A Scientific Beta Publication

Scientific Beta
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A Critical Appraisal of Recent EU Regulatory Developments Pertaining to Climate Indices and Sustainability Disclosures for Passive Investment

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The authors can be contacted at contact@scientificbeta.com.

About the Author

Frédéric Ducoulombier is ESG Director at Scientific Beta. From 2015 to 2019, he was in charge of risk and compliance for Scientific Beta having previously served EDHEC Business School's risk and investment management research centre for ten years as the founding director of EDHEC Risk Institute's executive education arm and of EDHEC Risk Institute–Asia. At EDHEC Business School, he also taught economics and finance, managed graduate programmes and served as Deputy Associate Dean of Graduate Studies and Deputy Associate Dean of Research and Development. His research and advocacy work has focused on the purported risks of exchange traded funds, the governance and transparency of financial indices, non-financial risks in the fund management industry, smart beta and factor investing and the integration of environmental, social and governance criteria into investment. He was a member of the Consultative Working Group of the European Securities Markets Authority's Financial Innovation Standing Committee from February 2015 to January 2017. He holds a master's in management from IESEG School of Management, a graduate certificate in East Asian Studies from a University of Montréal/McGill University program, and is a Chartered Alternative Investment Analyst® designee.

Executive Summary

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In the context of the European Commission's action plan on financing sustainable growth, European co-legislators agreed to improve transparency around sustainability issues in passive investment and promote harmonisation of low-carbon indices by amending the Benchmark Regulation.

Passed in 2019, this amendment introduced a requirement for benchmark methodology to include explanations of how environmental, social and governance (ESG) dimensions are reflected when a benchmark pursues ESG objectives. It also created the EU Climate Transition Benchmark and EU Paris-aligned Benchmark labels. It entrusted the European Commission with the task of detailing disclosures for all ESG benchmarks and index construction standards for those claiming the new climate labels.

We find that the delegated acts pertaining to sustainability disclosures do not specify how explanations should be provided but instead establish a long list of ESG indicators to be computed and disclosed. As this modifies the nature of the benchmark statement and entails considerable administrative and data acquisition costs, this may be viewed as ultra vires. Because most of these indicators pertain to data not typically made public by companies, the acts are a boon for data providers, which hints at regulatory capture. These onerous disclosures create an uneven playing field between benchmarks that pursue ESG objectives and those that do not. Last but not least and despite material progress achieved thanks to stakeholder consultations, multiple indicators still lack the standardisation needed to support meaningful comparisons across benchmarks. In total, benefits for decision making around sustainability are modest.

As for the delegated act detailing the standards for EU Climate Benchmarks, we observe that the Commission's choice of decarbonisation constraints and primitive approach to sectoral issues reduce the scope of the regulation and promote outright divestment of high carbon intensity assets over strategies that establish finer distinctions to reorient capital flows and incentivise transition. In practice indeed, decarbonisation objectives can be met by reallocating across sectors and sub-sectors with no regard for the decarbonisation performance of individual issuers, the necessary consistency of signals sent to issuers if decarbonisation is to be encouraged, or the technological alignment of the resulting portfolio with the needs of a decarbonising economy.

This puts the act at odds with the increasingly popular net zero frameworks that aim to promote the continuous decarbonisation of the real economy by incentivising the largest number of issuers to adopt and, over time, respect corporate-level decarbonisation targets consistent with Paris Agreement.

We also find fault with the European Commission's pursuit of innovation in the area of carbon metrics. Instead of relying on normalisation of greenhouse gas emissions by revenues to compute carbon intensity–which is widely used and applicable whether or not issuers have listed equity–the legislator mandates normalisation by enterprise value for public equity and allows or requires the use of absolute emissions for corporate debt. Rejecting a generally accepted metric can be applied

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in a uniform manner in favour of a novel approach involving different metrics for different securities does little to promote efficiency and comparability.

In addition, the use of enterprise value imports equity capital market volatility into carbon intensity measurement. Given the act's decarbonisation constraints, the relative equity market performance of issuers may weigh more on constituent choice and weighting than their performance at controlling greenhouse gas emissions.

Another material issue is the inclusion of corporate-value chain emissions into the legislator's carbon intensity metric. While these indirect emissions typically dwarf those from sources owned or controlled by issuers or attached to their purchases of electricity, available data are generally sector/product estimates that lack the granularity required for stock selection. Joint consideration of all emissions, which the act encourages, would once again lead to disregarding the efforts made by companies in the mitigation of their greenhouse gas emissions.

Assuming the legality of the extensive ESG disclosures mandated by the delegated remains unchallenged or is confirmed, parties interested in fostering better decision making around sustainability should work towards increasing the standardisation of these disclosures. In particular, they should insist on the need for issuer-level disclosures and their accessibility through open data platforms.

Impact-concerned investors will also still need to perform due diligence on EU Climate Benchmark methodologies and data to avoid associating with greenwashing and to identify features contributing to alignment with the Paris Agreement.

ESG Overhaul of the Benchmark Regulation

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The regulation on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (Regulation (EU) 2016/1011, hereafter Benchmark Regulation or BMR) made index provision in the European Union (EU) a regulated activity. In the wake of the interbank rate manipulation scandals, BMR aimed to "ensure the accuracy and integrity of indices used as benchmarks". BMR introduced modest transparency requirements and significant governance and control requirements on the benchmark determination process, with a view to improving the quality of input data and methodologies and mitigating conflicts of interest risks.

To make good on its commitments to take into account the United Nations (UN) 2030 Agenda for Sustainable Development and implement the Paris Agreement under the UN Framework Convention on Climate Change, the European Commission adopted in March 2018 an action plan on financing sustainable growth (COM/2018/097). Drawing selectively on the work of the High-Level Expert Group (HLEG) on sustainable finance convened by the Commission, the plan spelled out three main objectives and 10 actions.

Consistent with the work of the HLEG, the objectives called for the:
(i) reorientation of capital flows towards sustainable investment to achieve sustainable and inclusive growth;
(ii) management of financial risks stemming from climate change, environmental degradation and social issues; and
(iii) fostering of transparency and long-termism in financial and economic activity.

Entitled Developing sustainability benchmarks, the plan's fifth action called for:
(i) an update of the transparency requirements of the BMR that would "allow users to better assess the quality of sustainability benchmarks" (where the recommendation of the HLEG had been to update disclosure rules to make sustainability issues fully transparent, starting with climate change); and
(ii) the harmonisation of low-carbon indices (which the HLEG had not identified as a priority).

Legislative work followed briskly: within a year, the European co-legislators had agreed to implement both aspects by amending BMR, which was completed in November 2019.

The BMR amendment (Regulation (EU) 2019/2089) created the EU Climate Transition Benchmark (CTB) and EU Paris-aligned Benchmark (PAB) labels (together hereafter EU Climate Benchmarks) and introduced a requirement for the benchmark methodology and statement to include explanations of how environmental, social and governance (ESG) dimensions are reflected when a benchmark pursues ESG objectives. The EU Climate Benchmark labels aim to harmonise and improve transparency of the climate change index market at the EU level and to ensure a high level of investor protection by combatting greenwashing – ie, misleading claims as to the environmental credentials of investments. The introduction of disclosure requirements with respect to ESG incorporation into benchmarks aims to facilitate cross-border comparisons and help market participants make well-informed choices.

ESG Overhaul of the Benchmark Regulation

The amending Regulation empowered the Commission to adopt delegated acts[1] both to specify minimum standards for the construction of EU Climate Benchmarks and to lay out the minimum contents of explanations about ESG incorporation and their standard format. In the preparation of these acts, the Commission sought the advice of the Technical Expert Group on Sustainable Finance (TEG). Scientific Beta participated in the call for feedback on the interim report of the TEG (Amenc and Ducoulombier, 2019) and conducted a critical, in-depth, analysis of the proposals contained in the final report, which was shared with the Commission and publicly detailed in a White Paper entitled "Unsustainable Proposals" (Amenc and Ducoulombier, 2020a). Scientific Beta continued to engage the Commission upon the release of the draft delegated acts in April 2020, including by participating in the public consultation on these acts (Amenc and Ducoulombier, 2020b). The Commission finalised the acts in July 2020. Remaining unchallenged by the co-legislators during the scrutiny period, the acts were published in the Official Journal of the European Union on 3 December 2020.[2]

While the delegated acts have corrected some of the mistakes and incoherencies that Scientific Beta and other parties had pointed out, we find that severe issues remain in the acts pertaining to ESG disclosures and detailing the EU Climate Benchmark standards (together the Commission Regulation).

1 - Failure to adopt these acts before the BMR amendment went into application on 30 April 2020 led the European Securities and Markets Authority (ESMA) to issue a No Action Letter (ESMA41-137-1300) to competent authorities recommending that they "do not prioritise any supervisory or enforcement action" in relation to the new ESG disclosures.

2 - Along with the aforementioned No Action Letter, ESMA had called on the Commission (ESMA41-137-1299) to adopt the acts promptly but without prejudice to "the need to set an application date which provides administrators with a sufficient time period to adapt their practices to comply with them." The Commission chose to ignore the latter part of ESMA's common sense recommendation, as the delegated acts will be applicable twenty days after publication.

The Commission Regulation Introduces Expensive ESG Disclosures that do more to Advance the Interests of ESG Data and Services Providers than Sustainability

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The Approach to ESG Disclosures Modifies the Nature of the Benchmark Statement

The purpose of the benchmark statement, as described in BMR (Recital 43 of Regulation 2016/1011), is to provide (would-be) users with a description of what the benchmark measures and how susceptible it is to manipulation. As provided by the regulation, benchmark statements should be of reasonable length and focus on providing the key information. The minimum disclosures therein are strictly concerned with how a benchmark is constructed and managed; index performance – financial or otherwise – is not part of minimum disclosures.

While the BMR amendment provides that the benchmark statement "shall contain an explanation of how ESG factors are reflected", the delegated act pertaining to these disclosures does not specify how this explanation should be provided but instead establishes a long list of ESG indicators to be computed and disclosed.

These disclosures modify the nature of the benchmark statement for indices pursuing ESG objectives and entail considerable administrative and data acquisition costs for benchmark administrators (which could eventually be borne by end-investors). As such, they arguably become an essential dimension of the regulation, which would be inconsistent with the scope of the legislative delegation enjoyed by the Commission and could form the basis to a challenge of the delegated act on the ground that it is ultra vires.

Mandated ESG Disclosures are Expansive and Expensive and Hint at Regulatory Capture

Table 1 lists the disclosure requirements common to all listed equity benchmarks pursuing ESG objectives; additional disclosures apply to EU Climate Benchmarks. Note that there are about twice as many social indicators as environmental indicators, which is at odds with the climate change priority spelt out by the HLEG.

With limited exceptions, the indicators pertain to data not typically made public by companies, even by those publicly listed in the EU. In practice, compliance will require outsourcing reporting to a data provider or the licensing of data curated or estimated by data providers for reporting usage. To compute the mandatory indicators that were present in the draft regulation, an administrator would need to acquire GHG emissions data, fundamental company data, issuer NACE code data (defined according to the Statistical Classification of Economic Activities in the European Community), Environmental goods and services sector (or EGSS) revenues data, controversial activity data (for controversial weapons and tobacco involvement), ESG controversy data, as well as specific data points pertaining to board composition (independence and diversity). While the Commission suggested it was striving to streamline disclosures, it added four new granular social indicators to its final text.

The Commission Regulation Introduces Expensive ESG Disclosures that do more to Advance the Interests of ESG Data and Services Providers than Sustainability

Table 1: ESG Disclosures in the Benchmark Statement (all listed equity benchmarks pursuing ESG objectives)

ESG themes	Delegated Act Disclosures
Overall ESG	Weighted average ESG rating of the benchmark (made voluntary by Commission)
	Overall ESG ratings of top ten index constituents by weighting in index (made voluntary by Commission)
Environmental	Weighted average environmental rating of the benchmark (made voluntary by Commission)
	Exposure to renewable energy as measured by capital expenditure relative to total capital expenditure of energy companies in portfolio (clearly specified and made voluntary by Commission)
	Exposure to climate-related physical risks (made voluntary by Commission)
	Degree of exposure (not specified) to sectors highly exposed to climate change issues (clearly specified)
	Greenhouse gas (GHG) intensity (not specified)
	Percentage of GHG emissions reported versus estimated
	Exposure (not specified) to companies the activities of which pertain to energy and mining plus manufacture of coke, refined petroleum products, chemicals and chemical products (extended by Commission)
	Exposure (not specified) to activities included in the environmental goods and services sector (EGSS) (added by Commission)
Social	Weighted average social rating of the benchmark (voluntary)
	International treaties and conventions, UN principles or, where applicable, national law used to determine what constitutes a 'controversial weapon'
	"Weighted average percentage" (sic) of index constituents in the controversial weapons "sector" (sic)
	"Weighted average percentage" (sic) of index constituents in the tobacco sector (not specified)
	(Absolute and Relative) Number of constituents subject to social violations "in reference to treaties and conventions, UN principles and national law" (reference added by Commission)
	Exposure to companies without due diligence policies on issues addressed by the fundamental conventions of the International Labour Organisation (added by Commission in final text)
	Weighted average gender pay gap (added by Commission in final text)
	Weighted average ratio of female to male board members (added by Commission in final text)*
	Weighted average ratio of accidents, injuries, fatalities (added by Commission in final text)
	Numbers of convictions and amount of fines for violations of anti-corruption and anti-bribery laws (added by Commission in final text)
Governance	Weighted average governance rating of the benchmark (voluntary)
	Weighted average percentage of board members who are independent
	Weighted average percentage of female board members

** This appears redundant with the indicator already included under Governance; we suspect an oversight.*

This introduction of onerous ESG disclosures looks particularly bad as the composition of the TEG working group that prepared the proposals endorsed by the Commission was marked by under-representation of the potential end-users of benchmarks, which the regulation aimed to protect, and skewed towards providers of ESG data and services, ie, parties that stand to benefit from the Commission Regulation. This outcome may thus be viewed as a dismal failure of conflict-of-interest management on the part of the TEG and, by extension, the Commission. In this respect, Paris-alignment think-tank the 2° Investing Initiative noted: "A small group of individuals of which a significant minority represent financial interests have effectively been delegated the responsibility of designing this guidance. Their outcome appears to align 100% with their financial interests, while being inconsistent for example with previous attempts at standardisation put forward by the Financial Stability Board Task Force on Climate-related Financial Disclosures" (see 2DII, 2020).

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This is not only an issue of wealth transfer to the benefit of ESG data providers as the conditions for fair and non-discriminatory access to ESG data by all benchmark administrators cannot be met. Indeed, that market is increasingly dominated by ESG data providers that are integrated with, or sister organisations of, the big three providers controlling more than two-thirds of the index market. Hence, the Commission Regulation also creates indirect costs by harming competition in the benchmark administration industry.

Mandated ESG Disclosures do Little to Improve Decision Making Around Sustainability

It should be underlined that, as per the spirit and the letter of the BMR amendment, benchmarks that do not pursue ESG objectives need only state as much to be exempted from sustainability reporting. While this made complete sense in the context of a qualitative explanation of ESG incorporation, it creates an uneven playing field between benchmarks that pursue ESG objectives and those that do not when the focus switches to the publication of metrics. It also leads to uneven progress on transparency on sustainability issues. In theory, the specific and material reporting costs created by the regulation should discourage the incorporation of ESG dimensions into benchmarks and create a unique competitive disadvantage for benchmarks that pursue ESG objectives. In practice, however, it is reasonable to think that current investor interest in ESG incorporation is such that there will be no shortage of supply irrespective of the wealth transfers to data providers and harm done to competition. This notwithstanding, the high costs of the new disclosures will de-incentivise their voluntary adoption, which will contribute negatively to overall progress in the incorporation of sustainability issues into passive investment.

Finally, the informational value of the mandated disclosures is limited by a lack of standardisation. Admittedly, the Commission has taken into account public feedback and improved materially on the proposals of the TEG. It has made voluntary a number of metrics whose inherent divergence frustrates the possibility of meaningful comparisons across products. This is notably the case of ESG ratings owing to differences in objectives, methodologies (choice and weighting of criteria), and measurements (resulting from data sources and processing, including arising from subjectivity). Recent academic research by Berg et al. (2019) described the divergence of ESG ratings as "an impediment to prudent decision-making that would contribute to an environmentally sustainable and socially just economy". The Commission has also attempted to increase the number of indicators that are convergent enough to allow for comparisons.

However, the majority of indicators still lack the necessary standardisation to support such usage. This may be due to insufficient precision of terms allowing for diverse interpretations, and/or explicit leeway extended to index administrators with respect to choice or definition of metrics. This may also be attributable to differences in estimation approaches when information that may be objectively measured is not publicly disclosed by companies or to methodological differences and divergences of expert judgment when the indicator is subjective (as in the case of social violations). Note that the

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lack of standardisation not only reduces the relevance of mandated reporting for decision-making, notably for cross-benchmark comparisons, but also does little to promote high ESG standards (since comparisons to less challenging references may shed favourable light on the product).

The Commission Regulation Encourages Financial Greenwashing over Decarbonisation of the Real Economy

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High Decarbonisation Constraint at Onset and Primitive Approach to Sectoral Issues Reduce the Scope of the BMR Amendment and Encourage Greenwashing

The act specifying the minimum requirements for EU Climate Benchmarks approaches decarbonisation in a three-fold manner:
(i) a market benchmark-relative reduction in portfolio-level 'carbon intensity' that must be achieved from base year;
(ii) a year-on-year reduction of that carbon metric that is meant to compress associated emissions; and, for PAB only,
(iii) share-of-revenues exclusions targeting the fossil fuel industry and high carbon intensity electricity generation (activity exclusions).

The first component has long been a mainstay of low carbon indices and is typically justified from both impact and carbon risk exposure perspectives.

The second component is innovative and intended to put EU Climate Benchmarks on an emission reduction pathway aligned with the Paris Agreement and specifically the 1.5°C global warming scenarios of the Intergovernmental Panel on Climate Change. The third component evokes the fossil fuel divestment movement. With a view to preventing greenwashing that would take the form of reduced allocation to key sectors for the transition, the act requires equity benchmarks to have cumulative exposure to sectors highly exposed to climate change issues in line with, or in excess of, the market benchmarks.

Table 2: Minimum standards for EU Climate Benchmarks of Listed Equity

Minimum standards	CTB	PAB
Minimum Carbon intensity reduction compared to investable universe	30% (Art. 9)	50% (Art. 11)
Scope 3 phase-in	• Immediate for energy & mining plus manufacture of coke, refined petroleum products, chemicals and chemical products - fossil fuel reserves may be used until end 2021 • Two years for transportation, construction, buildings, materials, industrial activities • Four years for all other activities	
Baseline Exclusions	To be introduced before 2023 (Art. 10)	From inception (Art. 12)
	• Controversial Weapons • Cultivation and production of tobacco • Violators of United Nations Global Compact Principles or OECD Guidelines for Multinational Enterprises • Companies doing significant harm to the environmental objectives of the Taxonomy Regulation	
Activity Exclusions	None	• Coal (hard coal and lignite) involvement - supply (1%+ revenues) • Oil involvement - supply (10%+) • Natural Gas involvement (50%+) • Electricity Generation with GHG intensity above 100gCO2/kWh (50%+)
Year-on-year self-decarbonisation of the Benchmark	7% fall in Carbon Intensity on geometric average per annum (Art. 7.1(a); 7.2; 8), with adjustment (Art. 7.3) to compensate for yearly changes in average Enterprise Value Including Cash of constituents	
Exposure constraints	Exposure to sectors highly exposed to climate change issues at least equal to that of market benchmark (Art. 3	
Corporate Target Setting (voluntary)	Companies that set and publish GHG emission reduction targets may be overweighed subject to conditions to prevent greenwashing (Art. 6)	

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The highly prescriptive nature of these 'minimum' requirements (see Table 2) and anchoring on broad-market benchmarks do not do justice to the diversity of investor needs and reduce the variety of index strategies that may be offered as EU Climate Benchmarks.

Most perversely, the combination and technical specification of decarbonisation approaches do not favour compatibility with the increasingly popular net zero frameworks that aim to promote the continuous decarbonisation of the real economy by incentivising the largest number of issuers to adopt and, over time, respect corporate-level decarbonisation targets consistent with Paris Agreement (see for example, IIGCC, 2020).

PAB activity exclusions de facto exclude the coal and oil and gas sectors along with the majority of electricity producers (owing to the industry's current dependence on high carbon intensity fossil fuels). Net zero frameworks allow for the divestment of activities that are fundamentally misaligned with credible pathways towards global net zero emissions. Whereas there is solid basis for coal divestment, reliance on oil as primary energy does not disappear in the IPCC 1.5°C scenarios with no or limited overshoot (it falls in a range of −93% to −9% from 2020 to 2050) and the changes to gas utilisation range between –88% and +85% depending notably on levels of carbon capture and storage technology deployment (IPCC, 2018). While the number of oil and gas companies boldly transitioning is extremely limited, the exclusion of the industry does little to encourage transition leadership in this key sector. Likewise, with net-zero ambitions relying on massive electrification of industrial activities, transportation and other sectors, it is key to incentivise transition by power producers.

A wider-ranging compatibility issue is created by the sharp, benchmark-relative, portfolio-level reductions in 'carbon intensity' that promote portfolio decarbonisation at onset through divestment of high carbon intensity assets rather than continued investment and incentivising of transition. In addition, while the act integrates a continuous decarbonisation feature, reductions at onset make self-decarbonisation dramatically less stringent in absolute terms (since it is assessed against a reduced base). It should also be observed that the use of a crude macro-sector exposure as a method to protect against greenwashing at best gives a false sense of security in regards to this issue and at worst, encourages it. In practice indeed, decarbonisation objectives (at onset and year-on-year) can be met by reallocating across sectors and sub-sectors with no regard for the decarbonisation performance of individual issuers, the necessary consistency of signals sent to issuers if decarbonisation is to be encouraged, or the technological alignment of the resulting portfolio with the needs of a decarbonising economy.

Another crucial dimension of divergence with Paris Agreement alignment frameworks is the reliance on a uniform contraction approach. While the latter makes sense at the level of the global economy, emissions reduction pathways vary across sectors and regions and, when approaching the net-zero challenge, there is wide consensus in favour of sector-specific decarbonisation. Furthermore, there is not necessarily a close correspondence between underlying economies and portfolios, including those tracking listed equity market benchmarks. It follows not only that portfolio-level constraints will

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be more or less challenging depending on sectoral composition, but also that they may be violated even when the portfolio includes only companies that are aligned with their sectoral decarbonisation pathways (or conversely that portfolio constraints may be met despite dramatic misalignment of underlying assets, see 2DII, 2020, or irrelevance).

By anchoring EU Climate Benchmarks to traditional benchmarks and requiring a sharp reduction of carbon intensity at onset and then a uniform year-on-year compression, the Commission has reduced the scope of the regulation and incentivised greenwashing over the adoption of investment solutions that promote the reorientation of capital flows towards a more sustainable economy.

Counterproductive Innovation in Carbon Metric Causes Inefficiencies and Institutionalises Greenwashing

Although it is called by the name of a traditional carbon responsibility metric, the key metric adopted by the act to assess the carbon friendliness of benchmarks is a variation on weighted average carbon intensity (WACI), the popular carbon exposure metric recommended for reporting by the Task Force on Climate-related Financial Disclosures (TCFD). While the standard version of WACI normalises yearly corporate GHG emissions by the revenues of the corresponding year, the Commission normalises this flow by a stock variable computed as the sum of the market capitalisation of shares and the book value of debt and non-controlling interests at financial year end, ie, enterprise value including cash (EVIC).[3]

Formal public feedback received by the TEG and the Commission underlined that there was a generally accepted and widely used carbon exposure metric that was applicable to equity and corporate fixed-income indices, did not require issuers to have publicly listed equity and was not directly affected by stock market volatility. Multiple parties also underlined that metric change would be counterproductive with regard to the investments already made by concerned parties and warned against inefficiencies. The Commission nevertheless went ahead with its variation without justifying it theoretically by a literature review or economically by a cost/benefit analysis.[4]

While the TEG had maintained that the use of enterprise value would allow usage across equity and debt benchmarks, stakeholder feedback forced the Commission reluctantly to recognise some of the inherent limitations of the metric, including the difficulties and biases arising in the absence of listed equity securities. As for the latter, the act leaves private equity benchmarks unaddressed and allows or requires the use of absolute emissions for debt securities (how an absolute figure would be attached to a dimensionless quantity remains to be theoretically explained[5]). Metric innovation is preserved but at the cost of consistency and comparability across benchmarks.

It must also be underlined that the consequences of importing equity capital market volatility into carbon intensity measurement have not been thought through. Admittedly, the act requires the year-on-year decarbonisation to be adjusted for average EVIC drift so as to remove obvious

3 - The inclusion of cash is a concession to stakeholder feedback as the definition put forward by the TEG had excluded it. Our criticisms of the biases and operational issues created by this exclusion (Amenc and Ducoulombier, 2020a) do not apply to the act.
4 - The only justification was that the switch away from the generally accepted metric would be to the detriment of sectors such as coal whose potential 'stranded assets' depress market valuations (TEG, 2019). The relevance of incentivising coal divestment when it is already a well-established feature of decarbonisation programmes is questionable and doing so by metric manipulation necessarily causes unintended consequences in respect of other sectors (Amenc and Ducoulombier, 2020a).
5 - In the absence of guidance, benchmark administrators will have to make their own, possibly divergent, choices, to normalise these emissions.

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inflation/deflation effects which, other things equal, cause intensity to fall/rise without changes in issuer emissions.[6] However, such an adjustment cannot remove the considerable dispersion of year-on-year changes in EVIC across eligible constituents. In other words, at index rebalancing time, the relative equity market performance of issuers may weigh more on constituent choice and weighting than their performance at controlling GHG emissions. In these conditions, the self-decarbonisation constraint may be achieved year after year by turnover favouring issuers with high price momentum. This naturally does little to incentivise issuer decarbonisation efforts through capital allocation and related engagement.

Last but not least, the act's carbon intensity metric integrates corporate value chain (Scope 3) emissions[7]. In most sectors (power generation and basic materials being exceptions), Scope 3 emissions dwarf those from sources owned or controlled by the reporting company (Scope 1) and those pertaining to purchases of electricity, heating and cooling (Scope 2). Since companies can directly or indirectly contribute to the abatement of Scope 3 emissions, it is easy to make the case that the proper consideration of these emissions is material to the pursuit of a net zero future. Unfortunately, as we explain in Ducoulombier (2020), the current state of Scope 3 emissions reporting and modelling means that Scope 3 data are typically akin to sector/product estimates that are unfit for purpose of stock selection, a fact the TEG (2019) has honestly acknowledged. It follows necessarily that joint consideration of Scope 1 to 3 emissions for index construction, which the act encourages, would drown out any corporate-level signal present in Scope 1 to 2 emissions in a sea of sector/product-based Scope 3 noise. Here again, the efforts made by companies in the mitigation of their greenhouse gas emissions would be disregarded.

The Commission has exchanged a generally-accepted carbon metric applicable across equity and corporate fixed-income indices for two partial and faulty metrics and encouraged greenwashing by introducing equity market volatility into measurement and incentivising index construction upon unreliable data.

6 - As per TEG recommendations, the draft act had only been concerned with inflation. The market gyrations of the first half of 2020 probably helped the Commission understand the relevance of public-feedback warnings that falling equity prices may render the self-decarbonisation requirement unworkable (Amenc and Ducoulombier, 2019, 2020a, 2020b).

7 - Taking into account public feedback, the Commission marginally modified its Scope 3 phase-in calendar by allowing the use of fossil fuel reserves as proxies but only until the end of 2021 and subject to conditions.

Working with and Improving the Commission Regulation

Working with and Improving the Commission Regulation

Improving the Informational Value and Reducing the Cost of ESG Disclosures

Assuming the legality of the extensive ESG disclosures mandated by the Commission Regulation remains unchallenged or is confirmed, parties interested in fostering better decision making around sustainability should work towards increasing the standardisation of these disclosures.

One dimension of standardisation is the reduction of ambiguity and leeway around metric definitions. Pending, or in the absence of, an amendment of the Commission Regulation, this could be sought by promoting voluntary adherence to guidance provided by competent regulatory and enforcement authorities and/or alignment with standards set or endorsed by UN-affiliated and other supranational bodies, asset-owner alliances, or non-governmental organisations with strong ESG credentials. Another dimension is the promotion of relevant disclosures at issuer level.

While Scientific Beta is supportive of sustainability disclosures by the financial industry that can truly assist investors in decision making, it does not consider it proper or efficient for lawmakers to subcontract to the financial industry the sourcing of core ESG performance indicators on companies. Institutional investors should represent to lawmakers that when they consider a metric to be material for sustainability-related decisions, they should mandate standardised, issuer-level reporting of the data required for its computation, and then ensure that the data so collected be made openly available to all interested parties from a central, public, database. The role of the financial industry would then be to interpret and integrate these in investment and, along with other stakeholders (eg, civil society organisations), engagement strategies. ESG performance, especially on matters not financially material in the short term, is too important to be left to the financial industry. In this regard, European lawmakers should be encouraged to seize the opportunity of the update of the non-financial reporting directive to mandate public disclosure of the issuer-level data required for the design of the sustainable investment solutions and reporting they have legislated or wish to legislate. We applaud the September 2020 announcement by the Commission of a forthcoming legislative proposal to set up a digital platform (European single access point) for access to all relevant information publicly disclosed by EU companies.

Comparability may also be promoted in respect of data requiring the exercise of expert judgment. However, we doubt that regulation of the ESG rating industry could materially reduce data divergence and do not necessarily think it should. Instead, European lawmakers could assist in the constitution of an EU-wide body tasked with evaluating organisational fitness with core ESG norms for purposes of investment or public procurement. Absent regulatory action, institutional investors and NGOs could cooperate to establish and support such a body.

Combatting Greenwashing and Supporting Decarbonisation Efforts

Parties concerned with the promotion of corporate alignment with a net-zero decarbonisation pathway should encourage European lawmakers to revisit the EU Climate Benchmark standards to remove constraints that favour divestment of high climate impact issuers irrespective of their importance for,

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and commitment to, the transition to a low carbon economy, and to promote metrics that incentivise alignment with transition scenarios and ongoing decarbonisation progress in the real economy rather than portfolio decarbonisation through allocation shenanigans.

Meanwhile, investors who consider allocating to EU Climate Benchmark strategies but do not wish to associate with greenwashing will need to perform due diligence on methodologies and data.

At the least, investors should ascertain whether the climate performance of companies unambiguously drives selection or weighting or whether portfolio construction is performed in one step on the basis of composite signals mixing climate and financial performance or by optimisation. Negative (normative) and positive (best-in-class) screening strictly in respect of climate performance send the strongest and clearest signals to affected companies, their peers and stakeholders – unambiguous and predictable, these actionable signals are particularly appropriate for passive implementations and can be aligned with engagement strategies. Positive weighting driven primarily by climate performance and properly calibrated (or hybridised with screening) also has the potential to deliver relevant signals. By contrast, positive weighting approaches that depend on composite financial and climate indicators send mixed and therefore ambiguous signals to companies as to the emergency of decarbonising their operations and value chains. The latter approaches are nevertheless preferable to optimisation-based approaches that select and weight constituents to manage a portfolio-level climate metric along other objectives and constraints and thus allow compensation between climate and financial performance not only at the level of individual constituents, but also across constituents. The latter severs the link between climate performance at the corporate level and portfolio weight and with it the possibility of coherent signals.

Investors should then drill down and determine the extent to which the core climate metrics and associated data driving portfolio construction reflect actual climate progress on the part of companies. Are climate data sufficiently granular for the specific uses they support? Scope 3 emissions reflecting companies' performance in the management of value chain emissions may be used for asset selection but those that are mere sector proxies should only be used for sector-level decisions. Where a financial variable is used to normalise emissions, how well does it capture the output associated with the emissions? And how sensitive is the normalised emissions metric to volatility of the financial variable that may be unrelated to the output? EU Climate Benchmarks need to meet constraints expressed in relation to total emissions normalised by EVIC, but index providers need not put this flawed metric at the core of portfolio construction.

Finally, investors should identify the extent to which portfolio construction takes into consideration key transition sectors' decarbonisation pathways and/or corporate-level evidence of commitment to or alignment with the Paris Agreement – this may be for example through sector-specific metrics – such as fuel mix for electricity providers – or the setting of, and adherence to, decarbonisation targets. Admittedly, the minimum requirements of the Commission Regulation undermine the integration of these sectoral and forward-looking concerns.

Working with and Improving the Commission Regulation

While it is regrettable that the EU Climate Benchmark regulation encourage greenwashing, institutional investors have the agency, if not the fiduciary duty, to avoid becoming complicit.

Conclusion

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In the context of the European Commission's action plan on financing sustainable growth, the European co-legislators agreed to improve transparency around sustainability issues in passive investment and promote harmonisation of low-carbon indices by amending the Benchmark Regulation.

Passed in 2019, this amendment introduced a requirement for benchmark methodology and benchmark statement to include explanations of how environmental, social and governance (ESG) dimensions are reflected when a benchmark pursues ESG objectives and created the EU Climate Transition Benchmark and EU Paris-aligned Benchmark labels. It entrusted the European Commission with the task of detailing disclosures for all ESG benchmarks and index construction standards for those claiming the new climate labels.

In the preparation of delegated acts complementing the Benchmark Regulation, the Commission sought the advice of the Technical Expert Group on Sustainable Finance (TEG). Scientific Beta participated in the call for feedback on the interim report of the TEG (Amenc and Ducoulombier, 2019) and conducted a critical, in-depth, analysis of the proposals contained in the final report, which was shared with the Commission and publicly detailed in a White Paper entitled "Unsustainable Proposals" (Amenc and Ducoulombier, 2020a). Scientific Beta continued to engage the Commission upon the release of the draft delegated acts in April 2020, including by participating in the public consultation on these acts (Amenc and Ducoulombier, 2020b). The Commission finalised the acts on 17 July 2020.

While the delegated acts have corrected some of the mistakes and incoherencies that Scientific Beta and other parties had pointed out, we find that severe issues remain.

Rather than specifying how explanations of ESG incorporation should be provided, the delegated acts pertaining to sustainability disclosures establish a long list of ESG indicators to be computed and disclosed. As this modifies the nature of the benchmark statement and entails considerable administrative and data acquisition costs, this may be viewed as ultra vires. Because most of these indicators pertain to data not typically made public by companies, the acts are a boon for data providers, which hints at regulatory capture. These onerous disclosures create an uneven playing field between benchmarks that pursue ESG objectives and those that do not. However, current investor interest in ESG incorporation is such that there should be no shortage of supply.

We observe that despite material progress achieved thanks to stakeholder consultations, multiple indicators still lack the standardisation needed to support meaningful comparisons across benchmarks. In total, benefits for decision making around sustainability are modest.

As for the delegated act detailing the standards for EU Climate Benchmarks, we observe that the Commission's choice of decarbonisation constraints and primitive approach to sectoral issues reduce the scope of the regulation and promote outright divestment of high carbon intensity assets over strategies that establish finer distinctions to reorient capital flows and incentivise transition. In practice indeed, decarbonisation objectives can be met by reallocating across sectors and sub-sectors with

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no regard for the decarbonisation performance of individual issuers, the necessary consistency of signals sent to issuers if decarbonisation is to be encouraged, or the technological alignment of the resulting portfolio with the needs of a decarbonising economy.

This puts the act at odds with the increasingly popular net zero frameworks that aim to promote the continuous decarbonisation of the real economy by incentivising the largest number of issuers to adopt and, over time, respect corporate-level decarbonisation targets consistent with Paris Agreement.

We also find fault with the European Commission's pursuit of innovation in the area of carbon metrics. Instead of relying on normalisation of greenhouse gas emissions by revenues to compute carbon intensity–which is widely used and applicable whether or not issuers have listed equity–the legislator mandates normalisation by enterprise value for public equity and allows or requires the use of absolute emissions for corporate debt. Rejecting a generally accepted metric can be applied in a uniform manner in favour of a novel approach involving different metrics for different securities does little to promote efficiency and comparability.

In addition, the use of enterprise value imports equity capital market volatility into carbon intensity measurement. Given the act's decarbonisation constraints, the relative equity market performance of issuers may weigh more on constituent choice and weighting than their performance at controlling greenhouse gas emissions.

Another material issue is the inclusion of corporate-value chain emissions into the legislator's carbon intensity metric. While these indirect emissions typically dwarf those from sources owned or controlled by issuers or attached to their purchases of electricity, available data are typically sector/product estimates that lack the granularity required for stock selection. Joint consideration of all emissions, which the act encourages, would once again lead to disregarding the efforts made by companies in the mitigation of their greenhouse gas emissions.

Assuming the legality of the extensive ESG disclosures mandated by the acts remains unchallenged or is confirmed, parties interested in fostering better decision making around sustainability should work towards increasing the standardisation of these disclosures. In particular, they should insist on the need for issuer-level disclosures and their accessibility through open data platforms.

Impact-concerned investors considering investment into vehicles tracking EU Climate Benchmarks should perform due diligence on index methodologies to avoid associating with greenwashing and to assess the extent to which the core climate metrics and associated data driving portfolio construction can promote actual climate progress on the part of companies and alignment with the Paris Agreement.

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About Scientific Beta

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EDHEC-Risk Institute set up Scientific Beta in December 2012 as part of its policy of transferring know-how to the industry. In January 2020, Singapore Exchange (SGX) acquired a majority stake in Scientific Beta and is maintaining the strong collaboration with EDHEC Business School and principles of independent, empirical-based academic research that have benefited Scientific Beta's development to date. Scientific Beta is an original initiative which aims to favour the adoption of the latest advances in "smart beta" design and implementation by the whole investment industry. Its academic origin provides the foundation for its strategy: offer, in the best economic conditions possible, the smart beta solutions that are most proven scientifically with full transparency of both the methods and the associated risks. Smart beta is an approach that deviates from the default solution for indexing or benchmarking of using market capitalisation as the sole criterion for weighting and constituent selection.

Scientific Beta considers that new forms of indices represent a major opportunity to put into practice the results of the considerable research efforts conducted over the last 30 years on portfolio construction. Although these new benchmarks may constitute better investment references than poorly-diversified cap-weighted indices, they nevertheless expose investors to new systematic and specific risk factors related to the portfolio construction model selected.

Consistent with a full control of the risks of investment in smart beta benchmarks, Scientific Beta not only provides exhaustive information on the construction methods of these new benchmarks but also enables investors to conduct the most advanced analyses of the risks of the indices in the best possible economic conditions.

Lastly, within the context of a Smart Beta 2.0 approach, Scientific Beta provides the opportunity for investors not only to measure the risks of smart beta indices, but also to choose and manage them. This new aspect in the construction of smart beta indices has led Scientific Beta to build the most extensive smart beta benchmarks platform available which currently provides access to a wide range of smart beta indices.

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For more information, please contact:
Séverine Cibelly on: +33 493 187 863 or by e-mail to: severine.cibelly@scientificbeta.com

Scientific Beta HQ & Asia
1 George Street
#15-02
Singapore 049145
Tel: +65 6438 0030

Scientific Beta R&D
393 promenade des Anglais
BP 3116 - 06202 Nice Cedex 3
France
Tel: +33 493 187 863

Scientific Beta—Europe
10 Fleet Place, Ludgate
London EC4M 7RB
United Kingdom
Tel: +44 20 7332 5600

Scientific Beta—North America
One Boston Place, 201 Washington Street
Suite 2608/2640, Boston, MA 02108
United States of America
Tel: +1 857 239 8891

Scientific Beta—Japan
East Tower 4th Floor, Otemachi First Square,
1-5-1 Otemachi, Chiyoda-ku, Tokyo 100-0004
Japan
Tel: +81 352 191 418

www.scientificbeta.com

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