

ARTICLE

# The Role of Article 11 TFEU in the Greening of the ECB's Monetary Policy

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## Abstract

The European Green Deal and the European Climate Law highlight the EU's commitment to strive for carbon neutrality. Considering the magnitude of the global challenge, it is evident that a green transition will not succeed without the efforts of every sector, including financial institutions. Concerns have been raised that central banks may, in fact, contribute to the increase of greenhouse gas emissions and, in consequence, aggravate global warming. This all has currently resulted in a rapid expansion of the debate on the potential role of central banks, and in particular the ECB, to consider climate objectives. In the European context, however, it is often argued that environmental sustainability lies outside the ECB's traditional core mandate to focus on price stability. This article aims to introduce the environmental integration principle, laid down in Article 11 TFEU, in the ECB's legal framework, and provide an analysis of the possibilities for and limitations to the greening of the ECB's monetary policy based on this provision. Although Article 11 TFEU has great potential with regards to the greening of sectoral policies, in legal literature, the provision has not gained enough academic attention in terms of the financial sector.

**Keywords:** Article 11 TFEU; Environmental integration clause; ECB's Monetary Policy; Greening; Price stability

## A. Introduction

In their recent speeches, the European Central Bank<sup>1</sup> president, Christine Lagarde, and other central bankers in the Eurozone have suggested a gradual shift in the Eurosystem's<sup>2</sup> role in addressing climate change. This is in contrast to the previously held view that climate and environmental related considerations fall squarely out of the scope of the ECB's mandate which is to promote and maintain price stability. However, considering the magnitude of the global challenge, it is evident that a green transition will not succeed without coordinated efforts coming from every sector including financial institutions. This has sparked a controversial debate as to what role central banks could play in mitigating climate change, as well as what influence could they exert on global warming.

Building on the current political and academic debate about central banks and their potential climate protection objectives, this article examines the possibilities for and limitations to the “greening” of the ECB's monetary policy based on the environmental integration principle, laid

<sup>1</sup>Hereinafter “ECB.”

<sup>2</sup>The Eurosystem is the central banking system for the euro area, it is constituted by the ECB and the national central banks of the Member States whose currency is the euro (Article 282(1) second sentence TFEU). The European System of Central Banks, hereinafter “ESCB,” comprises the ECB and the national central banks of all EU Member States.

down in Article 11 TFEU. Even though Article 11 TFEU offers considerable potential to achieve greening of the EU's sectoral policies, in the financial sector, the provision has not yet gained enough academic attention. This article aims to provide a legal analysis of the impact of Article 11 TFEU on the ECB's monetary policy framework.

In order to examine the synergy between climate protection objectives, the ECB's monetary policy mandate and Article 11 TFEU, the article proceeds as follows: In the first part, the relevance of climate change for central banking is introduced. Reference will be made to the global climate crisis as a challenge for the EU, to the findings of earth system science as well as to the link between climate change and central banking. We then proceed with the legal analysis, which first focuses on the scope and meaning of Article 11 TFEU. After that, the effect of applying Article 11 TFEU to the ECB's primary and secondary objectives are examined. It is argued that in view of the growing awareness about climate change risks for price stability, Article 11 TFEU may in some cases legitimize the ECB's ambitions to pursue climate protection objectives, however, always subject to the limitations imposed by the legal framework, defined by the overarching goal of price stability. Due to the fact that the ECB's primary objective to maintain price stability and objectives related to climate protection are not always in conflict, a differentiated approach has to be developed. The final part focuses on proposals for "greening" the ECB's monetary policy. Among these practical implications of Article 11 TFEU, we will particularly assess the greening of the ECB's existing bond-buying programs and the adoption of a new "Green Assets Purchase Programme." Options for safeguarding the integration of climate concerns into monetary policy will also be introduced.

"Greening" is a term used to describe the phenomenon of increasing importance being attributed to environmental concerns in policy and lawmaking. In this article, the term "greening" is used specifically in relation to the relevance attached to climate change issues. It is also fully acknowledged that besides climate change, other issues such as the decline of biodiversity also pose severe threat to central banks.<sup>3</sup>

While this article focuses on the application of Article 11 TFEU to relevant stipulations within the ECB's monetary policy framework, the authors acknowledge that the legal framework within which the ECB operates, is much broader. Core elements of the presented argument may, however, be applied to the greening of other ECB policies and elements of the ECB's mandate.

## B. The Dynamic Links Between Central Banking and Climate Protection

In this section, we will introduce the links between climate change and central banking, which shall highlight the relevance for any "greening" ambitions within the legal context of the ECB's monetary policy. In order to set the scene, we will first have a look at the global climate crisis as a challenge for the EU and indicate the EU's recent commitments to combat global warming. We will then introduce earth system science and the "concept of planetary boundaries," which underline the urgency of the climate crisis. We will come back to these scientific findings when analyzing Article 11 TFEU in the following section. Finally, we will examine how climate change and central banking correlate, taking into account the effect of climate change on financial systems and price stability. In this context, we will outline the growing awareness among central bankers, as well as the rather recent development of the academic and policy debate regarding central banks' potential role in combatting climate change.

<sup>3</sup>See Romain Svartzman, Etienne Espagne, Julien Gauthey, Paul Hadji-Lazaro, Mathilde Salin, Thomas Allen, Joshua Berger, Julien Calas, Antoine Godin, & Antoine Vallier, *A 'Silent Spring' for the Financial System? Exploring Biodiversity-Related Financial Risks in France* (Banque de France, Working Paper No. 826, 2021) (exploring the financial risks produced by the loss of biodiversity—biodiversity-related financial risks (BRFR)—in the French financial system).

### *1. The Global Climate Crisis as a Challenge for the EU and the Necessary Transition to a Low Carbon Economy*

Human-induced climate change has become a major global crisis threatening the viability of the planet and its inhabitants. It is estimated that human activities have already caused around 1°C of global heating compared to pre-industrial levels, whilst its catastrophic impact is already visible in many regions in the world.<sup>4</sup> This pressing climate crisis has led governments around the world to the adoption of the Paris Agreement and the 2030 UN Sustainable Development Agenda in 2015, agreeing on a global transition towards a more sustainable path for our planet. The need for urgent action to combat climate change has also been recognized in Europe. In November 2019, the European Parliament declared a global “climate and environmental emergency” and urged the EU to commit to the goal of reaching climate neutrality as soon as possible.<sup>5</sup> A month later, the European Commission presented the “European Green Deal” as its new growth strategy, highlighting the EU’s commitment to strive for carbon neutrality by 2050.<sup>6</sup> Annexed thereto is a roadmap for measures to be taken in the next few years in order to implement the European Green Deal.<sup>7</sup>

At the heart of this initiative is the proposal for a “European Climate Law,” which was entered into force on July 29, 2021, and stipulates the legally binding long-term objective of greenhouse gas neutrality.<sup>8</sup> It includes a 55% net emission target for 2030, incorporating the so-called “2030 Climate Target Plan,” an EU-wide climate neutrality target for 2050, the establishment of a European Scientific Advisory Board on Climate Change, as well as the use of an emission budget for setting a 2040 target. It is essential to note that the European Climate Law codifies the climate neutrality goal, as set out in the European Green Deal. It aims to achieve this by ensuring that all EU policies contribute to the climate-neutrality objective and that all sectors play their part. Considering the magnitude of the global challenge, it is evident that a green transition will not succeed without the efforts of every sector, including the financial institutions.<sup>9</sup>

<sup>4</sup>See IPCC, CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE 6 (2014), [https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc\\_wg3\\_ar5\\_full.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_full.pdf); IPCC, GLOBAL WARMING OF 1.5°C 4 (2018), [https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SPM\\_version\\_report\\_HR.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SPM_version_report_HR.pdf).

<sup>5</sup>See European Parliament Press Release, *The European Parliament Declares Climate Emergency* (Nov. 29, 2019), <https://www.europarl.europa.eu/news/en/press-room/20191121IPR67110/the-european-parliament-declares-climate-emergency>.

<sup>6</sup>*Communication From the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: The European Green Deal*, COM (2019) 640 final (Dec. 11, 2019); European Commission Press Release, *The European Green Deal sets out how to make Europe the first climate-neutral continent by 2050, boosting the economy, improving people’s health and quality of life, caring for nature, and leaving no one behind*, (Dec. 11, 2019), [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_19\\_6691](https://ec.europa.eu/commission/presscorner/detail/en/ip_19_6691)

<sup>7</sup>*Id.*

<sup>8</sup>The Commission adopted the first draft version of the underlying regulation in March 2020. See European Commission, *Proposal for a Regulation of the European Parliament and of the Council Establishing the Framework for Achieving Climate Neutrality and Amending Regulation (EU) 2018/1999 (European Climate Law Change Act)*, COM (2020) 80 final, which was later modified by an amended proposal, see European Commission, *Amended Proposal for a Regulation of the European Parliament and of the Council Establishing the Framework for Achieving Climate Neutrality and Amending Regulation (EU) 2018/1999 (European Climate Law)* COM (2020) 563 final. In April 2021, a provisional agreement on the key elements to be enshrined in the Climate Law Regulation was reached between the European Parliament and the Council. The Council approved the final text in May 2021, see Council of the European Union, *Outcome of Proceedings*, No. 8204/21.

<sup>9</sup>See *Renewed Sustainable Finance Strategy and Implementation of the Action Plan on Financing Sustainable Growth*, EUROPEAN COMMISSION (Mar. 8, 2018), [https://ec.europa.eu/info/publications/sustainable-finance-renewed-strategy\\_en](https://ec.europa.eu/info/publications/sustainable-finance-renewed-strategy_en) (announcing a renewed sustainable finance strategy, contributing to the objectives of the EU Green Deal Investment Plan, aiming “to provide the policy tools to ensure that [the] financial system genuinely supports the transition of businesses towards sustainability in a context of recovery from the impact of the COVID-19 outbreak”).

## II. The Relevance of Earth System Science and the Planetary Boundary for Climate Change

The urgency to act becomes even more evident, when considering the findings of earth system science and the so-called planetary boundary for climate change. The earth system analysis is a research field, which focuses on the complex dynamics of the entire earth system, and illustrates the complexity of the earth's underlying processes and systems as well as their mutual interactions.<sup>10</sup> In addition, the concept of “planetary boundaries”<sup>11</sup> was developed by a group of earth system and environmental scientists, who identified nine planetary boundaries in total.<sup>12</sup> Crossing one or more of these boundaries may affect the functioning of the earth system as a whole, leading to catastrophic environmental change. According to the scientists, the planetary boundaries, thus, define the safe operating space, within which humanity can live and operate safely, and draws on a safety margin when quantifying critical thresholds.

Within these planetary boundaries, the concept also refers to a climate-change boundary, which denotes how much climate change the planet can safely tolerate. Given its importance in the functioning of the earth system, climate change has been recognized as one of the two “core planetary boundaries.” In their first publication, the group of scientists led by Rockström has suggested a climate-change boundary value, which gives a high probability that 2°C as a maximum temperature rise compared to the pre-industrial level is respected.<sup>13</sup> This means that it is crucial to respect the identified climate-change boundary, 350 ppm, if we are to minimize the risk of crossing critical thresholds, a failure which could lead to highly non-linear, abrupt and irreversible earth system responses. For each boundary there is also a zone of uncertainty, which is due to the uncertainty about the knowledge about when significant change in the process might occur.<sup>14</sup> Raising the CO<sub>2</sub> concentration towards the upper end of the range may lead to a higher risk of crossing the threshold.

The concept of planetary boundaries has been shaping the environmental policy debate for several years. The international climate protection targets agreed in the Paris Agreement, which call for limiting human-induced climate change to well below 2°C compared to pre-industrial levels or, if possible, to 1.5°C, represent an ecological limit set within the framework of earth system science.<sup>15</sup> In addition, the scientific findings can also be contextualized in legal terms. The concept of ecological limits and, in particular, the safety margin, formulates a normative

<sup>10</sup>See HANS JOACHIM SCHELLNHUBER, *Discourse: Earth System Analysis — The Scope of the Challenge*, in EARTH SYSTEM ANALYSIS 3, 3-195 (Hans-Joachim Schellnhuber & Volker Wenzel eds., 1998).

<sup>11</sup>See Johan Rockström, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart III Chapin, & Eric Lambin, *Planetary Boundaries: Exploring the Safe Operating Space for Humanity*, 14 *ECOLOGY & SOC'Y* 32 (2009) (“Boundaries . . . are human-determined values of the control variable set at a “safe” distance from a dangerous level . . . or from its global threshold.”); Johan Rockström, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart III Chapin, & Eric Lambin, *A Safe Operating Space for Humanity*, 461 *NATURE* 472, 472–75 (2009) (identifying nine key processes and subsystems of the Earth, for which scientists have aimed to establish and quantify boundaries that should not be transgressed).

<sup>12</sup>See *id.* at 472.

<sup>13</sup>See Rockström et al., *Planetary Boundaries: Exploring the Safe Operating Space for Humanity*, *supra* note at 7–10 (proposing a climate-change boundary value of 350 ppm CO<sub>2</sub> concentration and 1 W m<sup>2</sup> energy imbalance at top-of-atmosphere).

<sup>14</sup>See Will Steffen, Katherine Richardson, Johan Rockström, Sarah E. Cornell, Ingo Fetzer, Elena M. Bennett, Reinette Biggs, Stephen R. Carpenter, Wim de Vries, Cynthia A. de Wit, Carl Folke, Dieter Gerten, Jens Heinke, Georgina M. Mace, Linn M. Persson, Veerabhadran Ramanathan, Belinda Meyers & Sverker Sörlin, *Planetary Boundaries: Guiding Human Development on a Changing Planet*, 347 *SCIENCE* 736, 739 (2015) (explaining that for the climate-change boundary, the danger zone was originally set at a concentration of CO<sub>2</sub> within the uncertainty range of 350–550 ppm, and was narrowed to 350–450 ppm in the updated version based on evidence provided by the IPCC reports, in particular the observed changes in climate at a value of 399 ppm CO<sub>2</sub> at the time of the publication).

<sup>15</sup>The “2° C guardrail approach” has been under heated discussion at the time of the 15<sup>th</sup> Conference on the Parties to the UNFCCC in December 2009. With regard to the global greenhouse gas emission pathway, contained in the Decision of the 21<sup>st</sup> Conference of Parties of the United Nations Framework Convention on Climate Change to adopt the Paris Agreement, ¶ 21, the IPCC provided a Special Report on the impacts of global warming of 1.5°C above pre-industrial levels. It also provides an assessment for the comparison between global warming of 1.5°C and 2°C above pre-industrial levels.

component that corresponds to the Union's objective of environmental protection under Article 191 TFEU. This provision refers to the precautionary principle.<sup>16</sup> This legal principle provides a key normative requirement for dealing with ecological boundaries. The meaning of this and the consequences, which may be derived for the Union will be developed below, when analyzing Article 11 TFEU.

### III. Climate Change Affects Financial Systems and Price Stability

Having established the urgency of combatting climate change with a view to the findings of the earth system analysis, we will now focus specifically on the correlation between climate change and central banking. There is growing recognition among the financial community that climate change poses severe threats to central banks and financial systems, which has forced financial regulators to start analyzing the dynamic links between climate change and central banking. Prior to the outcome of the ECB's new monetary policy strategy, emerging awareness amongst central bankers about climate-related risks could be observed. In his speech in 2015, Carney already elaborated on the implications of climate change for financial stability. Drawing from the concept of the "Tragedy of the Commons," he identified the "Tragedy of the Horizon."<sup>17</sup> This is a phenomenon, which describes the tragedy that when climate related risks materialize, it will be too late to prevent them. Lagarde emphasized the impact of climate change on price stability at the latest State of the Union conference stating that, "[It] is pretty obvious, climate change will have—has already—an impact on price stability, whether you look at climate related events, whether you look at particularly exposed areas, prices will be determined as a result of that." In this regard, speeches from other central bankers followed, discussing, inter alia, the impact of climate change on monetary policy, the types and sources of climate change-related risks for the financial sector and, more general, reflecting about the role of central banks in addressing climate change.<sup>18</sup>

There is, indeed, clear evidence that climate change affects the economy in its entirety, including financial systems and price stability.<sup>19</sup> The World Economic Forum stressed again in "The Global Risks Report 2021" that risks related to global warming are amongst the most important and urgent the world is currently facing.<sup>20</sup> In fact, the risk assessment for the banking sector for 2019 by the European Banking Supervision referred to climate risks as one of the key risks for the European banking sector.<sup>21</sup> In general, with regard to financial systems, there are different types of risks specifically related to global heating—climate-related risks—which, however, do not constitute wholly new types of risks, but comprise of the existing categories

<sup>16</sup>Christian Calliess, *Abstand halten: Rechtspflichten der Klimaschutzpolitik aus planetaren Grenzen*, ZUR 7-8/2019, 385–86 (2019).

<sup>17</sup>See Mark Carney, Speech at Lloyd's of London: Breaking the Tragedy of the Horizon – Climate Change and Financial Stability (Sept. 29, 2015), <https://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability>.

<sup>18</sup>See Benoît Cœuré, Member of the Executive Board of the ECB, Speech at the Conference: Scaling up Green Finance: The Role of Central Banks: Monetary Policy and Climate Change (Nov. 8, 2018) <https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp181108.en.html>; See Christine Lagarde, President of the ECB, Speech at the COP 26 Private Finance Agenda: Climate Change and the Financial Sector (Feb. 27, 2020) [https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200227\\_1~5eac0ce39a.en.html](https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200227_1~5eac0ce39a.en.html); see Christine Lagarde, President of the ECB, Speech at ILF Conference on Green Banking and Green Central Banking: Climate Change and Central Banking (Jan. 25, 2021) <https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210125~f87e826ca5.en.html>.

<sup>19</sup>See NETWORK FOR GREENING THE FIN. SYS., THE MACROECONOMIC AND FINANCIAL STABILITY IMPACTS OF CLIMATE CHANGE (2020), [https://www.ngfs.net/sites/default/files/medias/documents/ngfs\\_research\\_priorities\\_final.pdf](https://www.ngfs.net/sites/default/files/medias/documents/ngfs_research_priorities_final.pdf).

<sup>20</sup>See WORLD ECON. F., THE GLOBAL RISKS REPORT 2021 (2021), [https://www3.weforum.org/docs/WEF\\_The\\_Global\\_Risks\\_Report\\_2021.pdf](https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2021.pdf).

<sup>21</sup>See ECB BANKING SUPERVISION, RISK ASSESSMENT FOR 2019 5 (2019), <https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ra/ssm.ra2019.en.pdf>.



of risks in financial systems, which are credit, market and operational risk.<sup>22</sup> Given the non-linear nature of climate change, these risks become more urgent.

Several transmission channels through which anthropogenic climate change affects central banks, have been identified. The two main sources are physical risks and transition risks.<sup>23</sup> Physical risks, on the one hand, arise from the environment itself and are particularly related to the impact of climate events and gradual heating. These are driven by the fact that global warming increases the severity and frequency of natural disasters and extreme weather events such as droughts, persistent precipitation, sea-level rise, storms and floods.<sup>24</sup> Indeed, in her keynote speech, Lagarde pointed out that the number of natural catastrophes increased from 249 in 1980 to 820 in 2019 and resulted in damages estimated at \$210 billion in 2020.<sup>25</sup> Transition risks, on the other hand, relate to costs arising from the need of innovation and policy interventions aiming at climate risk mitigation, such as the transition to a low-carbon economy.<sup>26</sup> Both climate-related physical and transitional risks can directly affect inflation and in consequence, have an impact on price stability. As regards the impact on the Eurosystem in particular, it has been noted that climate-related risks may for instance affect the value and risk profile of assets held on the Eurosystem's balance sheet.<sup>27</sup> Climate change may affect price stability by resulting in supply and demand-side shocks. In addition, the loss of physical capital, supply chain interruptions and reduced labor supply due to natural catastrophes may lead to a decline in growth and productivity. As regards transition risk, climate policies may for instance affect consumer prices.<sup>28</sup>

Furthermore, concerns have been raised that central banks themselves may aggravate global warming. A so-called "emission bias"<sup>29</sup> has been observed in the context of the ECB's Corporate Sector Purchase Programme (CSPP). This means that there is evidence that the Eurosystem was mainly purchasing so-called "brown" bonds issued by corporations, whose activities aggravate climate change.<sup>30</sup> Consequently, it could be said that the ECB has itself contributed

<sup>22</sup>See ECB BANKING SUPERVISION, GUIDE ON CLIMATE-RELATED AND ENVIRONMENTAL RISKS 3 (2020), [https://www.bankingsupervision.europa.eu/legalframework/publiccons/pdf/climate-related\\_risks/ssm.202005\\_draft\\_guide\\_on\\_climate-related\\_and\\_environmental\\_risks.en.pdf](https://www.bankingsupervision.europa.eu/legalframework/publiccons/pdf/climate-related_risks/ssm.202005_draft_guide_on_climate-related_and_environmental_risks.en.pdf).

<sup>23</sup>See Paul Fisher & Kern Alexander, *Climate Change: The Role for Central Banks* 3, 8 (King's Bus. Sch., Working Paper No. 2019/7, 2019); Nikola Fabris, *Financial Stability and Climate Change*, 9 J. CENT. BANKING THEORY & PRAC. 27–43, 34 (2020).

<sup>24</sup>It has been confirmed that climate change increases the frequency of extreme weather events dramatically, leading to a rising number of natural disasters. See IPCC, CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE, *supra* note 4 at 7–8.

<sup>25</sup>See Christine Lagarde, President of the ECB, Speech at the ILF Conference on Green Banking and Green Central Banking: Climate Change and Central Banking (Jan. 25, 2021) <https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210125~f87e826ca5.en.html>.

<sup>26</sup>Transition risks can cause for instance that assets lose their value due to unanticipated changes in expected cash flows and subsequently become "stranded." See NETWORK FOR GREENING THE FIN. SYS., ADAPTING CENTRAL BANK OPERATIONS TO A HOTTER WORLD 12 (2021), [https://www.ngfs.net/sites/default/files/media/2021/06/17/ngfs\\_monetary\\_policy\\_operations\\_final.pdf](https://www.ngfs.net/sites/default/files/media/2021/06/17/ngfs_monetary_policy_operations_final.pdf).

<sup>27</sup>See ECB, AN OVERVIEW OF THE ECB'S MONETARY POLICY STRATEGY 13 (2021), [https://www.ecb.europa.eu/home/search/review/pdf/ecb.strategyreview\\_monopol\\_strategy\\_overview.en.pdf](https://www.ecb.europa.eu/home/search/review/pdf/ecb.strategyreview_monopol_strategy_overview.en.pdf).

<sup>28</sup>See Patrick Bolton, Morgan Despres, Luis A. Pereira Da Silva, Frédéric Samama, & Romain Svartzman, *The Green Swan: Central Banking and Financial Stability in the Age of Climate Change*, BANK FOR INT'L SETTLEMENTS 16 (Jan. 2020) <https://www.bis.org/publ/othp31.pdf>; see Simon Dikau & Ulrich Volz, *Central Banking, Climate Change and Green Finance* 2 (Asian Dev. Bank Inst., Working Paper No. 867, 2018); see Franziska Bremus, Geraldine Dany-Knedlik, & Thore Schlaak, *Price Stability and Climate Risks: Sensible Measures for the European Central Bank*, 10 DIW WKLY. 212, 212 (2020), <https://www.econstor.eu/bitstream/10419/220013/1/1694427552.pdf>.

<sup>29</sup>See generally Isabel Schnabel, Member of the Executive Board of the ECB, Speech at the Greening Monetary Policy–Central Banking and Climate Change Online Seminar: From Green Neglect to Green Dominance? (Mar. 3, 2021), [https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210303\\_1~f3df48854e.en.html](https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210303_1~f3df48854e.en.html).

<sup>30</sup>See Sini Matikainen, Emanuele Campiglio, & Dimitri Zenghelis, *The Climate Impact of Quantitative Easing*, THE GRANTHAM RSCH. INST. ON CLIMATE CHANGE AND THE ENV'T 13 (May 2017), [https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2017/05/ClimateImpactQuantEasing\\_Matikainen-et-al.pdf](https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2017/05/ClimateImpactQuantEasing_Matikainen-et-al.pdf).

to the increase of greenhouse gas emissions through its own programs, which in turn jeopardizes its primary objective of maintaining price stability.

As a matter of fact, the academic debate about “green central banking”<sup>31</sup> and, in particular, the role of central banks addressing global heating has expanded rapidly in recent years.<sup>32</sup> Considering the responsibilities and pressures faced by central banks, some scholars raise the fundamental question: “On what basis could we expect central banks to play a role in climate change policy?”<sup>33</sup> On the one hand, it can be assumed that, given their responsibilities and mandate of regulatory oversight over the financial system, central banks are in a powerful position to ensure further greening of finance approaches. Indeed, it is assumed that a “central bank must take climate change into account to the extent that it is part of their core mandate in delivering monetary and financial stability.”<sup>34</sup> On the other hand lies the assertion that environmental sustainability and climate factors, in particular, fall outside the scope of central banks’ traditional core responsibilities.

### C. Potential Role of Article 11 TFEU in Supporting Climate Goals in the EU’s Policies

Based on the foregoing, it becomes clear that combatting climate change has become a major focus of the Union’s policies. It is also at the heart of the European Green Deal. Furthermore, it is evident that central banks are not untouched by these concerns in that climate change poses a significant threat to price stability, which has sparked a political debate about their potential role in combatting climate change. From a legal perspective, the provision which should come to the fore is Article 11 TFEU. Yet, this provision has not gained enough academic attention in the debate of greening the Union’s different policies. Against this background, this section aims to provide a thorough analysis of this provision. We will examine the meaning of Article 11 TFEU, its legally binding nature as well as its requirements by taking into account the provision’s wording, relevant case-law and legal scholarship. Most notably, we will address the concept of planetary boundaries, as introduced in the previous section, and develop the connection between these scientific findings and the legal framework, that is Articles 191, 11 TFEU, in order to explain, which consequences result from these findings for the EU. While the analysis aims, at this point, to provide a general overview of the potential role of Article 11 TFEU in supporting climate protection within the EU’s policies, its implications for the ECB’s monetary policy will be thoroughly explored in the following sections.

#### I. The Meaning and Scope of Article 11 TFEU

Also referred to as the “integration” or “cross-cutting” clause, Article 11 TFEU reads as follows: “Environmental protection requirements must be integrated into the definition and implementation of the Union’s policies and activities, in particular with a view to promoting sustainable development.” At the outset, it should be clarified that Article 11 TFEU does not comprise the competence of the EU. It can rather be understood as a primary law requirement to carry out a strategic environmental impact assessment, which extends not only to individual measures,

<sup>31</sup>See Simon Dikau & Ulrich Volz, *supra* note 28 at 1 (“Green central banking can be defined as central banking that takes account of environmental risks, including risks from climate change, which may have a material impact on the short- and long-term stability and development of the financial sector and the macroeconomy.”).

<sup>32</sup>See, e.g. Bolton et al., *supra* note 28; Fabris, *supra* note 23 at 27–43; Emanuele Campiglio, Yannis Dafermos, Pierre Monnin, Josh Ryan-Collins, Guido Schotten, & Misa Tanaka, *Climate Change Challenges for Central Banks and Financial Regulators*, 8 NATURE CLIMATE CHANGE 462, 462 (2018); Fisher & Alexander, *supra* note 23; Patrick Honohan, *Should Monetary Policy Take Inequality and Climate Change Into Account?* (Peter Inst. Int’l. Econ., Working Paper 19-18, 2019).

<sup>33</sup>Fisher & Alexander, *supra* note 23, at 6.

<sup>34</sup>*Id.* at 2.

but also to policies, programs, plans and laws. This requirement obliges all EU institutions, and therefore also the ECB, to integrate environmental considerations into their policies.<sup>35</sup>

According to the Court of Justice of the European Union (CJEU), the provision demands the integration of environmental protection requirements into the definition as well as the implementation of Union's policies, emphasizing the objective's "extension across the range of those policies and activities."<sup>36</sup> Given the systematic position of Article 11 TFEU, the Treaties make clear that this cross-cutting clause affects all actions of the Union institutions. Considering the provision's wording, the term "integrating" means that environmental protection "must be regarded as an objective, which also forms part of" any Union policy.<sup>37</sup> Indeed, the provision should be considered as an obligation "to take due account of ecological interests in policy areas outside that of environmental protection *stricto sensu*."<sup>38</sup> Environmental protection can, for instance, be identified as a guiding principle within the Union's competition policy.<sup>39</sup> There is, however, potential for conflict particularly vis-a-vis the Common Agriculture Policy<sup>40</sup> and the Transport Policy<sup>41</sup>. As a result, Article 11 TFEU enables the EU's institutions to consider environmental protection objectives alongside other objectives within a certain policy area. This subsequently also applies to the ECB's monetary policy.

The incorporation of environmental protection requirements shall, in particular, promote the principle of sustainable development, as suggested in the wording of Article 3 and the preamble of the TEU. Environmental integration has, in fact, been acquiring increasing importance. There is growing recognition that environmental assets such as ecosystems, environmental media and climate are closely interlinked, and that individual environmental areas and problems are, therefore, strongly connected. Considering the conception and purpose of Article 11 TFEU, the provision can, thus, be regarded as an authoritative instrument for implementing the principle of sustainable development in Union law.<sup>42</sup>

## II. Is Article 11 TFEU Legally Binding?

It is not entirely clear whether Article 11 TFEU merely represents a non-binding political program clause or comprises a legally binding rule.<sup>43</sup> So far, the CJEU has not provided a clear guideline. In this sense, Advocate General Jacobs in his opinion in the *PreussenElektra* case emphasized<sup>44</sup> that the cross-cutting clause is not merely programmatic but is rather legally binding. However, in the legally non-binding Declaration No. 20 to the Final Act of the Maastricht Treaty, the Intergovernmental Conference provided "that the Commission undertakes to take full account of the environmental impact and the principle of sustainable development in its proposals and that the Member States undertake to do so in their implementation." The Commission has issued

<sup>35</sup>See e.g., Wolfgang Kahl, *Umweltprinzip und Gemeinschaftsrecht*, p. 178; Epiney (1992) (University thesis, Heidelberg University) (on file with Heidelberg University Library); ASTRID EPINEY, *UMWELTRECHT IN DER EUROPÄISCHEN UNION* (4th ed. 2019).

<sup>36</sup>ECJ, Case C-320/03, *Commission v. Austria*, ECLI:EU:C:2005:684 (Nov. 15, 2005), ¶ 73.

<sup>37</sup>See e.g. ECJ, Case C-428/07, *Horvath v. Sec'y of State for Env., Food and Rural Affs.*, ECLI:EU:C:2009:458 (July 16, 2009), ¶ 29; ECJ, Case C-440/05, *Commission v. Council*, ECLI:EU:C:2007:625 (Oct. 23, 2007), ¶ 60.

<sup>38</sup>Opinion of Advocate General Geelhoed at ¶ 59, Case C-161/04, *Austria v. Parliament and Council* (Jan. 26, 2006).

<sup>39</sup>Jörg Philipp Terhechte, *Der Umweltschutz und die Wettbewerbspolitik in der Europäischen Gemeinschaft*, ZUR 2002, 274.

<sup>40</sup>See e.g., Michael Karnitschnig, *Das Verhältnis von Landwirtschaft und Umweltschutz im Rahmen der Gemeinsamen Agrarpolitik*, AgrarR 2002, 10.

<sup>41</sup>See Christian Calliess, *Ansatzpunkte für eine umweltverträgliche Verkehrspolitik im europäischen Binnenmarkt – unter besonderer Berücksichtigung des Art. 130r Abs. 2 S. 3 EGV*, ZAU 1994, 322.

<sup>42</sup>See Christian Calliess, *Die neue Querschnittsklausel des Art. 6 ex 3c EGV als Instrument zur Umsetzung des Grundsatzes der nachhaltigen Entwicklung*, DVBl. 1998, 559.

<sup>43</sup>Relatively Heselhaus, in: Pechstein/Nowak/Häde, *Frankfurter Kommentar EUV/GRC/AEUV*, Article 11 TFEU, ¶ 12.

<sup>44</sup>Opinion of Advocate General Jacobs at ¶ 231, Case C-379/98, *Preussenelektra v. Schleswig* (Oct. 26, 2000).



instructions to this effect.<sup>45</sup> Here, the question regarding the provision's legally binding nature was discussed on the occasion of its revision by the Maastricht Treaty. No limitations were prescribed to the discretionary power of the Commission and the Council.<sup>46</sup> In addition, the wording of Article 11 TFEU also prescribes only general conditions for future measures of the Union without specifying the timeframe or form of realization. Further, because no legal consequences in the event of non-observance can be discerned, it may be questioned whether the clause is a mere principle or a legally binding rule.<sup>47</sup>

As counter to the foregoing, majority of the scholarly opinion rightly points out that the use of the word “must” suggests a clear obligation.<sup>48</sup> Therefore, the requirement to “include” goes beyond a mere “obligation to consider” environmental requirements in the weighing process.<sup>49</sup> This view also corresponds to the purpose of the two revisions of the horizontal clause, which were aimed at making it more binding and more influential.<sup>50</sup> This means that Article 11 TFEU contains an “imperative mandate to act”<sup>51</sup>, which affords it more force than a mere political consideration dependent on the goodwill of the Union institutions.<sup>52</sup> Even though the way of implementation is left to the discretion of the Union institutions, the commanding language clearly speaks in favor of a legal imperative to calibrate all Union policies in accordance with the objectives and principles outlined in Article 191 TFEU.<sup>53</sup>

In addition to its significance as being a legal requirement, Article 11 TFEU also serves as a standard of interpretation against other norms of Union law.<sup>54</sup> This function particularly comes into play in the interpretation of indeterminate legal concepts and in the context of discretionary power. The requirement of environment-friendly interpretation of secondary Union law has also been emphasized in the *Concordia Bus*<sup>55</sup> case, where the CJEU confirmed that environmental considerations ought to be taken into account in EU public procurement law.

Having analyzed the meaning, scope and nature of Article 11 TFEU, it already becomes clear that the provision can play a major role in greening endeavors with regard to the EU's policies. This inevitably raises the question what the integration of environmental protection requirements actually

<sup>45</sup>Doc. SEC (93) 785; cf. EuZW 1997, 642.

<sup>46</sup>JUTTA JAHNS-BÖHM, UMWELTSCHUTZ DURCH EUROPÄISCHES GEMEINSCHAFTSRECHT AM BEISPIEL DER LUFTREINHALTUNG 262, (1994).

<sup>47</sup>LUDWIG KRÄMER, E.C. TREATY AND ENVIRONMENTAL LAW 58 (Sweet & Maxwell eds., 1996); meanwhile differently Ludwig Krämer, in: Kingston (ed.) European Perspectives on Environmental Law and Governance, 83 (90) “policy objective”; LUDWIG KRÄMER, in: GSH, EU-Recht, Article 11 TFEU, ¶ 25.

<sup>48</sup>Stroetmann, Introduction, in: Rengeling (ed.), Umweltschutz und andere Politiken der EG, 1993, 3; Kahl, Umweltprinzip und Gemeinschaftsrecht, 58.

<sup>49</sup>Cf., Heselhaus, in: Pechstein/Nowak/Häde, Frankfurter Kommentar EUV/GRC/AEUV, Article 11 TFEU, ¶ 14.

<sup>50</sup>Christian Calliess, *Europäisches Umweltrecht als Chance: die Umweltpolitik der EG und die Einflussmöglichkeiten der Umweltverbände*, 1992, 219 (224).

<sup>51</sup>Bodo Wiegand, *Bestmöglicher Umweltschutz als Aufgabe der Europäischen Gemeinschaften*, DVBl. 1993, 533 (536). This is a periodical.

<sup>52</sup>STEFAN SCHMITZ, DIE EUROPÄISCHE UNION ALS UMWELTUNION 151 (Rhombos ed. 1996); critically Astrid Epiney, Andreas Furrer, *Umweltschutz nach Maastricht. Ein Europa der drei Geschwindigkeiten?*, EuR 1992, 369 (386–387), who do not see any changes in the legal situation in the new formulation, but probably already assumed a legal requirement under the EEA.

<sup>53</sup>In conclusion also Wiegand, DVBl. 1993, 533 (536); Jahns-Böhm/Breier, EuZW 1992, 49 (52); Breier, NuR 1992, 174 (181); Schmitz, Die EU als Umweltunion, 1996, 151; Epiney, NuR 1995, 497 (502); Calliess, KJ 1994, 284 (287); Scherer/Heselhaus, in: Hb.EUWirtR, O., marginal no. 53; Stroetmann, introduction, in: Rengeling (ed.), Umweltschutz und andere Politiken der EG, 1993, at 3; Breier, in: Lenz/Borchardt (ed.), EU-Verträge, Article 11 AEUV, marginal no. 10; Käller, in: Schwarze (ed.), EU-Kommentar, Article 11 TFEU, marginal no. 18; Weidemann, Die Bedeutung der Querschnittsklauseln für die Kompetenzen innerhalb der europäischen Gemeinschaft aus deutscher Sicht, 2007, 72 ff.

<sup>54</sup>Nettesheim, in: Grabitz/Hilf/Nettesheim, EU, Article 11 TFEU, ¶ 31; Breier, in: Lenz/Borchardt (eds.), EU Treaties, Article 11 TFEU, ¶ 15 f.; Kahl, in: Streinz, EUV/AEUV, Article 11 TFEU, ¶ 29 f.

<sup>55</sup>ECJ, Case C-513/99, *Concordia Bus v. Helsingin Kaupunki*, ECLI:EU:C:2002:495 (Sept. 17, 2002), ¶ 57.

means for the Union institutions, and in particular, the ECB. In answer to this, it is necessary to examine the requirements of Article 11 TFEU, also taking into account the findings of earth system science. The provision's requirements can be divided into a substantive and a procedural dimension.

### III. Substantive and Procedural Requirements of Article 11 TFEU

The point of reference for Article 11 TFEU are the requirements of environmental protection. They comprise a substantive core of objectives, which prohibit undercutting.<sup>56</sup> The requirement to protect the environment, pursuant to Article 11 TFEU, is derived from the Union's objective of environmental protection under Article 191 TFEU. It is supplemented by the fundamental rights obligations of the EU and the Member States to protect human life and health in Article 3 EU Charter of Fundamental Rights. Considering the findings of earth system science, it can be said that these obligations aim at keeping away from planetary boundaries and at preserving the "ecological subsistence level of humanity."<sup>57</sup>

Coming back to the legal relevance of planetary boundaries more specifically, it is clear that this scientific concept can only indicate that measures to combat climate change are urgently needed. It, however, does not specify which concrete measures the EU is obliged to take. This means that, in order to draw concrete conclusions, the scientific situation needs to be assessed normatively and politically.<sup>58</sup> Essential normative guidelines for dealing with planetary boundaries are derived from the precautionary principle, which is mentioned in Article 191 TFEU, and which is linked to the sustainability principle by means of Article 11 TFEU. The precautionary principle comprises of two dimensions: risk and resource precaution.<sup>59</sup> Both dimensions aim to avoid critical loads and tipping points. If critical loads and tipping points are reached, the "ecological subsistence level of humanity" will be threatened through serious and irreparable damage to environmental assets. An independent principle of non-exhaustion of planetary boundaries can be developed from the legal precautionary principle. Logically, to prevent the threshold from being exceeded, it is essential to keep away from it.<sup>60</sup> In the context of the planetary boundaries, Articles 191, 11 TFEU, thus, give rise to a binding mandate for action on the part of the EU to steer visibly away from these limits.

It remains, however, difficult to determine which concrete measures are to be taken, and which among the many and very different groups of polluters has to make what kind of necessary adjustments, to what extent and within what timeframe. It is primarily up to the legislator to draw conclusions from scientific findings on environmental pollution limits. Nevertheless, the more serious the foreseeable consequences of exceeding planetary boundaries become, the more weight should be attached to the principle of keeping away from planetary boundaries in the political and legislative decision-making. In terms of climate protection, in particular, the more imminent an overstepping of the planetary limits<sup>61</sup> gets, the greater is the weight to be attached to the distance requirement.

It is evident that European Law demands action, if our use of the environment remains unchanged and, thus, exceeds—or, as in the case of climate protection, has already exceeded—the planetary boundaries, and therefore, most likely endangering the stability of the Earth System as well as the ecological foundations of human life.<sup>62</sup> Yet the enforcement of environmental

<sup>56</sup>See TOBIAS BRÖNNEKE, *UMWELTVERFASSUNGSRECHT* 272 ff., 471 ff. (Nomos, 1999); KARL-PETER SOMMERMAN, *STAATSZIELE UND STAATSZIELBESTIMMUNGEN* 439 ff. (Mohr Siebeck, 1997).

<sup>57</sup>CHRISTIAN CALLIESS, *RECHTSSTAAT UND UMWELTSTAAT* 298–299, 410–411 (2001).

<sup>58</sup>Wolfgang Köck, *Erfordernisse des Umweltrechts im Anthropozän—Rechtskonzepte für eine „Große Transformation“*, 28 ZUR 257, 257–258 (2017); Schlacke, in: Dilling/Markus (eds.): *Ex Rerum Natura Ius?*, 2014, at 93.

<sup>59</sup>Calliess, *supra* note 57 at 17–177.

<sup>60</sup>*Id.* At 177–178; Cf. Also IVO APPEL, *STAATLICHE ZUKUNFTS—UND ENTWICKLUNGSVORSORGE* 299–300 (2005).

<sup>61</sup>For instance the 1.5 to 2° Celsius target for climate protection as outlined above.

<sup>62</sup>Such a protection concept is, however, only effective as an "absolute guard rail" of policy, if it is enacted by the legislature in the form of a binding guiding law. See Calliess *supra* note 57 at 235; Calliess, *supra* note 16 at 385. See also SRU, *DEMOKRATISCH REGIEREN IN ÖKOLOGISCHEN GRENZEN—ZUR LEGITIMATION VON UMWELTPOLITIK* 182 (2019).

and climate protection concerns in daily political decision-making appears to be weak, even in the case of adopted government strategies. Article 11 TFEU requires, at a procedural level, that the ecological sustainability aimed at with the European Green Deal is also safeguarded by means of adequate procedures.<sup>63</sup>

To summarize, the analysis of Article 11 TFEU confirms that the EU institutions are indeed legally required to take climate considerations into account. In addition, it can be said that the scientific perspective of the earth system analysis coupled with Articles 191, 11 TFEU give rise to a binding mandate for action to steer away from the climate change boundary. In addition to its legal analysis, it is interesting to shortly consider whether Article 11 TFEU has already played a role in practical terms. For instance, the “EU Taxonomy” for establishing a common classification system for sustainable economic activities can be regarded as an example for implementing Article 11 TFEU into practice. The Taxonomy Regulation<sup>64</sup> is one of the key actions in the context of the European Commission’s “action plan on sustainable finance” and stresses the importance of linking financial markets and sustainability. Considering that financial systems play a crucial role to support the transition towards sustainability, it seems paramount to ensure that financial flows are redirected to sustainable investments. This practical example for implementing the integration clause may also hint to the relevance for greening the monetary policy of the ECB, who alongside other EU institutions, is equally bound by Article 11 TFEU. Based on these findings, the next sections specifically focus on the application of Article 11 TFEU to the ECB’s monetary policy, analyzing the provision’s potential effect on the ECB’s primary and secondary objectives, as well as on the design and implementation of its monetary policy. Specific greening efforts, resulting from the provision’s requirements, will be developed later in detail.

#### D. The ECB’s Competence to Pursue Climate Protection Goals: Applying Article 11 TFEU to the ECB’s Objectives

In light of the foregoing, it follows that Article 11 TFEU requires the ECB to consider climate protection alongside other objectives within its monetary policy. However, the fundamental question is whether the ECB has the competence to pursue climate protection goals at all. Any such endeavor is always subject to the limitations imposed by the legal framework, and in particular, the ECB’s primary objective to maintain price stability. Indeed, German scholarship posits that because price stability being the primary objective, there is no room for the incorporation of climate objectives into the ECB’s monetary policy.<sup>65</sup> Others assume that price stability and climate protection may go hand in hand.<sup>66</sup> In the following, we will examine the application of Article 11 TFEU to both the ECB’s primary and secondary objectives. In this context, we will, at first, highlight the importance of the ECB’s primary objective as a major limitation to any greening efforts. We will then develop a differentiated approach regarding the interplay between climate protection and price stability, taking into account the findings from the above analysis

<sup>63</sup>For instance an effective monitoring of the protection concept in the European decision-making and Member State implementation process, by means of an institutionally secured scrutiny reservation along the political decision-making process, see Calliess, *Die neue Querschnittsklausel des Article 6 ex 3c EGV als Instrument zur Umsetzung des Grundsatzes der nachhaltigen Entwicklung*, DVBl. 559, 566 f. (1998).

<sup>64</sup>Council Regulation 2020/852 of Jun. 18, 2020, on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, 2020 O.J. (L 198) 63 (EU).

<sup>65</sup>For German legal scholarship see Daniel Nees, *Klimaschutz durch die EZB? Reichweite und Grenzen des Mandats der EZB in Bezug auf den Erwerb sogenannter „grüner“ Anleihen*, 56 EUR 119, 131 (2021).

<sup>66</sup>See Roda Verheyen, *Legal Options for Implementing Climate Criteria in the Monetary Policy of the European Central Bank*, GREENPEACE (Apr. 2021); Rens van Tilburg & Aleksandar Simić, LEGALLY GREEN: CLIMATE CHANGE AND THE ECB MANDATE, SUSTAINABLE FINANCE LAB (2021), <https://sustainablefinancelab.nl/wp-content/uploads/sites/334/2021/07/Legally-Green.pdf>; René Smits, *Elaborating a Climate Change-Friendly Legal Perspective for the ECB*, SSRN DATABASE, <https://ssrn.com/abstract=3913653>.

of Article 11 TFEU. Before examining specific greening options, we will provide an interim conclusion at the end of this section.

### *I. Price Stability as a Major Limitation to the Application of Article 11 TFEU*

At first, it is paramount to take a look at the fundamental meaning of the ECB's primary goal of maintaining price stability, which is not only stressed in the TFEU, but also by legal scholarship and the German Federal Constitutional Court (FCC). Concrete conclusions regarding the significance of price stability will also be discussed later when considering the practical implications of Article 11 TFEU, such as the adoption of a "Green Assets Purchase Programme."

According to Article 127(1) TFEU, the ECB's core responsibility in the context of its monetary policy is to ensure "price stability" in the euro area: "The primary objective of the European System of Central Banks (hereinafter referred to as ESCB) shall be to maintain price stability." This means that the ECB places this primary objective in the forefront of its monetary policy operations.<sup>67</sup> Apart from the provision about the ECB's core mandate, the Treaty text contains multiple references to the objective of price stability.<sup>68</sup> It is for instance referred to in Articles 119(2), 219(1) TFEU, stressing again that this primary objective has to be pursued in the context of monetary policy. Safeguarding of this objective thereby constitutes a legally binding obligation for the ECB.

In addition to the ECB's primary goal, Articles 119(2), 127(1) TFEU and Article 2 of ESCB/ECB Statute, establish the ECB's secondary objective. Thus, without prejudice to the primary objective, the Eurosystem shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union. As it had been underlined by the ECB itself, the reference to its supportive role regarding economic policies as a secondary objective demonstrates the "broad need for mutual co-operation and dialogue among policy-makers."<sup>69</sup> It follows from the strict limitation of its mandate that the support of the EU's economy may only be realized through the implementation of monetary policy instruments.<sup>70</sup>

In terms of the hierarchy among the ECB's objectives, Article 119(2) TFEU clearly confers the primary objective of price stability a distinctive position. This suggests that, in the scope of monetary policy, the objective of price stability takes precedence over other objectives, also climate-related ones. This distinctive role of price stability finds support in legal literature as well as in the jurisprudence of the FCC.

German legal scholarship suggests to describe the ECB's objective of maintaining price stability as the *Grundnorm* of the then new Community.<sup>71</sup> In terms of the Community objectives, it is said that the ECB is "indirectly" bound by them as secondary objectives. In case of conflict between the objectives, they stress that the ECB was "legally obliged to give precedence to price stability."<sup>72</sup> Among German legal scholars, it is stated that the goal of price stability is not *abwägungsfähig*, which means that the primary objective cannot be part of a balancing exercise with opposing interests.<sup>73</sup> It follows that, in case of conflict, the interpretation that serves the

<sup>67</sup>Waldhoff in: Siekmann (ed.), EWU Kommentar zur Europäischen Währungsunion, 2013, Art. 127 AEUV, ¶¶ 2, 14, 15.

<sup>68</sup>In primary Union Law, "price stability" can be identified in the following provisions: Articles 119(2), 127(1), 141(2) 2<sup>nd</sup> indent, 219(1) and (2), 282(2), 140(1).

<sup>69</sup>EUR. CENTRAL BANK, Monthly Bulletin, 41 (Jan. 1999) <https://www.ecb.europa.eu/pub/pdf/mobu/mb199901en.pdf>.

<sup>70</sup>So far, the ECB has not relied on the secondary objective as an explicit legal basis for its monetary policy measures.

<sup>71</sup>Similarly, the then Treaty establishing the European Community (EC) committed the ECB to price stability as its primary objective, in its Article 105(1) first sentence EC, and required the ECB to contribute to the achievement of the Community objectives (Article 2 EC) without prejudicing price stability, following Article 105(1) second sentence EC. See CHIARA ZILIOI & MARTIN SELMAYR, THE LAW OF THE EUROPEAN CENTRAL BANK (Bloomsbury Academic, 2001).

<sup>72</sup>*Id.* at 36.

<sup>73</sup>Siekmann in: Siekmann (ed.), EWU Kommentar zur Europäischen Währungsunion, 2013, Art. 119 AEUV, ¶ 41.

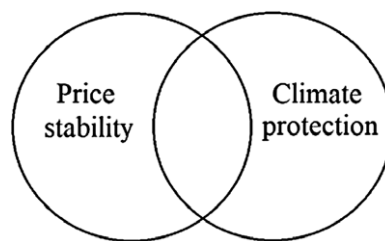


Figure 1: Price stability and climate protection, graphic by the authors.

objective of price stability best, takes precedence.<sup>74</sup> Some scholars even go as far as characterizing the goal of price stability as a “key concept” within the scope of the EMU.<sup>75</sup>

The distinctive role of the price stability objective was also underlined in the FCC’s Maastricht-decision<sup>76</sup>, where the FCC declared the “community of stability” (*Stabilitätsgemeinschaft*) as the fundamental concept of the monetary union.<sup>77</sup> In terms of the European integration process, the Court has referred to the intention of the then German Federal Parliament (*Bundestag*) to allow the monetary union only to start upon the condition of the fulfillment of strict stability criteria (*strikte Stabilitätskriterien*).<sup>78</sup> The Court has also stressed that in case the monetary union was not able to further develop the stability, which existed upon entry into the third stage, in a way that is compatible with the agreed mandate of stability (*Stabilisierungsauftrag*), it would not act in compliance with the concept upon which the Maastricht Treaty is founded.<sup>79</sup>

### III. Price Stability and Climate Protection: Applying Article 11 to the ECB’s Primary Objective?

The incorporation of climate protection goals pursuant to Article 11 TFEU needs to be seen and contextualized precisely within the ECB’s primary objective. In view of its fundamental meaning in the context of monetary policy, price stability cannot be balanced with opposing interests, not even with those, which are climate-related. Thus arises the question, whether and how climate protection may be considered within the ECB’s mandate? This is a complicated question, which needs further differentiation.

To illustrate the point, one can think of “price stability,” on the one hand, and “climate protection,” on the other, as two circles that partially overlap (As shown in Figure 1). The following picture emerges: On the one hand, climate protection is in tension with the primary goal of price stability. On the other hand, price stability and climate protection partially overlap.

#### 1. Price Stability and Climate Protection Overlap

In some cases, climate protection and price stability may overlap, which means that the goals are not in conflict. This is illustrated by taking into account the impact of climate change on price stability. In view of the evidence that climate-related physical risks such as natural catastrophes

<sup>74</sup>Siekmann in: Siekmann (ed.), *EWU Kommentar zur Europäischen Währungsunion*, 2013, Art. 127 AEUV, § 7.

<sup>75</sup>See Rodi in Vedder/Heintschel von Heinegg, Art. 119 AEUV Rn 11, not followed by Siekmann in: Siekmann (ed.), *EWU Kommentar zur Europäischen Währungsunion*, 2013, Art. 119 AEUV, § 100.

<sup>76</sup>Bundesverfassungsgericht [BverfG] [Federal Constitutional Court], 2 BvR 2134/92, 2 BvR 2159/92 (Oct. 12, 1993), 89 *ENTSCHEIDUNGEN DES BUNDESVERFASSUNGSGERICHTS* (BVERFGE) 155.

<sup>77</sup>89 BVERFGE 155, § 144.

<sup>78</sup>89 BVERFGE 155, § 145. In fact, the German Federal Parliament has intended to ensure that the transition complied strictly with the stability criteria that had previously been agreed upon, emphasizing that it may resist any attempts to weaken the criteria. See 89 BVERFGE 155, § 24.

<sup>79</sup>89 BVERFGE 155, § 148.



can lead to an increased inflation rate strongly shows that price stability is under enormous threat. Climate change, thus, clearly adversely affects the ECB's primary goal of maintaining price stability, which can only be expected to worsen with continued global heating.

Against this background, it is relevant to consider the "Tragedy of the Horizon"<sup>80</sup>, which describes the phenomenon and the predicament that, once climate related risks start to materialize, it will be too late to prevent them. The emphasis is upon the difference in time-scales, when financial and climate-related risks become clearly visible. Despite the currently available evidence on the impact climate change has on price stability, the "Tragedy of the Horizon" phenomenon may have contributed to the lack of immediate action.

It is interesting to consider this phenomenon in the light of earth system science and the legal relevance of the concept of planetary boundaries, which we developed in Section C. To shortly recap, it has been outlined that this concept aims at defining "a safe operating space for humanity," by drawing on a safety margin, when determining critical threshold values. It further points out that if the tipping points are exceeded there is a threat of irreversible environmental damage, which may in turn result in a kind of "devastation scenario." As argued previously, it follows from the "principle of non-exhaustion of ecological stress limits" and the imperative to keep distance to these limits that action should be taken well prior to a concrete danger arising. Considering the "Tragedy of the Horizon" phenomenon, in the light of these findings, it becomes clear that action for combatting climate change is required to be taken without any further delay. Even though climate-related risks and the abovementioned "devastation scenario" will come to pass in the long-term, the evidence as to climate change impact on price stability right now, coupled with the imperative to keep distance to the climate stress limit precisely demands actions to be considered well in advance so as to prevent such consequence in the first place. In this sense, the precautionary principle shifts the necessity to act against climate-related risks from the long term to short-term. Indeed, the imperative to keep distance to the climate stress limit demands climate-related risks to be taken seriously now in order to avoid a future "climate tragedy." In practical terms this could give rise to the implementation of an inter-generational perspective, which will be further explored below.

## 2. Climate Protection and Price Stability do not Overlap

In some cases, climate protection is in tension with price stability. Because the primary objective must not be jeopardized by the pursuit of other goals, it follows that the goal of price stability cannot be balanced with opposing interests, even climate-related ones.<sup>81</sup> In this case, price stability takes absolute priority. There are two scenarios which become relevant in this regard.

The first scenario refers to the case in which monetary policy measures to maintain price stability are not in favor of climate protection. For instance, concerns have been raised that central banks may themselves be contributing to the increase of greenhouse gas emissions and aggravating global heating by way of the "emission bias,"<sup>82</sup> which has been identified within the ECB's Corporate Sector Purchase Programme. It has been shown that as a consequence of the bond market's structure and the market neutrality approach, the ECB's portfolio "tilts towards brown, rather than green firms."<sup>83</sup> Specifically, there is evidence that the Eurosystem has mainly been purchasing the so-called "brown" bonds, issued by corporations heavily engaged in oil, gas

<sup>80</sup>See Carney, *supra* note 17.

<sup>81</sup>For the precedence of price stability see Section C.I.

<sup>82</sup>See, e.g., Dirk Schoenmaker, *Greening monetary policy*, CLIMATE POLICY (2021). See Matikainen et al., *supra* note 30 at 13.

<sup>83</sup>Melina Papoutsis, Monika Piazzesi, Martin Schneider, How unconventional is green monetary policy? IMF (Mar. 30, 2022).

and automotive which aggravate climate change.<sup>84</sup> Following the market neutrality approach, the Eurosystem purchased assets in proportion to the market composition which has resulted in a bias towards carbon-intensive companies.<sup>85</sup> This means that issuers of these “brown” bonds receive financial support through this purchase which furthers their activities which are detrimental to the environment.

In the second scenario, climate protection measures are not in line with price stability. For instance the measures presented within the European Green Deal do not necessarily support the maintenance of price stability. To the contrary, some might even be in conflict with the ECB’s primary objective. This conflict becomes clear for instance with regard to the so-called transition risks, which have been outlined in Section B. Transition risks arise if the need of innovation and policy interventions, which aim at climate risk mitigation, such as the transition to a low-carbon economy, result in additional costs. Transition risks can cause for instance that assets lose their value due to unanticipated changes in expected cash flows and subsequently become “stranded.”<sup>86</sup>

### III. Applying Article 11 TFEU to the ECB’s Secondary Objective

Article 11 TFEU may have a direct effect on the ECB’s secondary objective, according to which, the Union’s general economic policies shall be supported with a view to contributing to the achievement of the objectives of the Union. “Economic policies” can be broadly defined as policies that affect society and the environment, such as, inter alia, sustainable growth, maximum employment or climate protection. The objectives of the Union are articulated in Article 3 of the Treaty on European Union (TEU).<sup>87</sup> The provision refers to several goals, among which environmental protection—“a high level of protection and improvement of the quality of the environment”—is one of the Union’s objectives. In the context of the internal market, Article 3(3) TEU refers to “economic growth,” “price stability,” “a highly competitive social market economy” as parameters for the Union in order to work for the sustainable development of Europe.<sup>88</sup> The diversity in the Union’s goals suggests that the ECB may support economic policies covering a wide range of objectives which have a general economic dimension. References to “environmental protection and improvement” and “sustainability” in Article 3(3) TEU can be seen as clear indications of the significance of green goals and climate-related efforts within the Union. As such, the goals do not appear in any particular order of priority, which suggests that they are all at the same level.<sup>89</sup> This means that environmental protection does not take priority over other goals laid down in Article 3 TEU. Applying Article 11 TFEU does not change the level of priority among

<sup>84</sup>Such firms tend to be capital intensive and therefore have huge assets that serve as collateral, which means that they issue a high quantum of bonds. Market indices for corporate bonds therefore weigh heavy in high-carbon companies. See Schoenmaker, *supra* note 82, at 2; see also Matikainen et al., *supra* note 30 at 13.

<sup>85</sup>See Patrick Honohan, *Should Monetary Policy Take Inequity and Climate Change into Account*, 13–14 (Peterson Inst. for Int’l Econ. Working Paper No. 18-18, 2019).

<sup>86</sup>See *supra* note 26.

<sup>87</sup>Defining the goals of the Treaty, Article 3 TEU is a provision with great significance, constituting the constitutional “Grundnorm” regarding the integration program of the Union. Whilst the Union strives for reaching these goals through integration, all its actions need to be referred back to these goals. See Ruffert in: Calliess/Ruffert, EUV/AEUV Kommentar, 5. Edition 2016, art. 3 EUV, ¶¶ 1.3. In the context of the internal market, Article 3(3) TEU refers to the so-called “magic rectangle” (“magisches Viereck”) of economic stability, that is: “economic growth,” “price stability,” “a highly competitive social market economy” and “a high level of protection and improvement of the quality of the environment.” See Ruffert in: Calliess/Ruffert, EUV/AEUV Kommentar, 5. Edition 2016, Art. 3 EUV, ¶ 23.

<sup>88</sup>See also Calliess/Ruffert, EUV/AEUV Kommentar, 5. Edition 2016, Art. 3 EUV, ¶ 23.

<sup>89</sup>See also Michael Ioannidis, Sarah Jane Hlásková Murphy; Chiara Zilioli, *The mandate of the ECB: Legal considerations in the ECB’s monetary policy strategy review*, ECB’s Occasional Paper Series No 276/September 2021, <https://www.ecb.europa.eu/pub/pdf/scopops/ecb.op276~3c53a6755d.en.pdf>.

these goals, which therefore remains unchanged even after the integration of climate protection within the ECB's secondary objective.

Nevertheless, in choosing which of the "general economic policies" shall first be supported, the ECB can exercise its discretion. The CJEU has repeatedly confirmed that the ECB must be allowed to have "a broad discretion" when designing and implementing its monetary policy.<sup>90</sup> At the same time, however, the proportionality principle is a major limitation to its broad discretion.<sup>91</sup> Within this discretion, Article 11 TFEU may offer a valid legitimization for the ECB to prioritize the support for Union's environmental and climate policies thereby promoting climate protection. This argument is reinforced by the fact that currently the EU's general economic policies are striving for carbon neutrality and are in conformity with the underlying commitment to combat climate change. The CJEU has itself acknowledged in its rulings in the *Weiss* and *Gauweiler* cases that monetary policy measures may have indirect economic effects.<sup>92</sup> Taking into account Article 11 TFEU, this means that, when making "choices of a technical nature" and undertaking "forecasts and complex assessments," the ECB also has to consider climate-related factors. In carrying out a careful and accurate analysis, the ECB shall, thus, be guided by climate-related considerations.<sup>93</sup> Within this margin of potential economic effects, Article 11 TFEU allows for and legitimizes the integration of climate considerations.

### 1. Balancing Climate Concerns with Other Goals

Integrating climate factors into economic policy considerations does not mean that these concerns must take absolute priority over all other objectives, and that other goals are sacrificed. In fact, as Advocate General Geelhoeds points out in his opinion in the *Austria v. Parliament and Council* case, the environmental integration clause "cannot be regarded as laying down a standard according to which in defining Community policies environmental protection must always be taken to be the prevalent interest." It rather means that environmental protection concerns shall be taken into account and incorporated, with the aim of achieving a balance with opposing interests.<sup>94</sup> As a result, the requirements of climate protection must be weighed against all conflicting concerns.

It follows from Article 11 TFEU, that the process of balancing conflicting interests is twofold: First, the requirements of the environment, pursuant to Article 191 (1) and (2) TFEU and in particular the precautionary principle must be taken into account within the balancing process. This means that climate protection goals have to be balanced with other goals laid down in Article 3 TEU. Second, the concept of integration stipulates that climate concerns may not simply be "weighed away." On the contrary, climate-related considerations have to become an integral component of the monetary policy measure by visibly shaping their content.<sup>95</sup> The political margin of appreciation of the European institutions is thus exceeded if the measure is recognizably designed in favor of one interest to the detriment of environmental or climate protection. Such a measure, which would in all likelihood lead to considerable, noticeable environmental damage,

<sup>90</sup>Its broad discretion is particularly based on the fact that in the preparation and implementation of its monetary policy, the ECB has to make "choices of a technical nature and to undertake forecasts and complex assessments." ECJ, Case C-62/14, *Gauweiler et al. v. Deutscher Bundestag*, -ECLI:-EU-C:2015:400 (June 16, 2015), ¶ 68; ECJ, Case C-493/17, *Weiss et al. v. Bundesregierung*, ECLI:EU:C:2018:1000 (Dec. 11, 2018), ¶ 73. In this sense, according to the Court, "nothing more can be required of the ESCB apart from that it use its economic expertise and the necessary technical means" to carry out a careful and accurate analysis. *Id.* at ¶ 91. The Court, however, also acknowledges that in terms of its broad discretion, the ECB needs to "examine carefully and impartially all the relevant elements of the situation in question. *Gauweiler et al.*, Case C-62/14 at ¶ 69.

<sup>91</sup>See *Gauweiler et al.*, Case C-62/14 at ¶¶ 66, 67.

<sup>92</sup>See *Gauweiler et al.*, Case C-62/14 at ¶¶ 52, 59; *Weiss et al.*, Case C-493/17 at ¶ 61.

<sup>93</sup>See also Javier Solana, *The Power of the Eurosystem to Promote Environmental Protection*, 30 EUR. BUS. L. REV. 547 (2019).

<sup>94</sup>See Ritter, NVwZ 1987, 929.

<sup>95</sup>In depth Calliess, *supra* note 63; Appel, in: Koch, *Umweltrecht*, 2018 § 2 Rn. 44 ff.

may not be adopted under Article 11 TFEU. Such policy would infringe the specifications of the provision.

In addition, it has already been clarified that Article 11 TFEU cannot affect the current allocation of competences. The provision neither shifts responsibilities nor does it broaden existing competences conferred upon the union institutions. In consequence, with regard to its secondary objective, the ECB needs to ensure that it always acts within its primary mandate of maintaining price stability.

## 2. *The ECB's Independent Status as a Potential Limitation?*

Ultimately, the question arises, whether the ECB's independent status, as established by Article 130 TFEU and Article 7 ESCB/ECB Statute, may inhibit the integration of climate protection considerations. The ECB's independent status has been conferred precisely to ensure that the ECB fulfills its mandate and in particular its primary goal to maintain price stability free from any interference from national governments or other political actors.<sup>96</sup> At first sight, it could be posited that the consideration of climate factors amount to an interference with the ECB's legally guaranteed independence. However, despite their political nature, the EU's attempts to combat climate change and strife towards the transition to a low-carbon economy do not influence the ECB. What is being argued here is that the integration of climate considerations into the ECB's monetary policy is mandated by union law itself, in Article 11 TFEU, and therefore does not stem from guidance or instructions from political bodies as prohibited by Article 130 TFEU.

## IV. *Interim Conclusion on the Effect of Article 11 TFEU on the ECB's Primary and Secondary Objectives*

Following from the above, some concluding remarks shall already be summarized at this point. According to Article 11 TFEU combatting climate change is a major priority of the EU, yet the primary objective of price stability must not be compromised for the pursuit of other goals. With regard to this tension defined by two legally binding objectives a differentiated approach has to be developed.

It follows that the primary goal of price stability cannot be balanced with opposing interests, not even with interests that might be climate-related. This means that the environmental integration principle of Article 11 TFEU does not allow for an easing of price stability defining the core principle of the EMU.

However, considering the evidence regarding the threat that climate change poses for financial systems and the adverse effects that global warming could have on the ECB's primary goal of price stability, in some cases, Article 11 TFEU may even allow for the integration of climate-change factors in the pursuit of the primary goal. In this context, the environmental integration principle implies a guiding function regarding the ECB's policy measures for ensuring price stability. Therefore, if the ECB implements policy measures in the pursuit of its primary goal to maintain price stability, it shall take climate-related aspects into consideration to the extent that climate change poses a threat to price stability.

<sup>96</sup>The CJEU stresses that Article 130 TFEU intends to "shield the ECB and its decision-making bodies" from outside influences, that are "likely to interfere with the performance of the 'tasks'" which are assigned to the ECB by the Treaty and the ESCB/ECB Statute. Shielding the ECB from political pressure is with a view to enable the ECB to effectively "pursue the objectives attributed to its tasks." ECJ, Case C-11/00, *Commission v. ECB*, ECLI:EU:C:2003:395 (July 10, 2003), ¶ 134; Gauweiler et al., Case C-62/14 at ¶ 40. Nevertheless, as the CJEU has emphasized, this position of independence does not mean that the ECB is divorced from the then European Community and is exempt from Community Law rules. *Commission*, Case C-11/00, at ¶ 135.

Moreover, Article 11 TFEU can directly affect the ECB's secondary goal, and thus obliges the ECB to take into account, or integrate, climate change factors when supporting the general economic policies in the Union. Against this background, it can be said: As long as the primary goal of price stability is not affected, Article 11 TFEU in connection with Article 119 TFEU and the ESCB/ECB Statute grants and demands a focus of the ECB's monetary policy on climate policies for the realization of the EU's sustainability strategy as expressed by the European Green Deal.

### E. Practical Implications of Applying Article 11 TFEU: Suggestions for “Greening” the ECB's Monetary Policy

Having analyzed the ECB's competence to pursue climate protection goals and, in particular, the interplay between climate protection and price stability, this section will explore some practical implications. We will assess the effect of applying Article 11 TFEU to the available operational framework, and develop proposals for greening options by taking into account possible limitations. In addition to price stability, which has been identified as a major limitation to any greening efforts, we will also consider the market neutrality principle, the proportionality test and Article 123(1) TFEU. Some of the already available proposals about how central banks could address climate change will be systematized and contextualized in view of the ECB's monetary policy framework. We examine, *inter alia*, how climate considerations can be integrated into the framework of eligible assets, the ECB's existing bond-buying programs or in the context of a new “Green Assets Purchase Program.” Following the procedural requirements of Article 11 TFEU, we will further analyze how the integration of climate considerations can be safeguarded by means of procedures, referring to potential reporting and disclosure commitments. We will also point to the possibility of introducing sustainability officers as well as establishing a Climate Protection Unit. Ultimately, we will consider the justiciability of Article 11 TFEU.

#### 1. Integrating Climate Factors into the Design and Implementation of the ECB's Monetary Policy

As previously confirmed, Article 11 TFEU requires the ECB to consider climate objectives, when designing and implementing its monetary policy. The Eurosystem employs a set of monetary policy tools, which can be subject to a greening. The relevant legal framework for the ECB's monetary functions and operations is provided in Article 18 *et. seq.* ESCB/ECB Statute. Article 18 ESCB/ECB Statute refers to “open market and credit operations,” which are the Eurosystem's primary tools of monetary policy, and thus, constitute an important reference point to which Article 11 TFEU may apply.<sup>97</sup> The most obvious practical implication of applying Article 11 TFEU regards the integration of climate protection considerations into the ECB's decision-making process. A climate impact assessment in view of monetary policy decisions could be introduced. This means that, when taking monetary policy decisions, the ECB Governing Council assesses the climate impact of certain monetary policy measures.

Several suggestions have already been made about how central banks could address climate change by using their set of available instruments.<sup>98</sup> Some practical developments of greening

<sup>97</sup>Article 5(2) of the Guideline (EU) 2015/510 of the European Central Bank of December 19, 2014 on the implementation of the Eurosystem monetary policy framework (ECB/2014/60) specifies four types of open market operations: Main refinancing operations (MROs), longer-term refinancing operations (LTROs), fine-tuning operations (FTOs) and structural operations.

<sup>98</sup>In this regard, the reports of the Network for Greening the Financial System provide several options that central banks could make use of in order to contribute to combatting climate change. See NETWORK GREENING FIN. SYS., *Adapting central bank operations to a hotter world. Reviewing some options*, 18 (Mar. 2021) [https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708\\_1~f104919225.en.html](https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1~f104919225.en.html) Furthermore, the ECB itself has suggested measures and tools for tackling climate change within its mandate in its recently presented action plan to incorporate climate change considerations. See Press



the banking sector can also be observed. In 2017, a group of central banks and supervisors formed the “Network for Central Banks and Supervisors for Greening the Financial System (NGFS).”<sup>99</sup> In Europe, the European Banking Authority (EBA) published an “Action Plan on sustainable finance” and a discussion paper providing proposals on how environmental, social and governance risks could be integrated into the regulatory and supervisory framework.<sup>100</sup> Most recently, climate change has played a key role in the ECB’s new monetary policy strategy.<sup>101</sup> Therein, the ECB announced its commitment to consider the impact of climate change, the carbon transition, as well as incorporation of climate related aspects into its monetary policy framework.<sup>102</sup> In addition, the Governing Council has decided on an ambitious climate-related action plan with a clear roadmap.<sup>103</sup>

## II. Considering Climate Change Risks Within the ECB’s Monetary Policy Strategy

Climate factors should be integrated into the economic analysis within the ECB’s monetary policy strategy, which is the ECB’s general approach to guide the single monetary policy of the Eurosystem. The ECB Governing Council adopted a stability-oriented monetary policy strategy.<sup>104</sup> The strategy consists of three main elements, the first one of which is the quantitative definition of price stability<sup>105</sup> and the “two pillars,” which are used to achieve this primary objective. The two pillars in the framework refer to analytical perspectives aiming at assessing risks to price stability. They comprise the economic and monetary analysis which together constitute the basis for the Governing Council’s monetary policy decisions.<sup>106</sup> In view of climate change risks for price stability, it appears essential that macro implications of climate change and public climate change policies are considered in the context of the core economic analysis. Indeed, the ECB Banking Supervision has been encouraging institutions under its supervision to integrate climate-related and environmental risks into their existing risk management framework as well

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Release, ECB, ECB Presents Action Plan to Include Climate Change Considerations in its Monetary Policy Strategy (July 8, 2021), [https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708\\_1~f104919225.en.html](https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1~f104919225.en.html). See also ECB, *supra* note 27 at 13. In the ECB’s new monetary policy strategy statement, it communicates that the Governing Council will not only incorporate climate factors into its monetary policy assessment but also “adapt the design of its monetary policy operational framework in relation to disclosures, risk assessment, corporate sector asset purchases and the collateral framework.” See ECB, *The ECB’s Monetary Policy Strategy Statement*, ¶ 10.

<sup>99</sup>See *Origin and Purpose*, NGFS, <https://www.ngfs.net/en>.

<sup>100</sup>See EBA, *EBA Action Plan on Sustainable Finance* (Dec. 6, 2019), [https://www.eba.europa.eu/sites/default/documents/files/document\\_library/EBA%20Action%20plan%20on%20sustainable%20finance.pdf](https://www.eba.europa.eu/sites/default/documents/files/document_library/EBA%20Action%20plan%20on%20sustainable%20finance.pdf).

<sup>101</sup>See ECB, *The ECB’s Monetary Policy Strategy Statement*, *supra* note 98.

<sup>102</sup>See An overview of the ECB’s monetary policy strategy, EUR. CENT. BANK 13 (July 2021) [https://www.ecb.europa.eu/home/search/review/pdf/ecb.strategyreview\\_monopol\\_strategy\\_overview.en.pdf](https://www.ecb.europa.eu/home/search/review/pdf/ecb.strategyreview_monopol_strategy_overview.en.pdf).

<sup>103</sup>See Annex: Detailed Roadmap of Climate Change-Related Actions, [https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708\\_1\\_annex~f84ab35968.en.pdf](https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1_annex~f84ab35968.en.pdf) (accessed May 19, 2022).

<sup>104</sup>The “stability-oriented monetary policy strategy” was presented in the first issue of the ECB’s monthly bulletin, and was previously announced by the ECB’s Governing Council. See *A Stability-Oriented Monetary Policy Strategy for the ESCB*, ECB (Oct. 13, 1998), [https://www.ecb.europa.eu/press/pr/date/1998/html/pr981013\\_1.en.html](https://www.ecb.europa.eu/press/pr/date/1998/html/pr981013_1.en.html).

<sup>105</sup>Originally, the ECB’s Governing Council defined price stability “as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%.” See ECB, MONTHLY BULLETIN JANUARY 1999 46 (1999), <https://www.ecb.europa.eu/pub/pdf/mobu/mb199901en.pdf>. In the recently approved monetary policy strategy, the ECB’s Governing Council decided to amend the formulation of the price stability objective. See ECB, *The ECB’s Monetary Policy Strategy Statement*, *supra* note 98.

<sup>106</sup>In its new strategy, the Governing Council referred to a new “integrated assessment,” building on the economic analysis, the monetary and financial analysis. See ECB, *supra* note 98. In January 2020, the ECB launched a review of its monetary policy strategy, which was published by the Governing Council in July 2021. See Press Release, ECB, ECB’s Governing Council Approves its New Monetary Policy Strategy, (July 8, 2021); Press Release, ECB, ECB Launches Review of its Monetary Policy Strategy, (Jan. 23, 2020).

as decision-making processes.<sup>107</sup> Specifically, institutions are expected, inter alia, to develop stress tests that incorporate climate-related and environmental risks.<sup>108</sup>

Another option is, for instance, the implementation of an inter-generational perspective.<sup>109</sup> The two analytical perspectives within the monetary policy strategy assess determinants of price developments in different time horizons. The “economic analysis” focuses on a short to medium-term. The “monetary analysis” considers a medium to longer-term time-frame.<sup>110</sup> However, it follows from the “Tragedy of the Horizons” that there is a discrepancy when it comes to the temporal dimension of monetary policy and climate change. While it is true that the impact and effect of climate change risks will begin to materialize in the long-term, financial systems consider risks mainly in the short run. Even though the medium-term orientation may already suggest a forward-looking approach, it seems to be essential to broaden the time horizon even further.

### III. Greening the ECB's Existing Bond-buying Programs

There have been discussions in academic literature about considering climate-related factors within the ECB's bond-buying programs<sup>111</sup>, for example, the asset purchase programme (APP), which constitutes non-standard policy measures.<sup>112</sup> Overall, the decisions to make the purchase of bonds under the existing programs were sought in the pursuit of price stability.

<sup>107</sup>See ECB, *supra* note 22.

<sup>108</sup>European Central Bank, at 40.

<sup>109</sup>See e.g., Fisher & Alexander, *supra* note 23 at 12.

<sup>110</sup>The medium-term orientation of the monetary policy strategy has been confirmed by the Governing Council in its monetary policy strategy review. See ECB, *The ECB's Monetary Policy Strategy Statement*, *supra* note 98 at ¶ 7.

<sup>111</sup>See for example Matikainen et al., *supra* note 30. See Milena Schwarz, *Grüne Geldpolitik: ein schmaler Grat zwischen gebotenem Engagement und Zielkonflikt*, KfW RESEARCH (2022)

<sup>112</sup>The international financial crisis (2007–2009) and the subsequent fiscal crisis in the European context required the ECB to introduce non-standard monetary policy measures to ensure price stability in compliance with the Governing Council's definition. To achieve this, the ECB made use of several “unconventional” monetary policy instruments which include targeted longer-term refinancing operations (TLTROs) and an asset purchase programme (APP). See *Monetary policy decisions*, EUROPEAN CENTRAL BANK, <https://www.ecb.europa.eu/mopo/decisions/html/index.en.html> (accessed July 19, 2021). The APP consists of the corporate sector purchase programme (CSPP) (Decision (EU) 2016/948 of the European Central Bank of June 1, 2016 on the implementation of the corporate sector purchase programme (ECB/2016/16), latest amendment by Decision (EU) 2020/441 of the European Central Bank of March 24, 2020 amending Decision (EU) 2016/948 of the European Central Bank on the implementation of the corporate sector purchase programme (ECB/2020/18), hereinafter “CSPP Decision”), the public sector purchase programme (PSPP) (Decision (EU) 2020/188 of the European Central Bank of February 3, 2020 on a secondary market public sector asset purchase programme (ECB/2020/9)), the asset-backed securities purchase programme (ABSPP) (Decision (EU) 2015/5 of the European Central Bank of November 19, 2014 on the implementation of the asset-backed securities purchase programme (ECB/2014/45), latest amendment by Decision (EU) 2017/1361 of the European Central Bank of May 18, 2017 amending Decision (EU) 2015/5 on the implementation of the asset-backed securities purchase programme (ECB/2017/15)) and the third covered bond purchase programme (CBPP3) (Decision of the European Central Bank of 15 October 2014 on the implementation of the third covered bond purchase programme (ECB/2014/40), recasted by Decision (EU) 2020/187 of the European Central Bank of February 3, 2020 on the implementation of the third covered bond purchase programme (ECB/2020/8)). See *Asset Purchase Programme*, EUROPEAN CENTRAL BANK, <https://www.ecb.europa.eu/mopo/implement/app/html/index.en.html> (accessed July 19, 2021).

In March 2020, following the coronavirus (COVID-19) outbreak and the exceptional economic and financial circumstances caused by the spread of the disease, the ECB Governing Council decided to introduce the pandemic emergency purchase program (PEPP). See Decision (EU) 2020/4040 of the European Central Bank of March 24, 2020 on a temporary pandemic emergency purchase programme (ECB/2020/17); Press Release, ECB, ECB announces €750 billion Pandemic Emergency Purchase Programme (PEPP) (Mar. 18, 2020), [https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318\\_1~3949d6f266.en.html](https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318_1~3949d6f266.en.html). A temporary asset purchase program of private and public sector securities. About a month later (on Apr. 30, 2020), the Governing Council decided to offer seven pandemic emergency longer-term refinancing operations (PELTROs). On 10 December 2020 it was decided that four additional PELTROs will be offered in 2021. See Press Release, ECB, ECB Extends Pandemic Emergency Longer-Term Refinancing Operations (Dec. 10, 2020), <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr201210~8acfa5026f.en.html>.

There is also evidence that the ECB has already purchased green bonds<sup>113</sup> under the CSPP and the PSPP. The published amount, however, still remains small.<sup>114</sup> So far, the ECB's bonds purchases focused on assets from CO<sub>2</sub> emitters, which further aggravates climate change and, thus, may pose an indirect risk to the program's purpose itself. There are several possibilities how climate aspects can be incorporated into the APP and that can be legitimized by Article 11 TFEU: The ECB could simply focus on purchasing a higher volume of green assets, limit the maturities of carbon-intensive bonds, reduce their amount or exclude the purchase of assets issued by carbon intensive sectors.<sup>115</sup> In the following section, we will examine the possibility of integrating climate factors into the eligibility criteria and the rules about credit rating. We will then show how this approach can be used to green the "CSPP."<sup>116</sup>

### 1. Integrating Climate Factors into the Eligibility Criteria and the Rules About Credit Rating

Climate factors could be integrated into the eligibility criteria for monetary policy operations. This is particularly crucial in the context of the existing bond-buying programs, but also any proposed bond-buying programs, which envisage the purchase of green bonds. The latter will be further analyzed below.

To begin with, it is necessary to identify the relevant provisions, which can be subject to a greening on the basis of Article 11 TFEU. In general, counterparties to monetary policy operations and the underlying assets have to comply with certain criteria in order to be eligible for use in Eurosystem monetary policy operations.<sup>117</sup> On the one hand, in order to be eligible counterparties, credit institutions must comply with Article 55 Guideline (EU) 2015/510, which specifies the eligibility criteria for participation in Eurosystem monetary policy operations. On the other hand, Article 58 et. seq. of Guideline 2015/510 refers to eligible assets. The Eurosystem has developed a single framework for assets, which are eligible as collateral. In fact, these eligibility criteria could be considered as the basis for mainstreaming climate change factors in view of standard open market or credit operations, and particularly, in the context of the existing bond-buying programs. In this sense, the eligibility of assets could be made dependent on whether their issuers comply with certain climate-related obligations.<sup>118</sup> In addition, the ECB could start accepting "innovative financial products" as eligible securities.<sup>119</sup> As a matter of fact, the Eurosystem recently decided to start accepting "bonds with coupons linked to sustainability performance targets"—sustainability-linked bonds—as eligible collateral for Eurosystem credit operations as well as for

<sup>113</sup>Despite the absence of a global market standard for defining and certifying green bonds, they fundamentally constitute conventional debt securities, "whose proceeds are used to finance investment projects with an environmental benefit." See Roberto A. DeSantis, Katja Hettler, Madelaine Roos & Fabio Tamburrini, *Purchases of Green Bonds Under the Euro system's Asset Purchase Programme*, ECB Economic Bulletin (2018), [https://www.ecb.europa.eu/pub/economic-bulletin/focus/2018/html/ecb.ebbox201807\\_01.en.html](https://www.ecb.europa.eu/pub/economic-bulletin/focus/2018/html/ecb.ebbox201807_01.en.html) (last accessed July 8, 2021).

<sup>114</sup>*Id.*

<sup>115</sup>See also Jens Weidmann, Former President of the Deutsche Bundesbank, Speech at the European Banking Congress: Combatting Climate Change – What Central Banks Can and Cannot Do (Nov. 20, 2020), <https://www.bundesbank.de/en/press/speeches/combating-climate-change-what-central-banks-can-and-cannot-do-851528> (accessed July 14, 2021); Yannis Dafermos, Daniela Gabor, Maria Nikolaidi, Adam Pawloff & Frank van Lerven, *Greening the Eurosystem Collateral Framework*, NEW ECONOMICS FOUNDATION (Mar. 2021), <https://neweconomics.org/uploads/files/Collateral-Framework.pdf>. Similar Solana, *supra* note 93, at 571. The "tilting strategy," for instance, aims to "tilt the asset and collateral base for monetary policy operations towards low-carbon assets." See Schoenmaker, *supra* note 82 at 15–16.

<sup>116</sup>See also Solana, *supra* note 93.

<sup>117</sup>As regards credit institutions, the uniform eligibility criteria shall ensure that counterparties fulfill certain prudential and operational requirements. In view of assets used for instance as collateral in credit operations, the eligibility criteria shall ensure the protection of the Eurosystem from losses, the equal treatment of counterparties as well as operational efficiency.

<sup>118</sup>See e.g., Weidmann, *supra* note 115.

<sup>119</sup>See e.g., Isabel Schneider, Member of the Executive Board of the ECB, Speech at the ECB DG-Research Symposium "Climate Change, Financial Markets and Green Growth," Frankfurt Am Main: From Market Neutrality to Market Efficiency (June 14, 2021), <https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210614~162bd7c253.en.html>.

Eurosystem outright purchases for monetary policy purposes, given that they comply with all other eligibility criteria.<sup>120</sup> As a result, this has the effect of incentivizing sustainable investment.

In order to exclude highly pollutive assets, climate factors could also be integrated into the rules about credit rating and the existing risks assessment tools.<sup>121</sup> This appears to be crucial in view of climate-related risks and their potential impact on companies. There is evidence that the transition to a low-carbon economy increases the risks of losses and thus may affect a company's capacity to service and repay its debt in the future. Climate risks, especially those related to the transition to a low-carbon economy, may thus equally affect the credit risk of companies in high-polluting industries. The relevant provisions are the Eurosystem's credit quality requirements specified in the Eurosystem credit assessment framework rules, following Article 119. Guideline (EU) 2015/510. Furthermore, according to Article 127 Guideline (EU) 2015/510 all eligible assets for Eurosystem credit operations shall be subject to specific risk control measures, aiming to protect the Eurosystem against the risk of financial loss. The Eurosystem may also at any time apply additional risk control measures<sup>122</sup>. With regard to these requirements, the ECB could for instance introduce an obligation to assess the carbon-intensity of assets as a risk control measure.<sup>123</sup> Or it may decide to only accept companies' credit rating, which sufficiently reflect and include climate-related financial risks, especially transitional risks.<sup>124</sup> Another option could be that the ECB only accepts assets provided that the emitters comply with specific climate-related reporting obligations, such as company's disclosure of their carbon footprint or their strategy to reduce their carbon footprint in compliance with the Paris Agreement targets.<sup>125</sup> A company's disclosure shall be associated with better credit ratings, whereas no disclosure shall be associated with greater risks.

## 2. Reducing the "Emission Bias" Within the CSPP

Based on this approach, climate factors could be integrated into the eligibility criteria of the CSPP. This may help to resolve the issue regarding the "emission bias." Article 1 "Decision (EU) 2016/948 of the European Central Bank of June 1, 2016 on the implementation of the corporate sector purchase program (ECB/2016/16)" specifies that the Eurosystem may purchase eligible corporate bonds from eligible counterparties in the primary and secondary markets. The integration of climate considerations into the relevant framework for the eligibility criteria could ultimately reduce the purchase of bonds issued by large carbon-intensive firms. The relevant provision, which needs to be considered for an application of Article 11 TFEU in this context is Article 2 CSPP Decision, which specifies the "eligibility criteria for corporate bonds" under the CSPP. Apart from the additional requirements laid down in its second paragraph, Article 2 primarily refers to the eligibility criteria for marketable assets for Eurosystem credit operations pursuant to Part 4 of Guideline (EU) 2015/510. Similar greening approaches, as already established above, could be introduced specifically in the context of the CSPP.

## 3. The Market Neutrality Principle as a Potential Limitation?

Ultimately, the question arises whether an increase of green assets in the ECB's portfolio might be inhibited by the so-called market neutrality principle. It is often argued that the ECB's monetary

<sup>120</sup>See Press Release, ECB, ECB to Accept Sustainability-Linked Bonds as Collateral (Sept. 22, 2020), <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200922~482e4a5a90.en.html> (accessed July 19, 2021).

<sup>121</sup>See with regard to the CSPP Solana, *supra* note 93, at 571.

<sup>122</sup>Article 127(2) Guideline (EU) 2015/510.

<sup>123</sup>See also Matikainen et al, *supra* note 30 at 19.

<sup>124</sup>See Weidmann, *supra* note 115.

<sup>125</sup>*Id.*

policy must comply with the concept of market neutrality.<sup>126</sup> This is also used as an argument against the integration of climate issues into monetary policy.<sup>127</sup> The ECB has made reference to the market neutral approach as regards its CSPP purchases. It is stated that the “ECB aims for a market-neutral implementation of the APP, and therefore CSPP purchases are conducted according to a benchmark that reflects proportionally the market value of eligible bond.”<sup>128</sup> In terms of the implementation of the APP, the ECB elaborates that “the Eurosystem aimed to ensure market neutrality in order to minimize the impact on relative prices within the eligible universe and unintended side effects on market functioning.”<sup>129</sup> However, it is questionable whether such a “principle” may, in fact, exist. Neither the Treaties’ provisions nor the ESCB/ECB Statute explicitly mention “market neutrality.”<sup>130</sup> Despite the fact that the market neutrality principle has clearly guided the implementation of the CSPP, its legally binding nature should be critically reconsidered. Regardless of its unclear legal nature, it has also been acknowledged that the ECB had already deviated from the market neutrality principle in a number of cases.<sup>131</sup> Particularly in the light of climate change risks, there are calls for reconsidering the market neutrality principle and replacing it with other principles, such as for instance a “market efficiency principle.” Such a principle could be based on Article 127(1) TFEU, which stipulates that the ECB shall exercise its mandate by “favouring an efficient allocation of resources.”<sup>132</sup> In light of this, it appears that, from a legal point of view, the market neutrality principle may not constitute a legally relevant limitation.

#### IV. Adoption and Implementation of a New “Green Assets Purchase Programme”

Besides the integration of climate factors into the existing APP, another greening option to be discussed, is the adoption of a new “Green Assets Purchase Programme” (“GAPP”). Indeed, following its independent status and its broad discretion, the ECB could prepare a bond-buying program, which specifically focuses on the purchase of green bonds. Such a program may, however, raise some issues, which need to be addressed. At first sight, it is unclear whether such a program may constitute a monetary policy measure. In fact, it is even argued, among German legal scholars, that the support of sustainable sectors through the purchase of green assets may be part of economic policy.<sup>133</sup> Pursuant to Article 119(1) TFEU, economic policy shall, however, be based on the close coordination of the economic policies of the Member States, and is, therefore, not a centralized Union policy. Whereas monetary policy falls within the exclusive competence of the Union.<sup>134</sup> Against this background and following the principle of conferral of powers, laid down in Article 5(2) TEU, it is clear that the ECB can only adopt and implement measures, which are in the area of monetary policy.<sup>135</sup> Meanwhile, measures that are attributed to the sphere of economic policy cannot be validly adopted. Against this background, we will first identify the criteria as developed by the CJEU with regard to the delimitation of monetary policy and

<sup>126</sup>The market neutrality principle was first mentioned by Benoît Cœuré, former Member of the Executive Board of the ECB. See Cœuré, *supra* note 18.

<sup>127</sup>See for instance Nees, *supra* note 65 at 130.

<sup>128</sup>*The ECB’s Corporate Sector Purchase Programme: Its Implementation and Impact*, ECB ECONOMIC BULLETIN 40, 40–45 (2017).

<sup>129</sup>European Central Bank 2018, at 73.

<sup>130</sup>An argument in favor of this principle could be derived from the wording of Article 127(1) TFEU, which requires the ECB to act in accordance with the principle of an open market economy with free competition.

<sup>131</sup>See Schneider, *supra* note 119.

<sup>132</sup>*Id.*

<sup>133</sup>See e.g., Nees, *supra* note 65 at 127–128. For the ESCB’s competence regarding green monetary policy see also Ann-Katrin Kaufhold, “Grüne Geldpolitik. Zu den Grundsätzen der Kompetenzverteilung zwischen der EU und den Mitgliedstaaten am Beispiel CO2-orientierter Zentralbankmaßnahmen,” Mager/Kahl (Ed.), *Verwaltungsaufgaben und Legitimation der Verwaltung*, Band 2, 2022.

<sup>134</sup>ECJ, Case C-370/12, *Pringle v. Government of Ireland*, ECLI:EU:C:2012:756 (Nov. 27, 2012), ¶ 55.

<sup>135</sup>See *Gauweiler et al.*, Case C-62/14 at ¶ 41.



economic policy, and apply these criteria to the GAPP. We will then consider the proportionality test and, finally, analyze Article 123(1) TFEU as a potential limitation to the GAPP.

### 1. Does the “Green Assets Purchase Programme” Constitute a Monetary Policy Measure?

For the GAPP to be validly adopted and implemented as a measure that forms part of monetary policy, it needs to satisfy the relevant requirements to fall within the ECB’s mandate. The question of how to delimitate monetary policy from economic policy has already been subject of judgments of the CJEU and the FCC regarding the ECB’s alternative measures in the euro crisis.<sup>136</sup> In order to delimitate the two policies, the CJEU has emphasized the measure’s objective and instruments that are employed.<sup>137</sup> In light of the court’s analysis, it is thus necessary that the proposed GAPP pursues the primary objective to maintain price stability. Some arguments can be developed in this regard:

It could be said that the focus on purchasing assets issued by sustainable sectors might rather constitute a climate policy measure, and hence be part of economic policy.<sup>138</sup> Indeed, the systematic purchase of assets from CO<sub>2</sub>-free emitters would result in a raised capital flow for sustainable reinvestments. It is argued that this could be seen as a systematic support of issuers of green bonds, as they would receive more capital for reinvestment, thus, giving them a significant advantage compared to non-green-bonds issuers.<sup>139</sup> The targeted purchase of green bonds could, therefore, be associated with an incentive purpose, privileging a specific group of issuers.<sup>140</sup> Such an intervention in economic processes, which specifically aims at strengthening sustainable production techniques and processes may be associated with an economic policy objective, as opposed to price stability.

However, it is important to consider that, as regards the objective of the measure, the Court also outlined that monetary policy measures, despite their primary objective of maintaining price stability, may equally have indirect effects on economic policy matters.<sup>141</sup> Indeed, referring to Article 127(1) TFEU, the Court has stressed that the “authors of the Treaties did not intend to make an absolute separation between economic and monetary policies.”<sup>142</sup> This means that the mere fact that a monetary policy measure may have indirect effects and might be capable of contributing to economic policy matters does not mean that the measure may be treated as equivalent to an economic policy measure.<sup>143</sup> Following this argumentation, it seems that the GAPP’s indirect effects on the transition to a carbon free economy, which the purchase of green bonds would necessarily entail and that are foreseeable consequences, might have little implication for the purpose of classification of the specific measures.<sup>144</sup>

<sup>136</sup>The CJEU dealt with the FCC’s referrals and questions concerning the OMT and the PSPP in the Gauweiler and the Weiss case, where its diverging analysis of the ECB’s monetary policy mandate becomes clear. The courts dealt, inter alia, with the question, whether the two programs constitute monetary policy measures and fell within the ambit of the ECB’s mandate. As regards the OMT decision, following a series of constitutional actions and dispute resolution proceedings between constitutional bodies in Germany, the FCC made its first request for preliminary ruling and referred its questions concerning the validity of the OMT decision to the CJEU, see BVerfG, Order of the Second Senate of January 14, 2014 - 2 BvR 2728/13. A few years later, the FCC was confronted with the challenge on the compatibility of the PSPP with EU Law and made a second referral with a set of questions about the validity of the PSPP to the CJEU, see BVerfG, Order of the Second Senate of 18 July 2017 - 2 BvR 859/15.

<sup>137</sup>See Gauweiler et al., Case C-62/14 at ¶ 46; Weiss, Case C-493/17 at ¶ 53.

<sup>138</sup>See Nees, *supra* note 65 at 127–128.

<sup>139</sup>*Id.*

<sup>140</sup>*Id.*

<sup>141</sup>Gauweiler et al., Case C-62/14 at ¶ 51.

<sup>142</sup>Weiss, Case C-493/17 at ¶ 60.

<sup>143</sup>See Pringle, Case C-370/12 at ¶ 56; Gauweiler et al., Case C-62/14 at ¶¶ 52, 59; Weiss, Case C-493/17 at ¶ 61.

<sup>144</sup>See Weiss, Case C-493/17 at ¶ 63.

Moreover, this interpretation is also supported by the differentiated approach, as developed in the previous section. It is important to keep in mind that climate protection and price stability may, in some cases, overlap. The purchase of green assets would mean that the ECB refrains from buying “brown” assets and, thus, from supporting carbon-intensive sectors, which aggravate climate change. By purchasing only green assets, the ECB might actively support the sustainable production sector, which means, in turn, an indirect support of the transition to a carbon free economy. In view of the physical risks that climate change poses to inflation rates, it could, thus, also be contemplated whether the GAPP would yet primarily pursue the goal of maintaining price stability. Yet, the transition to a carbon-neutral economy may equally affect inflation and, in consequence, affect price stability. As opposed to physical risks, such risks appear, however, to be relevant in the short run and possibly only for a brief timeframe till the transition is completed. Ultimately, the impact of physical as well as transition risks have to be carefully assessed, also by applying an inter-generational perspective as proposed above.

Besides the measure’s objective, in order to delimitate monetary from economic policy, the CJEU also considered the instruments that are employed. In this regard, the CJEU has acknowledged the necessity for the ECB to adopt such measures, which may equally entail an economic policy dimension, if it is to make full use of the measures as provided by the Treaties for achieving price stability.<sup>145</sup> Accordingly, the fact that the instruments employed by the GAPP may, to some extent, support economic policy objectives, such as climate protection objectives, they would not by themselves question the program’s monetary policy nature.

To sum up, following the caselaw by the CJEU, it seems that as long as the objectives stated in the GAPP’s decision can be attributed to the objective of maintaining price stability, any indirect economic effects do not inherently imply that it is an economic policy measure. Nevertheless, a potential proposal for a GAPP would give rise to a careful assessment of whether the two objectives, price stability and climate protection, may, in this case, overlap or whether they are in conflict.

## 2. The Proportionality Test as a Potential Limitation to the GAPP

Assuming that the GAPP may indeed constitute a monetary policy measure, the program would also have to fulfill the requirements of the proportionality test.<sup>146</sup> Following Articles 119(2) TFEU and 127(1) TFEU, read in conjunction with Article 5(4) TEU, it is therefore essential that the suggested GAPP is proportionate to the objectives pursued.<sup>147</sup> Accordingly, the purchase of green assets has to be a suitable measure to influence price stability and should not go manifestly beyond what is necessary to achieve that objective.

First, as regards the suitability criteria, similar arguments can be considered as developed with regard to the measure’s objective: It could be said that the financial support for certain (green) sectors, whose market share is still relatively limited, could hardly be a suitable measure for attaining the ECB’s primary objective.<sup>148</sup> Once again, it is, however, necessary to consider the differentiated approach, and, thus, to take into account the correlation between central banking and climate change as discussed in the previous section.

Second, the program should not go manifestly beyond what is necessary to achieve that objective. Despite the program’s foreseeable effects to prevent climate change risks from influencing inflation, the question to be considered is whether the primary objective could be better achieved by any other type of monetary policy measure, which includes more limited action. Alternative measures to a GAPP are for instance mixed asset purchase programs, similar to the existing APP.

<sup>145</sup>*Id.* at 67.

<sup>146</sup>The CJEU considered the principle of proportionality to be a major limitation to the valid adoption and implementation of monetary policy measures. See Gauweiler, et al., Case C-62/14, at ¶ 66; Weiss, Case C-493/17, at ¶ 71.

<sup>147</sup>See Gauweiler et al., Case C-62/14, at ¶¶ 66–67; Weiss, Case C-493/17, at ¶¶ 71–72.

<sup>148</sup>See e.g., Nees, *supra* note 65 at 129.

The number of green assets and brown assets may vary and could be adjusted accordingly. It is, however, unclear whether the existing APP and its subprograms, of which the CSPP mainly focuses on brown assets, may ultimately constitute a measure with more limited action compared to the GAPP. This necessitates and may call for further assessments and evaluation from an economic and financial perspective. Provided that the GAPP may also be a necessary measure, its effects would need to be limited by designing it in a temporary nature, limiting the volume of bonds that can be purchased and purchase limits per issue and per issuer.

### 3. Article 123(1) TFEU as a Potential Limitation to the GAPP

Green bonds may also be issued by public entities. Difficulties may, therefore, arise regarding the GAPP's compatibility with Article 123(1) TFEU, which prohibits monetary financing, by excluding any type of credit facilities with the Eurosystem.<sup>149</sup> This means that the ECB is not allowed to provide any financial assistance to the member states. To ensure the GAPP's compatibility with Article 123(1) TFEU, the program would have to observe a number of safeguards, which were developed by the CJEU.<sup>150</sup>

It became clear from the above that there are several possibilities for greening the ECB's monetary policy framework by integrating climate factors, as required by Article 11 TFEU. Following the analysis of Article 11 TFEU under section C, it is argued that the provision does not only impose a legal duty to "consider" climate protection goals, but also entails the necessity of justifying how climate protection concerns have been taken into account.<sup>151</sup> In light of the greening options, the question arises, how the ECB may justify that climate factors were, in fact, adequately considered, and a specific monetary policy measure is "visibly shaped" by climate concerns. This gives rise to additional reporting and disclosure obligations.

## V. Reporting and Disclosure of Climate Impact

Overall, in terms of monetary policy decisions, the CJEU stressed that the ECB needs to provide "an adequate statement of the reasons for its decisions."<sup>152</sup> In light of the judgment and following the procedural requirement of Article 11 TFEU, it can be said that the ECB needs to report and disclose the climate impact of its monetary policy measures. This can be realized for instance by greening the ECB's existing general reporting commitments. Indeed, the ECB is obliged to draw up and publish quarterly reports on the Eurosystem's activities in Article 15 ESCB/ECB Statute, as well as to provide an annual report on the Eurosystem's activities and on the monetary policy, which is addressed to the European Parliament, the Council, the European Commission

<sup>149</sup>The scope of Article 123(1) TFEU became relevant in the context of the judicial dialogue between the CJEU and the German FCC concerning the bond purchases within the OMT and the PSPP. The CJEU has held that Article 123(1) TFEU does not generally prevent the ECB to purchase bonds from the creditors of a member state that have previously been issued by that state. See Pringle, Case C-370/12, at ¶ 132; Gauweiler, et al., Case C-62/14, at ¶ 95; Weiss, Case C-493/17, at ¶ 103. However, a purchase of bonds on the secondary markets may be invalid, if it has an effect equivalent to that of a direct purchase of government bonds. See Gauweiler, et al., Case C-62/14, at ¶ 97; Weiss, Case C-493/17, at ¶ 106.

<sup>150</sup>In order to ensure a level of unpredictability, the CJEU refers, for instance, to the observance of a black-out period and the lack of prior announcements concerning either the decision about the purchase or the volume. See Gauweiler, et al., Case C-62/14, at ¶ 106; Weiss, Case C-493/17, at ¶ 114. In addition, programs should be limited to bonds issued by member states, which have access to the bond market again and who are in a position to secure financing on the market. See Gauweiler, et al., Case C-62/14, at ¶¶ 116, 119. Moreover, holding bonds until maturity should be exceptional and purchases should only be realized in so far as is necessary for achieving the programs objectives. *Id.* at ¶¶ 112, 118. The court further specified that the ECB shall not be permitted "to buy either all the bonds issued by such an issuer or the entirety of a given issue of those bonds." Weiss, Case C-493/17, at ¶ 125.

<sup>151</sup>As AG Geelhoed states in his opinion: "It is only where ecological interests manifestly have not been taken into account or where they have been completely disregarded that Article 6 EC may serve as the standard for reviewing the validity of Community legislation." See Opinion of Advocate General Geelhoed, *supra* note 38 at ¶ 59.

<sup>152</sup>Gauweiler et al., CJEU Case C-62/14, ¶ 69.

and the European Council. Details about climate considerations could be published within these quarterly and annual reports. Such climate-related references may include a statement about a measure's contribution to climate protection goals, the climate impact of a specific measure or adequate reasons for not considering climate-related factors. In terms of its bond-buying programs in particular, the ECB may continuously disclose the volume of green bonds purchased under its programs.

## VI. Sustainability Officers and Climate Protection Unit

Moreover, to further ensure that climate considerations are, in fact, integrated into the ECB's monetary policy, it might be necessary to reflect on additional safeguards to enforce climate protection concerns in the daily decision-making. Two options, which could be considered in this regard, are the appointment of sustainability officers<sup>153</sup> and the introduction of a Climate Protection Unit. Sustainability officers could be entrusted with the task of reviewing the implementation of climate concerns against the yardstick of the European Climate Change Act and the 8th EAP. Similarly, as an independent institution, the Climate Protection Unit could have the responsibility to monitor the climate protection strategy in the ECB's decision-making process, as well as all the ECB's measures with regard to the substantial requirement of Article 11 TFEU.<sup>154</sup> It should not only be able to review concrete upcoming monetary policy decisions for compatibility, but also, if necessary, to express concerns.<sup>155</sup> In view of the ECB's bond-buying programs, an essential task would encompass the definition of "green bonds" to avoid potential "green-washing," and the monitoring of their purchase.

## VII. Justiciability of Article 11 TFEU and Judicial Control

Lastly, the disclosure of how climate protection issues have been considered within the ECB's monetary policy might also become relevant in terms of judicial control. So far, the judicial significance of Article 11 TFEU is limited<sup>156</sup> and has not yet been conclusively clarified.<sup>157</sup> Nevertheless, taking into account the context of infringement proceedings (Article 258 TFEU), it is clear that the CJEU is jointly responsible for ensuring that the obligations under the Treaties, and therefore also

<sup>153</sup>Similar measures have already been discussed by one of the authors with regard to the EU Commission, suggesting the appointment of sustainability officers in the Commission's Directorates-General, see Calliess/Dross: *Umwelt- und Klimaschutz als integraler Bestandteil der Wirtschaftspolitik*, ZUR 2020, 456. Here any conflicts political or otherwise in implementation could be made subject to a suspensive veto right, where disputes could be referred to the round of directors-general and heads of cabinet. If these cannot be resolved in this manner, they could then be referred to the College of Commissioners and, if necessary, decided upon by exercising the directive competence by the President of the Commission who has declared the European Green Deal to be the agenda-setting priority. In addition, strengthening the responsibilities of the Commissioner through interdepartmental initiatives and veto rights could also be taken into account. Similar measures could be considered with regard to other Union authorities, including the ECB.

<sup>154</sup>The climate change center could potentially be entrusted with such a task. See Press Release, ECB, ECB Sets Up Climate Change Centre (Jan., 25, 2021), [https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210125\\_1~3fc4ebb4c6.en.html](https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210125_1~3fc4ebb4c6.en.html) (accessed July 16, 2021).

<sup>155</sup>Considerations in this direction were already made for the European level at the beginning of the 1990s under the keywords "Ecological Senate" or "Ecological Council." Cf., Calliess, in: *WEGE ZUM ÖKOLOGISCHEN RECHTSSTAAT* 71 (77 f.) (Baumeister ed., 1993); Klopfer, Reh binder et al., *AK Europäische Umweltunion*, NuR 346 ff. (1994).

<sup>156</sup>Horvath, Case C-428/07, ¶ 29; Opinion of Advocate General Kokott at ¶ 30, Case C-298/12, *Confédération paysanne v. Ministre de l'Alimentation, de l'Agriculture et de la Pêche* (May 16, 2013); Opinion of Advocate General Geelhoed, *supra* note 38, ¶ 60.

<sup>157</sup>Jahns-Böhm/Breier, *EuZW* 1992, 49 (49 ff.); Calliess, *ZAU* 1994, 322 (332 ff.) with further references; *But cf.*, Opinion of Advocate General Geelhoed, *supra* note 38, ¶ 59; Heselhaus, in: Pechstein/Nowak/Häde, *Frankfurter Kommentar EUV/GRC/AEU*, Article 11 TFEU, ¶ 16 (assessing the question as "partially clarified").

the requirements of Article 11 TFEU, are observed in the practical implementation of Union policies by the Member States. This indicates that the implementation of the integration clause can, indeed, be subject to judicial control. The CJEU has, in fact, considered the environmental integration clause within its jurisprudence in the context of the Union's various policies, such as the EU's transport<sup>158</sup> and waste policy.<sup>159</sup> The ruling on the German Electricity Feed Act even indicates a granting of a privilege to environmental protection, in the justification of measures restricting fundamental freedoms.<sup>160</sup> It becomes clear from these cases that the court acknowledges the consideration of environmental and climate concerns, on the basis of the integration clause. It also confirmed that these concerns shall not be placed above other interests.<sup>161</sup> Despite these cases, there is, however, no clear guidance that could be derived from the CJEU's rulings on how environmental requirements shall be precisely integrated in order to satisfy the obligations under Article 11 TFEU.

Taking into account legal scholarship in this regard, the justiciability of Article 11 TFEU has been mostly correctly affirmed. Yet, it is noted that due to legislative leeway, the scope of judicial review is limited. Therefore, one can assume that in the area of monetary policy where the ECB is granted broad discretion, the standard of compliance may also be rather lenient.<sup>162</sup> The decisive connecting factor, in this respect, is seen in the obligation to state reasons, following Article 296 TFEU.<sup>163</sup> Furthermore, as AG Geelhoed acknowledges in his opinion, the integration clause may "serve as the standard for reviewing the validity of Community legislation" where "ecological interests manifestly have not been taken into account or where they have been completely disregarded."<sup>164</sup> Accordingly, one can argue that in case the ECB fails to take relevant climate considerations into account and refrains from providing any reasons, it might be held accountable for disregarding the provision's obligation. This may ultimately give rise to a judicial control regarding the validity of monetary policy measures, on the basis of Article 11 TFEU.

## D. Conclusion

At a time when committing to the goal of net zero has never been more urgent, central bankers' increasing awareness of aligning the Eurosystem's monetary policy with internationally agreed climate objectives and the EU's new growth strategy is welcome. The call for central banks to take action is reinforced by the findings about how climate change and central banking correlate, in

<sup>158</sup>For instance, in two of its judgments on transport policy, the CJEU has referred to the basic idea of the horizontal clause, by stating that the liberalization of road haulage can only take place "in an orderly manner" within the framework of a common transport policy, which takes into account not only economic and social but also "environmental problems . . . ." CJEU, Case C-17/90, *Pinaud Wieger Spedition GmbH v. Bundesanstalt für den Güterfernverkehr* (Nov. 7, 1991) ¶ 11; CJEU, Case C-195/90, *Commission of the European Communities v. Federal Republic of Germany*, ECLI:EU:C:1992:219 (May 19, 1992) ¶ 33.

<sup>159</sup>Since the *Walloon Waste* decision, the CJEU has consistently emphasized that EU waste policy follows an "environmentally oriented management approach." CJEU, Case C-2/90, *Commission v. Belgium* (July 9, 1992); CJEU, Case C-155/91, *Commission v. Council* (Mar. 17, 1993) ¶ 10 et seq.; CJEU, Case C-187/93, *-ECR- 1994, I-2857 (-EP- v. Council)*; on this case law Weidemann, NVwZ 1995, 866 (867).

<sup>160</sup>CJEU Case C-379/98, [2001] -ECR- I-2099 (*PreussenElektra -AG-/Schleswig -AG-*) = NuR 2002, 149; Nowak, *VerwArch* 2002, 368; similarly Faber, NuR 2002, 140.

<sup>161</sup>The recent EEG ruling of March 28, 2019 makes clear that the CJEU does not place environmental and climate protection above other interests, and, therefore, cannot disregard the element of state aid entirely on the basis of Article 11 TFEU. See CJEU, Case C-405/16 P, *Federal Republic of Germany v. European Commission* (Mar. 28, 2019). See also Frenz, *EuR* 2019, 400 (419).

<sup>162</sup>See also Solana, *supra* note 93, at 561.

<sup>163</sup>Jahns-Böhm/Breier, *EuZW* 1992, 49 (53 f.); Zils, *Die Wertigkeit des Umweltschutzes in Beziehung zu anderen Aufgaben der EG*, at 32; Ress, *Vorträge aus dem Europa-Institut der Universität des Saarlandes*, 1992, no. 291, at 9; Schröder, in: Rengeling (ed.), *Handbuch zum europäischen und deutschen Umweltrecht*, marginal no. 28; Calliess, *ZAU* 1994, 322 (332 ff.); Käller, in: Schwarze (ed.), *EU-Kommentar*, Article 11 TFEU, marginal no. 18.

<sup>164</sup>Opinion of AG Geelhoed, *supra* note 38 at ¶ 59



particular in view of climate-change threats to financial systems and the ECB's primary objective of price stability. Against this background, it has been shown that, from a legal perspective, Article 11 TFEU demands the consideration and integration of climate protection objectives into the ECB's monetary policy. It is however essential to note that Article 11 TFEU is by no means a *carte blanche* for legitimizing any efforts of greening the ECB's mandate. It can only be realized within the legal framework and subject to the limitations imposed by the monetary policy framework itself, in particular with regard to its primary objective. Within this legal scope and following the practical implications of Article 11 TFEU, it has also been shown that the ECB may have some options to take climate objectives into account when designing and implementing its monetary policy. This can already be seen as a valuable contribution towards creating a more sustainable future. As former President of the European Commission, *Jean-Claude Juncker* stressed in his speech at the conference on Sustainable Finance 2018, ultimately "[i]t is about making sure that our money works for our planet. There is no greater return on investment."

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