Climate and sustainability benchmarks and their contribution to compliance with Sustainable Development Goals (part two)

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Acronyms used

AFM	Dutch Authority for Financial Markets
BaFin	German Federal Financial Supervisory Authority
BMR	Benchmark Regulation – Regulation (EU) 2016/1011 of the European Parliament and of the Council, of 8 June 2016, on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds
CIS	Collective investment scheme
CNMV	Comisión Nacional del Mercado de Valores (Spain's National Securities Market Commission)
CSRD	Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No. 537/2014, Directive 2004/109/CE, Directive 2006/43/CE and Directive 2013/34/EU, regarding the presentation of information on sustainability by companies (Corporate Sustainability Reporting Directive)
CTB	EU Climate transition benchmarks
EBA	European Banking Authority
EBITDA	Earnings before interest, taxes, depreciation and amortization
EIOPA	European Insurance and Occupational Pensions Authority
ESG	Environmental, Social and Governance Factors
ESMA	European Securities and Markets Authority
ESRS	European Sustainability Reporting Standards
EVIC	Enterprise value including cash
EU	European Union
GHG	Greenhouse gases
Green MiFID	Commission Delegated Regulation (EU) 2021/1253, of 21 April 2021, amending Delegated Regulation (EU) 2017/565 as regards the integration of sustainability factors, risks and preferences in certain organisational requirements and operating conditions of investment firms
IIA	Index Industry Association
IOSCO	International Organization of Securities Commissions
PAB	EU benchmarks aligned with the Paris Agreement
SDGs	Sustainable Development Goals
SFDR	Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on the disclosure of sustainability-related information in the financial services sector (Sustainable Finance Disclosure Regulation)
TEG	EU Technical Expert Group on sustainable finance
US	United States

1 Introduction

Benchmarks are a tool that is increasingly used by the financial and asset management industry to align investment objectives and asset selection, as well as to measure and monitor their performance, giving them a clear role in mobilising financial resources towards a more sustainable, low-carbon economy.

As a result, the range of benchmarks on offer has continued to grow, particularly driven in recent years by the creation of benchmarks that take into account environmental, social and governance (hereinafter ESG) factors. In recognition of this role, and following the recommendations of the Technical Expert Group on sustainable finance (hereafter TEG),[1] the European benchmark regulation was amended in 2019[2] to create two new benchmarks labels that take into consideration the carbon footprint of component assets (referred to generically as climate benchmarks), as well as to improve and harmonise the level of transparency of benchmarks that consider or pursue objectives related to ESG factors.

This key role in channelling sustainable finance and in the transition to a decarbonised economy can be seen through three main functions played by these benchmarks:

- They facilitate the selection of investments with ESG objectives, both directly and through investment funds and other vehicles. At the same time, benchmarks transparency obligations make it easier for investment product providers to comply with their own transparency obligations.

- They encourage companies to incorporate sustainability into their business and strategy, and to improve their transparency in this regard; this enables them to access benchmarks and facilitates their financing in the markets.

- They contribute to reducing the risk of greenwashing, both by the companies that are part of their composition (as the selection is made according to regulated criteria and by supervised entities, the administrators), and by the benchmarks users, fund managers and investment product providers, as it allows them to meet their ESG objectives with investments selected according to regulated criteria identified by the benchmark administrator.

Through these functions, they become a key lever in a virtuous circle that aligns the investment community with long-term sustainability considerations and the transition to a low-carbon economy, which will encourage real economy companies to embrace these goals.

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1 This group, called the Technical Expert Group on sustainable finance (TEG), was set up by the European Commission in July 2018 to assist with the implementation of the Sustainable Finance Action Plan and, among other aspects, with the proposal for a regulation on climate benchmarks. The TEG report on climate benchmarks and disclosure requirements was published in September 2019 (EU TEG, 2019a) and complemented with a manual released in December 2019 (EU TEG, 2019b).

2 Regulation (EU) 2019/2089 of the European Parliament and of the Council, of 27 November 2019, amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks.

Contribution of climate and ESG benchmarks to the sustainable economy ILLUSTRATION 1

Source: Compiled by the authors.

More than three years after the adoption of the European regulation on climate benchmark labels and harmonisation of ESG information, this article, as a continuation of the work published in 2021,[3] attempts to analyse whether this virtuous circle is fulfilled in practice. Particularly with reference to climate benchmarks and the factors that may hinder their development. In line with the findings observed, and taking into account that the European Commission intends to review the benchmark regulation and advance in the regulation of ESG benchmarks labels, the main measures proposed to improve their effectiveness are also included.

2 Growth of ESG benchmarks

The range of benchmarks available on the market is constantly growing and offers increasingly innovative and sustainability-oriented solutions. During 2022, the number of benchmarks globally grew by 4.43% and reached well over 3 million. Equity benchmarks account for 76% of the total, although fixed income benchmarks have shown the strongest growth in recent years.

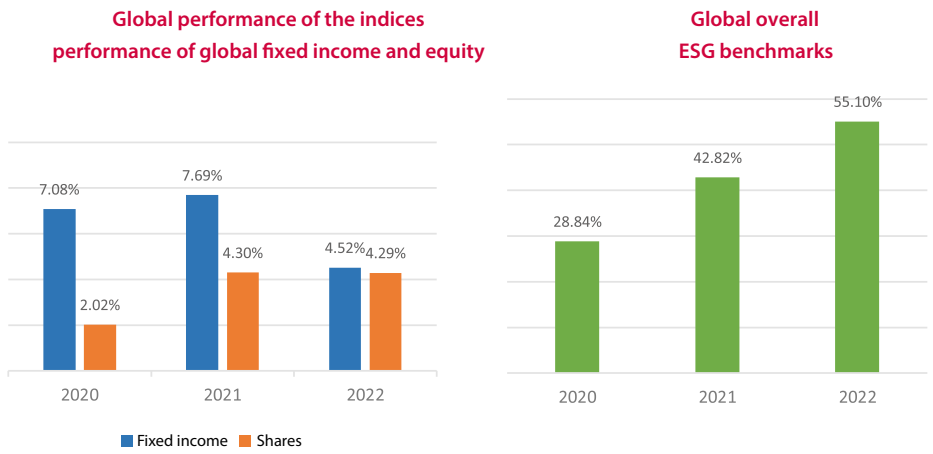
Global growth in benchmarks is led by ESG[4] benchmarks (including both climate benchmarks and those that are considered ESG factors) which grew by 55% in 2022; again with fixed income ESG benchmarks leading the way in driving this growth. The number of fixed income ESG benchmarks has increased by 95.8% and, for the

3 Gómez-Yubero and Gullón. (2021).

4 In this article we will refer to ESG benchmarks or sustainability benchmarks generically as benchmarks that integrate ESG factors in some way in their construction, either generically, from a non-ESG universe or considering one or more specific factors. Unless otherwise specified, this reference also includes climate benchmarks

first time, exceeded the number of equity ESG benchmarks, even though the latter have grown by 24.2%. Currently, there are more than 50,000 ESG benchmarks around the world.[5]

Performance of the number of general and ESG benchmarks worldwide FIGURE 1



Source: Rick Redding (2022).

In the EU, there are 70 benchmark administrators registered with ESMA (54 registered and 16 authorised in accordance with Article 34 of the BMR) and the estimated portfolio of benchmarks offered is close to 50,000.[6] The number of ESG[7] benchmarks, which are offered by ESMA registered administrators, is estimated to be around 10% of the total number of benchmarks offered. These include benchmarks created under EU-regulated climate labels, which amount to 149 (of which 112 are PAB and 37 are CTB), according to the ESMA register. At the time of writing, only 4 of the ESMA-registered administrators provide such benchmarks in the EU, according to the following table. The low proportion of PAB and CTB benchmarks, relative to the total supply of benchmarks in the EU, is consistent with their recent creation, as well as with the stringency and limitations of their regulation (see Section 6 for a detailed analysis of the regulatory issues hindering the development of these benchmarks).

5 These data correspond to the estimates of the sixth survey of the Index Industry Association (2022b).

6 The exact number of benchmarks is not easy to obtain as there is no specific register of benchmarks, but only of administrators authorised to offer benchmarks in EU territory. However, in the case of third country benchmarks, the ESMA register lists each of the benchmarks offered by the recognised (Article 32 of the BMR) or validated (Article 33 of the BMR) administrators. In addition, the lack of a unique identifier per benchmarks also makes this task difficult.

7 An analysis, based on a sample of ESG benchmarks, of the main trends in the construction of these benchmarks (most common methodologies used to select the investable universe, most commonly used ESG factors and main components of these benchmarks) can be found in European Commission (2022c).

Number of climate benchmarks available in the EU, according to the ESMA register TABLE 1

Competent authority	Location	Administrator	Authorisation type	PAB	CTB	Total
AFM	Netherlands	Euronext Amsterdam NV	Registry (Article 34 BMR)	42	3	45
Bafin	Germany	Solactive AG	Registry (Article 34 BMR)	6	3	9
ESMA	Switzerland	Stoxx Ltd.	Recognition (Article 32 BMR)	6	5	11
AFM (Netherlands)	USA	S&P Dow Jones Indices LLC	Endorsement (Article 33 BMR)	58	26	84
Total				**112**	**37**	**149**

Source: Prepared by the authors based on the websites of the administrators and ESMA.

In addition to the above, there are other third country administrators – not yet registered with ESMA – that also offer EU climate benchmarks. These are: FTSE International Limited (6 PAB and 6 CTB), MSCI Limited (13 PAB) and Bloomberg Index Services Limited (9 PAB and 1 CTB). All three administrators are located in the UK and registered on the Financial Conduct Authority's register of administrators. These benchmarks can be used in the EU and their administrators have until 31 December 2023 to be included in ESMA's register as third country administrators.[8]

3 Use of benchmarks in the selection of ESG investments

3.1 Growth of ESG investment and performance prospects

In recent years, sustainability principles have become a major driver of investment decisions for many managers, largely driven by increasing investor demand and the recognition that financial returns are increasingly linked to sustainability goals.

This is corroborated by an Index Industry Association (IIA) survey of 300 mutual fund managers in the USA and Europe, according to which 85% of managers recognise that ESG criteria have become a high priority in their management, a proportion which rises to 94% among US fund managers.[9]

8 Article 51.5 of the BMR provides for a transition period until 31 December 2023 for benchmarks provided by third country administrators to be registered with ESMA. During this period they can continue to be used by EU supervised entities.

9 Index Industry Association (2022a).

The same survey reveals that the main reason for adopting ESG criteria is client demand, cited by 54% of the managers surveyed. The desire for higher returns was the second most frequently cited driver (44% of respondents), highlighting the growing conviction that there is an alignment between financial and ESG goals. The diversification of yields and investment policies, coupled with concerns about ESG factors, continued to provide additional motivation for ESG adoption. Last on the list were reputation and regulatory risk.

According to data from McKinsey & Company,[10] between 2016 and 2021, the global volume of assets under ESG management grew by more than 19% per year, well above the average growth rate for the asset management industry as a whole (which grew by an annual average of around 9%). According to the same study, by the end of 2021, global assets under management in ESG strategies reached a record US$2.1 trillion, representing just over 3% of total assets under management.

However, ESG investment appears to be as vulnerable to shocks affecting the global economy as general investment, at least in the short term, as recent events have shown. According to the aforementioned McKinsey & Company study,[11] the outbreak of war in Ukraine, the sharp rise in inflation and interest rates, the emerging European energy crisis and the resulting slowdown in economic growth have led to sharp declines in the markets, which have also been reflected in ESG investments (down 20% in the first half of 2022); reflecting the same trend as the industry at a global level. However, while total assets under management globally experienced a net outflow of US$1.14 trillion, ESG strategies recorded only a slight outflow of US$8 billion.

A similar situation occurred in the European ESG investment fund industry where, according to ESMA data,[12] funds with sustainable investment as an objective (Article 9 products under the Sustainable Finance Disclosure Regulation (SFDR)) recorded net inflows of €8.6 billion in the first three months of 2022; while investors withdrew €3.3 billion from funds that only promote sustainability features (Article 8 products under the same regulation).

These data suggest that the mobilisation of funds towards ESG investments is adopting a secular trend, in which the credibility and quality of ESG commitments made by issuers and product managers is taking precedence over the mere search for returns. ESG investment can be resilient to shocks and setbacks because it is not seen as transitory or in response to external pressures, but as a central part of achieving financial returns.

It can also be argued that ESG investment will continue to grow despite the deteriorating global economic outlook. The aforementioned Index Industry Association survey[13] found that the projected growth in ESG investment has accelerated markedly from where it stood just a year ago. According to this survey, over the next 12 months, 40% of asset management portfolios are expected to include ESG elements

10 McKinsey & Company (2022).
11 McKinsey & Company (2022).
12 ESMA (2022b).
13 Index Industry Association (2022a).

(an increase of 13 percentage points compared to the 2021 survey). That projection amounts to almost 6 in 10 (57%) portfolios in 5 years (also an increase of 13 percentage points since 2021). Over the next decade, respondents expect ESG elements to be incorporated into almost two thirds (64%) of their portfolios; whereas this forecast was 52% in 2021.

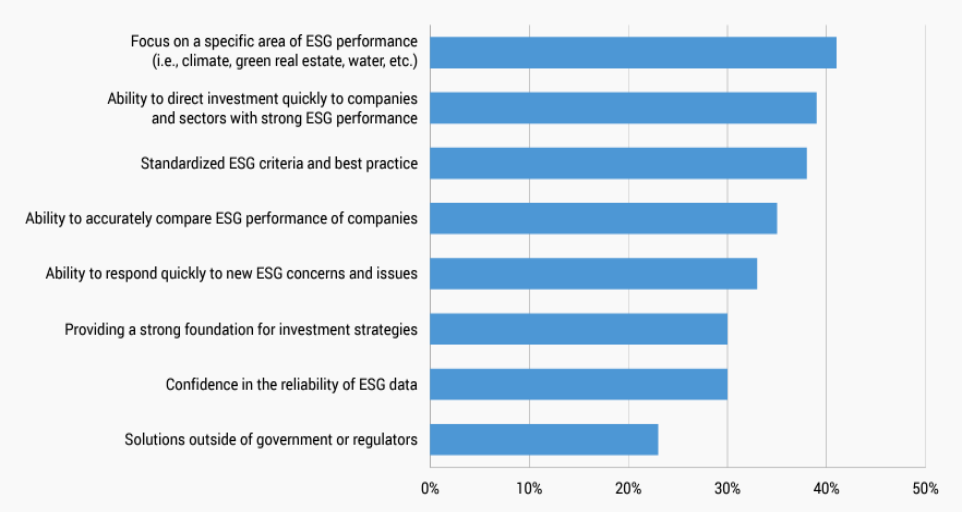
3.2 Benchmarks as facilitators of ESG investments

Benchmarks are increasingly used by asset managers both to facilitate asset selection and to assess portfolio performance.

The Index Industry Association's 2022 survey[14] confirms that benchmarks play an important role in ESG investment. Almost all respondents (99%) use benchmarks in some form: 41% (40% in 2021) use them for measurement and benchmarking purposes, and 31% (39% in 2021) use them for investment strategies. Just over a quarter of respondents (27%; 19% in 2021) use benchmarks for both measurement and investment strategies.

The survey also confirms that asset managers have confidence (95%) in benchmark providers as drivers of ESG factors in the financial industry; as much as in the regulators and the asset management industry itself. One of the most valued aspects of the benchmarks is their ability to facilitate ESG capital allocation decisions (see Figure 2), as well as their role in providing focus on a specific area of ESG performance (such as climate, water or social issues) and in streamlining the matching of investments to companies and sectors with a sound ESG performance.

Assessment of the aspects contributed by the ESG benchmarks FIGURE 2



Source: Index Industry Association (2022a). Results of the survey of 300 managers.

14 Index Industry Association (2022a).

Finally, respondents highlighted the need for more specialised benchmarks that focus on specific ESG aspects or components (41%); better ESG metrics (40%); more information on the underlying ESG data used in the benchmarks (39%), greater transparency in the way benchmarks are compiled (39%) and greater standardisation of metrics and methods across providers (29%).

3.2.1 Use of climate benchmarks by Eurosystem central banks

One of the most relevant examples of the use of EU climate benchmarks is the decarbonisation strategy for the pension fund portfolios of ECB staff.[15]

The ECB pursues a responsible and sustainable investment policy in the management of its non-monetary policy portfolios, in line with the common policy followed by the Eurosystem central banks.[16] These portfolios contain those assets held by central banks that are not related to monetary policy operations. These are euro-denominated investment portfolios and staff pension funds.

The ECB's staff pension fund is passively managed by two external asset managers who follow a responsible and sustainable investment policy based on certain exclusions and proxy voting guidelines, incorporating environmental, social and governance standards. By 2020, all conventional equity benchmarks tracked by the pension fund were replaced by their low-carbon equivalent benchmarks; reducing the carbon footprint of equity portfolios by more than 60%.

In early 2022, the ECB also replaced the conventional benchmark, tracked by its corporate bond portfolios, with a Paris aligned benchmark, making it one of the first central banks to adopt this practice. This PAB led to an initial 50% reduction in carbon emissions from the corporate bond portfolio and a further projected steady reduction of at least 7% per year is expected in the coming years, in line with the regulation of these benchmarks.[17]

The ECB, as noted in its 2021 annual report, will continue to explore a possible extension of low-carbon benchmarks to other fixed income asset classes within its pension fund to further contribute to reducing its carbon footprint.

Other Eurosystem central banks, such as the Bank of France, have also started to use the EU climate benchmarks to help fulfil the climate targets established for their non-monetary policy portfolios.

The Bank of France uses conventional benchmarks as a means of comparing the portfolios that make up its staff pension fund. Nevertheless, it has taken on board in its management the policy of fossil fuel exclusions followed by the PAB.[18]

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15 BCE (2022).

16 BCE (2021).

17 According to its regulation (Articles 7 and 11 of Delegated Regulation (EU) 2020/1818), the PAB shall reflect a GHG intensity, including Scope 1, 2 and 3 emissions, at least 50% lower than its investable universe and a decarbonisation trajectory of at least 7% per year, on average.

18 Bank of France (2022).

The equity portfolio of the Bank of France's staff pension fund had an average exposure to fossil fuels of 0.33% of its income at the end of 2021, compared to 0.98% for its conventional benchmark, down 43% from the previous year. This decrease reflects the Bank of France's decision to gradually align portfolios with the exclusion thresholds applied by the PAB. In doing so, the Bank will exclude companies that derive more than 10% of their revenues from oil, or more than 50% from gas.[19]

3.2.2 Use of climate benchmarks by European investment funds and CNMV-registered funds

Investment fund strategies also increasingly take into account the generation of social and environmental value in addition to returns. By the end of 2022, the number of Spanish investment funds registered with the CNMV, which state in their respective prospectuses that they follow investment strategies related to sustainability, represent 15% of the total, almost double the number registered in mid-2021. For the most part, these funds are classified as Article 8 products of the SFDR[20] and a small number (only 14) are associated with Article 9 (5 funds were classified as Article 9 products by mid-2021).[21]

In terms of assets managed under ESG criteria, if by the end of 2021 the assets of these funds amounted to €68.4 billion (20.3% of total assets), by the end of 2022 this proportion has grown by 15 percentage points (to 35%), reaching a figure of close to €100 billion (split between 34% for Article 8 funds and 1% for Article 9 funds).

At EU level, the market share of Article 8 and 9 funds is 53.5% of total assets at the end of September 2022, according to Morningstar data.[22] This market share is divided between 48.3% for Article 8 products and 5.2% for Article 9 products, according to the same publication.

This wider range of sustainability-aligned products seems to be the reason why one out of three investment fund participants acknowledges that their interest in ESG investment has increased, also due to the greater relevance of these criteria in society. This is one of the conclusions reached by the sixth edition of a study by the Inverco Observatory[23] which reveals that more than half of savers who are aware of ESG criteria take them into account when investing, and three out of ten even do so, even if it means giving up part of their return.

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19 The PAB regulation (Article 12 of Delegated Regulation (EU) 2020/1818) requires that companies deriving 1% or more of their revenues from the exploration for, mining, extraction, distribution or refining of anthracite, hard coal and lignite, for example, be excluded from the benchmark portfolio; those deriving 10% or more of their revenues from the exploration for, extraction, extraction, distribution or refining of liquid fuels; as well as those deriving 50% or more of their revenues from the exploration for, extraction, production or distribution of gaseous fuels.

20 Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector

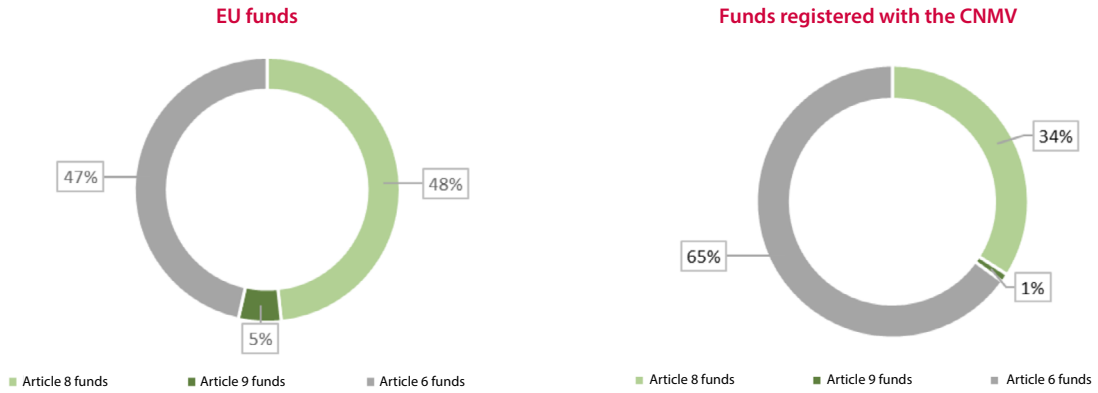
21 These articles indicate the pre-contractual disclosures that must be satisfied by financial products that promote environmental or social characteristics (Article 8) and financial products whose objective is sustainable investments (Article 9)

22 Morningstar (2022).

23 Inverco Observatory (2022).

Market share of ESG funds in the EU and registered with the CNMV at the end of 2022 (in terms of assets under management)

FIGURE 3



Source: Data from Morningstar and the CNMV. The different sources of data used may mean that some figures are not comparable.

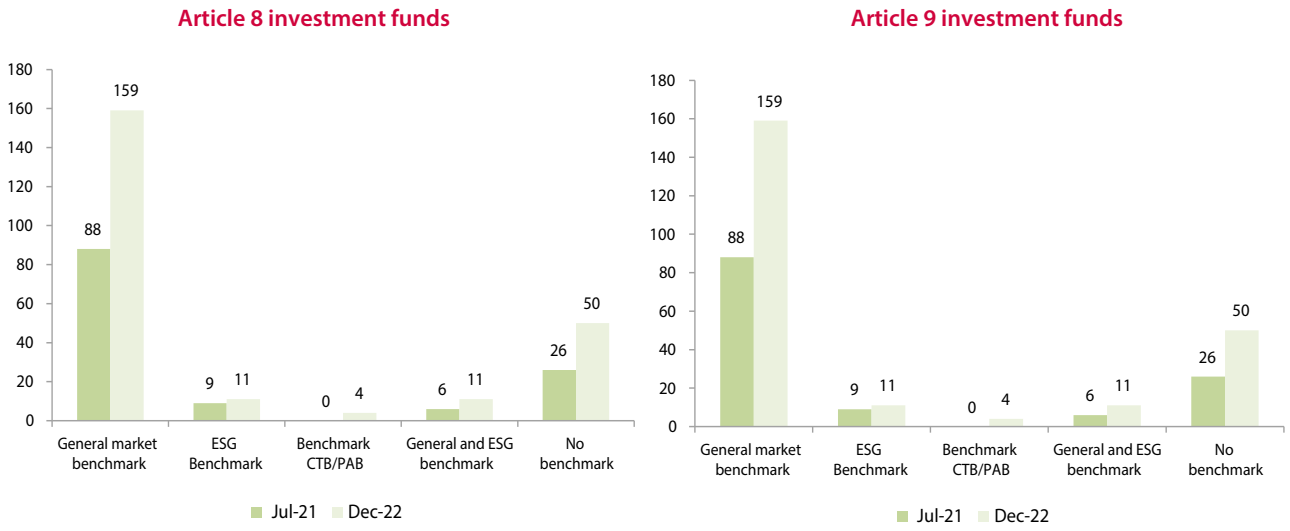
The use of climate and sustainability benchmarks has not, however, grown in proportion to the growth of investment funds claiming to follow sustainability strategies.

The vast majority of new investment funds registered with the CNMV, with an Article 8 or Article 9 classification of the SFDR, choose to benchmark their performance against a general market benchmark or have no benchmark (89% of Article 8 funds and 57% of Article 9 funds, as can be seen in Figure 4).

By the end of 2022, only four Article 8 investment funds use climate-specific benchmarks. The use of Article 9 funds remains the same as in mid-2021; only one fund.

Number of ESG investment funds registered with the CNMV based on the type of index used as a benchmark

FIGURE 4



Source: Own compilation based on data from the CNMV investment fund registry.

Although climate benchmarks have been regulated to facilitate the decarbonisation of portfolios and investments in companies with similar track records and commitments, their use is very limited, even among passively managed funds. Of the 9 investment funds following this ESG benchmark management model at the end of 2022, only one uses a CTB.[24]

Article 9(3) of the SFDR incentivises the use of climate benchmarks (whether CTBs or PABs) in funds and other investment products subject to the SFDR that aim to reduce carbon emissions; as, if such benchmarks are not used, the fund must provide a detailed explanation of how the ongoing effort to achieve the goal of reducing carbon emissions with a view to meeting the long-term global warming objectives of the Paris Agreement[25] is undertaken.

In the case of the Spanish market, of the 14 funds registered with the CNMV under Article 9, only one has the objective of reducing carbon emissions and, as mentioned, has a climate transition benchmark.

The low use of not only climate benchmarks but also ESG benchmarks in general may be due, in part, to the lack of consistency between the requirements and transparency obligations of ESG criteria in BMR and SFDR (discussed in Section 6); a situation that may be contributing to the fact that funds that claim to be «green» are not as «green» as they appear to be.

A recent study published by ESMA seems to conclude in this line[26] in which it analyses, for a universe of 3,000 funds classified under Articles 8 and 9 of the SFDR, the application of possible minimum investment thresholds aligned with taxonomy for the purposes of a possible «green» label. The study finds that if this threshold is set at 50% of the fund's portfolio, less than 1% of the sample would meet it; this percentage is reduced to 0.5% if certain exclusions such as exposure to fossil fuels are applied.

On average, only 11% of the value of the portfolios of the funds analysed would meet the requirements for alignment with the taxonomy. This percentage rises, as expected, in Article 9 funds, but only to 19.2%; and falls to 9.7% in Article 8 funds.

4 Incentive for companies to start the transition

In the previous section, it was concluded that despite the considerable growth of ESG investments and the increasing interest of investors in promoting social and environmental values, the use of ESG benchmarks and in particular of regulated

24 Refers to Abanca Renta Fija Transición Climática 360, Fondo de Inversión. Prospectus. 23 July, fund referred to in Section 6.2 of Gómez-Yubero and Gullón (2021).

25 According to the Commission's response to a question on products under Article 9 of the SFDR, if a PAB or CTB benchmark exists, a product with decarbonisation targets has to use this benchmark as a benchmark (although it does not specify whether actively or passively).

26 ESMA (2022c).

climate benchmarks in the EU is still limited, even though there is a considerable supply of benchmarks labelled as CTB and PAB.

Under this premise, it is possible to anticipate that its role as an incentive for companies to incorporate decarbonisation targets could also be limited. However, it is possible to relate the composition and return of the benchmarks to behavioural adjustments in emitters with a commitment to reduce their carbon footprint and to improve related disclosures (the latter is discussed in Section 5.1).

4.1 Composition and return of climate benchmarks

The range of EU climate benchmarks is close to 150 (see Section 2). These show different geographical or economic realities[27] with the common objective of reducing GHG intensity (or absolute emissions) by at least 7% per year on average.[28]

These benchmarks are formed either from a parent or base benchmark or from a universe of investable securities,[29] while retaining similar risk-return characteristics to the parent benchmark. This facilitates comparison of the performance of the overall portfolio with that of the benchmark, which incorporates extra-financial aspects, in this case environmental elements.

Due to the exclusion of companies or assets that do not meet the requirements defined by the benchmark, the number of constituent companies will normally be lower than the number of components of the base benchmark. On the other hand, due to the greater number of requirements demanded to form part of a PAB, these will be made up of a smaller number of companies, not only in relation to the reference-base benchmark, but also with their respective CTB.

Taking the Stoxx administrator's portfolio of climate benchmarks as an example, it can be seen that in December 2022, on average, 95% of the constituents of the benchmark-parent benchmarks are included in their respective CTB; while this percentage drops to 84% for those of the PABs.

In terms of sectorial composition, the CTB how minimal differences in relation to their base benchmark; less than 1%. In the PAB, these differences are more pronounced (up to 4%) because sectors of higher impact are under-represented (such as utilities, industrial goods and energy); while sectors currently considered to have a

27 These benchmarks can be distinguished between geographical benchmarks, which attempt to represent the reality of a given economic area, and dimensional benchmarks, which integrate companies according to their size. They are also classified by the types of assets they include: stocks or bonds. Most of these benchmarks are equity benchmarks. Each of these benchmarks is usually calculated and published in several versions, such as total return and net return, as well as using the major currencies of the financial markets.

28 Section 4.1 and Table 2 of Gómez-Yubero and Gullón (2021) provide a detailed description of the objectives and methodological requirements of the PAB and CTB benchmarks, as well as their similarities and differences.

29 The investable universe consists of all investable instruments in an asset class or group of asset classes.

low impact on climate change are over-represented (such as technology, health and financial services).[30]

Example of sectoral weight differences in Stoxx benchmarks

TABLE 2

Distribution by sectors	Base benchmark (Stoxx USA 500) Number of participants	%	PAB (Stoxx USA 500 PAB) Number of participants	%	Absolute difference (%)
Technological	80	16	77	18	2
Sanitary	66	13	66	16	3
Utilities	28	6	6	1	4
Industrial goods and services	76	15	54	13	2
Financial services	25	5	24	6	1
Energy	23	5	3	1	4
Real estate	29	6	29	7	1
Travel and leisure	20	4	20	5	1

Source: Own compilation based on data from Stoxx.

Climate benchmarks outperform their base benchmarks in terms of historical performance. Moreover, PABs perform better than CTBs.

This conclusion can be illustrated by the example of the benchmarks provided by Stoxx and Solactive, as shown in Table 3.

Accumulated historical monthly profitability. Comparison of baseline, PAB and CTB

TABLE 3

	Original universe	PAB	Months PAB has been published	Best-performing months of PAB benchmark	% of best-performing months of PAB benchmark	CTB	Months CTB has been published	Best-performing months of CTB benchmark	% of best-performing months of CTB benchmark
STOXX USA 900 index	45,3%	50,8%	56	31	55,4%	49,0%	56	31	55,4%
STOXX USA 500 PRICE USD	46,1%	50,1%	56	30	53,6%	48,9%	56	30	53,6%
STOXX EUROPE 600 USD PRICE	6,0%	10,5%	56	32	57,1%	7,9%	56	30	53,6%
Solactive GBS United Kingdom All Cap Index PR	4,3%	6,4%	13	5	38,5%	8,6%	13	5	38,5%
Solactive GBS Developed Markets Europe Large & Mid Cap USD Index PR	-10,4%	-8,4%	13	6	46,2%	-6,1%	13	7	53,8%
Solactive GBS Emerging Markets Large & Mid Cap USD Index PR	34,4%	55,4%	83	51	61,4%	37,4%	83	47	56,6%
Solactive GBS Developed Markets Europe Large & Mid Cap USD Index PR	-16,8%	-11,4%	11	7	63,6%	-9,6%	11	7	63,6%
EURO STOXX TOTAL MARKET USD	2,3%	5,3%	56	28	50,0%	4,1%	56	29	51,8%

Source: Own compilation based on data from Reuters.

Note: the accumulated historical performance has been calculated in each case for the number of months of existence of the PAB and CTB.

30 It should be clarified that the financial services sector is currently not included in the taxonomy and has therefore not been rated in terms of its degree of environmental sustainability. Although the financial sector is considered as one of the economic sectors that has the least direct impact on the environment due to its low GHG emissions, it has an indirect footprint since the bulk of its emissions are scope 3 emissions due to the wide range of sectors that participate in activities such as lending, investment, insurance underwriting and asset management.

Most of the PABs analysed (almost 2/3) offer higher cumulative returns, not only relative to the base benchmark, but also relative to the CTBs. On average, PABs outperform their base benchmark by almost 6 percentage points. In the case of CTBs, their performance is almost 4 percentage points higher than that of their base benchmark.

Not only has the historical performance been higher, but the monthly returns of both the PABs or CTBs beat those of their comparable universes in more than half of the months.

The analysis of annual returns shows that the start of monetary tightening from the end of 2021 to address inflationary pressures has hurt climate-labelled benchmarks the most. During 2022, most of these benchmarks underperformed compared to their base benchmarks, with PABs performing worse than CTBs.

This different behaviour may be justified by the increased costs associated with the investments and adaptations needed to meet climate objectives, in a context of rising interest rates and inflationary pressures. The current situation has created uncertainty about meeting climate targets; this, coupled with rising energy prices that benefit, at least in the short term, companies with exposure to fossil fuels and other sectors not included or under-represented in the climate benchmarks, may also explain this. In line with this idea, it is worth noting that the sectors whose capitalisation has performed best in 2022, in the national market, have been oil and energy (+2%); and basic materials, industry and construction (+18.3%), which are the most under-represented in the PABs.[31]

However, the weaker performance of these benchmarks in 2022 does not offset the better historical performance.

Monthly cumulative returns per year of baseline, CTB and PAB TABLE 4

Year	STOXX USA 500 PRICE USD	STOXX USA 500 Paris-Aligned Benchmark Price USD Index	STOXX USA 500 Climate Transition Benchmark Gross Return EUR Index	STOXX EUROPE 600 USD PRICE	STOXX Europe 600 Paris-Aligned Benchmark Price USD Index	STOXX Europe 600 Climate Transition Benchmark Price USD Index	Solactive GBS Emerging Markets Large & Mid Cap USD Index PR	Solactive ISS ESG Emerging Markets Paris-Aligned Benchmark TR Index	Solactive ISS ESG Emerging Markets Climate Transition Benchmark PR Index	EURO STOXX TOTAL MARKET USD	EURO STOXX Total Market Paris-Aligned Benchmark Price USD Index | Price History 30-Nov-2022 16:03	EURO STOXX Total Market Climate Transition Benchmark Price USD Index
2022	-18,2%	-23,1%	-21,7%	-17,7%	-18,1%	-18,1%	-22,6%	-9,9%	-12,8%	-19,3%	-19,7%	-19,5%
2021	22,6%	26,0%	25,9%	13,6%	12,9%	12,3%	-3,9%	8,4%	6,0%	12,1%	12,0%	11,4%
2020	21,5%	22,2%	20,8%	8,4%	10,9%	9,9%	16,7%	10,6%	6,5%	11,9%	12,9%	12,7%
2019	24,9%	26,1%	25,9%	17,7%	19,9%	19,1%	17,2%	21,1%	19,0%	17,3%	19,8%	18,8%

Source: Own compilation based on data from Reuters.

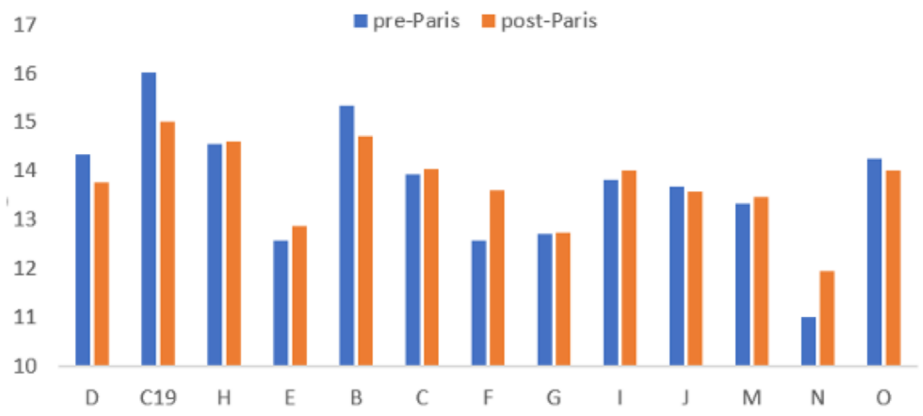
31 BME (2022c).

Factors such as the lower credit risk of companies with credible carbon transition targets and thus lower climate transition risk, as well as the lower impact on future economic performance – derived from carbon allowance prices – could be behind the historically better performance of labelled benchmarks.

Indeed, the study by Carbone, S. et al. (2021) shows that companies with higher GHG emissions are more exposed to transition risk and may have a higher probability of bankruptcy and thus higher credit risk, either now or in the future. Especially if they do not have a credible plan for the transition to a low-carbon economy. At the same time, the disclosure of emissions and the setting of forward-looking emission reduction targets are associated with lower credit risk and the impact of climate commitments will be greater the more ambitious the targets are – both in terms of percentage emission reductions and the speed of reduction.

Indeed, following the 2015 Paris Agreement, companies most exposed to climate transition risk saw their credit ratings deteriorate, while other comparable companies did not.

Average rating of European companies before and after the Paris Agreement by CNAE sector[1] FIGURE 5



Source: Carbone, S. et al. (2021).
Note: Y axis: Alphanumeric rating after assignment of the rating scale to ordinal values ranging from 1 to 21, whereby a higher ordinal value indicates a better rating. X axis: CNAE sector: B – Extractive industries; C – Manufacturing industry; D – Supply of electricity, gas, steam and air conditioning; E – Water supply, sanitation activities, waste management and decontamination; F – Construction; G – Wholesale and retail trade, repair of motor vehicles and motorcycles; H – Transport and storage; I – Hostelry; J – Information and communications; M – Professional, scientific and technical activities; N – Administrative activities and auxiliary services; O – Public administration and defence: C19.

While the aforementioned work concludes that companies that are better prepared for the low-carbon transition have lower credit risk, it also recognises that the true extent of climate-related credit risks may still be underestimated, both by rating agencies and markets. This is due to existing limitations related to the reliability and comparability of climate transition risk metrics currently disclosed by

companies, and even more so when using (proxy) indicators by sector of activity (see Section 6).

Improved coverage, quality and comparability of GHG emissions disclosure and emission reduction strategies can be expected to provide better assessment and pricing of climate risk at company level.

Inclusion of companies in the CTBs and PABs requires the existence of a credible transition plan: a decarbonisation trajectory of at least 7% per year, measured in terms of GHG emissions or emissions intensities. Therefore, the conclusions drawn by Carbone, S. et al. (2021) are transferable to the behaviour of climate benchmarks.

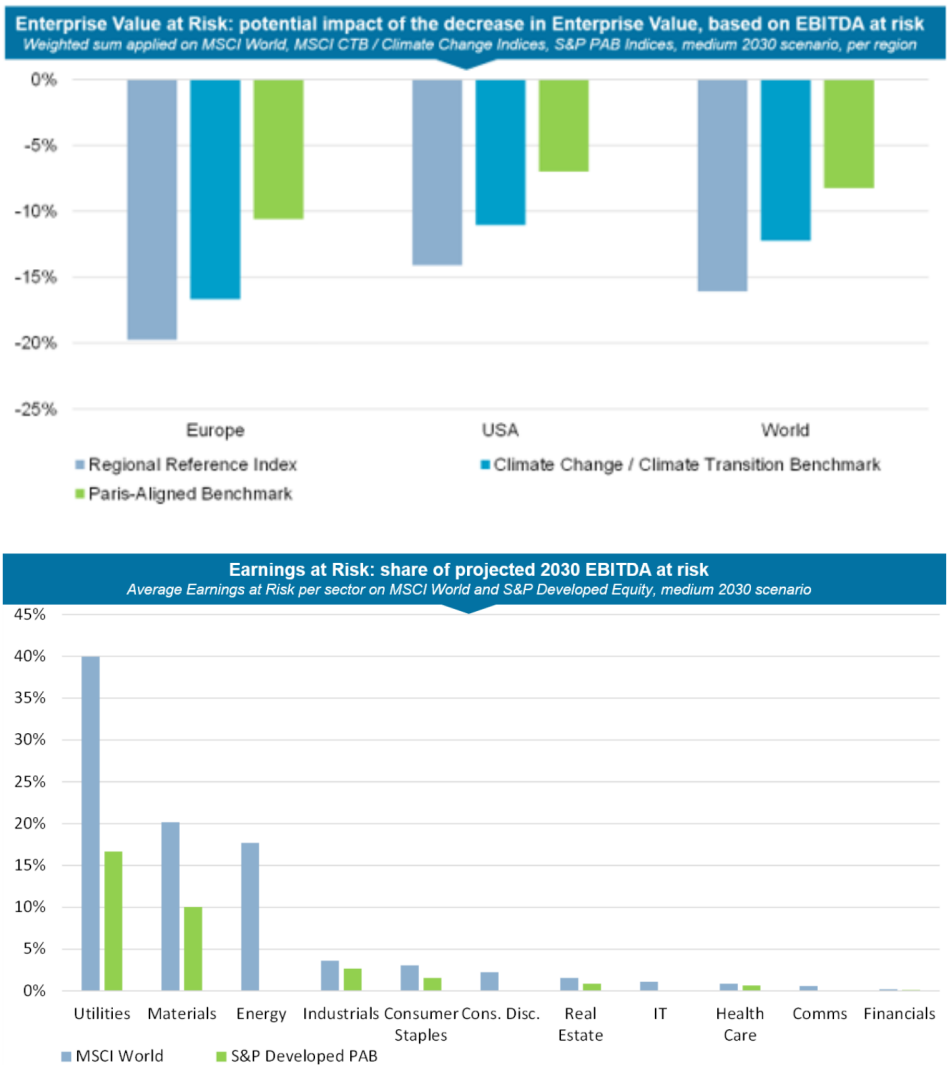
Another factor impacting on the appreciation of the value of companies is the price of current and future emission rights. Several studies[32] support that carbon prices could represent a significant risk to companies' bottom line, based on their current emissions and financial health. In sectors such as energy, materials and utilities, the expected increase in carbon prices could reduce the average sector EBITDA forecast for 2040 by up to 50%.

An Amundi study shows that PABs or CTBs, to the extent that they imply a minimum decarbonisation of the base portfolio of 50% and 30% respectively and put this portfolio on a carbon reduction trajectory over time of at least 7% per year, significantly reduce the carbon pricing risk. They therefore react better than their base benchmarks to changes in the carbon price, which has an impact on earnings and market value, due to the strong link between carbon emissions and the financial performance of a portfolio.

The expected improved returns from climate benchmarks, due to the factors outlined above, undoubtedly represent an incentive for companies to take on decarbonisation targets and greater commitment and credibility in the disclosure of their sustainability metrics and strategies. This will enable investors to better assess the transition-related credit risk in their portfolios and thus reduce the likelihood of mispricing of carbon transition risk by financial markets.

32 See, for example, Amundi ETF (2002).

Impacts on results and value of the companies included in climatic benchmarks FIGURE 6



Source: Amundi ETF (2022).

4.2 Incorporation of decarbonisation targets by Spanish companies

This section analyses the extent to which membership of the climate benchmarks is an incentive for the companies that comprise them to reduce their carbon footprint through the performance of the emissions of Spanish companies that are part of any of the CTB or PAB managed by Stoxx, from 2019 to 2021.

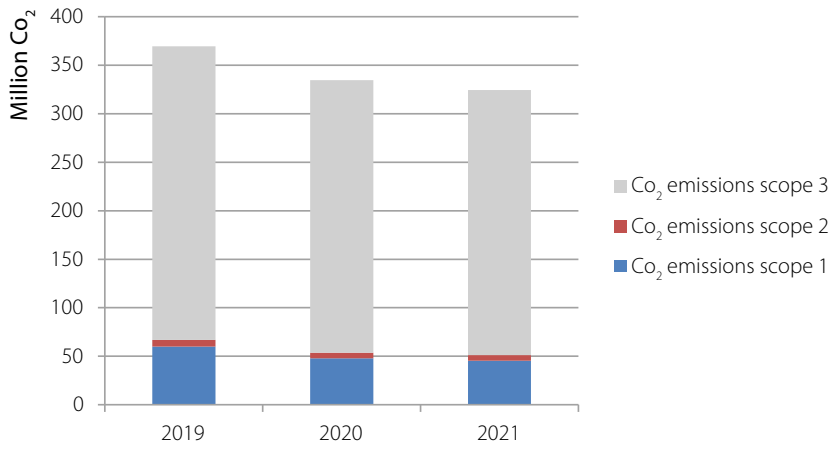
During this period, companies in the benchmarks reduce Scope 1 emissions by 24.50%, Scope 2 emissions by 13% and Scope 3 emissions by 9.7%. This significant decrease in Scope 1 and 2 emissions could be indicative of companies' strong efforts to reduce emissions on which they can have a direct impact.

Representation of Spanish companies in the climate benchmarks of the Stoxx administrator TABLE 5

	Original (%)	CTB (%)	PAB (%)
Eurostoxx	8.36	8.70	6.82
Stoxx Europe 600	3.99	4.18	3.73
Stoxx Global 1800	1.33	1.43	1.28

Source: Own compilation based on data from Stoxx.

Evolution of scope 1, 2 and 3 emissions of Spanish companies in Stoxx climate benchmarks FIGURE 7



Source: Own compilation based on data from Reuters.

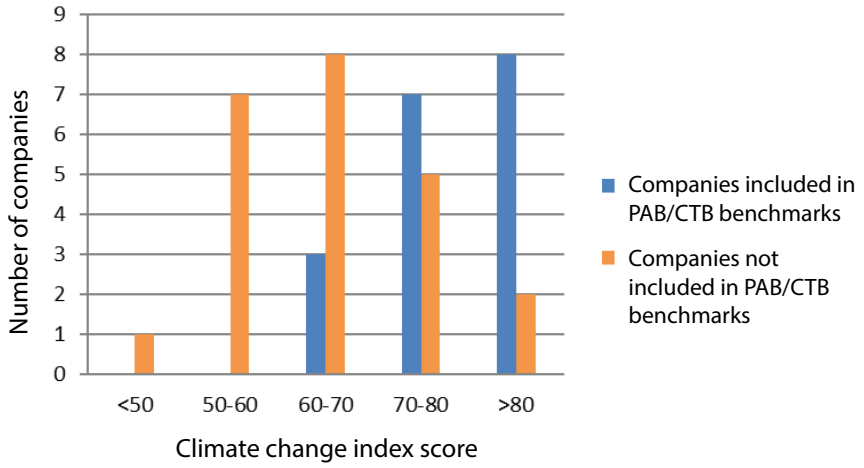
These reductions, however, are no greater than those seen in the Spanish companies analysed in the CNMV study.[33] The same conclusion can be reached if the performance of the issues of Spanish companies included in Stoxx benchmarks is compared with those of Eurostoxx companies not included in CTBs and PABs. Therefore, it is not possible to conclude that being part of the climate benchmarks is having a clear impact on emission reductions.

However, the analysis of the climate change indicator, constructed in the CNMV study (2023) for all the enterprises analysed and for companies belonging to climate benchmarks, yields results that are more favourable to corporations belonging to the benchmarks. This climate change index attempts to measure the degree to which the issuers have made progress in identifying the risks and opportunities of climate change and the efforts to reduce their GHG emissions.

Companies that are included in the CTBs and PABs have a better climate change index than corporations that are not. Companies included in climate benchmarks tend to score above 70, while enterprises not included tend to score lower.

33 CNMV (2023c).

Climate change index scores of companies in the climate benchmarks vs. companies not in the benchmarks FIGURE 8



Source: Compiled by the authors based on CNMV data (2023).

4.3 Case of the Ibex Gender Equality

It is worth dedicating this section to a benchmark developed in Spain which, despite its short history, serves as a clear example of the potential positive impact on companies' sustainability commitments and the quality of their disclosures.

Of the three administrators registered by the CNMV, only one of them so far offers an benchmark that takes ESG factors into account: the Ibex Gender Equality Index, which attempts to measure the gender equality of Spanish listed companies.[34]

Technical sheet of the Ibex Gender Equality Index TABLE 6

Eligible universe: IGBM (120 securities).

Index calculation: Companies have to meet two requirements simultaneously:

- Between 25% and 75% female presence on the Board of Directors.
- Between 15% and 85% in senior management.

Equilibrium index (which avoids the excessive weight of the Ibex companies). It is calculated in three versions: prices, dividends and net dividends.

Calculation data: data published by the CNMV on the presence of women on Boards of Directors and in senior management of listed companies.[35]

Source: BME (2022a).

34 According to its methodology, the index tries to measure the performance of Spanish companies based on their exposure to gender equality in Spain. In terms of sustainability factors, the index aims to promote gender equality in Spanish listed companies. BME (2022a).

35 CNMV. «Presence of women on Boards of Directors and in senior management of listed companies».

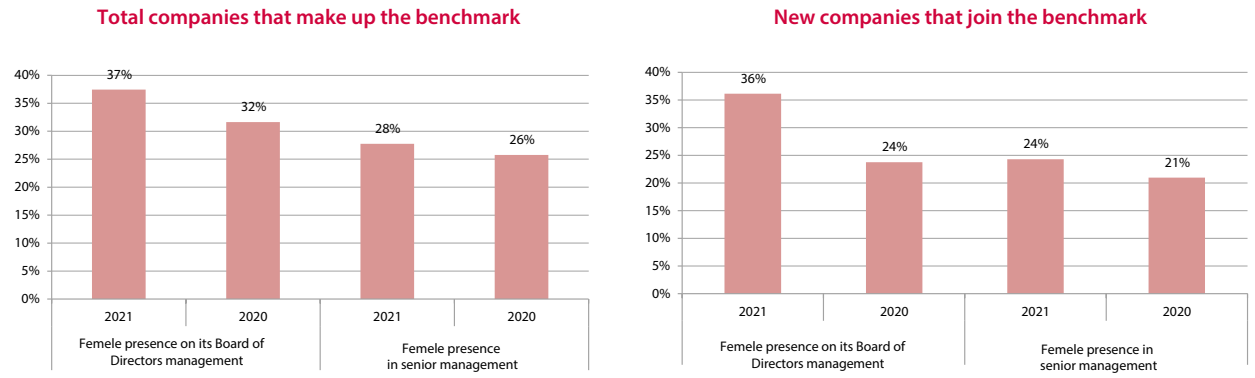
At the time of its launch on 30 November 2021, 30 companies were included in the benchmark.[36] At present, after the June 2022 review, it has 45 components (of which 20 are part of the Ibex 35, 12 of the Ibex Small Cap, 7 of the Ibex Medium Cap and 6 of the IGBM).[37] The share of stocks in the benchmark is equally weighted so that the weight of each of them is 2.2%.

This increase in the number of qualifying companies in less than 1 year may be a sign of the effectiveness of the benchmark in encouraging companies to adopt criteria for the presence of women on the Board and in senior management. In fact, the new companies joining the benchmark have made significant efforts, especially in the composition of the Board where the representation of women has increased by an average of 12 percentage points. Female managers have also improved their representation by 3 points to 24%.

As shown in the left panel of Figure 9, the presence of women on boards and in senior management of the companies in the benchmark has improved by an average of 5 and 2 percentage points, respectively, between 2020 and 2021. At the level of all listed companies, this improvement was respectively 4 and 0.5 percentage points over the same period. Furthermore, the proportion of female directors stood at 28.8% and the representation of female managers at 185%.[38]

The benchmark has also contributed to improving the quality of information published by institutions. In fact, in December 2021 its composition was extraordinarily revised to incorporate 3 companies that were initially not included because they had erroneously reported the information to the CNMV.[39] The launch of the benchmark led to the correction of the information by the entities.

Average female presence in the new companies of the Ibex Gender Equality Index FIGURE 9



Source: Own elaboration based on data published by the CNMV on the presence of women on the Boards of Directors and in the senior management of listed companies.

36 BME (2021a).

37 BME (2022b).

38 All representation indicators used in this section refer to the average of the corresponding percentages of women directors and managers in each company.

39 According to the notice published by the administrator, these companies were Global Dominion, Logista and Telefónica. BME (2021b).

5 Contribution to reducing the risk of greenwashing

Although there is no legal definition or consensus on the concept of greenwashing, it can be said to involve practices, intentional or not, whereby publicly disclosed sustainability information (with respect to an entity or an issuer, financial instrument, product or service) does not adequately reflect the underlying sustainability risks and characteristics; which may mislead consumers, investors or the general public.

The risk of greenwashing is possibly one of the most significant risks in regard to the orderly functioning of the markets, since it can also lead to inefficiencies in the formation of prices and favour the overvaluation of assets that are considered to be «green».[40]

This risk arises as a consequence of the rapid growth of ESG investments in a context of numerous legislative measures[41] which, while seeking to regulate them, are being drafted and implemented with some delay and lack of synchronisation, resulting in regulatory gaps and inconsistencies between different regulations.

At present, the European securities market, banking and insurance authorities are working, in a coordinated manner and under a mandate from the European Commission,[42] to find a single definition of the greenwashing phenomenon and to assess the problems of implementation of sustainability legislation as well as the supervisory response.[43]

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40 This can lead to the emergence of financial bubbles and what is known as the «green» risk premium or «greenium» in the markets, which can lead to lower funding costs for issuers, as investors seem to be willing to give up part of the return in exchange for the convenience of holding «green» assets. This behaviour may, in turn, incentivise issuers to resort to disclosures of untruthful sustainability targets, thereby exacerbating the cycle of overpricing and underweighting of poor quality information in investor decision-making.

41 In this regard, it suffices to mention the plethora of legislative initiatives that have been pushed through in the EU since the Commission announced its action plan on sustainable finance in 2018: Regulation on Taxonomy (2019); Sustainable Finance Disclosure Regulation (SFDR) (2019); Climate Transition Benchmarks Regulation (2019); Corporate Sustainability Reporting Directive (CSRD) (2022); Proposal for a Corporate Sustainability Due Diligence Directive (2022), Proposal for a Regulation on an EU Green Bond Standard (2021) and Green MiFID (2022).

42 The three European Supervisory Authorities (ESMA, EBA and EIOPA) published, in November 2022, a call for evidence (EBA, ESMA, EIOPA (2022) to gather information from stakeholders with the objective of improving the understanding of the concept of greenwashing, its key features, drivers and associated risks, as well as to collect examples of possible greenwashing practices.

43 Greenwashing is the most commonly used term, and a priori refers to environmental aspects, i.e. the letter «E» in the acronym ESG. However, it is important to underline that social and governance aspects, i.e. the letters «S» and «G», are also involved. In fact, terms such as «social washing» or «sustainability washing». With this in mind, the work of the European authorities will seek to address the concept broadly, covering all three aspects.

5.1 Impact of benchmarks on the transparency and comparability of issuers' ESG reporting

According to data from PIMCO,[44] between 2005 and 2018, the term ESG was mentioned in less than 1% of global company earnings presentations. However, from 2019 onwards it increased by 5%, rising to almost 20% in 2021.

While this trend is indicative of the growing interest in ESG investing, transparency is essential to avoid a race for «green gold» that could lead to a loss of investor confidence in sustainable finance, capital allocation decisions contrary to their objectives and greenwashing practices.

The study conducted by the CNMV (2023)[45] includes an estimate of the potential greenwashing in companies that provide information on emissions and their alignment with the Paris Agreement. This estimate is carried out by comparing two ratings constructed by Refinitiv: one, based solely on information supplied by the company itself; and the other, which corrects the former using other public information that questions the information disclosed by the issuers themselves.

Although this estimate has important limitations that could condition its results, it suggests, on a purely approximate basis, that while most companies would not make extensive use of greenwashing, large companies could be more exposed to this risk given the information they provide to the stock markets.

If this same analysis is applied to Spanish companies included in the CTBs and PABs indices and compared with the rest of the companies not included in the benchmarks, we find that, in line with the previous conclusion, 33% of the former would have a possible risk of greenwashing as opposed to 14% of the companies not included. In both cases, this result could be explained by the higher media exposure of large companies, which are generally also those included in the benchmarks.

This section has analysed whether the inclusion of companies in climate benchmarks is an incentive to take on credible decarbonisation targets and to disclose reliable information and metrics. The performance of the Spanish companies included in these benchmarks has been studied to this end.

Currently, 24 Spanish companies are included in one or other of the CTB and PAB indices managed by Stoxx According to information available through Reuters, all of them publish information relating to Scope 1, 2, and 3 emissions. Only in the case of 3 companies, it has been found that the published figures generate some uncertainty on Scope 3 emissions, according to the data provided by the issuers themselves.

For the calculation of the carbon footprint there is an increasing homogenisation of the carbon footprint due to the increasing number of companies following the GHG

44 PIMCO (2021).

45 CNMV (2023c).

Protocol.[46] While in 2019, according to Reuters, no Spanish company reported in accordance with this protocol, in 2021, 54% of the Spanish companies included in the CTBs and PABs adhere to it in order to ensure greater homogenisation of the data, thus facilitating the comparability of the figures for investors.

Likewise, all but 3 of the Spanish companies included in some of the Stoxx sustainable benchmarks report clear emission reduction targets, in terms of dates, as well as carbon footprint reduction percentages.

Reliability of information is essential to mitigate the risk of greenwashing. However, unlike other types of information, the information provided by issuers on their GHG emissions is not easy to validate by third parties, which could, in turn, incentivise companies to provide information to the market that would bias their climate change efforts upwards.

Since the creation of the CTB and PAB labels in 2019, there has been a generalisation in audited ESG reporting. Prior to that date, only 4 of the 24 Spanish companies currently included in one of the Stoxx benchmarks were engaged in this practice.

In parallel, it is noted that companies that are not part of these climate benchmarks do not have the same degree of commitment. However, since the introduction of these benchmarks, there has been a progressive improvement in the level of transparency and sustainability commitments of these companies, which paves the way for their eligibility for inclusion in the climate benchmarks.

Out of 27 Spanish companies that are part of the Stoxx Europe 600, and that are not included in CTBs and/or PABs, it is observed that 37% did not calculate their Scope 1 and 2 emissions in 2018. This proportion rises to 59% for Scope 3 emissions. In 2020, only 4 companies reported using the GHG Protocol as a procedure to account for their emissions; however, by 2021, 15 companies were already using the GHG Protocol.

Finally, companies that are not included in the CTBs and PABs do not show clear emission reduction commitments, but here too, a gradual improvement can be observed. In 2019, 11 companies did not publish a carbon footprint reduction target. Only one year later, this number has been reduced to 5 corporations.

5.2 Risk of greenwashing through the benchmarks

There should be a consistency in the benchmark between the investment objective of such benchmark as stated by the administrator and the actual objective of the index itself. A discrepancy between the actual objectives and those stated by the administrators can lead to confusion for users and investors in general.

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46 The Greenhouse Gas Protocol (GHG-Protocol) provides standards, guidance, tools and training for companies and governments to measure and manage greenhouse gas emissions from operations, value chains and mitigation actions. The protocol was developed jointly by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). The GHG Protocol works with governments, industry associations, NGOs, businesses and other organisations.

The risk of greenwashing may also arise from the managers' disclosure of information on the impact of their benchmarks, when they focus on exclusionary policies that do not result in the selection of a fully sustainable investment universe; or if an ESG integration strategy is presented but no commitment is made to use ESG considerations in making decisions on the inclusion of companies in the benchmark.

The creation of benchmarks similar to those regulated under the PAB or CTB labels, but with minor adjustments to fall outside these legally recognised categories, can give the impression of a strong ESG profile. While the regulation of disclosure requirements for ESG benchmarks reduces the risk of greenwashing, the lack of methodological requirements allowing benchmark users to compare different benchmarks that claim to have a robust ESG profile is a factor that favours such risk.

The paper by Gómez-Yubero and Gullón (2021) also points out, due to the limited scope of application of the BMR, ESG benchmarks could be created that fall outside regulation, i.e. that do not meet any of the three requirements set out in the definition of a «benchmark» in Article 3.3 of the BMR. If this situation were to arise, it could put the entities that offer these benchmarks in a much more favourable competitive position than the administrators that offer benchmarks subject to BMR. Providing these benchmarks could also encourage greenwashing practices.

These examples are in the sights of regulators and will serve to improve the regulatory framework, introduce effective common supervisory standards and define effective supervisory responses to ensure consistent and comparable ESG disclosure.

ESMA, in its sustainability roadmap,[47] identifies the monitoring and evaluation of greenwashing practices as a horizontal objective. In addition, it identifies concrete actions to help improve and achieve regulation consistent with the whole sustainability legislative package. ESMA has also planned concrete actions with the aim of achieving convergence in the enforcement and effective supervision of both the climate benchmarks and the ESG transparency requirements for other benchmarks.

The CNMV also considers, as a cross-cutting priority of its supervisory activity, the monitoring and identification of possible greenwashing practices in the different areas of its competence, as well as their prevention through the provision of guidance and criteria to the market, and the establishment of clear supervisory expectations. In relation to benchmark benchmarks, the CNMV plans to review compliance with the ESG disclosure criteria set out in the BMR Regulation.[48]

47 ESMA (2022a).

48 CNMV (2023b).

6 Obstacles identified and proposed solutions

The rapidly evolving and complex legislative framework on sustainable finance has led to uneven coverage of the various links in the sustainable investment value chain and inconsistencies between different pieces of legislation, which is hampering the development and effective use of tools such as benchmarks.

This situation leads to differences in interpretation and practical application, which ultimately stimulates, voluntarily or involuntarily, greenwashing or, more generally, ESG laundering practices, thus threatening investor protection and the efficient functioning of the markets.

In the paper published in 2021, a number of issues were identified that needed clarification in order to improve the effectiveness of the benchmarks in contributing to the SDGs. These issues, which are still valid today, include the lack of a centralised registry of climate and sustainability benchmarks, as well as the absence of specific rules on usage in benchmark naming, which hinders the identification of benchmarks and thus their use and comparability by potential users. It is also proposed to adjust the general definition of benchmarks so that it is not possible to create ESG benchmarks outside BMR.

This section further analyses and identifies the main shortcomings that hinder the role of benchmarks as a catalyst for sustainable finance, in addition to identifying possible solutions. Many of these solutions are already being considered by the European authorities and their implementation has begun.

This section also takes into account the views of sustainability benchmark administrators and promoters obtained from a survey coordinated by ESMA and conducted in 2022.

6.1 Inconsistencies between different pieces of legislation

Among the most relevant inconsistencies are the concept of «do no significant harm» (DNSH) to other ESG objectives in the BMR Regulation, on the one hand, and the Taxonomy and Disclosure Regulations (SFDR) on the other; the differences between sustainable investments and activities in SFDR and in the Taxonomy Regulation; and the absence of this concept in BMR as well as the use of estimates and/or equivalent information in ESG metrics and the different definition of metrics to measure the same concepts.

The BMR Regulation mentions the concept of DNSH when referring to entities that may be included in climate benchmarks must do no significant harm to other ESG objectives; this translates into exclusions[49] applied to both the PABs[50] and, from

49 These exclusions are set out in Article 10 (for CTBs) and Article 12 (for PABs) of Delegated Regulation (EU) 2020/1818 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks.

50 Article 3(1)(23 *ter*) of the BMR Regulation (as amended by Regulation (EU) 2019/2089 amending Regulation (EU) 2016/1011 EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks.

2023, the CTBs.[51] These exclusions include, for example, companies whose revenues are derived from activities considered harmful, such as those related to controversial weapons or tobacco cultivation and production.

The SFDR Regulation captures the concept of DNSH by defining sustainable investments as «investments in an economic activity which contribute to the achievement of an environmental or social objective and which, in addition, do no significant harm to either of those objectives». This principle is closely linked to the disclosure of the principal adverse impacts (PAIs) of investment decisions on sustainability factors.[52]

Furthermore, Article 3 of the Taxonomy Regulation[53] sets out the requirements for an economic activity to qualify as environmentally sustainable. Among these requirements is the requirement not to cause significant damage to any of the environmental objectives set out in Article 9. The treatment of this concept in the Taxonomy Regulation refers only to environmental aspects; it establishes stricter criteria for assessing compliance.

The different approaches to what constitutes a harmful activity give rise to contradictory situations, such as, for example, that a tobacco company can be labelled as sustainable under the criteria of the SFDR Regulation, since tobacco is not included in any of the mandatory PAIs; yet the same company would be excluded from the climate benchmarks.

It is also possible that climate benchmarks include companies in their composition that do not qualify as sustainable under the SFDR. For example, it is currently possible for a CTB to hold fossil fuel companies that would be harmful in terms of the PAI on «exposures to companies active in the fossil fuel sector» or, similarly, for a PAB or CTB to be harmful in terms of the PAI on gender diversity, as this exclusion criterion is not foreseen in BMR.

These inconsistencies pose a major constraint on the use of climate benchmarks in products subject to SFDR; they are particularly relevant for SFDR Article 9 products that replicate or use climate indices as benchmarks.

In 2020, the European Commission set up the Sustainable Finance Platform, an expert group that advises the Committee on the development of the taxonomy and on policies related to sustainable finance in general, as foreseen in Article 20 of the Taxonomy Regulation. Among their work, they highlight the recommendations

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51 Article 19 *ter* of the BMR Regulation (as amended by Regulation (EU) 2019/2089 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks.

52 Delegated Regulation 2022/1288 of 6 April 2022 supplementing Regulation (EU) 2019/2088 of the European Parliament and of the Council as regards regulatory technical standards specifying the details of the content and presentation to be met by information relating to the 'do no significant harm' principle, and specifying the content, methods and presentation for information relating to sustainability indicators and adverse sustainability impacts, as well as the content and presentation of information relating to the promotion of environmental or social characteristics and sustainable investment objectives in pre-contractual documents, on websites and in periodic reports, Annex I Tables 1, 2 and 3.

53 Regulation 2020/852, Article 9: the environmental objectives are: a) climate change mitigation; b) adaptation to climate change; c) sustainable use and protection of water and marine resources;
d) transition to a circular economy; e) pollution prevention and control; f) protection and recovery of biodiversity and ecosystems.

contained in the Usability Report,[54] published in October 2022, which addresses the challenges faced by users of the taxonomy. The Platform's recommendations include a number of legislative amendments aimed at aligning the different sustainability regulations.

Table 7 contains a summary of the Platform's recommendations that affect the BMR Regulation. Among them, and to address the situations described above, the Platform proposes to align the definition of «harm» (contained in BMR for the climate benchmarks with that of the SFDR), taking into consideration the PAIs in the design of the benchmarks; and in turn, to homogenise the exclusions (including tobacco as a harmful activity, for example, in both SFDR and BMR) so that they are perfectly aligned.

Summary of the recommendations of the Platform on Sustainable Finance to the European Commission in relation to BMR TABLE 7

Recommendations	Description	Priority[1]
Subject 49	Take into account sustainability disclosures under the Benchmarks Regulation (BMR) when amending the SFDR's PAIs. Specifically: — Update ESG-based benchmark disclosure requirements for full alignment with SFDR PAIs. — Disclosure of information on ESG-based benchmarks should include alignment with the taxonomy. — SFDR PAIs on fossil fuel indicators should be updated to follow the same breakdown as the exclusions for PABs. — The exclusions of the SFDR PAIs and those of the PABs or CTBs should be aligned (e.g. both should consider the exclusion of tobacco).	High
Subject 50	Include tobacco exposure as a PAI and replace the UN Global Compact with the UN Guiding Principles on Business and Human Rights to achieve consistency between the two regulations.	High
Subject 51	CTBs should be aligned with the SFDR definition of «harm», in the sense that PAI indicators should be»considered» in their construction and with clear explanations on how PAIs are considered. Although PABs are already consistent with PAIs, in the vast majority of cases, a similar alignment is recommended for the sake of consistency between PABs and CTBs.	Medium
Subject 52	Consider developing a taxonomy of «always significant harmful activities» and, until then, include a short list of «always mainly adverse» social and environmental activities as part of the PAIs, to be used as screening criteria in BMR. Consider developing and implementing benchmarks aligned with SFDR targets for the remaining mandatory SFDR PAI indicators.	Low
Subject 53	Align the SFDR's PAI metrics more closely with those required under BMR once the PAIs are revised. Specifically, include energy consumption, discrimination incidents, executive diversity and CEO compensation in benchmark disclosure requirements to better align SFDR and BMR.	Medium
Subject 54	When an ESG rating is used in BMR reporting, consider making it mandatory to disclose the formal methodology used to create the rating.	Medium
Subject 55	Revise the EVIC inflationary adjustment to take into account each investee company within the benchmark.	Medium
Subject 56	Revise Delegated Regulation (EU) 2020/1818 to ensure that the base year is 2020 and a 7% year-on-year thereafter is evidenced; or that year 1 requirements for any new CTB or PAB are calculated using the 7% trajectory to 2020.	Medium
Subject 57	Revise Delegated Regulation (EU) 2020/1818 to allow benchmark providers to choose whether to treat financial and insurance sector equities as a high or low impact sector component.	Low

Source: Platform on Sustainable Finance (2022). *Platform Recommendations on Data and Usability*. 12 October.

1 Prioritisation of recommendations refers to the degree of urgency with which the Platform considers that they need to be addressed in the regulation, but not to their importance or impact, as all recommendations are considered equally necessary.

54 Platform on Sustainable Finance (2022). *Platform Recommendations on Data and Usability*. 12 October.

6.2 Different definition of the metrics

The second issue highlighted on the lack of consistency between transparency obligations in different standards relates to ESG metrics. Among the most relevant discrepancies are the fact that the standards use different types of sources to develop ESG metrics (company data, equivalent information and estimates); this leads to problems of comparability of information and also hinders the effective use of benchmarks as benchmarks in SFDR-regulated products.

However, it should be noted that the new sustainability reporting standards to be developed under the CSRD will help to address some of these problems of inconsistency between disclosures under the Taxonomy, Disclosure and BMR rules; this will reduce, to some extent, the reliance on equivalent estimates and information.

As for the use of estimates, there are currently no clear rules on what constitutes more or less robust estimates; this leads to large differences in their use in SFDR, BMR and the Taxonomy Regulation. Furthermore, there is also no specific regulation of external ESG data providers, with a consequent lack of transparency of the methodologies used. To help address this weakness, IOSCO[55] has published best practice recommendations that market participants can adopt in their selection of ESG data provider products and services that require estimates.

The Platform recommends that where a benchmark provider uses ESG ratings or scores in its BMR reporting, it should disclose the formal methodology used to create the rating or score.

The future regulation of data providers, such as ESG ratings, which the Commission is contemplating, will go a long way towards resolving this issue.[56]

Certain metrics, such as greenhouse gas (GHG) intensity, present methodological discrepancies, as the way they are calculated in SFDR and BMR is different. In the first case, the GHG intensity calculation formula uses revenue as the denominator of the absolute base, while the BMR formula uses the enterprise value (EVIC). This disparity can lead to difficulties in interpreting the GHG intensity for a given company or portfolio invested in; and can lead market participants to different conclusions about the GHG intensity of a given financial product or benchmark.

55 IOSCO (2022).

56 To this end, the Commission conducted a specific public consultation between April and June 2022 (European Commission, 2022a) on the functioning of the ESG ratings market in the EU and on the consideration of ESG factors in credit ratings as a step towards a possible regulatory initiative.

Difference in calculation of GHG intensity in BMR and in SFDR TABLE 8

GHG intensity = tCO_2e/EVIC	GHG intensity = tCO_2e/Revenue
Where: tCO_2e: equivalent tons of CO_2. EVIC: Enterprise value including cash, calculated as the sum of the market capitalisation of ordinary and preference shares, the book value of total debt and non-controlling interests without deducting cash. Revenue: total company revenue.	

Source: Compiled by the authors.

While the BMR metric has advantages – such as better applicability to both equity and fixed income investments, and less bias for or against any particular economic sector – it also has drawbacks, such as the sometimes high volatility of the EVIC and the difficulty of calculating this metric in the absence of market capitalisation.

In order to address these discrepancies, the Platform suggests in its report that the metrics for the benchmark disclosures reflect the ESG[57] factors so that they are fully aligned with the SFDR PAIs as well as the Taxonomy Regulation. The Platform also recommends that benchmarks and funds use the same metrics to report on the footprint, intensity and overall carbon profile of the financial product, and prefers SFDR requirements to BMR requirements.

A common and consistent regulation on the use of estimates and equivalent information, as well as on requirements for the disclosure of methodologies used to estimate certain key data – such as Scope 3 GHG emissions – is needed to improve the comparability of data under these three regulations.

In April 2023, the three European supervisory authorities (EBA, EIOPA and ESMA) published a public consultation[58] on amendments to the Sustainable Finance Disclosure Regulation (SFDR) Delegated Regulation (EU) 2022/1288 which addresses many of the inconsistencies in this and the previous section, including in relation to sustainability indicators, key adverse impacts and disclosure of GHG emission reduction targets.

6.3 Creation of climate benchmarks by administrators of significant benchmarks

The BMR Regulation requests EU significant benchmark administrators to make an effort to market one or more CTBs.[59] This effort was to materialise as of January 2022. And although there are three administrators in the EU that provide meaningful

57 BMR requires administrators to explain in the benchmark disclosure how environmental, social and governance (ESG) factors are reflected in each benchmark or benchmark family developed and published

58 EBA, ESMA and EIOPA (2023).

59 Article 19 of the BMR Regulation (as amended by Regulation (EU) 2019/2089.

benchmarks, none of them offer CTBs. Only one of these administrators, Euronext Paris, has launched a benchmark[60] that selects companies within the CAC benchmark universe with emission reduction targets in line with the Paris Agreement. However, although it considers decarbonisation targets, this benchmark does not exactly match the characteristics of the CTBs or PABs.

There are several reasons given by these suppliers to justify this situation, some of them already mentioned in the previous sections, such as inconsistencies in the identification of harmful activities and DNSH, the lack of alignment between BMR ESG factors and SFDR PAIs, as well as differences in the calculation of sustainability indicators such as GHG intensity.

The insufficient quality of the data needed, the cost of accessing estimated or equivalent information and the different disclosure requirements are also arguments holding back the launch of these products. In particular, although the inclusion in the calculation of Scope 3 GHG emissions for the PABs and CTBs occurs gradually, depending on the sectors,[61] administrators ask for more flexibility due to the current low coverage and availability of these data.

The diversity of data providers and methodologies in the market (many of them not very transparent), the lack of standardisation of sustainability ratings and the added cost of engaging an ESG data provider (to provide all the information needed to develop the CTB) are also seen as factors hindering their development.

Finally, some administrators also point to a lack of investor interest and a lack of demand for these benchmarks from issuers.

6.4 Creation of new ESG benchmark labels

The European Commission is exploring the possibility of introducing a new label for benchmarks covering all ESG factors as a complement to the current climate labels,[62] which would boost the channelling of capital flows towards more sustainable investments and further help to address ESG banking. The two currently regulated climate benchmarks focus very specifically on GHG emission reductions and the Paris Agreement targets and address only one aspect of the ESG universe. There is therefore scope for a new label covering the entire ESG spectrum.

Many investors currently rely on so-called ESG benchmarks to justify the sustainability-related feature of their portfolio or the investment products they offer. However, the comparability and reliability of these ESG benchmarks is affected by the

60 Euronext (2023).

61 Scope 3 GHG emissions data are included in phases according to the sector:
- December 2020: energy and mining.
- December 2022: transport, construction, buildings, materials and industry.
- December 2024: all other sectors.

62 To this end, the European Commission has carried out a public consultation (European Commission, 2022b) prior to a possible legislative proposal regulating the methodology of ESG benchmarks and their transparency.

lack of harmonisation of their methodologies and by investors' doubts about the level of ambition of the objectives pursued. Currently, the only regulatory requirements applicable to ESG benchmarks are disclosure requirements set out in the relevant delegated regulations,[63] which is insufficient to ensure an adequate level of harmonisation across benchmarks. Harmonising the methodology of these benchmarks is essential to ensure a seal of quality and a high level of investor protection.

In order to avoid the same flaws as the current regulation on climate benchmarks,[64] the timing of the creation of such labels needs to be coordinated and synchronised with other legislation on sustainable finance.

To ensure consistency between BMR and the Taxonomy Regulation, the European Commission is required to submit a report to the European Parliament and the Council on the adaptation of the minimum standards for climate benchmarks to the taxonomy (Article 54(4) of the BMR).

It should also report on the feasibility of «ESG benchmarks», taking into account the evolving nature of sustainability indicators and the methods used to measure them. The report shall be accompanied, where appropriate, by a legislative proposal (Article 54.5 of the BMR).

To this end, in terms of priority, it would be desirable to first define minimum standards for financial products classified under Articles 8 and 9 of the SFDR as product labels and then identify how they would interact with an ESG benchmark methodology.

New ESG benchmark labels could be structured by defining minimum thresholds for the different sustainability indicators, or by requiring a minimum improvement relative to the investable universe for each of the sustainability indicators, or a combination of both techniques. In order to facilitate implementation, the thresholds defining the label could gradually be raised to the final target. Therefore, the label is initially structured with relatively low thresholds in the sustainability indicators, so that its implementation is feasible. In addition, it is still costly and difficult to access sustainability information from companies, and the degree of implementation and scope of the taxonomy still has a long way to go.

In line with this proposal, it is worth mentioning the conclusions of the work published by ESMA (ESMA 2022c). This paper also highlights the need to carefully calibrate the possible thresholds that may be set in future label regulation, whether for

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63 Commission Delegated Regulation (EU) 2020/1816 of 17 July 2020 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the explanation in the benchmark statement of how environmental, social and governance factors are reflected in each benchmark provided and published; and Commission Delegated Regulation (EU) 2020/1817 of 17 July 2020 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation on how environmental, social and governance factors are reflected in the benchmark methodology.

64 The regulation of climate benchmarks and disclosure requirements for benchmarks that consider factors or pursue ESG objectives was adopted prior to the publication of the Taxonomy Regulation; resulting in BMR ESG factors referring to companies whose activities are identified in CNAE when it would be more useful for users to have information on taxonomy-related activities.

funds or benchmarks, so that the credibility of the label is appropriately weighted to enhance investor protection and mitigate greenwashing risk, and its usefulness, so that it can be widely used by managers and investors.

As the scope and implementation of the EU taxonomy expands and an increasing number of companies initiate the transition, the proportion of activities aligned with the taxonomy will increase over time. The implementation of CSDR reporting obligations and the implementation of a centralised single access point to companies' sustainability information (discussed in the next section) will also help to ensure compliance with more stringent requirements that may be set for products and benchmarks to adhere to the labels. This procedure will also make it easier for these labels to meet the objective of streamlining investor decision-making with guaranteed compliance with regulated and harmonised «green» requirements.

One measure that would help to ensure greater effectiveness of the new ESG benchmarks would be the development of thematic benchmarks, as an alternative to labels, which jointly consider all ESG factors. Similar to the regulation of climate benchmarks that focus on decarbonisation targets, benchmarks aligned to specific targets (such as gender diversity or water pollution reduction) could be regulated, defining specific parameters with respect to the individual targets selected and the percentages of improvement with respect to their investable universe. In line with this proposal, the Platform on Sustainable Finance[65] also takes a position.

The need for more specialised benchmarks that focus on specific ESG aspects or components is the aspect most demanded by managers surveyed by the Index Industry Association (see Section 3.2 of this article).

The recently published study by the European Commission[66] on the feasibility of an EU ESG benchmark suggests the development, through various options, of a mandatory standard for ESG benchmarks complemented by a voluntary label similar to the EU's CTBs and PABs. The establishment of a mandatory standard for all EU ESG benchmarks is unlikely to be feasible, at least in the short term, and the study therefore proposes to implement both the mandatory standard and voluntary labels, as well as instruments that give automatic access for investment products subject to the SFDR that use them as a benchmark to qualify as SFDR Article 8 and 9 products, respectively.

In addition, given the feasibility constraints identified for all options in the short term, the study proposes a phased approach, which would start with voluntary labelling from 2025, when disclosure under the CSRD comes into force, with the option of being an automatic (but not the only) route for product access to Article 8 of the SFDR. In the medium to long term, taking into account the experience of voluntary use, the label could be transformed into a mandatory minimum requirement and complemented by a voluntary label for benchmarks with higher sustainability ambitions; this would facilitate the disclosure of information under Article 9 of the SFDR.

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65 See Section 5.2.3.5 *Self-Enhancing Benchmarks for Further Indicators* from its report Platform on Sustainable Finance (2022).

66 European Commission (2022c).

6.5 Additional enhancements that will also contribute to mitigating the risk of greenwashing

From the perspective of a supervisor who has to ensure investor protection and the proper and efficient functioning of markets, adequate transparency and correct pricing are of particular importance, as the opposite can lead to a loss of investor confidence in sustainable finance, to capital allocation decisions contrary to their objectives and to greenwashing practices.

To avoid or mitigate this risk, there is a need for comprehensive regulation on disclosure or transparency; uniform interpretative criteria by the institutions that have to apply them, and by the authorities that have to supervise them; and effective supervisory practices that discourage and correct any inappropriate practices that may be detected.

Therefore, irrespective of the outcome of the ongoing work of the European Supervisory Authorities, there are a number of measures whose adoption will contribute to reducing this risk, such as advancing the implementation of harmonised taxonomy and disclosure standards and developing a rigorous oversight of compliance.

Similarly, encouraging and facilitating the use of labels, such as those currently regulated for climate benchmarks and those foreseen in the Commission's plans for investment funds or green bonds, will improve confidence in investment products and services.

Arguably, the most important element in addressing sustainability – to discourage inappropriate behaviour and to encourage sustainable investments – is transparency, i.e. the provision of consistent, reliable and quality information, because only with information can market participants identify and quantify risks, incorporate them into prices and their investment decisions.

In the EU, the Non-Financial Reporting Directive (NFRD) introduced this obligation for large public interest entities with more than 500 employees. The draft CSRD, which revises the NFRD, will extend the scope of disclosure to all issuers of securities listed on regulated markets (except micro-companies) and will require a third party review of the information (which is already mandatory in Spain).[67]

For transparency to be truly effective, it needs to be easily accessible and processable. To achieve this, the Commision has launched a very ambitious and complex project for a European Single Access Point (ESAP).[68] This project will make it possible to have on a single platform, in digital format, all the financial and non-financial information published by listed companies, large companies that provide information on sustainability (whether listed or not), banks, insurance companies, investment funds and other financial market entities. This platform is expected to be able

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67 Sections 3.2.2. and 3.3.2. of Gómez-Yubero (2022) refer to the implications of regulation on sustainability reporting by issuers.

68 Proposal for a Regulation of the European Parliament and of the Council establishing a European single access point providing centralised access to publicly available information of relevance to financial services, capital markets and sustainability.

to start in a preliminary phase as of December 2025; its final implementation will follow a gradual process until 2030. Sustainability information will be integrated in the first phase.

Reliable and comparable ESG ratings are essential for quality information. There is a new and growing market for providers of ESG ratings that provide an opinion on the sustainability profile or characteristics of a company or financial instrument, exposure to sustainability risks or impact on society or the environment. The European Commission has also launched a project to regulate this activity, as well as to ensure that credit rating agencies assessing the creditworthiness of a company or financial instrument incorporate relevant ESG risks into credit ratings.

The discipline of transparency also operates in the area of corporate governance, through the obligation to report on the extent to which the recommendations of the Code of Good Governance are being followed, to ensure that ESG factors are integrated into day-to-day management and that a long-term vision is fostered. In Spain, in 2020, the CNMV updated the Good Governance Code so that, among other measures, the elements related to sustainability[69] were strengthened.

The CNMV has been working on a code of investor and manager involvement (known as a stewardship code) which has recently been published.[70] This code aims to encourage long-term thinking by investors and managers, which will also help to promote this approach in the companies in which they invest.

Finally, convergence in the interpretation, application and monitoring of standards is essential at European level. In this area, ESMA plays a key role in ensuring the effectiveness of transparency and convergence in supervisory practices.

On the basis of its Strategy on Sustainable Finance, published in 2020,[71] ESMA has adopted a roadmap[72] to ensure the coordinated implementation of its sustainability mandate containing the priorities and concrete actions that it will put in place during the period 2022-2024 to achieve these objectives.

7 Conclusions

This paper analyses the effectiveness of benchmarks that consider or pursue ESG objectives and, in particular, those of climate benchmarks, in meeting the objectives for which they were created, and identifies the obstacles that may be hindering their development.

69 CNMV (2020).
70 CNMV (2023a).
71 ESMA (2020).
72 ESMA (2022a).

Although asset managers recognise the usefulness of benchmarks and increasingly report using them, our results suggest that despite the considerable growth of ESG investments and increasing investor interest, the use of ESG indices, and in particular climate benchmarks, regulated in the EU, is still limited. This is despite the fact that there is a considerable supply of indices labelled as CTBs and PABs.

Indeed, managers also recognise that they need more specialised benchmarks; with better ESG metrics; with more information on the underlying ESG data used in benchmarks, with greater transparency in the way benchmarks are compiled and greater standardisation of metrics and methods across providers.

On the company side, it is possible to relate improvements in the assumption of credible sustainability commitments and in the disclosure of reliable information and metrics to benchmark membership and better valuation and expected returns of the companies that make up these benchmarks. The analysis also highlights the positive impact that such benchmarks have had on the transparency of companies, while reducing the risk of greenwashing.

Improving the regulation of benchmarks themselves, introducing common supervisory standards and defining effective supervisory responses to ensure consistent and comparable ESG disclosure by administrators will also contribute to the reduction of voluntary or involuntary practices related to ESG laundering.

Moreover, an analysis seems to indicate that the CTBs and PABs have helped to shift capital towards more sustainable investments. However, inconsistencies between the three regulations – Taxonomy, SFDR and BMR – pose a major constraint to the use of climate benchmarks on products subject to SFDR. Progress needs to be made in implementing the taxonomy and harmonised disclosure standards so that the transparency obligations of benchmarks are consistent with those of investment product providers.

It can therefore be concluded that, while there has been remarkable progress in recent years in terms of regulation, especially in the EU (which is the leading jurisdiction in this area), there is still some way to go to make the tools available to provide access to transition finance truly effective.

Improvements across the sustainable investment value chain can ensure that benchmarks fulfil their role of facilitating ESG investment, encouraging companies to initiate the transition to sustainability and contributing to the reduction of greenwashing risk, which will help the virtuous circle to work effectively.

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