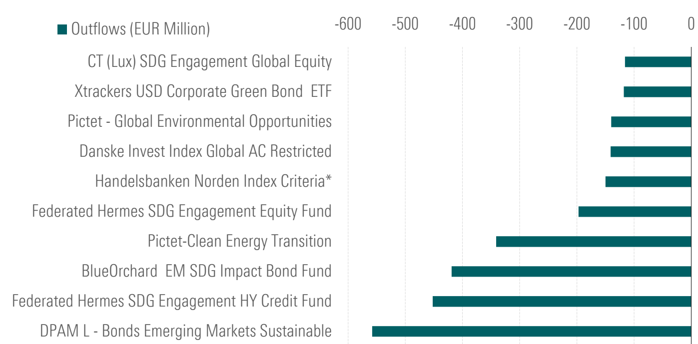


Source: Morningstar Direct. Data as of Dec. 31, 2022. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, excluding money market funds, funds of funds, and feeder funds.

Another Mercer passive fund topped the list of Article 9 best-selling products in the fourth quarter, **Mercer Passive Sustainable Global Equity CCF**, with an inflow of EUR 1.1 billion, accounting for 15% of Mercer's quarterly net flow. (Note that this fund was reclassified to Article 8 in January.)

Exhibit 4 Article 9 Funds With the Largest Inflows and Outflows in the Fourth Quarter of 2022





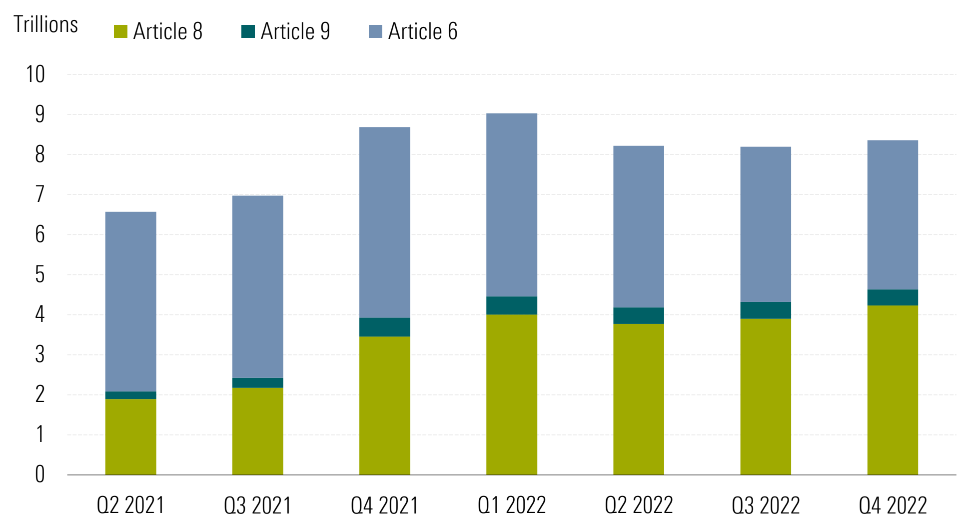
Source: Morningstar Direct. Data as of Dec. 31, 2022. Funds with an asterisk are Article 9 funds that reclassified to Article 8 in January. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, excluding money market funds, funds of funds, and feeder funds.

Article 9 Fund Assets Shrink by 40%

Assets in Article 8 and Article 9 funds rose by 7.3% over the fourth quarter of 2022, driven by newly launched funds, products that upgraded their SFDR status from Article 6 to Article 8 or 9, and to a lesser extent market appreciation. In comparison, Article 6 fund assets dropped by 1.1% over the period.

Article 8 and Article 9 fund assets stood at EUR 4.6 trillion at the end of December, up from EUR 4.3 trillion at the end of September. As a result, the two fund groups accounted for an increased share of the EU universe of 55.5%, from 53.5% three months earlier.

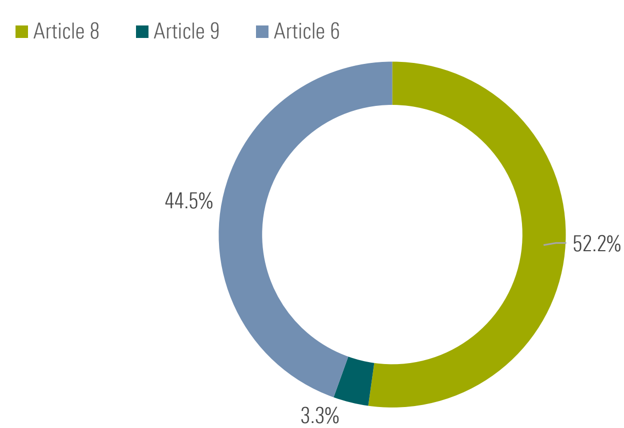
Exhibit 5 Quarterly Asset Breakdown by SFDR Classification (EUR Trillion)



Source: Morningstar Direct. Assets as of Dec. 31, 2022. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, excluding money market funds, funds of funds, and feeder funds.as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites,

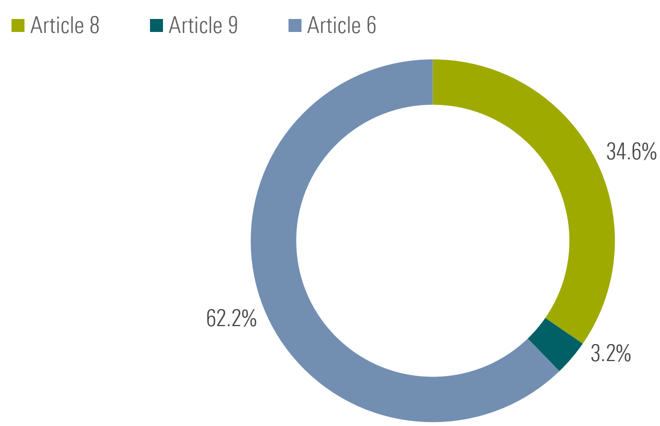
Accounting for the early January downgrades, Article 8 funds saw their market share jump to 52.2% in mid-January from 48.3% at the end of September 2022, while the share of Article 9 products dropped to 3.3% from 5.2%. Article 9 fund assets shrunk by about EUR 175 billion, or 40%, in three months.

Exhibit 6.a SFDR Fund Type Breakdown (by Assets)



Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, In terms of the number of funds,[2] the combined market share of Article 8 and Article 9 funds remained constant, at 37.8%. However, following the recent wave of downgrades, the number of Article 9 funds shrunk to 891 in mid-January 2023, from 1,080 at the end of September 2022[3], representing a lower market share of 3.2%, from 4.3%. Meanwhile, the Article 8 category swelled to 9,717 funds in January, from 8,459 at the end of September, mechanically boosting its market share to 34.6% from 33.6%.

Exhibit 6.b SFDR Fund Type Breakdown (by Number of Funds)



Source: Morningstar Direct. Assets as of Dec. 31, 2022. Funds' SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

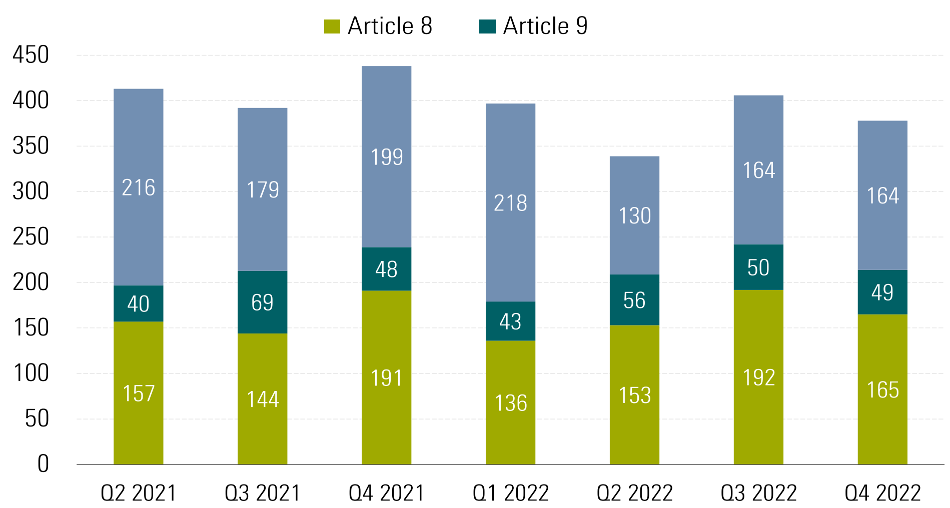
Fund Launches: Product Development Remains Strong

Product development remained strong, with an estimated 165 Article 8 funds and 49 Article 9 funds launched over the last three months of 2022. It is likely this number will be restated upward in future reports as we identify more launches and additional ones are reported to Morningstar.

2 Based on SFDR data collected from prospectuses on 97.4% of funds available for sale in the EU, excluding money market funds, funds of funds, and feeder funds.

3 The remaining difference can be explained by newly incepted, newly added, and upgraded Article 9 funds.

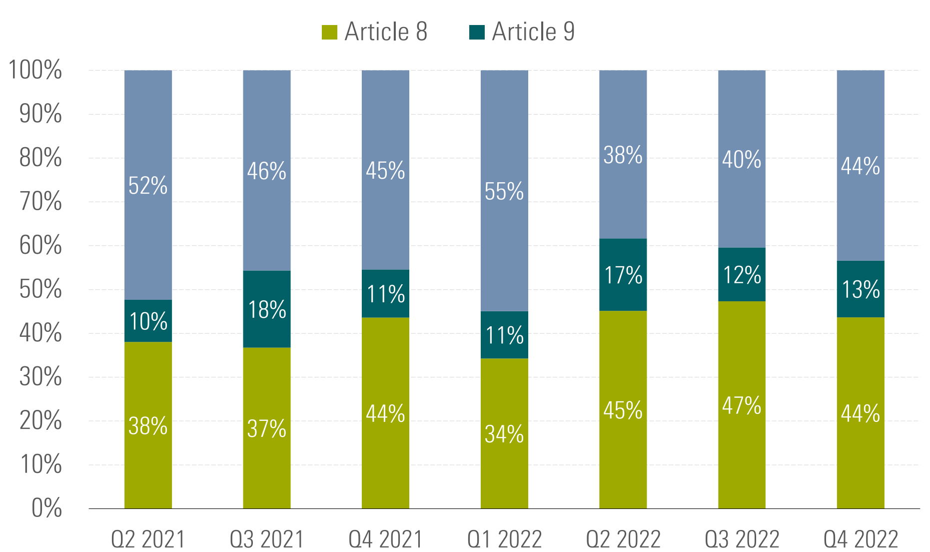
Exhibit 7 Quarterly Number of Fund Launches



Source: Morningstar Direct. Data as of Dec. 31, 2022. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, excluding money market funds, funds of funds, and feeder funds.

Newly incepted Article 8 and Article 9 funds accounted for 57% of the total number of funds launched in the EU in the fourth quarter.

Exhibit 8 Quarterly Breakdown of Fund Launches



Source: Morningstar Direct. Data as of Dec. 31, 2022. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, excluding money market funds, funds of funds, and feeder funds.

Asset managers continued to expand the range of Article 8 and Article 9 options available to investors in terms of asset class, market exposure, investment style, and theme. Equity remained the source of the greatest product proliferation with 104 new equity offerings, followed by fixed income and allocation, with 55 and 43, respectively. Alternatives, convertibles, and miscellaneous made up the rest.

While general ESG- and sustainability-focused offerings continued to account for the largest part of the product development activity, climate remained the most popular theme represented among new product launches. More than 30 new funds with a climate flavor came to market[4], spanning all climate investment approaches. Climate-themed funds allow investors to reduce climate risk in portfolios and/or gain exposure to companies that will benefit from, or contribute to, the transition to a low-carbon economy.

Six new climate-related funds were passive strategies, including **Northern Trust World Natural Capital PAB Index**, which gathered USD 719 billion of assets by the end of December. The fund tracks a Paris-aligned benchmark[5], which additionally aims to reduce exposure to companies according to select indicators associated with adverse impact on natural resources, and to increase exposure to companies that are associated with positive contribution to the environment through their products or services, or through their management of natural-capital related risks.

Other new sustainable products target a variety of environmental and social issues, as well as impact. For example, **Schroder BlueOrchard Emerging Markets Impact Bond**, with already USD 456 billion in assets, invests in bonds issued by government-related entities and companies in emerging markets deemed to be contributing toward the advancement of one or more of the UN Social Development Goals. Such issuers may be involved in activities such as micro, small, and medium enterprise lending, affordable housing, affordable education, health, agriculture, improvements in energy efficiency, renewable energy, among others.

The Great Reclassification: More Downgrades than Upgrades This Time

In the fourth quarter, asset managers continued to upgrade funds by enhancing ESG integration processes, adding binding ESG criteria (including carbon reduction objectives), or in some cases completely changing the mandate of the strategy.

Since September last year, we identified 419 funds that have altered their SFDR status: 108 were upgrades, the majority (85) of which moved to Article 8 from Article 6, representing EUR 27 billion of assets, while three upgraded to Article 9 from Article 6, and 20 funds moved to Article 9 from Article 8.

Meanwhile, 307 funds were downgraded to Article 8 from Article 9, representing EUR 175 billion of assets, and four Article 8 funds switched to Article 6.

The exhibit below lists the largest funds that changed classification to Article 8 from Article 6 in the fourth quarter.

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4 For more information on climate strategies, read Investing in Times of Climate Change—A Global View.

5 EU Paris-aligned benchmarks must have a carbon footprint (including scope 3 emissions) 50% below that of the investable universe. For EU climate-transition benchmarks, the carbon footprint only must be at least 30% lower. EU Paris-aligned benchmarks also employ additional activity exclusions on high-emitting fossil fuels and electricity producers, which EU climate-transition benchmarks do not have.

Exhibit 9 The 10 Largest Funds Upgraded to Article 8 From Article 6

Name	Old SFDR Fund Type	New SFDR Fund Type	AUM (EUR Million)	Morningstar Category	Active / Passive
BlackRock Continental European Flexible Fund	Article 6	Article 8	4,569	Europe ex-UK Equity	Active
Amundi Index MSCI North America	Article 6	Article 8	2,019	US Large-Cap Blend Equity	Passive
iShares Global Water ETF	Article 6	Article 8	1,921	Sector Equity Water	Passive
Janus Henderson Horizon Global Property Equities Fund	Article 6	Article 8	1,243	Property - Indirect Global	Active
BlackRock US Flexible Equity Fund	Article 6	Article 8	1,192	US Large-Cap Blend Equity	Active
BNY Mellon Long-Term Global Equity Fund	Article 6	Article 8	1,153	Global Large-Cap Growth Equity	Active
BlackRock Global Equity Income Fund	Article 6	Article 8	1,016	Global Equity Income	Active
BlackRock Sustainable World Bond Fund	Article 6	Article 8	1,016	Global Bond - USD Hedged	Active
Janus Henderson Horizon Global High Yield Bond Fund	Article 6	Article 8	931	Global High Yield Bond	Active
BlackRock Global Government Bond Fund	Article 6	Article 8	821	Global Bond - USD Hedged	Active

Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

Following on from previous upgrades, five BlackRock funds feature among the top 10 products that changed SFDR status to Article 8 from Article 6, including one thematic fund, **iShares Global Water ETF**, and three more broadly diversified strategies that started applying BlackRock's EMEA baseline screens. The last one, **BlackRock Sustainable World Bond**, adopted an ESG approach that goes a step further by seeking sustainable investments.

The ESG approach of the three others goes a step further by seeking to enhance exposure to investments with positive externalities (that is, issuers with positive ESG credentials). The fund also seeks to reduce its carbon-emissions profile by allocating to green bonds, lower-carbon-emitting issuers, and issuers committed to decarbonization.

Another example of large fund reclassified to Article 8 from Article 6 in the fourth quarter is **Amundi Index MSCI North America**, which joined the long list of passive funds that switched from a plain-vanilla or broad ESG index to a climate transition or Paris-aligned benchmark in the past 18 months. Both types of benchmarks were designed to be in line with the transition to a climate-resilient economy, while ensuring a yearly decarbonization target of at least 7%, in line with the decarbonization trajectory of the Intergovernmental Panel on Climate Change's 1.5°C scenario[6].

Exhibit 10 lists the largest funds that upgraded to Article 9 from Article 8 in the fourth quarter.

6 EU Paris-aligned benchmarks must have a carbon footprint (including scope 3 emissions) 50% below that of the investable universe. For EU climate-transition benchmarks, the carbon footprint only must be at least 30% lower. EU Paris-aligned benchmarks also employ additional activity exclusions on high-emitting fossil fuels and electricity producers, which EU climate-transition benchmarks do not have.

Exhibit 10 The 10 Largest Funds Upgraded to Article 9 From Article 8

Name	Old SFDR Fund Type	New SFDR Fund Type	AUM (EUR Million)	Morningstar Category	Active / Passive
ABN EdenTree European Sustainable Equities	Article 8	Article 9	754	Europe Large-Cap Value Equity	Active
G Fund Equity Convictions ISR	Article 8	Article 9	252	Eurozone Large-Cap Equity	Active
Assenagon Credit Selection ESG	Article 8	Article 9	246	EUR Flexible Bond	Active
G Fund Future For Generations	Article 8	Article 9	154	EUR Flexible Allocation - Global	Active
LGT Sustainable Bond Corporates Sub Fund	Article 8	Article 9	151	Global Corporate Bond - USD Hedged	Active
Nykredit Invest Engros Bæredygtige Aktier	Article 8	Article 9	151	Global Large-Cap Blend Equity	Active
UniInstitutional Green Bonds	Article 8	Article 9	137	Global Corporate Bond - EUR Hedged	Active
Rockefeller Climate Solutions	Article 8	Article 9	42	Sector Equity Ecology	Active
PineBridge Global Emerging Markets SDG Corporate Bond Fund	Article 8	Article 9	30	Global Emerging Markets Corporate Bonds	Active
Twelve Climate Transition Equity Fund	Article 8	Article 9	23	Other Equity	Active

Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

When classified as Article 8, ABN EdenTree European Sustainable Equities targeted issuers that were either leading in ESG best practices or attractive because of their progression in ESG. But classified now as Article 9, the fund aims to invest in sustainable businesses helping to deliver a cleaner, healthier, and safer world.

G Fund Future For Generations is made up of equities and bonds selected on the basis of their contribution to environmental issues and to the challenges of sustainable consumption and health, with the aim of preserving living conditions that will meet the needs of future generations.

Exhibit 11 lists three funds that underwent more significant changes, as reflected by their reclassification to Article 9 from Article 6.

Exhibit 11 The 3 Funds Upgraded to Article 9 From Article 6

Name	Old SFDR Fund Type	New SFDR Fund Type	AUM (EUR Million)	Morningstar Category	Active/ Passive
Ecofi Trajectoires Durables	Article 6	Article 9	270	Sector Equity Ecology	Active
Ecofi Enjeux Futurs	Article 6	Article 9	53	Eurozone Flex-Cap Equity	Active
Ecofi Agir Pour Le Climat	Article 6	Article 9	43	Convertible Bond - Europe	Active

Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

Finally, we identified 307 products that were downgraded to Article 8 from Article 9 from the end of September to the beginning of January, representing EUR 175 billion of assets. Exhibits 12a and 12b show the largest downgrades implemented in the last three months of 2022 and early January, respectively.

Exhibit 12a The 20 Largest Downgraded Funds to Article 8 From Article 9 in the Fourth Quarter

Name	Old SFDR Fund Type	New SFDR Fund Type	AUM (EUR Million)	Morningstar Category	Active/ Passive
iShares MSCI USA ESG Enhanced ETF	Article 9	Article 8	9,002	US Large-Cap Blend Equity	Passive
iShares Global Clean Energy ETF	Article 9	Article 8	5,555	Sector Equity Alternative Energy	Passive
Amundi MSCI USA SRI PAB	Article 9	Article 8	4,425	US Large-Cap Blend Equity	Passive
Amundi MSCI Europe SRI PAB	Article 9	Article 8	2,962	Europe Large-Cap Blend Equity	Passive
Amundi Funds - Global Ecology ESG	Article 9	Article 8	2,909	Sector Equity Ecology	Active
iShares MSCI Europe ESG Enhanced ETF	Article 9	Article 8	2,632	Europe Large-Cap Blend Equity	Passive
iShares MSCI EM ESG Enhanced ETF	Article 9	Article 8	2,617	Global Emerging Markets Equity	Passive
iShares MSCI World ESG Enhanced ETF	Article 9	Article 8	2,411	Global Large-Cap Blend Equity	Passive
Amundi Valeurs Durables	Article 9	Article 8	1,626	Sector Equity Ecology	Active
NT Europe SDG Screened Low Carbon Index Fund	Article 9	Article 8	1,472	Europe Large-Cap Blend Equity	Passive
Amundi Multi-Asset Sustainable Future	Article 9	Article 8	1,403	EUR Cautious Allocation - Global	Active
iShares MSCI USA Small Cap ESG Enhanced ETF USD	Article 9	Article 8	1,129	US Small-Cap Equity	Passive
iShares MSCI Japan ESG Enhanced ETF	Article 9	Article 8	879	Japan Large-Cap Equity	Passive
Kempen (Lux) Euro Sustainable Credit Fund	Article 9	Article 8	816	EUR Corporate Bond	Active
iShares MSCI EMU ESG Enhanced ETF	Article 9	Article 8	737	Eurozone Large-Cap Equity	Passive
Amundi Funds Sustainable Top European Players	Article 9	Article 8	522	Europe Large-Cap Blend Equity	Active
iShares MSCI EMU Paris-Aligned Climate ETF	Article 9	Article 8	476	Eurozone Large-Cap Equity	Passive
Amundi Funds - Emerging Markets Green Bond	Article 9	Article 8	451	Global EM Corporate Bond	Active
iShares € Corp Bond ESG Paris-Aligned Climate ETF	Article 9	Article 8	425	EUR Corporate Bond	Passive
Sustainable Pension Income	Article 9	Article 8	345	Other Allocation	Active

Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

Exhibit 12b The 20 Largest Downgraded Funds to Article 8 From Article 9 Early January 2023

Name	Old SFDR Fund Type	New SFDR Fund Type	AUM (EUR Million)	Morningstar Category	Active/ Passive
Pictet-Global Megatrend Selection	Article 9	Article 8	10,430	Global Flex-Cap Equity	Active
Handelsbanken Global Index Criteria	Article 9	Article 8	5,868	Global Large-Cap Blend Equity	Passive
Handelsbanken USA Index Criteria	Article 9	Article 8	3,815	US Large-Cap Blend Equity	Passive
BNP Paribas Easy MSCI USA SRI PAB 5% Cap	Article 9	Article 8	3,234	US Large-Cap Blend Equity	Passive
Amundi Index MSCI World SRI PAB	Article 9	Article 8	2,987	Global Large-Cap Blend Equity	Passive
Carmignac Investissement	Article 9	Article 8	2,977	Global Large-Cap Growth Equity	Active
Handelsbanken Norden Index Criteria	Article 9	Article 8	2,910	Nordic Equity	Passive
Mercer Passive Sustainable Global Equity CCF	Article 9	Article 8	2,574	Other Equity	Passive
Storebrand Global Plus	Article 9	Article 8	2,538	Global Large-Cap Blend Equity	Passive
NT World SDG Screened Low Carbon Index Fund	Article 9	Article 8	2,525	Global Large-Cap Blend Equity	Passive
ASR Duurzaam Amerikaanse Aandelen Fonds	Article 9	Article 8	2,302	US Large-Cap Blend Equity	Active
RobecoSAM Global SDG Credits	Article 9	Article 8	2,001	Global Corporate Bond - USD Hedged	Active
ASR ESG IndexPlus Institutioneel Europa Aandelen Fonds	Article 9	Article 8	1,822	Europe Large-Cap Blend Equity	Active
Amundi MSCI Europe ESG Broad CTB	Article 9	Article 8	1,781	Europe Large-Cap Blend Equity	Passive
DPAM B - Equities World Sustainable	Article 9	Article 8	1,766	Global Large-Cap Blend Equity	Active
Handelsbanken Europa Index Criteria	Article 9	Article 8	1,763	Europe Large-Cap Blend Equity	Passive
DPAM B - Equities Europe Sustainable	Article 9	Article 8	1,736	Europe Large-Cap Blend Equity	Active
Amundi Index MSCI Emerging Markets SRI PAB	Article 9	Article 8	1,607	Global Emerging Markets Equity	Passive
CPR Invest Food For Generations	Article 9	Article 8	1,605	Sector Consumer Goods & Services	Active
Amundi Ethik Fonds	Article 9	Article 8	1,574	EUR Cautious Allocation - Global	Active

Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

These reclassifications emerged as a result of the clarification provided by ESMA of the EC's June 2021 Q&A over the summer last year. It specified that funds making Article 9 disclosures may only invest in sustainable investments based on the definition provided by Article 2 No. 17 of the Disclosure Regulation[7], with the exception of cash and assets used for hedging purposes.

The "100% sustainable investments" requirement for Article 9 products is a clarification that many asset managers started acting on toward the end of 2022 as they prepared their precontractual documents for the Jan. 1 deadline of the so-called regulatory technical standards.

A disproportionate number (41%) of Article 9 funds that have been reclassified to Article 8 were passive, the quasi-totality being ETFs and index funds tracking Paris-aligned or climate-transition benchmarks. But a handful of passive thematic/sector have been downgraded, too. These include **iShares Global**

7 Article 2(17) of SFDR defines the term sustainable investment as:

- An investment in an economic activity that contributes to an environmental objective, as measured, for example, by key resource efficiency indicators on the use of energy, renewable energy, raw materials, water and land, on the production of waste, and greenhouse gas emissions, or on its impact on biodiversity and the circular economy,
- Or an investment in an economic activity that contributes to a social objective, in particular an investment that contributes to tackling inequality or that fosters social cohesion, social integration, and labor relations, or an investment in human capital or economically or socially disadvantaged communities,
- Provided that such investments do not significantly harm any of those objectives,
- And [provided] that the investee companies follow good governance practices, in particular with respect to sound management structures, employee relations, remuneration of staff, and tax compliance.

Clean Energy ETF, **iShares Smart City Infrastructure ETF**, **BNP Paribas Easy ECPI Circular Economy Leaders, BNP Paribas Easy ECPI Global ESG Hydrogen Economy**, as well as **Lyxor Corporate Green Bond (DR) ETF**, which may come as a surprise.

These asset managers noted that the underlying indexes were not designed to include only sustainable investments as defined by SFDR; therefore, the funds couldn't keep their Article 9 classification, some adding that the products would be classified again as Article 9 if there is a clear statement from the regulator that climate-transition and Paris-aligned benchmarks qualify automatically for Article 9. This is indeed a question that has been posed by the European Supervisory Authorities to the European Commission[8].

On the active side, the vast majority of the downgrades impacted broadly diversified equity and fixed income strategies, but also a handful of thematic/sector funds, such as **Allianz Smart Energy**, **Allianz Sustainable Health Evolution**, **CPR Invest Food For Generations**, and **EdR SICAV–Tech Impact**. There was also one green bond fund, namely **Amundi Emerging Markets Green Bond**.

In light of all these recent developments and in expectation of further downgrades, we can expect the number of Article 9 products to decline further in the next few months from its current level of 1,080 funds (representing 4.3% of funds distributed in the EU).

Below are the top 20 asset managers ranked by assets of Article 9 funds downgraded to Article 8, as of this writing. Some managers may have announced the reclassification of more funds that are not captured here because the funds' prospectuses haven't gone through regulatory approval yet or Morningstar hasn’t received and/or processed the funds' latest filings.

8 In November 2022, ESAs published a set of new Questions & Answers (Q&A) - Question 5: "Can financial products with a passive investment strategy which designate as a reference benchmark either a Paris Aligned Benchmark or (from 1 January 2023) a Climate Transition Benchmark automatically be deemed to fulfil the conditions of Article 9(3) SFDR in conjunction with Article 2(17) SFDR?"

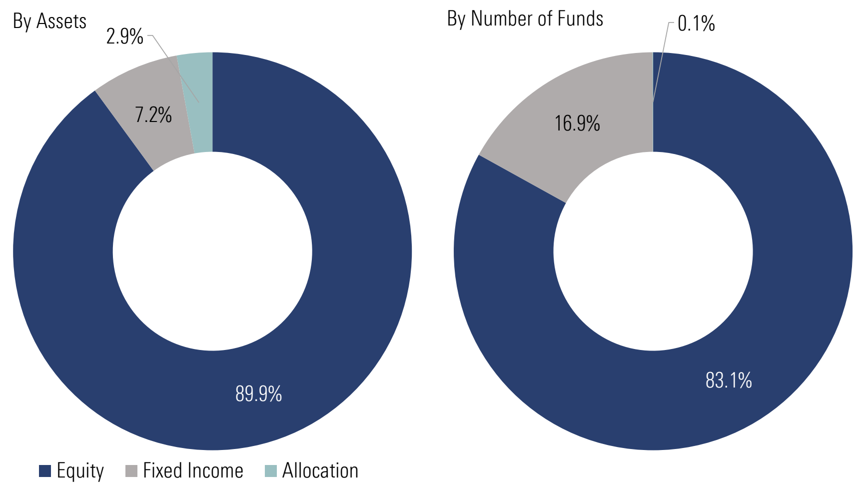
Exhibit 13.a Top 20 Asset Managers by Assets of Article 9 Funds Downgraded to Article 8

	Assets of Downgraded Article 9 Funds (EUR Billion)	Number of Downgraded Article 9 Funds
Amundi	34.2	51
BlackRock (incl. iShares)	26.4	16
Handelsbanken	16.1	7
BNP Paribas	13.2	26
Pictet	12.9	4
CPR Asset Management	8.7	17
Northern Trust	7.3	8
AXA IM	6.9	18
Robeco	5.9	8
ASR	5.2	3
ACTIAM	4.6	10
Storebrand Fonder	4.1	4
Degroof Petercam	3.7	4
Carmignac	3.4	4
La Banque Postale	3.0	7
Mercer Global Investments	2.6	1
Lombard Odier	2.2	12
DWS (incl. Xtrackers)	2.2	14
Sycomore Asset Management	1.8	6
Allianz Global Investors	1.4	6

Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

In terms of asset class, Exhibit 13.b shows that the reclassification from Article 9 to Article 8 affected mostly equity funds: 90% of downgraded Article 9 assets are equity strategies. This compares with the 79% market share of equity funds in the Article 9 category prior to the downgrades. Paris-aligned and climate-transition passive strategies make up almost half of these downgraded equity assets. There have been fewer and smaller downgraded bond funds.

Exhibit 13.b Asset Class Breakdown of Downgraded Funds to Article 9 from Article 8



Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

Exhibit 14 lists funds that reclassified to Article 6 from Article 8. Noteworthy here is the downgrade of **iShares Refinitiv Inclusion and Diversity ETF**, a socially oriented strategy.

Exhibit 14 The Six Funds Downgraded to Article 6 From Article 8

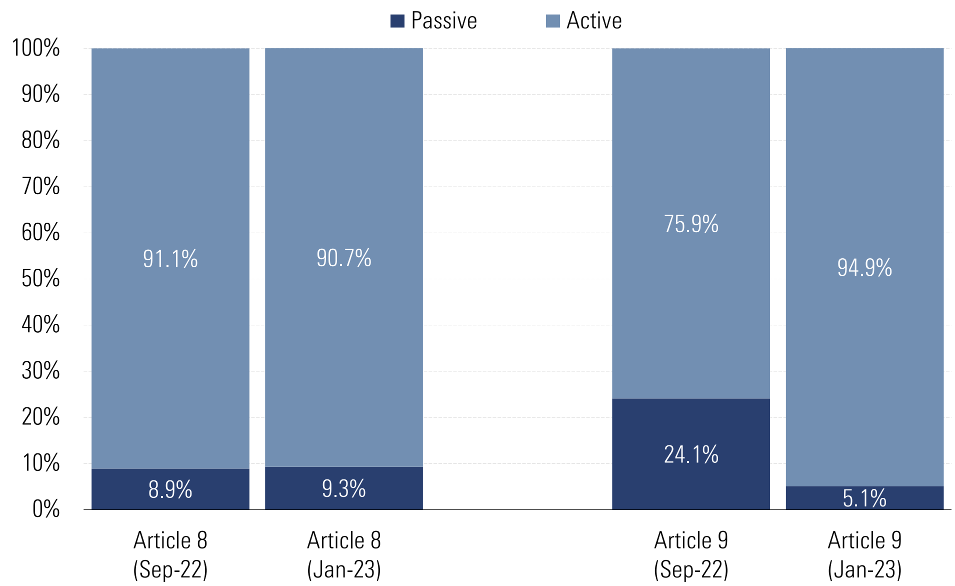
Name	Old SFDR Fund Type	New SFDR Fund Type	AUM (EUR Million)	Morningstar Category	Active/ Passive
Natixis Loomis Sayles Short Term Emerging Markets Bond Fund	Article 8	Article 6	1,016	Global Emerging Markets Corporate Bond	Active
Natixis WCM Select Global Growth Equity Fund	Article 8	Article 6	110	Global Flex-Cap Equity	Active
iShares Refinitiv Inclusion and Diversity ETF	Article 8	Article 6	58	Global Large-Cap Value Equity	Passive
Peab-fonden	Article 8	Article 6	51	Sweden/Global Equity	Active

Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

Market Share of Article 9 Passive Funds Shrinks Significantly

Following the Article 9 to Article 8 reclassification of sizable index funds and ETFs tracking EU Climate benchmarks, the market share of Article 9 passive funds shrunk significantly to 5.1% in mid-January 2023 from 24.1% in September 2022, while the market share of Article 8 passive funds grew slightly to 9.3% from 8.9%.

Exhibit 15 Market Share of Active and Passive Funds Classified as Article 8 and Article 9



Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan.15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

As of this writing, not all providers of Paris-aligned and climate-transition benchmark-tracking products classified as Article 9 have downgraded their funds to Article 8. Norway's DNB Asset Management has decided to wait for the EU commission to clarify its position about such funds before making any changes. Danske Invest seems to have made a similar decision as its Paris-aligned index funds are still classified as Article 9.

The lower representation of passive funds in the Article 9 category raises questions about the feasibility or merits of an inexpensive rules-based approach for investors seeking pure exposure to sustainable investments.

The Largest Article 8 and Article 9 Funds

The wave of downgrades has had a noticeable impact on the league table of the largest Article 9 funds, but not so much on the top Article 8 funds.

The EUR 10.4 billion **Pictet-Global Megatrend Selection** made its entrance in the top-20 list of Article 8 funds after being reclassified from Article 9. The fund offers exposure to 12 investment themes, covering a broad range of thematic ideas, sectors, and companies. The majority of the underlying thematic strategies have a distinct environmental and/or social impact objective, including health, nutrition, and clean energy.

Exhibit 16 The 20 Largest Article 8 Funds

Name	SFDR Fund Type	Morningstar Global Category	AUM (EUR Billion)	Active / Passive	Morningstar Sustainability Rating
Flossbach von Storch SICAV - Multiple Opportunit	8	EUR Flexible Allocation - Global	24.0	Active	🌐🌐🌐
DWS Top Dividende	8	Global Equity Income	19.9	Active	🌐
Morgan Stanley Global Brands Fund	8	Global Large-Cap Blend Equity	19.2	Active	🌐🌐🌐🌐🌐
JPMorgan Global Income Fund	8	EUR Moderate Allocation - Global	19.2	Active	🌐🌐
Deka-ImmobilienEuropa	8	Property - Direct Europe	18.0	Active	—
hausInvest	8	Property - Direct Europe	17.4	Active	—
UniImmo: Deutschland	8	Property - Direct Europe	16.4	Active	—
AB American Income Portfolio	8	USD Flexible Bond	15.6	Active	🌐🌐
UniImmo: Europa	8	Property - Direct Europe	14.7	Active	—
BlackRock World Healthscience Fund	8	Sector Equity Healthcare	14.2	Active	🌐🌐🌐🌐
DWS Concept Kaldemorgen	8	EUR Flexible Allocation - Global	13.5	Active	🌐🌐🌐🌐🌐
AB Global High Yield Portfolio	8	Global High Yield Bond	12.8	Active	—
Flossbach von Storch - Multiple Opportunities II	8	EUR Flexible Allocation - Global	12.2	Active	🌐🌐🌐
Fidelity Global Technology Fund	8	Sector Equity Technology	12.1	Active	🌐🌐🌐
Mercer Multi Asset Growth Fund	8	GBP Allocation 60-80% Equity	10.8	Active	🌐🌐🌐🌐
DWS Vermögensbildungsfonds I	8	Global Large-Cap Blend Equity	10.7	Active	🌐🌐🌐
Fidelity Funds - Global Dividend Fund	8	Global Equity Income	10.6	Active	🌐🌐🌐🌐🌐
Pictet-Global Megatrend Selection	8	Global Flex-Cap Equity	10.4	Active	🌐🌐🌐
Muzinich Enhancedyield Short-Term Fund	8	Global Flexible Bond - EUR Hdg	10.4	Active	🌐🌐
Findlay Park American Fund ICAV	8	US Large-Cap Growth Equity	9.7	Active	🌐🌐🌐

Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

All the passive funds previously included in the top 20 Article 9 funds have disappeared and been replaced by smaller thematic/sector and impact-focused active funds such as **BNP Climate Impact**, **Mirova Europe Environmental Equity**, **BlueOrchard Microfinance**, and **Impact ES Actions Europe**.

Exhibit 17 The 20 Largest Article 9 Funds

Name	SFDR Fund Type	Morningstar Global Category	AUM (EUR Billion)	Active / Passive	Morningstar Sustainability Rating
Nordea 1 - Global Climate and Environment Fund	9	Sector Equity Ecology	9.5	Active	🌐🌐🌐🌐
Pictet-Water	9	Sector Equity Water	8.0	Active	🌐🌐🌐🌐
Pictet - Global Environmental Opportunities	9	Sector Equity Ecology	7.3	Active	🌐🌐🌐🌐🌐
BlackRock Sustainable Energy Fund	9	Sector Equity Alternative Energy	6.1	Active	🌐🌐🌐🌐🌐
Mirova Global Sustainable Equity Fund	9	Global Large-Cap Growth Equity	4.3	Active	🌐🌐🌐🌐🌐
Pictet-Clean Energy Transition	9	Sector Equity Alternative Energy	3.9	Active	🌐🌐🌐🌐🌐
BNP Paribas Funds Aqua	9	Sector Equity Water	3.4	Active	🌐🌐🌐
RobecoSAM Smart Energy Equities	9	Sector Equity Alternative Energy	3.3	Active	🌐🌐🌐🌐🌐
RobecoSAM Sustainable Water Equities	9	Sector Equity Water	3.2	Active	🌐🌐🌐🌐
BNP Paribas Aqua	9	Sector Equity Water	3.2	Active	🌐🌐🌐
BNP Paribas Funds Global Environment	9	Sector Equity Ecology	2.9	Active	🌐🌐🌐🌐🌐
Handelsbanken Hållbar Energi	9	Sector Equity Alternative Energy	2.9	Active	🌐🌐🌐🌐
AB Sustainable Global Thematic Portfolio	9	Global Large-Cap Growth Equity	2.9	Active	🌐🌐🌐🌐
Candriam Sustainable Equity Emerging Markets	9	Global Emerging Markets Equity	2.9	Active	🌐🌐🌐🌐
BNP Climate Impact	9	Sector Equity Ecology	2.6	Active	🌐🌐🌐🌐🌐
Mirova Europe Environmental Equity Fund	9	Sector Equity Ecology	2.5	Active	🌐🌐🌐🌐
DPAM Bonds Emerging Markets Sustainable	9	Global EM Bond - Local Currency	2.5	Active	🌐🌐🌐🌐
BlueOrchard Microfinance Fund	9	Other Bond	2.4	Active	—
Impact ES Actions Europe	9	Europe Large-Cap Blend Equity	2.3	Active	🌐🌐🌐🌐
Swisscanto Portfolio Fund Sustainable Balanced	9	EUR Moderate Allocation - Global	2.1	Active	🌐🌐🌐🌐🌐

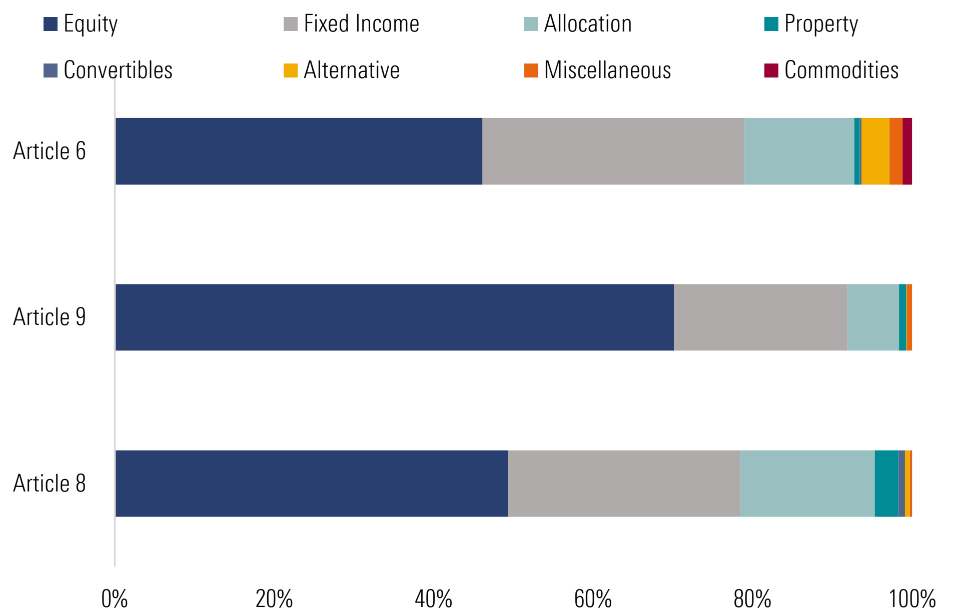
Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

Article 8 and Article 9 Funds Per Broad Asset Class

While Article 8 funds resemble Article 6 funds in terms of asset class distribution, Article 9 funds lean more toward equity, with such funds accounting for 70% of Article 9 products as of December 2022, versus 46% and 49% in the Article 6 and Article 8 fund group, respectively. Following the wave of Article 9 downgrades, however, fixed income representation increased to 22%, from 15% six months ago.

It's worth noting that the quasi-totality of green-bond funds remain classified as Article 9 as green bonds are considered ideal instruments to help companies decarbonize their businesses and transition to greener products. There is, however, now a debate as to whether green bonds have a place in Article 9 portfolios given the non-green nature of most issuers, which can be utilities companies with fossil activities or carbon-intensive industrial companies.

Exhibit 18 Article 8 and Article 9 Funds Per Broad Asset Class



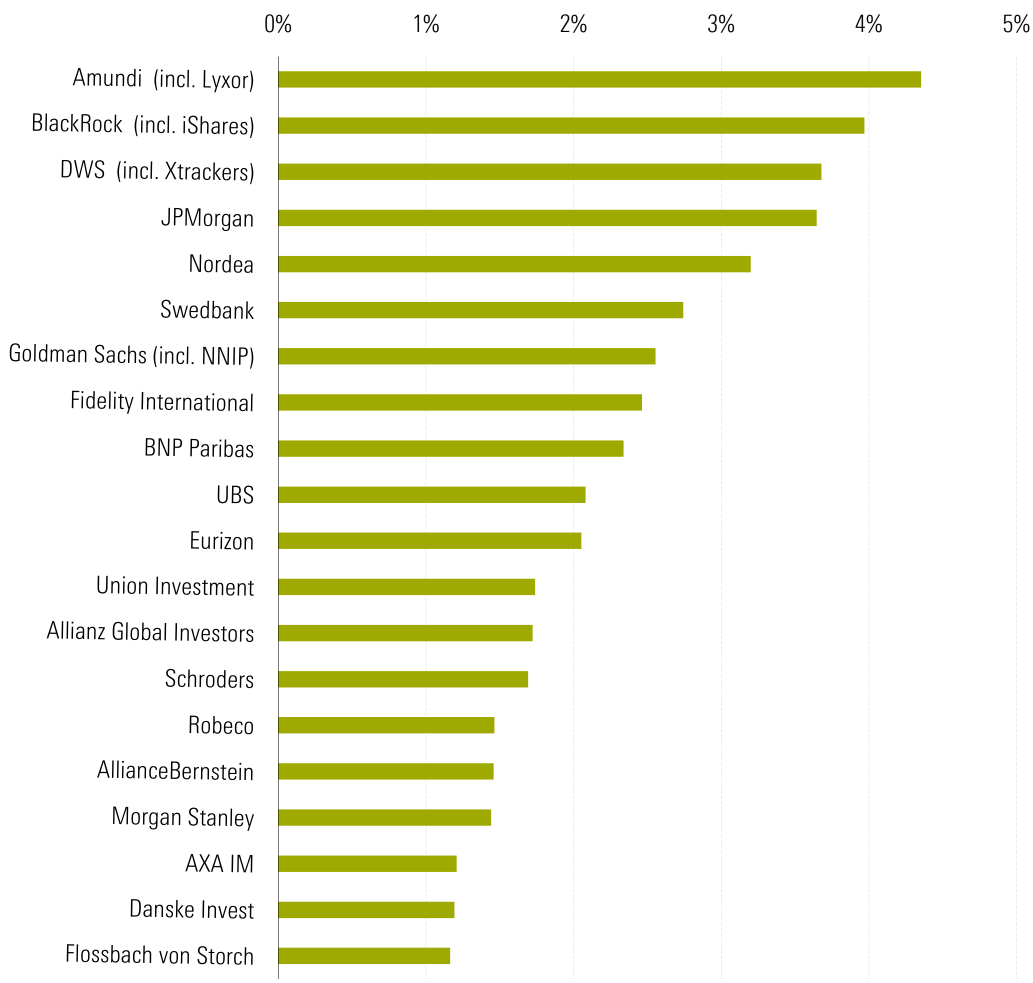
Source: Morningstar Direct. Data as of Dec. 31, 2022. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

Provider League Tables

Exhibits 19 and 20 show the asset managers with the highest market share in Article 8 and Article 9 funds, ranked by assets.

The wave of Article 9 downgrades has only slightly impacted the Article 8 provider league table. Amundi remains at the top, with a similar market share of 4.4%. BlackRock, however, climbed to the second position, with almost 4.0% of the Article 8 fund market, up from 3.6%. DWS fell to the third place.

Exhibit 19 Top 20 Asset Managers by Article 8 Fund Assets

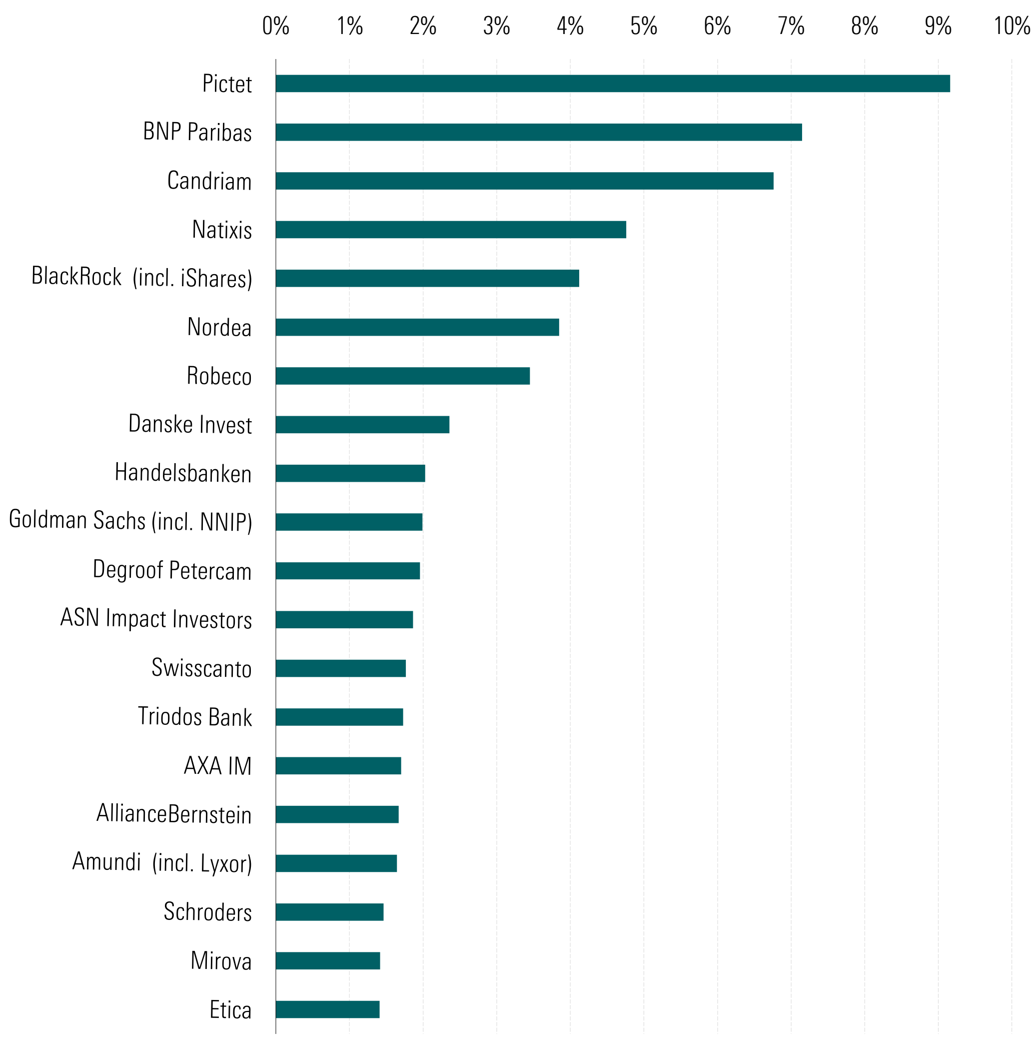


Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds. Using Branding Name in Morningstar Direct, a manager's market share is calculated as following: manager's Article 8 fund assets divided by total market Article 8 fund assets.

While Pictet also remains at the top of the Article 9 provider league table, the second and third places changed. BNP Paribas and Candriam replaced BlackRock and Amundi.

Candriam is one of the few larger European managers to have kept the Article 9 status for all its funds, including its range of broadly diversified sustainable funds, for which a maximum of 25% of "not sustainable investments" can be allocated.

Exhibit 20 Top 20 Asset Managers by Article 9 Fund Assets



Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds. Using Branding Name in Morningstar Direct, a manager's market share is calculated as following: manager's Article 8 fund assets divided by total market Article 8 fund assets.

How Do Article 8 and Article 9 Funds Stack Up?

As done in previous reports[9], we analyze here the portfolio characteristics of Article 8 and Article 9 portfolios using a number of metrics. We're looking to assess whether Article 8 and Article 9 funds exhibit desirable ESG characteristics. For example, do they have a high exposure to companies with less ESG risk? Do they have low exposure to severe controversies? Do they invest in companies whose activities and products will help the transition to a low-carbon economy? In this section, we address these questions and compare the ESG characteristics of Article 8 and Article 9 funds and the extent to

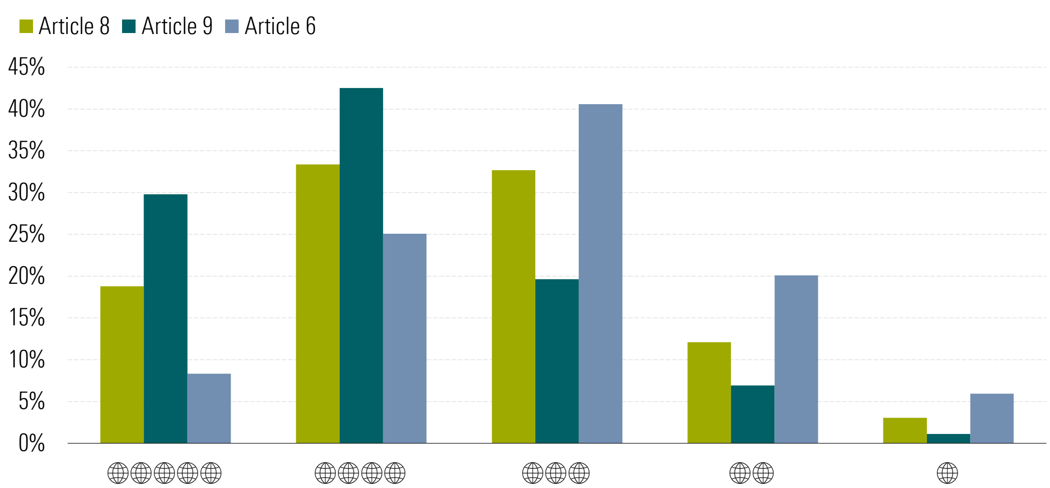
9 SFDR: Four Months After Its Introduction (July 2021) and SFDR Article 8 and Article 9 Funds: 2021 in Review (February 2022)

which they differ from Article 6 funds. We also analyze how the ESG profiles of these funds have evolved over the past six months.

Do Article 8 and Article 9 Funds Manage Their ESG Risks Better Than Article 6 Funds?

First, we examine the extent to which Article 8 and Article 9 funds are limiting their portfolios' exposures to ESG risk compared with peers. The Morningstar Sustainability Rating can help answer these questions. The Sustainability Rating is an asset-weighted roll-up of Morningstar Sustainalytics' company and sovereign ESG Risk Ratings based on the trailing 12 months of a fund's portfolios. Intuitively, we would expect Article 8 and Article 9 funds to be managing their ESG risks better than Article 6 funds.

Exhibit 21 Globe Distribution for Article 8 and 9 Funds Compared With the Overall Fund Universe



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The exhibit above suggests that it is indeed the case. The rating distribution stayed skewed toward higher Sustainability Ratings for both Article 8 and Article 9 funds. As of December 2022, 52.2% of Article 8 funds (51.6% six months ago) and 72.3% (71.8% six months ago) of Article 9 funds received the highest ratings, 4 or 5 globes, compared with 33.4% (33.6% six months ago) of Article 6 funds.

It's worth noting that the number of Article 9 funds with 5-globe ratings has increased to nearly 30%, from 26.5% in June last year. This could be partly due to the wave of Article 9 downgrades, but further analysis of these funds would be required to confirm this.

Do Article 8 and Article 9 Funds Have Low Exposures to Controversial Activities?

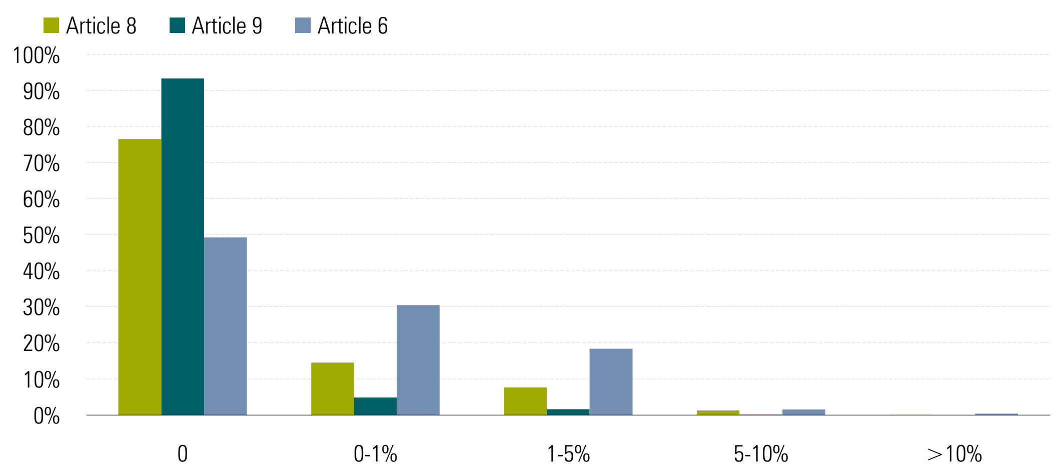
A growing number of funds in Europe are adding exclusions to their investment policies in order to limit, or completely avoid, exposure to companies involved in activities such as controversial weapons and tobacco, as well as companies facing severe controversies. Yet, investors should not assume that all the funds classified as Article 8 and Article 9 do so, even the latter, which are supposed to invest in what SFDR defines as sustainable companies, provided that these companies do not also cause significant harm. Many asset managers have incorporated the "do no significant harm," or DNSH, principle in their Article 8 and Article 9 strategies by excluding issuers that violate international norms as defined by the UN Global Compact Principles.

Here, using Morningstar Sustainalytics' underlying data rolled up to the portfolio level, we examine the exposure of Article 8 and Article 9 funds to several controversial activities and sectors, including controversial weapons, tobacco, thermal coal, and fossil fuel. We also try and assess the impact of the recent wave of Article 9 downgrades.

Controversial Weapons

First, we test the exposure of Article 8 and Article 9 funds to controversial weapons. For this, we use Morningstar's Product Involvement %—Controversial Weapons data point.[10]

Exhibit 22 Article 6, 8, and 9 Funds' Involvement in Controversial Weapons



Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

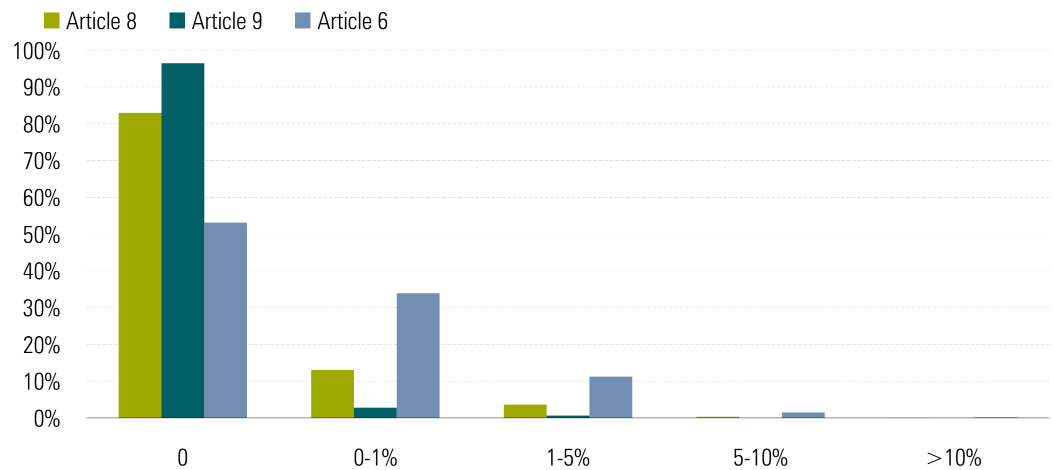
Article 8 and Article 9 funds continue to be less exposed to controversial weapons than Article 6 funds. About 76.5% (73.0% six months ago) of Article 8 products and 93.4% (86.0% six months ago) of Article 9 portfolios, had zero involvement in controversial weapons at the end of December 2022. This compares with 49.3% (46% six months ago) of Article 6 funds. These numbers show an improvement across the board but especially for Article 9 funds.

10 Product Involvement %—Controversial Weapons refers to the percentage of a fund's assets under management that is invested in companies that are classified as directly involved in the core weapon system that are considered tailor-made and essential for the lethal use of the weapon; indirectly involved by providing services for the core weapon system, which are either tailor-made or essential to the lethal use of the weapon. Product Involvement %—Controversial Weapons is binary, either yes or no.

Tobacco

Next, we test the exposure of Article 8 and Article 9 funds to tobacco. For this, we use Morningstar's Product Involvement %—Tobacco data point.[11]

Exhibit 23 Article 6, 8, and 9 Funds' Involvement in Tobacco



Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan.15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

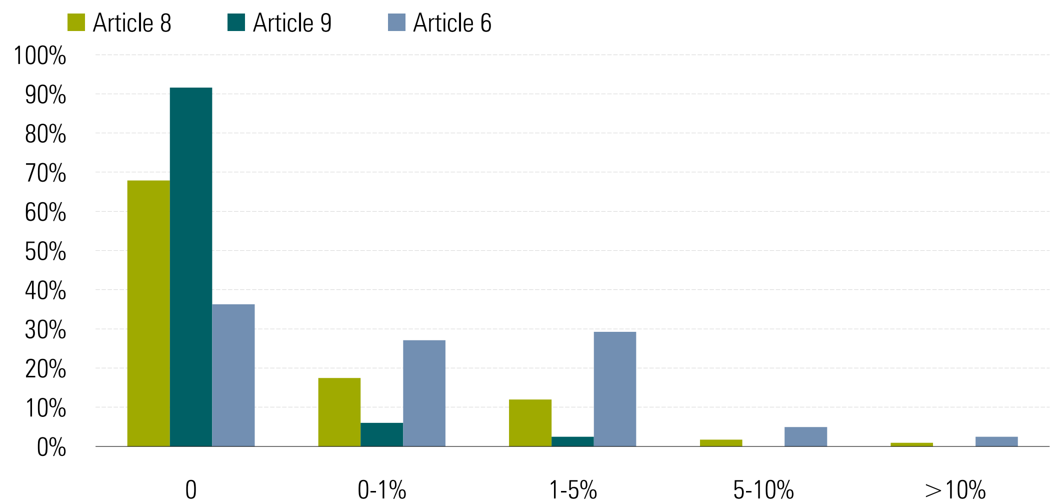
Article 8 and Article 9 funds remain much less exposed to tobacco than Article 6 funds. About 83% (80% six months ago) and 96.5% (93.0% six months ago) of Article 8 and Article 9 portfolios, respectively, had no involvement in companies that derive some revenues from tobacco manufacturing. These numbers are higher than those reported six months ago. But they reflect the market evolution, as more Article 6 offerings (53.1% versus 51.0%) also show zero exposure to tobacco.

11 Product Involvement %—Tobacco refers to the percentage of a fund's assets under management invested in companies that are classified as directly involved in the manufacturing of tobacco products; indirectly involved by supplying tobacco-related products; or deriving 10% or more of revenue from the distribution/retail sales of tobacco products. The minimum revenue threshold to mark a company as involved are the following ranges: Manufacturing: 0.1%-4.9%; Related & Revenues: 10%-24.9%.

Severe Controversies

We test the exposure of Article 8 and Article 9 funds to severe controversies. For this, we use Morningstar's Percent of AUM with Severe Controversies data point.[12]

Exhibit 24 Article 6, 8, and 9 Funds' Involvement in Severe Controversies



Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

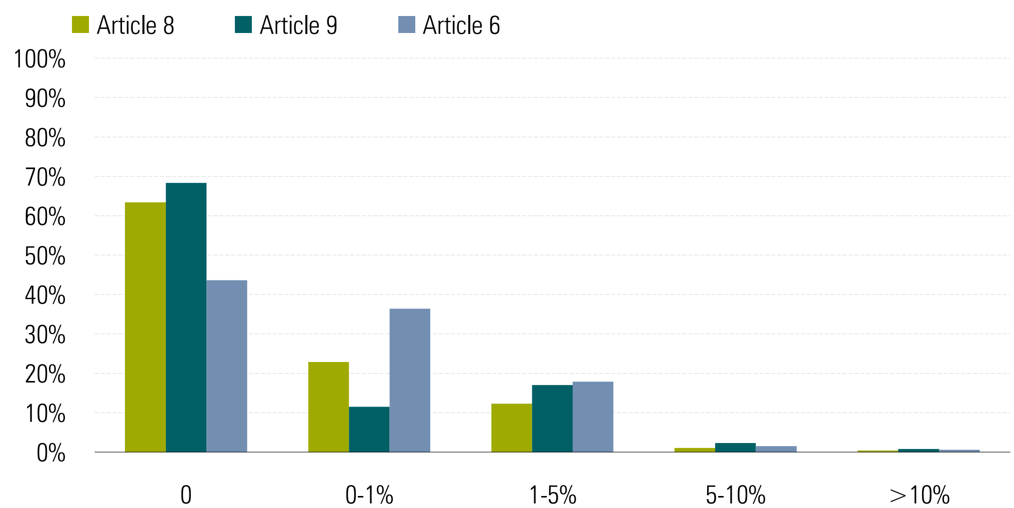
Article 8 and Article 9 funds continued to reduce their exposure to severe controversies, too. The proportion of Article 9 strategies exhibiting zero exposure to severe controversies increased significantly to 91.6% (from 87.0% six months ago and 81.0% a year ago). Meanwhile, 68% (67% six months ago) of Article 8 strategies have no exposure to severe controversies, compared with 36.3% of Article 6 funds.

12 Overall controversy assessments are assigned to companies using a five-point scale: Low, Moderate, Significant, High, Severe.

Thermal Coal Involvement

We test the exposure of Article 8 and Article 9 funds to one of the most carbon-intensive energy sources, thermal coal. We use the Product Involvement %—Thermal Coal data point.[13]

Exhibit 25 Article 6, 8, and 9 Funds' Involvement in Thermal Coal



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We're seeing an amelioration in the thermal coal involvement of Article 8 and Article 9 offerings. Close to 63.4% (61.0% six months ago) and 68.3% (67.0% six months ago) of funds classified as Article 8 and Article 9, respectively, exhibited no exposure to companies deriving some revenue from thermal coal at the end of December. One may have expected Article 9 funds to exhibit lower thermal coal exposure because of the SFDR's "do no significant harm" requirement that is meant to apply to the full portfolio. (See detail below). These numbers remain better than the 43.7% of Article 6 with no thermal coal involvement.

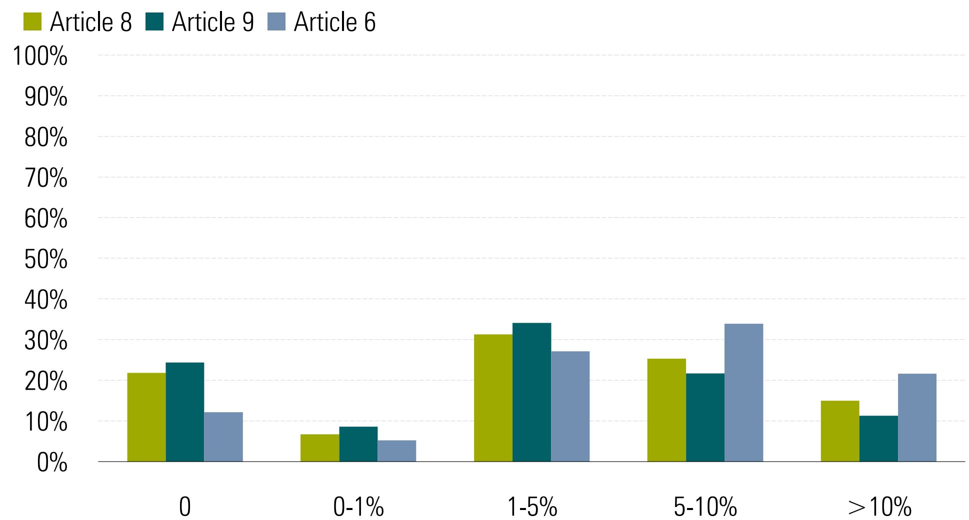
Fossil Fuel Involvement

We test the exposure of Article 8 and Article 9 funds to fossil fuel companies. For this, we use Morningstar's Portfolio Fossil Fuel Involvement metric, the percentage of the fund's assets that are involved in fossil fuels.[14] Unlike the previous metrics, the fossil fuel product involvement data is available only on a quarterly basis.

13 Product Involvement %—Thermal Coal refers to the percentage of a fund's assets under management invested in companies that are classified as directly involved in the extraction of thermal coal; indirectly involved by generating electricity from thermal coal. The minimum revenue threshold to mark a company as involved is the following range: 5.0%-9.9%. On a lifecycle basis, thermal coal is the most carbon-intensive fossil fuel source, while from an energy-generation perspective, it is easily substitutable.

14 Companies are considered involved in fossil fuels if they derive at least an aggregate 5% share of total revenue from the following activities: thermal coal extraction, thermal coal power generation, oil and gas production, and oil and gas power generation. Companies deriving at least 50% of their revenue from oil and gas products and services are also included. Companies involved in Arctic oil and gas exploration and oil sands extraction will be included only if there is no involvement in oil and gas production.

Exhibit 26 Article 6, 8, and 9 Funds' Involvement in Fossil Fuel



Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of Jan. 15, 2023, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

While the majority of Article 8 and Article 9 funds have zero exposure to all the controversial activities previously mentioned, this is not the case for fossil fuel. Only a minority of Article 8 funds (21.8%) and Article 9 funds (24.4%) have no fossil fuel involvement. These numbers have remained stable over the past year, despite high oil and gas prices over the past year. Additionally, as much as 40.2% (40% six months ago) of Article 8 products and 33% (33% six months ago) of Article 9 portfolios, had over 5% exposure to fossil fuel companies at of the end of December.

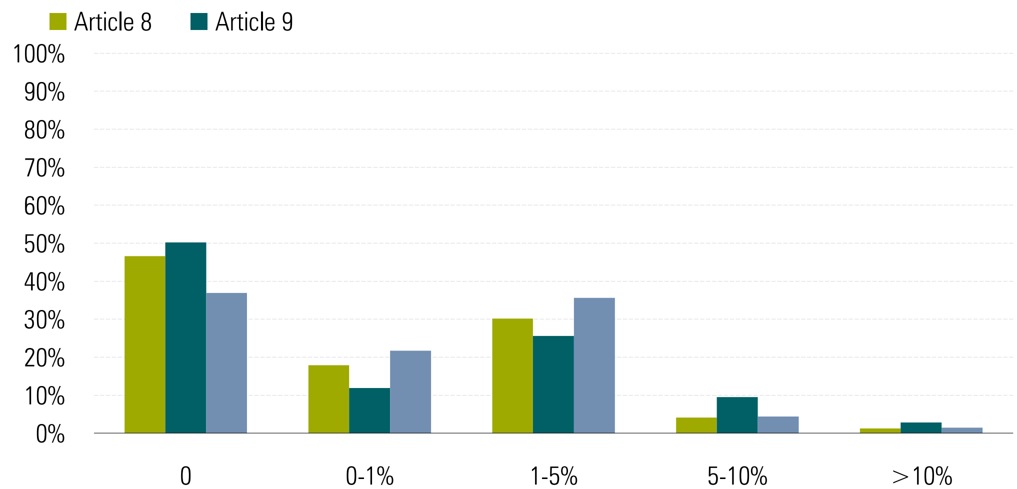
The relatively high fossil fuel involvement of Article 9 funds, in particular, may still come as a surprise to some investors. But it is largely because many of these funds invest in so-called transitioning companies. These typically are oil and gas or utilities companies that have made a commitment to transition away from their highly carbon-intensive activities and have set net-zero emissions targets. These companies are increasing their exposure to renewable energy but still operating their legacy fossil fuel businesses. A good example is AES, which has wind and solar farms and has announced a plan to reach net-zero carbon emissions from electricity sales by 2040, but the majority of AES' power-generation capacity remains fossil-fuel-fired.

Finally, it's worth noting that the vast majority of green-bond funds are classified as Article 9 because the proceeds of such bonds help finance projects that contribute to an environmental objective. But these companies, such as utilities company RWE, still have high exposure to fossil fuels, which is reflected in the exhibit above.

Nuclear Involvement

Finally, we test the exposure of Article 8 and Article 9 funds to nuclear energy. We use the Product Involvement %—Nuclear data point.[15]

Exhibit 27 Article 6, 8, and 9 Funds' Involvement in Nuclear



Source: Morningstar Direct. Assets as of Dec. 31, 2022. SFDR status as of January 15, so January downgrades are accounted for. Based on SFDR data collected from prospectuses on 98.2% of funds available for sale in the EU, as well as January factsheets, KIIDs, PRIIP KIDs, and fund company websites, excluding money market funds, funds of funds, and feeder funds.

A minority of Article 8 funds (46.8% versus 46.0% six months ago) has no nuclear involvement. Meanwhile, the proportion of Article 9 funds with zero exposure to nuclear has slightly increased (50.2% versus 46.0% six months ago), which could come as a surprise. Following the inclusion of nuclear in the EU Taxonomy, one could have expected both types of funds to increase their exposure to nuclear. While 35.5% (34.0% six months ago) of Article 8 portfolios have more than a 1% allocation to companies associated with nuclear energy, a decreasing proportion of Article 9 funds (37.9% versus 39.0% six months ago) exhibit such exposure.

15 Product Involvement %—Nuclear refers to the percentage of a fund's assets under management invested in companies that produces nuclear power, including utilities that own or operate nuclear power generators, companies that provide products/services that support the nuclear power industry, such as designing and constructing nuclear power plants, manufacturing specialized parts for use in nuclear power plants, or companies involved in uranium mining exploration, as well as companies that distribute electricity generated from nuclear power

Have the Most Popular Article 9 Fund Holdings Changed?

In this section, we look inside Article 9 portfolios and examine the most commonly held companies as well as their sector, equity style, and Morningstar ESG Risk Rating Assessment[16].

Exhibit 28 Most Commonly Held Companies in Article 9 Funds

Stock	Sector	Number of Funds Owning the Stock	Average Portfolio Weight	Equity Style Box	ESG Risk Rating Assessment
Schneider Electric SE	Industrials	212	2.4%	Large Blend	🌐🌐🌐🌐
Vestas Wind Systems A/S	Industrials	174	1.7%	Large Growth	🌐🌐🌐🌐
ASML Holding NV	Technology	173	2.6%	Large Growth	🌐🌐🌐🌐
Novo Nordisk A/S	Healthcare	163	2.8%	Large Growth	🌐🌐🌐
Microsoft Corp	Technology	138	3.8%	Large Growth	🌐🌐🌐🌐
Orsted A/S	Utilities	136	1.5%	Large Blend	🌐🌐🌐🌐
Koninklijke DSM NV	Basic Materials	132	1.8%	Large Blend	🌐🌐🌐🌐
Thermo Fisher Scientific Inc	Healthcare	132	2.5%	Large Growth	🌐🌐🌐🌐
EDP Renovaveis SA	Utilities	127	1.7%	Large Blend	🌐🌐🌐🌐
SolarEdge Technologies Inc	Technology	124	1.7%	Mid Growth	🌐🌐🌐
Roche Holding AG	Healthcare	115	2.1%	Large Blend	🌐🌐🌐
Xylem Inc	Industrials	115	1.9%	Mid Blend	🌐🌐🌐🌐
American Water Works Co Inc	Utilities	113	1.8%	Mid Blend	🌐🌐🌐
Infineon Technologies AG	Technology	111	1.7%	Large Growth	🌐🌐🌐🌐
Autodesk Inc	Technology	108	1.4%	Large Growth	🌐🌐🌐🌐
AstraZeneca PLC	Healthcare	104	2.3%	Large Growth	🌐🌐🌐
Danaher Corp	Healthcare	104	2.3%	Large Growth	🌐🌐🌐🌐
L'Oreal SA	Consumer Defensive	102	2.0%	Large Growth	🌐🌐🌐🌐
Alphabet Inc	Communication Services	100	2.3%	Large Growth	🌐🌐🌐
Enphase Energy Inc	Technology	98	1.7%	Mid Growth	🌐🌐🌐

Source: Morningstar Direct. Data as of Jan. 15, 2023.

Over the past six months, the most commonly held companies in Article 9 funds have not changed much. Seventeen of the 20 stocks in the table above featured in the same table in July last year. **Autodesk**, **Danaher**, and **Enphase Energy** are the only three new joiners, replacing **Allianz SE**, **Atlas Copco AB**, and **SAP SE**. The turnover is even lower this time than six months ago (six leavers). Further analysis would be required to understand the impact of the Article 9 downgrades on portfolio holdings.

What we continue to observe, however, is that many of these companies are also held by many Article 8 portfolios. These are among the companies deemed the most attractive in terms of ESG risk and/or impact. These tend to be large and innovative companies for which sustainability plays a central role in the strategy. In contrast with the Article 8 fund group which holds almost every company in the world's total market indexes, the Article 9 category is more homogenous, focused on companies that provide positive solutions to the world's biggest challenges like climate change. Solutions to environmental

16 Morningstar® ESG Risk Rating Assessment for Companies

issues tend to be found in the industrials and technology sectors. Article 9 portfolios tend to be more concentrated at both stock and sector levels, and this is somewhat reflected in the exhibit above. Industrials, technology, and healthcare are the most represented sectors in the top-20 league table.

Article 8 and Article 9 Funds Through the Lens of the European ESG Template

Since Aug. 2, 2022, the amended MiFID II requires financial advisors to consider clients' sustainability preferences when conducting suitability assessments. If clients express interest in making sustainable investments, advisors will have to accommodate. Depending on the specific client's preferences, advisors will have to source products that have a minimum proportion of sustainable investments as defined by the Sustainable Finance Disclosure Regulation or the EU Taxonomy. Clients may also choose only investments that consider principal adverse impacts, or PAIs.

To facilitate this process, a new European ESG template, or EET, has been developed by industry representatives (FinDatEx) to ease the exchange of data between asset managers and distributors. Asset managers marketing their funds in the EU started to submit EET data on a voluntary basis from June 1, 2022.

As of Jan. 13, Morningstar collected EET data on 96,082 share classes, accounting for 67% of all share classes in scope of MiFID II. These represent 18,581 funds[17], including 8,130 Article 8 funds and 9,106 Article 9 funds[18].

In this section, we share insights on the coverage and values of the following three EET fields, as featured in the Morningstar Direct database, namely:

1) **Principal Adverse Impact Consideration**, indicating if a product considers principal adverse impact in its investments. Answers are "Yes" or "No." [19]
2) **EU Sustainable Finance Disclosure Regulation Minimum or Planned Investments Sustainable Investments**, representing the minimum percentage of portfolio investments that are deemed sustainable but are not taxonomy-aligned. Answers are numerical values.[20]
3) **EU Sustainable Finance Disclosure Regulation Minimum or Planned Investments Sustainable Investments Taxonomy Aligned**, representing the minimum percentage of the portfolio that is aligned with the EU Taxonomy. Answers are numerical values.[21]

We also discuss the challenges that asset managers will face when selecting suitable products for clients given the patchiness of the data available to them and the lack of comparability between

17 The number of funds and share classes estimated to be in scope of the EET is 38,330 and 143,179, respectively. Money market funds, funds of funds, and feeder funds are included in this section on the EET.

18 As of July 18, Morningstar had collected SFDR data types for 30,060 funds based on fund prospectuses, including 10,462 Article 8 and Article 9 funds.

19 EET Name: 20100_Financial_Instrument_Does_This_Product_Consider_Principal_Adverse_Impact_In_Their_Investment

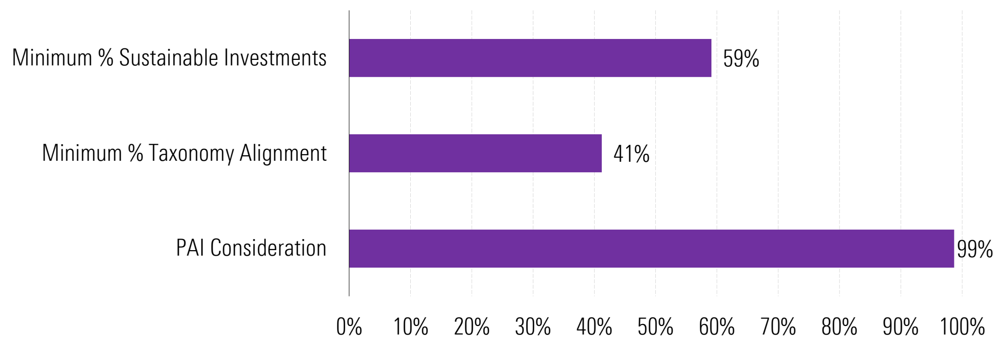
20 EET Name: 20420_Financial_Instrument_EU_SFDR_Minimum_Or_Planned_Investments_Sustainable_Investments

21 EET Name: 20450_Financial_Instrument_EU_SFDR_Minimum_Or_Planned_Investments_Sustainable_Investments_Taxonomy_Aligned

products caused by the different approaches taken by asset managers to calculate sustainable investment and taxonomy-alignment exposure.

Exhibit 29 shows the coverage of these three fields for the surveyed Article 8 and Article 9 funds.

Exhibit 29 Coverage of Key EET Data Points for the Surveyed Article 8 and Article 9 Funds



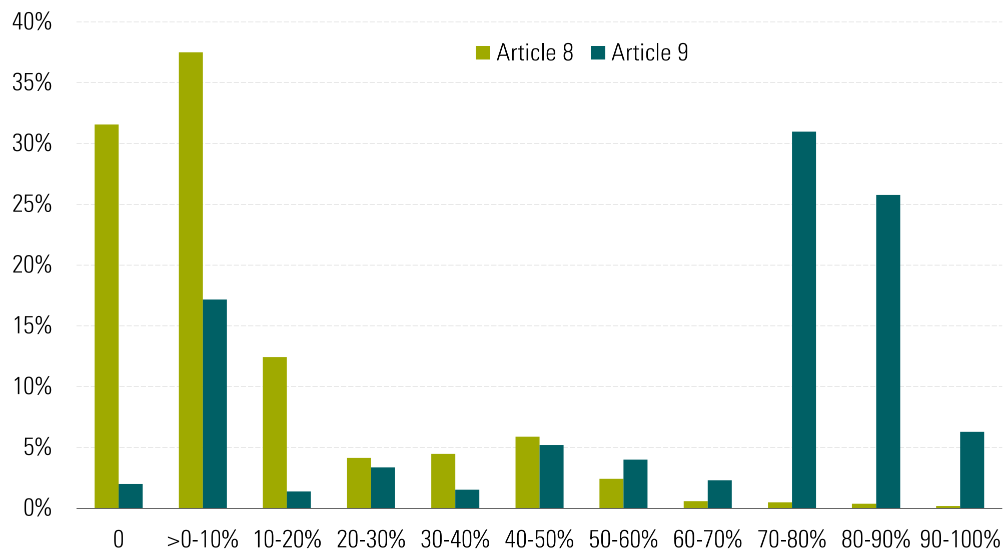
Source: Morningstar Direct. Data as of Jan. 13, 2023. Based on 8,130 and 910 reported as Article 8 and Article 9 products, respectively.

All Article 8 and Article 9 products are required to disclose if they consider principal adverse impact indicators, explaining the high percentage (99%) of surveyed funds that populated the PAI Consideration field, as of mid-January. With the regulatory requirement since January 1 of adding detailed SFDR annexes to product disclosures, managers have stepped up their reporting through the EET, resulting in higher coverage of the two other metrics. As of mid-January, over 59% of the surveyed Article 8 and Article 9 funds reported a minimum percentage of sustainable investments, compared with 48% in September, and 41% disclosed a minimum percentage of taxonomy-aligned investments, versus 33% three months ago.

Minimum Proportion of Sustainable Investments

Exhibit 30 shows the distribution of the surveyed Article 8 and Article 9 funds that reported the field.

Exhibit 30 Minimum % of Sustainable Investments for Article 8 and Article 9 Funds



Source: Morningstar Direct. Data as of Jan. 13, 2023. Based on 4,692 Article 8 funds and 652 Article 9 funds that report the field.

Since the end of September, Article 8 and Article 9 funds have increased their minimum exposure to sustainable investments. The percentage of Article 8 funds with 0%-values has decreased to 31.6% from 36.0%, while those targeting between 0% and 10% exposure has risen to 37.5% from 30.0% in September.

Meanwhile, more Article 9 funds (63% versus 47%) now plan to have more than 70% exposure to sustainable investments, while fewer Article 9 funds (28.7% down from 43.4%) target less than 50% of sustainable investments. The reduced number of funds with low sustainable investment allocations has been driven by the recent reclassifications, and we can expect this number to go down even further as more Article 9 funds get downgraded to Article 8.

Additionally, a higher number of Article 9 funds now target between 90% and 100%: 6.3% compared with 4.8% in September. As of Jan. 13, we identified 36 Article 9 funds that target 100% exposure to sustainable investment, up from 26 three months ago.

The exhibit below shows the 20 Article 8 products with the highest minimum exposures to sustainable investments ranked by fund size.

Topping the list are four funds that reported minimum sustainable-investment allocations of 100%, which may come as a surprise as one would typically expect to see such a high level of targeted sustainable-investment exposure in the Article 9 category. Among the four strategies is **Scandinavian Credit**, which offers short-term direct lending to small and medium-size companies that need to finance expansion, investment, restructuring, refinancing, generational financing, or seasonal needs. The investee companies are selected based on a combination of positive and negative screening, compliance with international standards, and active ownership criteria where applicable.

Also committed to 100% sustainable investment are two GP Bullhound funds: **GP Bullhound Global Technology** and **GP Bullhound Thyra Hedge**. The percentages in this table are higher than those we reported three and six months ago.

Exhibit 31 Top 20 Article 8 Funds by Minimum or Planned Investments Sustainable Investments

Fund Name	SFDR Type	Min % of Sustainable Investments	Fund Size (Euro Mil)	Morningstar Category	Broad Category
Scandinavian Credit Fund I AB (publ)	Article 8	100	276	Other Bond	Fixed Income
GP Bullhound Global Technology Fund	Article 8	100	41	Sector Equity Technology	Equity
Global Ethical Values Select Fund	Article 8	100	4	Global Large-Cap Blend Equity	Equity
GP Bullhound Thyra Hedge	Article 8	100	1	Long/Short Equity - Global	Equity
La Française Euro Souverains	Article 8	96	11	EUR Government Bond - Short Term	Fixed Income
Aegon Global Sustainable Sovereign Bond Fund	Article 8	95	98	Global Bond - EUR Hedged	Fixed Income
La Française Obligations LT	Article 8	95	76	EUR Diversified Bond	Fixed Income
AEAM Global Sustainable Real Estate Fund	Article 8	95	21	Property - Indirect Global	Equity
AXA IM ACT Climate Equity ETF	Article 8	90	337	Global Large-Cap Blend Equity	Equity
AXA IM ACT Biodiversity Equity ETF	Article 8	90	322	Other Equity	Equity
ODDO BHF Artificial Intelligence	Article 8	90	214	Sector Equity Technology	Equity
Ossiam Bloomberg USA PAB ETF	Article 8	90	166	US Large-Cap Blend Equity	Equity
Ossiam Lux Ossiam MSCI EMU NR	Article 8	90	142	Eurozone Large-Cap Equity	Equity
Ossiam Lux Bloomberg Asia Pacific Ex Japan PAB NR	Article 8	90	123	Asia-Pacific ex-Japan Equity	Equity
Ossiam Lux Ossiam MSCI Japan NR	Article 8	90	104	Japan Large-Cap Equity	Equity
Ossiam Bloomberg Canada PAB ETF	Article 8	90	90	Canada Equity	Equity
Ossiam Lux Ossiam MSCI Europe ex EMU NR	Article 8	90	87	Other Equity	Equity
Invesco Solar Energy ETF	Article 8	90	75	Sector Equity Alternative Energy	Equity
Invesco Global Clean Energy ETF	Article 8	90	56	Sector Equity Alternative Energy	Equity
HSBC Global Sustainable Long Term Dividend	Article 8	90	24	Global Equity Income	Equity

Source: Morningstar Direct. Data as of Jan. 13, 2023. Based on 4,692 Article 8 funds that report the field. Funds are ranked first by sustainable-investment exposure and second by fund size.

Exhibit 32 lists the 20 Article 9 funds with the highest minimum exposures to sustainable investments ranked by fund size. These are among the 36 funds that, as of Jan. 13, reported 100% exposure to sustainable investments. While representing an improvement over our count of 26 in September, 36 remains a low number, raising questions about the feasibility of funds exclusively aiming sustainable investments. These percentages are in any case difficult to gauge given the different interpretations taken by asset managers of the definition of a "sustainable investment" as well as the different methodologies they used to calculate exposure to sustainable investments (more detail in the next section).

Exhibit 32 Top 20 Article 9 Funds by Minimum or Planned Investments Sustainable Investments

Fund Name	SFDR Type	Min % of Sustainable Investments	Fund Size (Euro Mil)	Morningstar Category	Broad Category
ÖkoWorld ÖkoVision Classic	Article 9	100	2,010	Sector Equity Ecology	Equity
UBS Sustainable Development Bank Bonds ETF	Article 9	100	1,968	USD Government Bond	Fixed Income
ÖkoWorld Klima	Article 9	100	680	Sector Equity Ecology	Equity
Storbrand Global Solutions	Article 9	100	638	Global Large-Cap Blend Equity	Equity
DNCA Invest Beyond Global Leaders	Article 9	100	488	Global Large-Cap Growth Equity	Equity
DNCA Invest Beyond Semperosa	Article 9	100	366	Europe Large-Cap Growth Equity	Equity
ÖkoWorld Growing Markets 2.0	Article 9	100	289	Fund Global Emerging Markets Small/Mi	Equity
ÖkoWorld Rock 'n' Roll Fonds	Article 9	100	286	EUR Flexible Allocation - Global	Allocation
La Française Inflection Point Carbon Impact Global	Article 9	100	262	Global Large-Cap Blend Equity	Equity
JPMorgan Climate Change Solutions Fund	Article 9	100	243	Sector Equity Ecology	Equity
DNCA Invest Beyond Alterosa	Article 9	100	180	EUR Cautious Allocation	Allocation
GreenEffects NAI-Wertefonds	Article 9	100	178	Sector Equity Ecology	Equity
La Française Carbon Impact Floating Rates	Article 9	100	163	EUR Corporate Bond - Short Term	Fixed Income
Symphonia Electric Vehicles Revolution	Article 9	100	112	Sector Equity Technology	Equity
La Française Obligations Carbon Impact	Article 9	100	106	EUR Diversified Bond	Fixed Income
La Française Actions Euro Capital Humain	Article 8	100	101	Eurozone Large-Cap Equity	Equity
Carnegie All Cap	Article 9	100	98	Sweden Equity	Equity
DNCA Invest Beyond Climate	Article 9	100	97	Sector Equity Ecology	Equity
La Française Carbon Impact 2026	Article 9	100	81	Fixed Term Bond	Fixed Income
ÖkoWorld Water Life	Article 9	100	63	Sector Equity Water	Equity

Source: Morningstar Direct. Data as of Jan. 13, 2023. Based on 652 Article 9 funds that report the field. Funds are ranked first by sustainable-investment exposure and second by fund size.

Different Approaches to Calculating Sustainable-Investment Exposure

In this section, we discuss the challenges faced by asset managers in implementing MiFID II requirements, especially the reporting of sustainable-investment exposure.

Calculating a fund's minimum percentage of sustainable investments as defined under SFDR or the EU taxonomy isn't easy. In addition to the well-known conundrum of issuer data availability, there is a definitional problem.

Article 2(17) of SFDR defines the term *sustainable investment* as:

- An investment in **an economic activity that contributes to an environmental objective**, as measured, for example, by key resource efficiency indicators on the use of energy, renewable energy, raw materials, water and land, on the production of waste, and greenhouse gas emissions, or on its impact on biodiversity and the circular economy,
- Or an investment in **an economic activity that contributes to a social objective**, in particular an investment that contributes to tackling inequality or that fosters social cohesion, social integration,

and labor relations, or an investment in human capital or economically or socially disadvantaged communities,

- Provided that **such investments do not significantly harm any of those objectives**,
- And [provided] that the investee **companies follow good governance practices**, in particular with respect to sound management structures, employee relations, remuneration of staff, and tax compliance.

The issue with this definition of "sustainable investment" is that it leaves too much room for interpretation, especially when it comes to the "do no significant harm" condition.

For the purpose of the "do no significant harm" test, a list of PAI indicators as outlined in Exhibit 38 must be considered. But regulators haven't specified any thresholds, so the determination of what these should be has been left to the discretion of asset managers.

Another aspect left to the discretion of managers relates to the way sustainable companies are counted in portfolios. While one firm might count the entirety of a sustainable company (beyond a certain level of revenue derived from sustainable activities), another might count only the proportion of revenue attributed to those activities. These two approaches, broadly referred to as *revenue-weighted* and *pass-fail approaches* (and highlighted in the exhibit below), would produce opposite results: high percentages of sustainable investments in the first case and much lower levels in the latter case[22].

Exhibit 33 The Two Main Approaches to Calculating 'Sustainable Investment Proportion'

	Revenue-weighted approach	Pass-Fail approach
% of Sustainable Investments (After the DNH test is applied)	Only the % of revenue generated from sustainable activities	100% of companies that generate a minimum level of revenue from sustainable activities
Example	If 20% of a company's revenue contribute to the UN SDGs and the company is not involved in any business activities deemed significantly harmful, then the 20% of the investment in the company is considered	If 20% of a company's revenue contribute to the UN SDGs and the company's remaining business activities are not deemed significantly harmful, then an investment in the whole company is considered a sustainable one.
% of Sustainable Investment typically reported	20-40%	60-80% (and in some cases 100%)

Source: Morningstar Research.

Following ESMA's recent clarification that Article 9 funds should only hold sustainable investments as defined by SFDR Article 2(17), it seems that *pass-fail approaches* have become the most commonly adopted as they're seen as the only way to meet the 100% sustainable investment requirement.

22 For more detail on the benefits and limitations of these approaches, read this blog.

That said, other factors have started to influence the reporting of targeted sustainable investment exposure in EETs and precontractual documents, including competition and reputational and legal risks. While some asset managers aim to commit to as high a sustainable investment allocation as possible in order for their green products to be positioned in the most favorable way possible among fund distributors and end investors, others have decided to take a more conservative approach and disclose as low commitment levels as possible within a range that would not disadvantage them commercially, As such, we've seen funds report higher sustainable investment targets than a few months ago, while others are now reporting lower levels.

Other factors that could drive divergent numbers reported by different asset managers for similar portfolios include different criteria and thresholds to set sustainable activity eligibility, among others.

Different interpretations of the regulation have led asset managers to adopt different approaches to the calculation of sustainable-investment exposure, rendering it impossible to compare competing products directly. Products with similar mandates and portfolios will report divergent exposures to sustainable investments depending on the methodology chosen by their providers. To illustrate the wide range of numbers that investors should expect to see and changes in committed sustainable investment exposure over the past three months, we have selected 11 global large-cap ETFs that track a Paris-aligned benchmark and have similar portfolios.

Exhibit 34 Minimum % of Sustainable Investments for 11 Funds Tracking Large-Cap Paris-Aligned Benchmarks

Fund Name	Min. % Sustainable Investments (Sep-22)	Min. % Sustainable Investments (Dec-22)
UBS MSCI World Climate Paris Aligned ETF	80%	20%
UBS MSCI ACWI Climate Paris Aligned ETF	80%	20%
BNP PARIBAS EASY - Low Carbon 300 World PAB	45%	50%
BNP Paribas Easy MSCI World SRI S-Series PAB 5% Capped	45%	45%
HSBC MSCI World Climate Paris Aligned ETF	20%	20%
Amundi Index MSCI World SRI PAB	10%	5%
iShares MSCI World Paris-Aligned Climate ETF	10%	25%
Lyxor Net Zero 2050 S&P World Climate PAB (DR) ETF	10%	5%
Amundi MSCI World Climate Paris Aligned Pab	5%	5%
Amundi MSCI World Climate Paris Aligned Pab Umweltzeichen ETF DR	5%	5%
Xtrackers World Net Zero Pathway Paris Aligned ETF	1%	10%

Source: Morningstar Direct. Data as of December 2022.

Out of the 11 products, only four maintained the same targeted sustainable investment allocation over the past three months. The most striking changes were made by two UBS ETFs, which in September reported an 80% minimum sustainable investment exposure. This exposure was reduced to 20% at the end of December. According to UBS, this change was made following the new regulatory guidance and conversations with distributors as well as a review of practices that led the manager to take a more cautionary and standardized approach across its product range.

It's worth noting that overall, 26.7% of Article 8 funds revised their sustainable investment commitment (11.4% down and 15.3% up) between September and December 2022. This compares with 31.7% of Article 9 funds (13.5 down and 18.2% up).

In the absence of a common definition of sustainable investment and standardized approach to calculating such exposure, we will continue to see asset managers use a variety of methodologies, rendering it impossible to compare competing products directly. Products with similar mandates and portfolios will continue to report divergent exposures to sustainable investments depending on the methodology chosen by their providers. Furthermore, differences in risk appetite and commercial interest could also lead to divergence. More commercially oriented and risk-taking managers will report higher sustainable-investment allocations than more cautious ones.

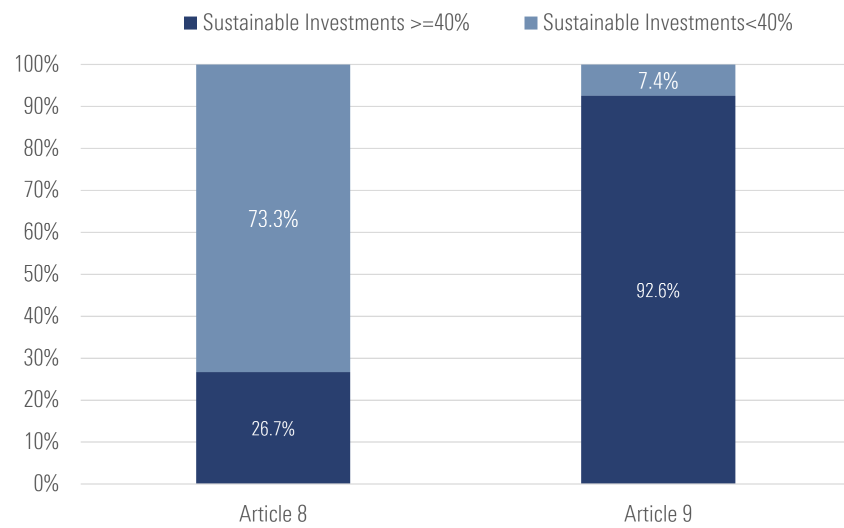
ESMA's Proposed Rule on Fund Names: Only One Fourth of Article 8 Funds With "Sustainable" in Their Names Would Qualify

While waiting for clarifications on SFDR classification, the European Securities and Markets Authority launched a consultation on the opportunity to upgrade expectations for Article 8 products using ESG- or sustainability-related terms in their name. Under this new proposal, a fund with any ESG-related words in its name to have a minimum proportion of at least 80% of its investments being used to meet the environmental or social characteristics. Additionally, a fund using the word "sustainable" or any other term derived from the word "sustainable" in its name would need to allocate at least half within that 80% toward sustainable investments as defined in SFDR.

Based on our understanding of ESMA's proposal, if implemented, just over one fourth (26.7%) of Article 8 funds would meet the requirement of holding at least 40% of sustainable investments[23], while the vast majority (92.6%) of Article 9 funds would meet the requirement, as shown in Exhibit 33. The rest of the funds would need to either increase their sustainable investment allocations or change names.

23 Calculation of the minimum allocation: 80% x 50% = 40%.

Exhibit 35 Funds With "Sustainable" in Their Names

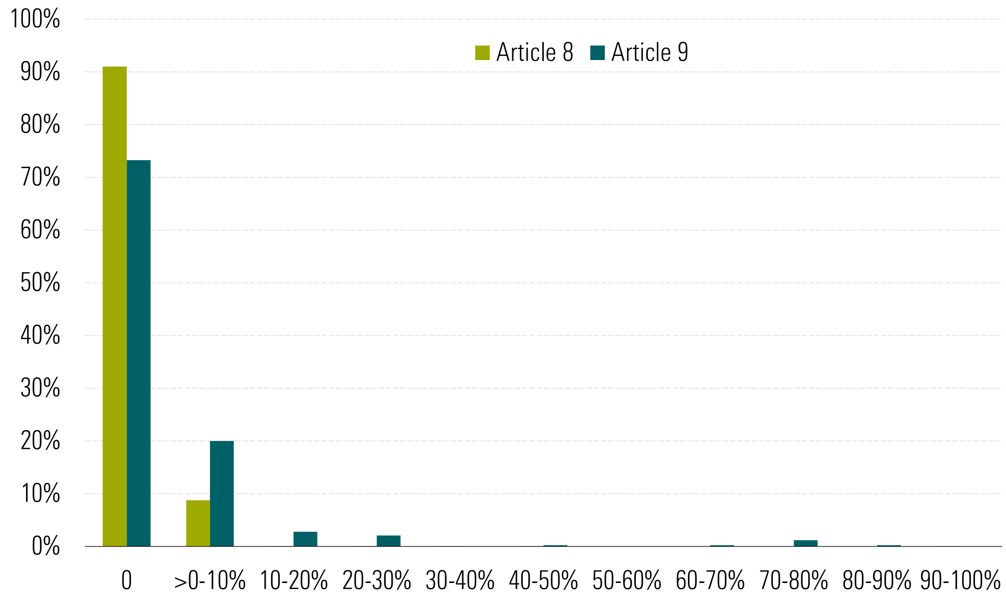


Source: Morningstar Direct. Data as of Jan. 13, 2023. Based on 480 Article 8 funds and 121 Article 9 funds that report the field and have sustainability-related terms in the fund names. The sustainability-related terms applied include Sustainable, Sustainability, Sust, Sostenibile, Nachhaltigkeit, Nachhaltige, Nachhaltig, Hållbar, Duurzaam, Durable, and Bæredygtig.

Minimum Proportion of Taxonomy-Aligned Investments

As previously mentioned, the number of surveyed Article 8 and Article 9 funds that reported minimum sustainable investment exposure as defined under the EU Taxonomy has risen in the past three months. As of mid-January, 41% populated the Minimum or Planned Investments Sustainable Investments Taxonomy Aligned field. Exhibit 34 shows the distribution of reported values.

Exhibit 36 Minimum % of Taxonomy-Aligned Sustainable Investments for Article 8 and Article 9 Funds



Source: Morningstar Direct. Data as of Jan. 13, 2023. Based on 3,296 Article 8 funds and 430 Article 9 funds that report the field.

Unsurprisingly, 0% values continue to account for the overwhelming majority of the responses received (91% for Article 8 funds and 73% for Article 9 funds), while just 20% of Article 9 funds (down from 22% three months ago) reported minimum taxonomy-aligned sustainable investments between 0% and 10%. A growing number of Article 9 funds, however, (6.7% from 3.0% earlier), target exposure higher than 10%. Seven funds reported exposure higher than 60%. These low figures can be explained by the fact that issuers will only start disclosing their level of taxonomy-alignment this year and that, in the meantime, European Supervisory Authorities have pushed asset managers to be conservative in their taxonomy disclosure (for example, by not allowing the use of estimates).

Exhibit 35 features the 20 Article 8 funds with the highest level of taxonomy-alignment ranked by fund size. We are seeing two funds with 100% taxonomy alignment: **Scandinavian Credit** and **GP Bullhound Global Technology**. But very quickly the proportions fall to below 10%. Only 13 Article 8 products reported exposure of 10% or greater.

Exhibit 37 Top 20 Article 8 Funds by Minimum % of Taxonomy-Aligned Investments

Fund Name	SFDR Type	Min % of Taxonomy Aligned Sustainable Investments	Fund Size (EURO Mil)	Morningstar Category	Broad Category
Scandinavian Credit Fund I AB (publ)	Article 8	100	276	Other Bond	Fixed Income
GP Bullhound Global Technology Fund	Article 8	100	41	Sector Equity Technology	Equity
S-Bank Forest	Article 8	50	213	Property - Direct Other	Property
S-Bank Housing	Article 8	40	285	Property - Direct Other	Property
WI Immobilienaktien Asia Pacific ESG	Article 8	26	26	Property - Indirect Asia	Equity
WI Immobilienaktien EMEA ESG	Article 8	22	30	Property - Indirect Europe	Equity
R-co Thematic Real Estate	Article 8	20	214	Property - Indirect Eurozone	Equity
3 Banken Mensch & Umwelt Mischfonds	Article 8	15	200	EUR Moderate Allocation - Global	Allocation
Swedbank Robur Fastighet	Article 8	10	795	Property - Indirect Global	Equity
Swedbank Robur Transition Energy	Article 8	10	573	Sector Equity Alternative Energy	Equity
WERTGRUND WohnSelect	Article 8	10	454	Property - Direct Europe	Property
Assenagon Funds Value Size Global	Article 8	10	392	Global Flex-Cap Equity	Equity
R-co Opal 4Change Sustainable Trends	Article 8	10	89	Global Flex-Cap Equity	Equity
Assenagon Funds Asymmetric Beta US	Article 8	8	27	US Large-Cap Blend Equity	Equity
WI Global Challenges Index-Fonds	Article 8	7	388	Global Large-Cap Blend Equity	Equity
3 Banken Mensch & Umwelt Aktienfonds	Article 8	7	205	Sector Equity Ecology	Equity
Assenagon Funds Substanz Europa	Article 8	6	82	Europe Equity Income	Equity
WI Immobilienaktien America ESG	Article 8	6	35	Property - Indirect North America	Equity
hausInvest	Article 8	5	17,447	Property - Direct Europe	Property
Allianz Europe Equity SRI	Article 8	5	379	Europe Large-Cap Blend Equity	Equity

Source: Morningstar Direct. Data as of Jan. 13, 2023. Based on 3,296 Article 8 funds that report the field.

Exhibit 36 features the 20 Article 9 funds with the highest proportions of taxonomy-aligned sustainable investments. Unsurprisingly, most focus on an environmental theme such as climate, alternative energy, and water. The strategies with the highest taxonomy-alignment are fixed-income strategies investing in green bonds and other types of "impact" bonds for which it is easier to evidence the contribution to environmental objectives.

Exhibit 38 Top 20 Article 9 Funds by Minimum % of Taxonomy-Aligned Investments

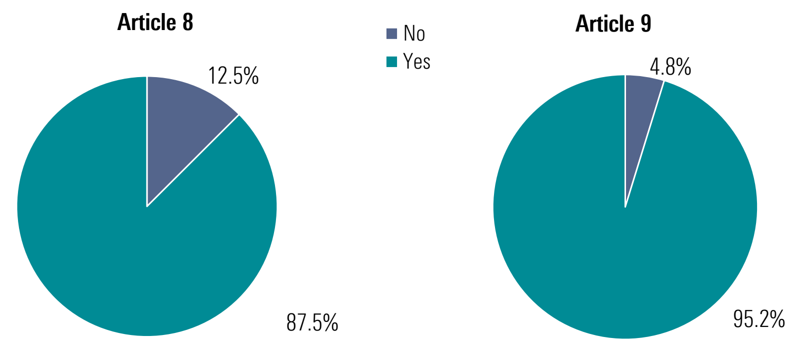
Fund Name	SFDR Type	Min % of Taxonomy Aligned Sustainable Investments	Fund Size (EURO Mil)	Morningstar Category	Broad Category
Sustainable Alpha Fund	Article 9	90	10	EUR Aggressive Allocation - Global	Allocation
KlimaVest ELTIF	Article 9	75	1,003	Other Allocation	Allocation
Luxembourg Selection Fund Active Solar	Article 9	75	263	Sector Equity Alternative Energy	Equity
Triodos Energy Transition Europe Fund	Article 9	75	185	Other	Miscellaneous
R-co 4Change Green Bonds	Article 9	75	106	Global Corporate Bond - EUR Hedged	Fixed Income
Triodos Emerging Markets Renewable Energy Fund	Article 9	75	34	Other Allocation	Allocation
Assenagon Funds Green Economy	Article 9	65	27	Sector Equity Ecology	Equity
Triodos Groenfonds	Article 9	50	894	Other Bond	Fixed Income
Rize Environmental Impact 100 ETF	Article 9	30	22	Sector Equity Ecology	Equity
NN (L) Green Bond	Article 9	25	1,917	EUR Diversified Bond	Fixed Income
NN (L) Corporate Green Bond	Article 9	25	982	EUR Corporate Bond	Fixed Income
NN (L) Green Bond Short Duration	Article 9	25	814	EUR Diversified Bond - Short Term	Fixed Income
Raiffeisen-SmartEnergy-ESG-Aktien	Article 9	25	372	Sector Equity Alternative Energy	Equity
NN (L) Sovereign Green Bond	Article 9	25	237	EUR Government Bond	Fixed Income
Invesco Funds - Invesco Energy Transition Fund	Article 9	25	51	Sector Equity Alternative Energy	Equity
GAM Sustainable Climate Bond	Article 9	25	18	EUR Subordinated Bond	Fixed Income
Swedbank Robur Climate Impact	Article 9	20	303	Global Flex-Cap Equity	Equity
Assenagon Credit Selection ESG	Article 9	20	246	EUR Flexible Bond	Fixed Income
GreenEffects NAI-Wertefonds	Article 9	20	178	Sector Equity Ecology	Equity
Variopartner - Tareno Global Water Solutions Fund	Article 9	20	161	Sector Equity Water	Equity

Source: Morningstar Direct. Data as of Jan. 13, 2023. Based on 430 Article 9 funds that report the field.

PAI Consideration

As previously mentioned, 99% of surveyed Article 8 and Article 9 funds in mid-January 2023 populated the Principal Adverse Impact Consideration field. And among those, the vast majority stated they do consider PAIs (87.5% for the respondent Article 8 funds and 95.2% for the respondent Article 9 funds), although it may come as a surprise that not all Article 9 funds do. As shown below, 4.8% of Article 9 products do not consider PAIs.

Exhibit 39 SFDR Product Type and PAI Consideration



Source: Morningstar Direct. Data as of Jan. 13, 2023. Based on 7,682 Article 6 funds, 8,017 Article 8 funds, and 903 Article 9 funds that reported the field.

PAI indicators are intended to show investors what adverse impacts a financial product may have on sustainability factors relating to environmental, social, and employee matters, respect for human rights, anticorruption, and antibribery matters.

Exhibit 38 shows a sample of the PAIs that product manufacturers should disclose using the EET. The EET data fields cover the 64 PAI indicators designed under SFDR. The sample here includes 14 PAI indicators for corporates, two for sovereigns, and two for real estate assets.

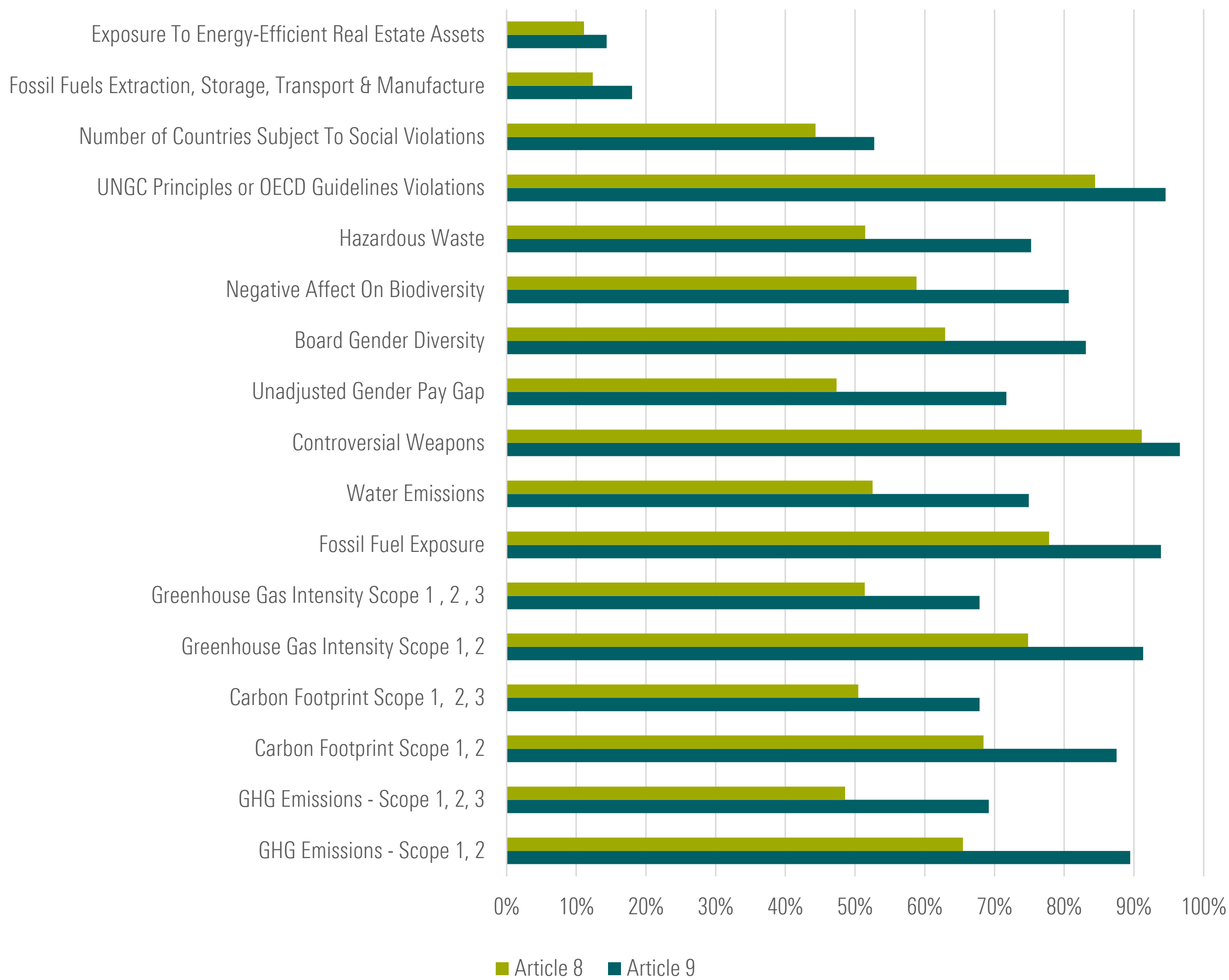
Exhibit 40 18 of the 64 PAI Indicators Under the EET

Corporate		
Greenhouse gas emissions	1	GHG emissions
	2	Carbon footprint
	3	GHG intensity of investee companies
	4	Exposure to companies active in the fossil fuel sector
	5	Share of nonrenewable energy consumption and production
	6	Energy consumption intensity per high impact climate sector
Biodiversity	7	Activities negatively affecting biodiversity-sensitive areas
Water	8	Emissions to water
Waste	9	Hazardous waste ratio
Social and employee matters	10	Violations of the UNGC principles and OECD Guidelines for Multinational Enterprises
	11	Lack of processes and compliance mechanisms to monitor compliance
	12	Unadjusted gender pay gap
	13	Board gender diversity
	14	Exposure to controversial weapons
Sovereign and supranational		
Environmental	15	GHG intensity of investee countries
Social	16	Number of investee countries subject to social violations
Real estate		
Fossil fuels	17	Exposure real estate assets involved in the extraction, storage, transport of fossil fuels
Energy efficiency	18	Exposure to energy-inefficient real estate assets

Source: SFDR delegated regulation-annex I.

Exhibit 39 shows the percentages of surveyed Article 8 and Article 9 funds that consider a sample of PAIs.

Exhibit 41 Consideration Levels for a Sample of PAIs



Source: Morningstar Direct. Data as of Jan. 13, 2023. The exact numbers for Article 8 and Article 9 funds that reported each of the data fields vary.

The exhibit reveals a wide range of PAI consideration, with the most considered PAIs, including "controversial weapons" and "UNGC principles or OECD guidelines violations," showing high consideration rates (97% and 95%, respectively, for Article 9 funds), while the two least considered PAIs, namely "exposure to energy-efficient real estate assets" and "exposure to fossil fuels extraction, storage, transport and manufacture," exhibit consideration rates of less than 18%.

As expected, environmental impacts such as greenhouse gas emissions, carbon footprint and intensity, as well as fossil fuel exposure, are currently being considered by more funds than social impact indicators such as gender pay gap and board gender diversity.
It may come as a surprise to some that no PAI achieves a consideration rate of 100% and that not all Article 9 funds consider all PAIs given the definition of "sustainable investment" by SFDR and the "do not significantly harm" requirement that apply. This can be explained, as we will see in the next section, by the different interpretations that asset managers have taken of the definition of "sustainable investment" and the fact that they have set their own criteria for assessing "significant harm" to a sustainability objective. While some managers are indeed considering all PAIs for their Article 9 funds, others have taken a selective approach and are considering only the most relevant indicators for their strategies.

In a recent letter, the European Supervisory Authorities asked the European Commission to clarify what "considering principal adverse impacts" means, as it currently can be interpreted as simply disclosing PAIs or taking action to address the adverse impacts.

Regulatory Update

The final quarter of 2022 was another busy one on the regulatory front for EU fund managers, with the publication of technical implementation guidance for both SFDR and the Taxonomy regulation ahead of 2023 deadlines:

- On Nov. 17 2022, the European Supervisory Authorities published an extensive set of new Questions & Answers (Q&A) in respect of SFDR and its regulatory technical standards, which entered into application on Jan. 1 2023. The Q&A was immediately effective and touches on key topics such as the PAI disclosure regime, the Taxonomy alignment calculation, and precontractual and periodic disclosures for Article 8/9 products.
- On Dec. 19, 2022, the European Commission published two FAQs[24] regarding the interpretation and implementation of the technical screening criteria and disclosure under the Taxonomy regulation, which has entered into application this year for non-financial undertakings. Issuers are due to start reporting their KPIs on Turnover, Capex and OpEx KPIs. The European Commission states that it may publish a dedicated FAQs for the Green Asset Ratio and the Green Investment Ratio which Financial Undertakings will begin reporting as of Jan. 1, 2024.
- At national level, on Nov. 10, 2022, the AMF (French supervisor) modified its investors' information policy with regard to SFDR and the Taxonomy regulation. According to this amendment, product reclassifications (if it triggers a change in consideration of ESG/sustainability aspects at product level), a drop of Taxonomy alignment (if by 10% or by 500 basis points), or ceasing to consider PAI at product level, need to be notified to investors.

Yet, more guidance and, as a result, SFDR reclassifications are expected in the course of 2023, as mentioned previously: The most anticipated document being the European Commission response to the

24 DRAFT COMMISSION NOTICE on the interpretation and implementation of certain legal provisions of the EU (europa.eu); DRAFT COMMISSION NOTICE on the interpretation and implementation of certain legal provisions of the Disclosures (europa.eu)

ESAs' questions issued on Sept. 9, 2022, which mainly relates to the core components of the sustainable-investment definition under SFDR and therefore Article 9 products.
While waiting for clarifications on Article 9 products, ESMA launched a consultation on the opportunity to upgrade expectations for Article 8 products using ESG or sustainability-related terms in their name. Under this new proposal, these would need to observe EU Paris-Aligned Benchmark exclusions: controversial weapons, tobacco, thermal coal, and fossil fuels (with certain thresholds). It would also require a fund with any ESG-related words in its name to have a minimum proportion of at least 80% of its investments being used to meet the environmental or social characteristics. Additionally, a fund using any sustainable-related terms in its name, would need to allocate within the 80% at least 50% toward sustainable investments as defined in SFDR.

Finally, the fight against greenwashing continued with the three European Supervisory Authorities (the European Banking Authority, European Insurance and Occupational Pensions Authority, and European Securities and Markets Authority) conducting a Call for Evidence on greenwashing to gather input from stakeholders on how to understand the key features, drivers and risks associated with greenwashing and to collate examples of potential greenwashing practices.

In parallel and beyond SFDR, investors will be pleased to see complementary initiatives of the EU sustainable finance action plan moving forward. In particular, significant progress has been made on ESG reporting standards for issuers. In November, the Council and the European Parliament gave their final approval on the Corporate Sustainability Reporting Directive, or CSRD. In parallel, the European Financial Reporting Advisory Group approved the updated versions of the European Sustainability Reporting Standards underpinning CSRD. The standards will extend the breadth and depth of companies' nonfinancial data reporting (all SFDR PAI covered and beyond), applying to large public-interest companies with more than 500 employees, all large companies with over 250 employees and an annual turnover of at least EUR 40 million, and all companies listed on regulated markets except micro undertakings (on a staged basis between 2025 and 2028).

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