

THE EU SUSTAINABLE FINANCE TAXONOMY REGULATION: THE FIRST REGULATORY DEFINITION OF WHAT CONSTITUTES SUSTAINABLE ECONOMIC ACTIVITY¹

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ABSTRACT

In this article, we look at the Taxonomy Regulation, which entered into force in June 2020. We describe the requirements for investments and listed companies to have their economic activities labelled green, conditional on not violating safeguards against doing significant harm to social or human rights. We find that the Taxonomy Regulation is a hybrid regulation, which aims at influencing business activities through regulation of financial services.

The relevance of this article for finance research is not least to make clear the bias, or research premise, that will be introduced into any quantitative research on green premiums (the so-called greemiums) of EU financial services and listed shares and bonds after 1 January 2022, when the technical screening criteria of the Taxonomy Regulation enter into force and complete the definition of what constitutes sustainable or green economic activity. To a large extent, this will serve to make cross-European comparisons of greemiums (green premiums) easier as data on what is green will be based on European standards. Others might argue that legislating a definition of what is considered green or sustainable should be left to the market, for better or worse.

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1 INTRODUCTION: OVERVIEW OF THE TAXONOMY REGULATION

The EU Taxonomy framework has been established to define what constitutes sustainable economic activity. It targets financial products and sets requirements for financial market participants including financial service providers, issuers and national regulators (Articles 1 and 4). The framework consists of:

1. the Taxonomy Regulation (TR)³ adopted in 2020, and
2. the related delegated act(s) (DAs) specifying the technical details of the definitions on a sectoral level. The latter are in the pipeline and will be enacted as a regulatory act by the end of 2020 and expectedly by the end of 2021.

In order for an economic activity to qualify as sustainable (green), it should be proven that the economic activity in question constitutes a substantial contribution to at least one of the environmental objectives, whilst at the same time it will do no significant harm to the other environmental objectives (Recital 54 of the TR). The TR defines the environmental objectives and other requirements. The delegated act(s) are to specify in detail the technical screening criteria by defining what “substantial contribution” (SC) and “do no significant harm” (DNSH) mean on a sectoral level. These we will discuss below in more detail. Based on these technical screening criteria, it is expected that economic activities can be classified as either green or not green, which can thus be translated into sustainable or not sustainable projects to be funded by investors.

The format of the regulatory act has a significant consequence on the regulatory risk, which will be further detailed below. Particularly requiring attention are the technical screening criteria, which are put forward in the form of delegated acts.⁴ This means that the European Commission (the Commission) does not have to run the full regulatory process through the European Parliament and the Council, but can update the content based on delegated powers. The Taxonomy Regulation mandates the Commission to specify the requirements of the TR, to develop granular and sector-specific technical screening criteria, and to define what constitutes “substantial contribution” or “significant harm” to the environmental objectives.

In order to safeguard the quality of legislation, it is imperative to consult on draft legislation with civil society at large, including academics, NGOs and also businesses (i.e. industry). As such, it is of particular importance that the Commission carries out appropriate consultations during its preparatory work, including at

3 Regulation (EU) 2020/852 of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088

4 Article 290 of the Treaty on the Functioning of the European Union

expert level, such as through the Platform on Sustainable Finance and the Member States Expert Group, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016. It should be noted that the TR requires that the European Parliament and the Council receive all documents at the same time as Member States' experts, and that their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts,⁵ in order to ensure equal participation in the preparation of delegated acts.

On the one hand, delegated powers can mean accelerated adaptability and correction of potential mistakes. However, it can also create an additional layer of regulatory risk as an additional layer of the legal control mechanism is falling out of the legislative process. The format can therefore magnify the impact of errors the technical screening criteria may bring. The technical screening criteria have the potential to create errors when classifying an economic activity as green or not green. On the analogy of the error in kind theory (Banerjee et al., 2009; Mitroff & Silvers, 2010) in hypothesis testing, if the technical screening criteria are not calibrated properly and/or not granular enough, this may lead to excluding sustainable activities from green funding (type I error), or including black or brown activities in green funding (type II error), or not listing the right economic activity under the given economic sector (type III error).

Below in *Chapter 2*, we introduce the regulatory background of the TR. *Chapter 3* explains why we see the TR as a hybrid regulation. *Chapter 4* details the scope of the regulation. In *Chapter 5*, we describe in more detail the elements with which the entities in question must comply in order to label their economic activities sustainable. *Chapter 6* describes the minimum regulatory safeguards, which can disqualify any economic activities from being classified as green in case of non-compliance with these safeguards. In *Chapter 7*, we take a detour to discuss the importance of the hybrid characteristics of this regulation. Finally, in *Chapter 8*, we summarize the main elements of the definition of sustainable economic activity and our conclusions.

5 Taxonomy Regulation, Recital 54

2 ESTABLISHING A EUROPEAN REGULATORY FRAMEWORK ON SUSTAINABILITY

On 25 September 2015, the UN General Assembly adopted a new global sustainable development framework: the 2030 Agenda for Sustainable Development (the “2030 Agenda”).⁶ The UN’s 2030 Agenda has at its core the Sustainable Development Goals (SDGs) and covers the three dimensions of sustainability: economic, social and environmental. The European Commission’s communication of 22 November 2016 on the next steps for a sustainable European future links the SDGs to the EU policy framework to ensure that all union actions and policy initiatives, both within the union and globally, take the SDGs on board at the outset.⁷ In its conclusions of 20 June 2017, the Council confirmed the commitment of the EU and its Member States to implementation of the 2030 Agenda in a full, coherent, comprehensive, integrated and effective manner, in close cooperation with partners and other stakeholders.⁸ On 11 December 2019, the Commission published its communication on the “European Green Deal.”⁹

The Paris Agreement adopted under the United Nations Framework Convention on Climate Change (the “Paris Agreement”) was approved by the EU on 5 October 2016.¹⁰ Article 2(1)(c) of the Paris Agreement aims to strengthen the response to climate change by making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development, amongst other means. In this context, on 12 December 2019, the European Council adopted conclusions on climate change.¹¹

Financial products which pursue environmentally sustainable objectives are an effective way of channelling private investments into sustainable activities (*Park*,

6 Transforming our World: The 2030 Agenda for Sustainable Development, United Nations, <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

7 European Commission Communication on the next steps for a sustainable European future, 2016, https://ec.europa.eu/europeaid/commission-communication-next-steps-sustainable-european-future_en

8 Council conclusions of 20 June 2017, A sustainable European future: The EU response to the 2030 Agenda for Sustainable Development <https://data.consilium.europa.eu/doc/document/ST-10370-2017-INIT/en/pdf>

9 European Commission Communication on the European Green Deal, 11 December 2019, COM (2019) 640, https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf

10 Council decision (EU) 2016/1841 of 5 October 2016 on the adoption of the Paris Agreement, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016D1841&from=EN>

11 Council Conclusions EUCO 29/19 of 12 December 2019 on climate change, <https://www.consilium.europa.eu/media/41768/12-euco-final-conclusions-en.pdf>

2018). Requirements for marketing financial products or corporate bonds as environmentally sustainable investments, including requirements set by Member States and the EU to allow financial market participants and issuers to use national labels, aim to enhance investor confidence and awareness of the environmental impact of those financial products or corporate bonds, to create visibility and to address concerns about “greenwashing.”¹² We introduce the definition of greenwashing in *Chapter 6*, under *section 6.1*. The TR recognises that lack of investor confidence would have a major detrimental impact on the market for sustainable investments¹³ (Nguyen et al., 2018; Alewine–Stone, 2013).

Currently, a few Member States have labelling schemes in place, and there are also some private (industry) labelling systems in place. These existing schemes build on different classification systems for environmentally sustainable economic activities. Given the political commitments under the Paris Agreement and at EU level, it is likely that more and more Member States will establish and use their own labelling schemes or impose other requirements on financial market participants or issuers with respect to promoting financial products or corporate bonds as environmentally sustainable.

Relying solely on national rules and market-based initiatives and restricting the scope to address the matter within national borders would lead to fragmentation of the internal market on sustainable investment within the European Union.¹⁴ If financial market participants disclose how and to what extent the financial products that are made available, and that they invest in, are environmentally sustainable, it would help investors compare investment opportunities across jurisdictions and would incentivise investee companies to make their business models more environmentally sustainable, given that there are common criteria in use for such disclosures. This in turn would encourage investors to invest in environmentally sustainable financial products cross-border with greater confidence, thereby improving the functioning of the internal market.¹⁵ If financial market participants do not provide any explanation to investors about how the activities in which they invest contribute to environmental objectives, or if financial market participants use different concepts in their definitions of environmentally

12 Taxonomy Regulation, Recital 11

13 Taxonomy Regulation, Recital 13; and the Joint Research Centre of the European Commission, FATICA, SERENA – PANZICA, ROBERTO – RANCAN, MICHELA (2019): The pricing of green bonds: are financial institutions special? 2019 JRC Working Papers in *Economics and Finance*, 2019(7), (https://publications.jrc.ec.europa.eu/repository/bitstream/JRC116157/jrc116157_faticapanzicarancan_gbpricing_jrc_report_01.pdf)

14 Taxonomy Regulation, Recital 11

15 Taxonomy Regulation, Recital 14

sustainable economic activity, investors will find it disproportionately burdensome to check and compare different financial products. Diverging standards also have an impact on economic operators who wish to attract investments from abroad. In their case, they would have to meet a different set of criteria under each jurisdiction. The absence of uniform criteria would therefore increase costs and significantly disincentivise economic operators from accessing cross-border capital markets for the purposes of sustainable investment. It has been found that such practices discourage investors from investing in environmentally sustainable financial products.¹⁶

With the above logic in mind, the Taxonomy Regulation states its own purpose: namely, that harmonisation of the classification of sustainable economic activities will facilitate cross-border sustainable investment across the European Union¹⁷ by removing barriers to the functioning of the internal market with regard to raising funds for sustainability projects, and by preventing the future emergence of barriers to such projects.

3 THE HYBRID NATURE OF THE FRAMEWORK

The recitals of the TR suggest that establishing criteria for environmentally sustainable economic activities may encourage economic operators not covered by the Taxonomy Regulation, on a voluntary basis, to publish and disclose information on their websites regarding the environmentally sustainable economic activities they carry out.¹⁸ Following the findings of *Dhaliwal* et al. (2011), such information will not only help financial market participants and other relevant actors on financial markets to easily identify which economic operators carry out environmentally sustainable economic activities, but will also make it easier for those economic operators to raise funding for their environmentally sustainable activities. Observation of the market suggests that all parts of business life depending on investments – regardless of whether it is through bank lending or

16 See speech by ECB executive board member Isabel Schnabel: When markets fail – the need for collective action in tackling climate change, 28 September 2020 (https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200928_1~268bob672f.en.html). She also stated: “Empirical evidence suggests that there are at least two forces at play: first, mispricing as a result of informational market failures that stem primarily from the absence of a clear, consistent and transparent globally agreed taxonomy accompanied by disclosure requirements; and, second, the failure of market participants to correctly and fully price externalities as well as tail events that fall outside the historical distribution of outcomes.”

17 Taxonomy Regulation, Recital 12

18 Taxonomy Regulation, Recital 15

market funding – are in the process of becoming tied into the Taxonomy Regulation, as sustainability information becomes a market requirement. The European regulator decided that in view of the scale of the challenge and the costs associated with inaction or delayed action on sustainability, the financial system should be gradually adapted in order to support the sustainable functioning of the economy. To this end, sustainable finance needs to become mainstream and consideration needs to be given to the sustainability impact of financial products and services.¹⁹ In this sense, the channelling function of the economy (i.e. banks and investors) will be adapted to increase their flow of finance into sustainable activities. This, in turn, leads to pressure – due to finance – on any business seeking investments to align with the sustainability framework, or to risk missing out on financing opportunities either in terms of available funding or regarding the terms (interest rate) of financing offered. In this regard, from a central banking and financial oversight perspective, the sustainability discussion is framed from a risk management point of view.²⁰

The classification of environmentally sustainable economic activities should enable the development of future EU policies in support of sustainable finance, including union-wide standards for environmentally sustainable financial products and the eventual establishment of labels that formally recognise compliance with those standards across the EU.²¹ This could also serve as the basis for other economic and regulatory measures. Uniform legal requirements are necessary for determining the degree of environmental sustainability of investments, based on uniform criteria for environmentally sustainable economic activities. This will serve as a reference for future union law that aims to facilitate the shift of investments towards environmentally sustainable economic activities.

The importance of the Taxonomy Regulation should also be seen in light of its ambition to assume a broader implication. In the context of achieving the SDGs in the EU, policy choices such as the creation of a European Fund for Strategic Investments (EFSI) have been effective in contributing to the channelling of private investment towards sustainable investments alongside public spending.²² The EFSI specifies a 40% climate investment target for infrastructure and innovation

19 Taxonomy Regulation, Recital 10

20 See speech by ECB executive board member *Isabel Schnabel: When markets fail – the need for collective action in tackling climate change*, 28 September 2020 (https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200928_1~268bob672f.en.html). Slides with greemium pricing can be found at the same link.

21 Taxonomy Regulation, Recital 16

22 Regulation (EU) 2015/1017 of the European Parliament and of the Council of 25 June 2015 on the European Fund for Strategic Investments, the European Investment Advisory Hub and the European Investment Project Portal; and Taxonomy Regulation, Recital 17.

projects. Common criteria for determining whether economic activities qualify as sustainable, including their impact on the environment, could underpin similar future initiatives of the union to mobilise investment that pursues climate-related or other environmental objectives.

Instead of directly regulating numerous industries across the EU, the regulation takes a so-called hybrid or back-door approach, targeting the investor channel through requirements for labelling investments and setting transparency requirements for investments and large companies with respect to what can be referred to as green or environmentally sustainable.

The disclosure obligations laid down in the Taxonomy Regulation supplement the rules on sustainability-related disclosures in the financial services sector.²³ To enhance transparency and to provide an objective point of comparison from financial market participants to end-investors on the proportion of investments that fund environmentally sustainable economic activities, the Taxonomy Regulation supplements the rules on transparency in pre-contractual disclosures and in periodic reports laid down in the financial services disclosure regulation.²⁴

The Commission must specify the content and the format of the information that needs to be disclosed in this regard. This information should enable national competent authorities to easily verify compliance with disclosure obligations, and to enforce such compliance in accordance with applicable national law. Where financial market participants do not take the criteria for environmentally sustainable investments into account, they should provide a statement to that end. To avoid circumvention of the disclosure obligation, the obligation should also apply where financial products are marketed as promoting environmental characteristics, including financial products that have as their objective environmental protection in a broad sense.

In its communication of 20 June 2019 on “Guidelines on non-financial reporting: Supplement on reporting climate-related information,” the Commission recommends that certain large companies report on certain climate-related key performance indicators (KPIs) that are based on the framework established by the Taxonomy Regulation. Information on the proportion of turnover, capital ex-

23 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

24 The definition of a “sustainable investment” in Regulation (EU) 2019/2088 includes investments in economic activities that contribute to an environmental objective which, amongst others, should include investments into “environmentally sustainable economic activities” within the meaning of the Taxonomy Regulation. Moreover, Regulation (EU) 2019/2088 only considers an investment to be a sustainable investment if it does not significantly harm any environmental or social objective, as also set out in the Taxonomy Regulation.

penditure (CapEx) or operating expenditure (OpEx) of such large non-financial companies that is associated with environmentally sustainable economic activities, as well as KPIs that are tailored to large financial companies, is particularly useful to investors who are interested in companies whose products and services contribute substantially to any one of the environmental objectives set out in this Regulation.²⁵ The EU regulator has emphasised that it is appropriate to require the annual publication of KPIs by such large companies and to further define this requirement in delegated acts, in particular with regard to large financial companies. While it would be disproportionately burdensome to extend such a requirement to smaller companies, smaller companies may decide to publish such information voluntarily.

Below we explain the transparency requirements further in details under the Taxonomy Regulation for different entities. Articles 5, 6 and 7 describe the requirements for investors. Article 8 sets out the requirements for listed companies.

The information disclosed should enable investors to understand the proportion of investments underlying the financial product in environmentally sustainable economic activities.²⁶ In Article 5 of the TR, it is consequently set forth that in pre-contractual disclosures and in periodic reports, as regards the transparency of environmentally sustainable investments in an economic activity in the financial services sector that contribute to an environmental objective,²⁷ the information to be disclosed shall include “*information on the environmental objective or environmental objectives... to which the investment underlying the financial product contributes; and... a description of how and to what extent the investments underlying the financial product are in economic activities that qualify as environmentally sustainable.*” Just as importantly, “*the description referred to... shall specify the proportion of investments in environmentally sustainable economic activities selected for the financial product, including details on the proportions of enabling and transitional activities... as a percentage of all investments selected for the financial product.*” Both enabling and transitional activities may not be on their own sustainable economic activities, but they empower sustainable economic activities. The exact definitions of enabling and transitional activities will be described in chapter 5.

25 Guidelines on non-financial reporting: Supplement on reporting climate-related information (2019/C 209/01); and Taxonomy Regulation, Recital 22.

26 Taxonomy Regulation, Recital 18

27 Within the meaning of point (17) of Article 2 of 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.

In essence, in order for investment entities to label their funds as green, the investments – and hence the underlying corporate activities across EU industrial sectors – must be in line with the Taxonomy Regulation and the subsequent and related delegated acts in order to be considered green for investment purposes. To further solidify this, and to disincentivise questionable practices and greenwashing, the Taxonomy Regulation in Article 6 puts forward requirements for the transparency of financial products that promote environmental characteristics in pre-contractual disclosures and in periodic reports which shall be accompanied by the following statement: *“The ‘do no significant harm’ principle applies only to those investments underlying the financial product that take into account the EU criteria for environmentally sustainable economic activities. The investments underlying the remaining portion of this financial product do not take into account the EU criteria for environmentally sustainable economic activities.”*

Non-financial entities, listed on a stock exchange or similar trading platform, or entities issuing corporate bonds or entities subject to issue non-financial statements, will have to follow the Taxonomy Regulation in their reporting going forward.²⁸ Requirements are now set out for transparency of these companies in non-financial statements, stating that such a company *“shall include in its non-financial statement or consolidated non-financial statement information on how and to what extent the undertaking’s activities are associated with economic activities that qualify as environmentally sustainable”* according to the Taxonomy Regulation. *“In particular, non-financial undertakings shall disclose... the proportion of their turnover derived from products or services associated with economic activities that qualify as environmentally sustainable... and... the proportion of their capital expenditure and the proportion of their operating expenditure related to assets or processes associated with economic activities that qualify as environmentally sustainable,”* as defined by the Taxonomy Regulation and the delegated acts on technical screening criteria issues in accordance therewith.

²⁸ Any undertaking which is subject to an obligation to publish non-financial information pursuant to Article 19a or Article 29a of Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings; and Article 8 of the Taxonomy Regulation.

4 SCOPE OF THE TAXONOMY REGULATION

Sustainability incorporates environmental, social and economic sustainability. The Taxonomy Regulation focuses on environmental sustainability, and touches upon social sustainability.²⁹

The subject matter and scope of the Taxonomy Regulation is dealt with under Article 1, which states that the regulation “*establishes the criteria for determining whether an economic activity qualifies as environmentally sustainable for the purposes of establishing the degree to which an investment is environmentally sustainable.*” As such, it is applicable to 1) “*measures adopted by Member States or by the Union that set out requirements for financial market participants or issuers in respect of financial products or corporate bonds that are made available as environmentally sustainable*”; 2) “*financial market participants that make available financial products*”; and lastly, 3) “*undertakings which are subject to the obligation to publish a non-financial statement or a consolidated non-financial statement...*”

Furthermore, according to Article 4, use of the criteria for environmentally sustainable economic activities in public measures, standards and labels falls within the scope of the Taxonomy Regulation, as Member States and the EU “*shall apply the criteria set out in Article 3 to determine whether an economic activity qualifies as environmentally sustainable for the purposes of any measure setting out requirements for financial market participants or issuers in respect of financial products or corporate bonds that are made available as environmentally sustainable.*”

5 TAXONOMY: THE DEFINITION OF SUSTAINABLE ECONOMIC ACTIVITY

Discovering how to become green under the Taxonomy Regulation will have considerable impact on industries’ access to finance going forward, presupposing the green label is considered valuable by the financial services industry, end-investors and end-consumers, including central banks.

The legal definition of sustainable economic activity has four elements under Article 3. The three most important elements are the “significant contribution” (SC) to at least one of the environmental objectives; the proviso that activities “do no significant harm” (DNSH) to others; and the minimum safeguards (on human and social rights). All of these will be described in more detail below. The fourth

²⁹ See also Decision No 1386/2013/EU of the European Parliament and of the Council, and Taxonomy Regulation, Recital 4.

condition is compliance with the technical screening criteria, which are defined based on the guidance of the first three elements.

“Substantial contribution” and “do no significant harm” are hard and strict conditions of the definition. An economic activity cannot be defined as environmentally sustainable if it improves environmental conditions on one objective while having a significant negative impact on other objectives. The regulation expands the scope for assessing this impact both vertically, by requiring assessment through the full life cycle of the economic activity (production – use – end of life), and horizontally, by requiring assessment across the full spectrum of the real economy (value chains, modal shift, etc.). Based on this extended scope, an economic activity can be considered environmentally sustainable if – while maintaining the DNSH condition – it enables other economic activities to contribute substantially or provides a short-term significant contribution to environmental objectives, albeit likely not enough for final decarbonization. These economic activities are called enabling and transitional activities.

5.1 Enabling and transitional activities

Both enabling and transitional activities have the common characteristic that they are needed in order for a sustainable economic activity to be empowered and operational. If we want to describe the differences in these activities, we need to look at the time dimension. Enabling activities are economic activities which facilitate other economic activities in making a substantial contribution to at least one environmental goal. An enabling activity is performed in parallel – or very close in time – and related to the other economic activity; for example, an economic activity which manufactures a component that improves the environmental performance of another activity. Transitional activities, on the other hand, are economic activities which bridge the transitional time gap – due to a (lack of) available technology – until the sustainable activity is fully developed. Transitional activities are not necessarily linked to the other economic activity, either in nature or in timeline.

5.1.1 Enabling activities fall within the scope of what can be considered green, supplementing the areas under Article 9, and regulated by Article 16, whereby: *“An economic activity shall qualify as contributing substantially to one or more of the environmental objectives set out in Article 9 by directly enabling other activities to make a substantial contribution to one or more of those objectives, provided that such economic activity: (a) does not lead to a lock-in of assets that undermine long-term environmental goals, considering the economic lifetime of those assets;*

and (b) has a substantial positive environmental impact, on the basis of life-cycle considerations.”

5.1.2 Transitional activities are not recognised on an overall basis in the Taxonomy Regulation, but are linked to climate mitigation and particularly to greenhouse gas emissions.³⁰ In this regard, transitional activities are economic activities which provide a temporary alternative until the carbon-neutral technology is available. Article 10(2) strictly defines the criteria these transitional activities must fulfil in order to be considered as significantly contributing to climate mitigation: namely, such activity

- 3) *“supports the transition to a climate-neutral economy consistent with a pathway to limit the temperature increase to 1.5C above pre-industrial levels...;*
- 4) *has greenhouse gas emission levels that correspond to the best performance in the sector or industry (meaning that has a significantly lower emission than the sector/industry average);*
- 5) *does not hamper the development and deployment of low-carbon alternatives;*
- 6) *does not lead to a lock-in of carbon-intensive assets, considering the economic lifetime of those assets.”*

5.2 Environmental objectives

Given the systemic nature of global environmental challenges, there is a need for a systemic and forward-looking approach to environmental sustainability that addresses growing negative trends, such as climate change, the loss of biodiversity, global overconsumption of resources, food scarcity, ozone depletion, ocean acidification, deterioration of the fresh water system and land system change, as well as the appearance of new threats, such as hazardous chemicals and their combined effects.³¹

For the purpose of determining the environmental sustainability of a given economic activity, an exhaustive list of environmental objectives was laid down.³² The six environmental objectives that the Taxonomy Regulation covers are listed in Article 9 of the regulation:

- 1) climate change mitigation;
- 2) climate change adaptation;

³⁰ Taxonomy Regulation, Recital 49

³¹ Taxonomy Regulation, Recital 7

³² Taxonomy Regulation, Recital 23

- 3) the sustainable use and protection of water and marine resources;
- 4) the transition to a circular economy;
- 5) pollution prevention and control;
- 6) the protection and restoration of biodiversity and ecosystems.

We describe in detail these environmental objectives under sections 5.2.1–5.2.6.

5.2.1 Substantial contribution to climate change mitigation (Article 10)

Mitigation means reducing the negative impact of an industry (economic activity), whereas adaptation (Article 11) covers the more fundamental development of future technologies that are in themselves consistent with being green. The latter part hence covers many areas that will be heavily dependent on research and innovation funds.

An economic activity that pursues the environmental objective of climate change mitigation should contribute substantially to the stabilisation of greenhouse gas emissions by avoiding or reducing them, or by enhancing greenhouse gas removal. The economic activity should be consistent with the long-term temperature goal of the Paris Agreement.³³

Examples of such activities include generating, transmitting, storing, distributing or using renewable energy through using innovative technology with potential for significant future savings, or through necessary reinforcement or extension of the grid. Another example is improving energy efficiency, except for fossil fuel-dependant power generation activities. Outside the energy sector, increasing clean or climate-neutral transport via roads, water or air; switching to the use of sustainably sourced renewable materials; and increasing the use of environmentally safe carbon capture and utilisation (CCU) and carbon capture and storage (CCS) technologies that deliver a net reduction in greenhouse gas emissions, should be considered as sustainable economic activities. Furthermore included is the strengthening of land carbon sinks, including through avoiding deforestation and forest degradation, restoration of forests, sustainable management and restoration of croplands, grasslands and wetlands, afforestation and regenerative agriculture; as is establishing the energy infrastructure required for enabling the decarbonisation of energy systems; producing clean and efficient fuels from renewable or carbon-neutral sources; or enabling any of the activities in accordance with Article 16.

³³ Taxonomy Regulation, Recital 24

5.2.2 Substantial contribution to climate change adaptation (Article 11)

An economic activity is considered as contributing substantially to climate change adaptation where that activity includes adaptation solutions that either substantially reduce the risk of the adverse impact of the current climate and the expected future climate on that economic activity; or

substantially reduce that adverse impact, but without increasing the risk of an adverse impact on people, nature or assets; or

provide adaptation solutions as enabling activity. These requirements should be interpreted in accordance with relevant EU law and the Sendai Framework for Disaster Risk Reduction 2015–2030.³⁴

Such adaptation solutions must be assessed and ranked in order of priority using the best available climate projections and shall, at a minimum, prevent or reduce the location-specific and context-specific adverse impact of climate change on the economic activity in question, or the potential adverse impact of climate change on the environment within which the economic activity takes place.

5.2.3 Substantial contribution to the sustainable use and protection of water and marine resources (Article 12)

An economic activity shall qualify as contributing substantially to the sustainable use and protection of water and marine resources where that activity contributes substantially either to

- 1) achieving the good status of bodies of water, including bodies of surface water and groundwater;
- 2) preventing the deterioration of bodies of water that already have good status;
- 3) achieving the good environmental status of marine waters;
- 4) preventing the deterioration of marine waters that already have a good environmental status.

This has to be achieved by

- a) protecting the environment from the adverse effects of urban and industrial waste water discharges, including from contaminants of emerging concern such as pharmaceuticals and microplastics, for example, by ensuring the adequate collection, treatment and discharge of urban and industrial waste waters;

³⁴ Taxonomy Regulation, Recital 25, and for the requirement of interpretation alignment with Union *acquis*, also Recitals 26–27, 29–30 and 33.

- b) protecting human health from the adverse impact of any contamination of water intended for human consumption by ensuring that it is free from any microorganisms, parasites and substances that constitute a potential danger to human health, as well as increasing people's access to clean drinking water;
- c) improving water management and efficiency, including by protecting and enhancing the status of aquatic ecosystems, by promoting the sustainable use of water through the long-term protection of available water resources.

An example of long-term protection is the protection through measures such as water reuse, by ensuring the progressive reduction of pollutant emissions into surface water and groundwater, by contributing to mitigating the effects of floods and droughts, or through any other activity that protects or improves the qualitative and quantitative status of water bodies. Finally included is ensuring the sustainable use of marine ecosystem services or contributing to the good environmental status of marine waters, including by protecting, preserving or restoring the marine environment, and by preventing or reducing inputs into the marine environment.

5.2.4 Substantial contribution to the transition to a circular economy (Article 13)

An economic activity can contribute substantially to the environmental objective of transitioning to a circular economy in several ways. It can, for example, increase the durability, reparability, upgradability and reusability of products, or can reduce the use of resources through the design and choice of materials, facilitating repurposing, disassembly and deconstruction in the buildings and construction sector, in particular to reduce the use of building materials and promote the reuse of building materials. It can also contribute substantially to the environmental objective of transitioning to a circular economy by developing “product-as-a-service” business models and circular value chains, with the aim of keeping products, components and materials at their highest utility and value for as long as possible. Any reduction in the content of hazardous substances in materials and products throughout the life cycle, including by replacing them with safer alternatives, should, as a minimum, be in accordance with Union law. An economic activity can also contribute substantially to the environmental objective of transitioning to a circular economy by reducing food waste in the production,

processing, manufacturing or distribution of food,³⁵ including by high-quality recycling of waste or preventing or reducing waste generation.³⁶

5.2.5 Substantial contribution to pollution prevention and control (Article 14)

Substantial contributions to pollution prevention and control occur where a project prevents or, where that is not practicable, reduces pollutant emissions into air, water or land, other than greenhouse gases. Furthermore, substantial contributions are made by improving the levels of air, water or soil quality in areas in which the economic activity takes place, whilst minimising any adverse impact on human health and the environment or the risk thereof, and preventing or minimising any adverse impact on human health and the environment due to the production, use or disposal of chemicals. Interestingly enough, simpler projects to clean up litter and other pollution also qualify as green under the taxonomy.

5.2.6 Substantial contribution to the protection and restoration of biodiversity and ecosystems (Article 15)

As regards the protection and restoration of biodiversity and ecosystems, an economic activity can contribute substantially to this environmental objective in several ways, including by protecting, conserving or restoring biodiversity and ecosystems, and thereby enhancing ecosystem services. Such services are grouped into four categories, namely:

provisioning services, such as the provisioning of food and water;

regulating services, such as the control of climate and disease;

supporting services, such as nutrient cycles and oxygen production;

cultural services, such as providing spiritual and recreational benefits.³⁷

Furthermore, the term “sustainable forest management” should be construed by taking into account practices and uses of forests and forest land that contribute to enhancing biodiversity or to halting or preventing the degradation of ecosystems, deforestation and habitat loss, by taking into account the stewardship and use of forests and forest land in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and potential to fulfil, now and in the

³⁵ Taxonomy Regulation, Recital 28

³⁶ Numerous initiatives that would reduce litter or increase reuse qualify under the definition of the circular economy under Article 13 (1), subsections c-l.

³⁷ Taxonomy Regulation, Recital 31

future, relevant ecological, economic and social functions, at local, national and global levels, whilst at the same time not causing damage to other ecosystems.³⁸

5.3 Technical screening criteria

The legal characteristics under Articles 10–16 of the Taxonomy Regulation are by their nature broad and difficult to make operative for any purpose of practical use and verification. For this reason, the Commission, under the rules of the regulation, has set up both a group of national experts and a broader civil society engagement group in the form of a Platform on Sustainable Finance. The task of these expert groups is to develop, monitor and review a set of technical operational requirements for all industrial sectors that will be enabled to take advantage of their green qualifications.

In establishing and updating the technical screening criteria for the environmental objective of climate change mitigation, the Commission should take into account and provide incentives for the ongoing and necessary transition towards a climate-neutral economy. In this regard, and in addition to the use of climate-neutral energy, the technical screening criteria should specify the criteria for enabling and transitional activities. Obviously, the technical screening criteria must take into account relevant Union law. To avoid unnecessary inconsistencies with classifications of economic activities that already exist for other purposes, the European Commission should also take into account statistical classifications relating to the environmental goods and services sector. For this reason, the upcoming delegated acts will use the Eurostat classification system (NACE codes)³⁹ for identifying economic activities sector by sector. When establishing and updating the technical screening criteria, the Commission should take into account existing environmental indicators and reporting frameworks, developed by, amongst others, the Commission and the European Environment Agency, as well as existing international standards such as those developed by, amongst others, the OECD.

³⁸ Taxonomy Regulation, Recital 32, supplemented by Resolution H1 of the Second Ministerial Conference on the Protection of Forests in Europe of 16–17 June 1993 in Helsinki on General Guidelines for the Sustainable Management of Forests in Europe, as well as by taking into account Regulations (EU) No 995/2010 and (EU) 2018/841 of the European Parliament and of the Council and Directive (EU) 2018/2001 of the European Parliament and of the Council, and the Communication from the Commission of 20 September 2013 on “A new EU Forest Strategy: for forests and the forest-based sector.”

³⁹ The list of NACE codes can be found on the European Commission’s website: https://ec.europa.eu/competition/mergers/cases/index/nace_all.html

The technical screening criteria should promote appropriate governance frameworks integrating environmental, social and governance factors as referred to in the United Nations-supported Principles for Responsible Investment at all stages of a project's life cycle.⁴⁰

To avoid overly burdensome compliance costs on economic operators, the Commission will establish technical screening criteria that should bring legal clarity, are practicable and easy to apply, and for which compliance can be verified within reasonable cost-of-compliance boundaries, thereby avoiding unnecessary administrative burdens.⁴¹ The technical screening criteria may require carrying out a life-cycle assessment, where it is sufficiently practicable and necessary.

To ensure that the economic activities described in the technical criteria are on a credible transition pathway consistent with a climate-neutral economy, the European Commission shall review the technical screening criteria at least every three years and, where appropriate, amend them in line with scientific and technological developments.

6 SAFEGUARDS ON GREENWASHING AND SDGS

Following on from *Chapter 5*, which describes the pathways for inclusion within the EU definition of green activities, the Taxonomy Regulation also prescribes that activities which might on their own isolated basis be considered green do not violate other sustainable development goals, including human and social rights. Hence, there are safeguards in the regulation to disqualify initiatives from the green basket if they violate these safeguard principles. In our view, the “do no significant harm” principle and avoidance of greenwashing should be considered safeguards.

6.1 Definition of greenwashing

For the purposes of the Taxonomy Regulation, greenwashing refers to the practice of gaining an unfair competitive advantage by marketing a financial product as environmentally friendly, when in fact basic environmental standards have not been met.⁴² This safeguard lies at the focus of the European regulator in light of

⁴⁰ Taxonomy Regulation, Recital 44

⁴¹ Taxonomy Regulation, Recital 47

⁴² Taxonomy Regulation, Recital 11

the Green Deal ambitions of the EU (*Ramus-Montiel*, 2020) and following market experience from recent scandals (*Siano et al.*, 2017).

6.2 Social and human rights

Recalling the joint commitment of the European Parliament, the Council and the Commission to pursuing the principles enshrined in the European Pillar of Social Rights in support of sustainable and inclusive growth, and recognising the relevance of international minimum human and labour rights and standards, compliance with minimum safeguards is a condition for economic activities to qualify as environmentally sustainable.

For the above reason, economic activities only qualify as environmentally sustainable where they are carried out in alignment with the OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights, including the Declaration on Fundamental Principles and Rights at Work of the International Labour Organisation (ILO), the eight fundamental conventions of the ILO and the International Bill of Human Rights. The fundamental conventions of the ILO define the human and labour rights that undertakings should respect. Several of these international standards are enshrined in the Charter of Fundamental Rights of the EU, in particular the prohibition of slavery and forced labour and the principle of non-discrimination.

6.3 Do No Significant Harm (DNSH) principle (Article 17)

An economic activity should not qualify as environmentally sustainable if it causes more harm to the environment than the benefits it brings. This is the principle of Do No Significant Harm (DNSH). The technical screening criteria should identify the minimum requirements necessary to avoid significant harm to other objectives, including by building on any minimum requirements laid down pursuant to EU law.⁴³ Such criteria should take into account the life cycle of the products and services provided by that economic activity, in addition to the environmental impact of the economic activity itself, including taking into account evidence from existing life-cycle assessments, in particular by considering their production, use and end of life.⁴⁴

⁴³ Taxonomy Regulation, Recital 41

⁴⁴ Taxonomy Regulation, Recital 39

The Taxonomy Regulation requires that the DNSH principle is defined for each of the six environmental objectives. Under Article 17, on the DNSH principle, an economic activity shall be considered to significantly harm climate change mitigation where that activity leads to significant greenhouse gas emissions. As for climate change adaptation, an activity is considered to cause significant harm where that activity leads to an increased adverse impact of the current climate, and the expected future climate, on the activity itself or on people, nature or assets. An economic activity also violates the DNSH principle in the sustainable use and protection of water and marine resources where it is detrimental to the good status or good ecological potential of bodies of water, including surface water and groundwater, or to the good environmental status of marine waters. As for the circular economy, including waste prevention and recycling, the DNSH principle is violated where an activity leads to significant inefficiencies in the use of materials, or in the direct or indirect use of natural resources such as non-renewable energy sources, raw materials, water and land at one or more stages of the life cycle of products, including in terms of durability, reparability, upgradability, re-usability or recyclability of products. Finally, an activity also violates the DNSH principle where it leads to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste, or where the long-term disposal of waste may cause significant and long-term harm to the environment. Equally, ecosystems are protected under the DNSH principle, including agriculture and forest management.

The definition of DNSH is also expected to be defined in detail by the upcoming delegated acts of the European Commission as this is a strict condition for the definition of sustainable economic activities under each of the environmental objectives.

7 DISCUSSION POINTS

The decisive focus on sustainability has led banks and other financial institutions to implement Sustainable Development Goals (SDGs) in their business policies. Managerial decision-making on business policy, its criteria and implementation fall wholly within the scope of the management of a company. Management is supposed to optimise the viability and profitability of a company, and the inclusion of SDGs may very well be a prudent business decision. However, lately regulators have called for regulatory changes to force financial institutions to use SDGs in their activities, suggesting that the SDG requirements set by law and affecting the profitability of financial products – and indirectly business activities – through the capital requirements imposed thereon should be put in place.

This conferring of non-core policy purposes upon financial institutions, with the aim of regulating businesses other than banks via bank regulation, we call hybrid regulation.

The Taxonomy Regulation is a straightforward example of such hybrid regulation. To recall, the initial aim of developing the taxonomy proposal was to encourage a change in financial services by means of regulation and to encourage financial service providers and investors to only provide financial means for sustainable projects. The underlying idea was that if only green finance is available, then the only way for real economic players to tap into funding is to launch green projects. The Taxonomy Regulation is a hybrid act regulating investments and listed companies with the aim of encouraging real economic players to move their economic activities towards green transition.

This hybrid characteristic, however, raises a number of questions projecting the success of this regulatory act in the future.

One should not question that the uniqueness of the Taxonomy Regulation lies in it being the first of its kind. *Chatzitheodorou et al. (2019)* mapped the available literature on socially responsible investment, with the vast majority of market-based initiatives and classifications. A similar conclusion has been drawn based on *Borgers–Pownall (2014)* and *Whittaker (2011)*, the first, directly applicable regulatory act providing – or at least foreseeing – a comprehensive definition of what is considered to be sustainable. The definition provides us with a static snapshot at a given point in time. This may be fit for an already fully established sustainable economy. However, the European economy – like other economies – is not there yet. We are in transition. This transition requires a dynamic approach in order to avoid lock-in whilst at the same time encouraging economic players to move forward on the road to transition. The Taxonomy Regulation puts in place certain regulatory tools to ensure such dynamism, for example through requiring a periodic revision and update of the technical screening criteria, which should take place every three years. We do not yet know, however, if these review periods will provide enough dynamism to the definition.

Another relevant question that should be raised is how definitions of sustainable economic activity will incentivise green and sustainable investments. *Schoenmaker and Schramade (2019)* claim that the needed structures are lacking in financial practice. There is at least one missing link – if not more – between this definition and the decision of investors. Based on *Barberis–Thaler (2003)* and *Sjöberg (2000)*, we argue that the final decisions of investors are based on their risk perception with regard to investment opportunities. As *Alhakami and Slovic (1994)* proved, activities or technologies that are judged high in risk tend to be judged low in benefit. As *Chan and Milne (1999)* found, investors react negatively to bad environmental performance, but do not significantly react to good

environmental performance. The risk is based on a number of factors (Sjöberg, 2000), and available information plays an important role (*Blacconiere-Northcut*, 1997; Rosati-Faria, 2019; *Popescu and Popescu* (2019)). In this sense, non-financial reporting may contribute significantly (Dhaliwal et al., 2012; Gao et al., 2016 ; *Manes-Rossi* et al., 2018; *Jackson* et al., 2020). Voluntary reporting has also proven a successful tool (Dhaliwal et al. (2011), *Rezaee and Tuo*, 2017). At the same time, mainstream risk management tools are based on historical data, which is not available for sustainable projects. How will this gap be filled?

The European regulator recognized the need for a legal control mechanism by stating (in Recital 54) that the European Commission should carry out appropriate consultations with the relevant parties. However, given that the methodology and process of defining the sectoral screening criteria were determined by the Technical Expert Group on Sustainable Finance (TEG)⁴⁵ before the regulation was adopted under the present circumstances, questions may arise as to whether this was subject to sufficient public consultation.

8 SUMMARY

We have seen that the European regulator – for the first time in European regulatory history – has defined the main elements of definitions of sustainable economic activity, which represent substantial contributions to at least one of the six environmental objectives, and which do no significant harm to others, in compliance with social and human rights requirements and with the technical screening criteria. These latter are sector and time-specific and not yet fully established.

We have also seen that in terms of scope, the regulation will apply to financial market stakeholders including regulators and policymakers, financial service providers, investors and companies subject to non-financial reporting.

The Taxonomy Regulation mandates the European Commission to establish the technical screening criteria and define in detail the content and format of the information required for mandatory disclosure. The technical details will be de-

⁴⁵ The Technical Expert Group on Sustainable Finance (TEG) was set up by the European Commission to assist it in developing an EU classification system – the so-called EU taxonomy, based on the Taxonomy Regulation (at the time existing only in the form of a legislative proposal). The TEG commenced its work in July 2018 with 35 members from civil society, academia, business and the finance sector, as well as additional members and observers from the EU and international public bodies. The TEG completed its mandate in September 2020, when the Platform on Sustainable Finance was set up as its permanent successor (Article 20 of the Taxonomy Regulation). Further information is available at: https://ec.europa.eu/info/publications/sustainable-finance-technical-expert-group_en.

fined at the level of economic activity. Besides defining sustainable activities, the framework principles for enabling and transitional activities are also established. The European regulator foresees that the definitions could be used by entities that do not fall within the scope of the regulation and for other purposes than financial market financing, such as public funding. The aim of the regulator is to encourage sustainable investment through financial services instruments, by providing a “reward” to the best performers. Market perception, however, shows that those who do not qualify as sustainable may face market repercussions and be considered automatically brown or black.

We have argued that the Taxonomy Regulation is a hybrid regulation in the sense of using financial services regulation to encourage greening in other sectors with a scope potentially expanding from reporting requirements to mandatory funding conditions. Due to these characteristics and its regulatory processing, the Taxonomy Regulation may bear a high regulatory risk.

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