Elaborating a Climate Change-Friendly Legal Perspective for the ECB

Smits, R.

DOI
10.2139/ssrn.3913653

Publication date
2022

Document Version
Submitted manuscript

Published in
Sustainable Finance – Legal Aspects

CHAPTER 7 – ELABORATING A CLIMATE CHANGE-FRIENDLY LEGAL PERSPECTIVE FOR THE ECB*

A. INTRODUCTION

1. Defining 'sustainable finance'

When discussing sustainable finance, one needs to express a view on the meaning of the term. An insightful exposition on what supervisors understand was made by Andrea Enria, Chair of the Supervisory Board of the European Central Bank (ECB)[1]. Enria defined sustainability in two different ways. In the first perspective, 'sustainability' means that banks are capable to withstand shocks and stay in business over the long term. The second definition relates to "being sustainable on a larger scale, at the level of society", where "climate change is one of the key issues". This approach sees sustainable finance as incentivizing banks to invest more capital into green project and assets. This chapter takes this second view as its starting point. It asks the question whether, from a legal perspective, the mandate of the ECB authorizes it to take climate change into account in its policies and activities, or even requires it to do so.

2. Broad outline of this chapter

In the context of climate change and biodiversity, discussions of the mandate of the European System of Central Banks (ESCB)[2] often focus on its monetary policy brief and its prudential supervisory tasks, the two mainstays of activities of the Frankfurt-based Euro Area central bank. Beyond environmental concerns, the scope of the Eurosystem's[3] mandate has been the subject of litigation emanating from constitutional complaints from Germany, leading to the *Gauweiler* (OMT)[4] and *Weiss* (PSPP)[5] cases and to the stand-off between the German Constitutional Court and the European Court of Justice (CJEU),[6] and from the United Kingdom, leading to a judgment on the limitation of the ECB's mandate in the

---

* This chapter is my contribution to the forthcoming book on *Sustainable Finance – Legal Aspects*, Edward Elgar Publishing. References to the other chapters are to be added later. The text was finalised on 29 August 2021. All websites have been last visited on that day. Research and editorial support by Maurice Lenz and Nils Beijeman is gratefully acknowledged.

[1] *Regulation, proportionality and the sustainability of banking*, speech by Andrea Enria, Chair of the ECB's Supervisory Board, at the Retail Banking Conference "Creating sustainable financial structures by putting citizens first" of European Savings Bank Group, Brussels, 21 November 2019; at: https://www.bankingsupervision.europa.eu/press/speeches/date/2019/html/ssm.sp191121_1~a65cdec01d.en.html.

[2] The ESCB consists of the ECB and the NCBs of all Member States. References to the ESCB in EU law may refer to either the system in its entirety or to the 'Eurosystem': i.e., the monetary policy authority for the Euro Area.

[3] The Eurosystem consists of the ECB and the National Central Banks (NCBs) of the Member States that have adopted the euro: Article 282, second sentence, TFEU.

[4] Case C-62/14 *Peter Gauweiler and Others v Deutscher Bundestag*: ECLI:EU:C:2015:400.

[5] Case C-493/17 *Weiss and Others*: ECLI:EU:C:2018:1000.

[6] Judgment of the *Bundesverfassungsgericht* (*BVerfG*, German Constitutional Court, Second Senate, of 5 May 2020; English translation at: https://www.bundesverfassungsgericht.de/SharedDocs/Entscheidungen/EN/2020/05/rs20200505_2bvr085915en.html.

area of payments.[7] This chapter is on the scope of the ESCB's mandate in the face of climate change and biodiversity.

The focus will first be on monetary policy, then extend to prudential supervision and, finally, briefly touch upon other elements of the mandate, including payment systems oversight and the issuance of banknotes.

It is submitted that core elements of the line of reasoning developed below apply to the entire mandate. For ease of reading, in the following sections, I will refer to monetary policy and only occasionally mention supervision – the reader is invited to consider the other elements of the mandate included in the reasoning.

Similarly, to facilitate understanding, I discuss the mandate of the European Central Bank, in full acknowledgement of the legal situation that it is the European *System of* Central Bank*s* that is entrusted with this mandate. Recognising the statutory injunction to operating in a decentralised manner[8], I focus on the central entity in the system.[9] Since the ESCB is governed by the decision-making bodies of the ECB,[10] it is in the ECB's Governing Council that the fulfilment of the Eurosystem's mandate is ultimately decided, subject to judicial review and democratic control. The reader is invited to read the arguments as applying to the ESCB, or the Eurosystem.[11] Likewise, references to the Statute of the European System of Central Banks and of the European Central Bank, Protocol No. 4 attached to the Treaty on the Functioning of the European Union (TFEU), will be short-handed to: ESCB Statute. Finally, in order to avoid unnecessary repetition, this chapter will speak about climate change when climate change and loss of biodiversity are meant[12], as both developments produce risks for central banks and for the financial system, beyond threatening our economies and the survival of mankind on our planet.

---

[7]Case T-496/11,*UK* v. *ECB*: ECLI:EU:T:2015:133. See, also: Case T-45/12 *UK* v. *ECB*: ECLI:EU:T:2015:289 and Case T-93/13 *UK* v. *ECB*: ECLI:EU:T:2015:290.

[8] Article 12.1, third paragraph, ESCB Statute **Responsibilities of the decision-making bodies**.

[9] This also applies in the context of the ECB's prudential supervisory tasks: the Single Supervision Mechanism (SSM) consists of the ECB and National Competent Authorities (NCAs), with the ECB positioned centrally. See the *L-Bank* judgment: Case C-450/17 P *Landeskreditbank Baden-Württemberg - Förderbank v European Central Bank* ECLI:EU:C:2019:372.

[10] Article 8 ESCB Statute **General Principle**.

[11] Similarly, in respect of the SSM and the prudential supervision mandate.

[12] Only differentiating between the two issues when there is a need to so, e.g. in respect of international norms.

B. HISTORY OF THE INTERPETATION OF THE MANDATE

1. Primacy of price stability

The ECB's overriding objective is: price stability. "The primary objective of the [ESCB[13]] shall be to maintain price stability", Articles 127(1) proclaims.[14] Price stability is also the first of the three guiding principles underlying Economic and Monetary Union (EMU), compliance with which Article 119(3) TFEU requires.[15] Price stability is further mentioned as one of the objectives to achieve in Article 3(3) TEU[16]. The CJEU has emphasised the importance of price stability in its *Gauweiler* judgment[17]:

> "The Protocol on the ESCB and the ECB is thus characterised by *a clear mandate, which is directed primarily at the objective of ensuring price stability*. The *tightly drawn nature of that mandate* is further reinforced by the procedures for amending certain parts of the Statute of the ESCB and of the ECB." [italics added]

2. Secondary mandate and other relevant provisions

It is only in a secondary fashion that other objectives are relevant for the ECB's mandate. These further considerations, having to do with "support [of] the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty on European Union"[18], are discussed in sections E and F below. Further provisions of relevance for the

---

[13] See the explanation above on ECB, ESCB and Eurosystem.

[14] This is repeated in Article 282(2) TFEU and in Article 2 ESCB Statute.

[15] "These activities of the Member States and the Union shall entail compliance with the following guiding principles: stable prices, sound public finances and monetary conditions and a sustainable balance of payments." The 'activities' to which this provision refers concern the establishment of an economic (first paragraph) and a monetary (second paragraph) union. Article 119(1) calls for "the adoption of an economic policy which is based on the close coordination of Member States' economic policies, on the internal market and on the definition of common objectives, and conducted in accordance with the principle of an open market economy with free competition", while Article 119(2) specifies as follows: "these activities shall include a single currency, the euro, and the definition and conduct of a single monetary policy and exchange-rate policy the primary objective of both of which shall be to maintain price stability and, without prejudice to this objective, to support the general economic policies in the Union, in accordance with the principle of an open market economy with free competition."

[16] The second sentence of Article 3(3) TEU reads as follows: "It [i.e., the European Union] shall work for the sustainable development of Europe based on balanced economic growth *and price stability*, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment." (*italics added*). In its previous incarnation as Article 2 of the EC Treaty, price stability was mentioned as 'non-inflationary growth': "The Community shall have as its task, by establishing a common market and an economic and monetary union and by implementing the common policies or activities referred to in Articles 3 and 3a [currently: Article 119 TFEU], to promote throughout the Community a harmonious and balanced development of economic activities, sustainable and *non-inflationary* growth respecting the environment, a high degree of convergence of economic performance, a high level of employment and of social protection, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among Member States." (*italics added*)

[17] Paragraph 44.

[18] Article 127(1) TFEU, language which is repeated in Article 282(2) TFEU and in Article 2 ESCB Statute.

interpretation of what the ECB is mandated to undertake are the integration provisions of the TFEU[19], notably Article 11, discussed in section G below, and the provision on the binding nature of international agreements (Article 216(2) TFEU), in relation to the Paris Agreement[20], a matter for discussion in section H below. Finally, as will be discussed in section I below, the principle of an open market economy favouring an efficient allocation of resources[21], often conflated with a principle of 'market neutrality', is also invoked as relevant for the interpretation of the ECB's mandate in the context of climate change and biodiversity.

3. The ECB's initial approach: solely primary mandate

Ever since its inception, the ECB has emphasised the twin characteristics of being an *independent* central bank and being entrusted with *delivering price stability* as its primary mandate. In so far as the support of economic policies in the European Union played any role it was, at best, auxiliary. Most of the time, the reasoning followed was that a faithful implementation of its primary task constituted full execution of its secondary mandate, as well: providing price stability allowed the achievement of economic policy goals and contributed to the variety of objectives of the Union set out in Article 3 TEU. As Yolaine Fischer set out[22],

> "ensuring price stability is considered to be instrumental in contributing to the achievement of the general economic policies of the EU, by supporting non-inflationary growth and a high level of employment".

It is noteworthy that, in its very first communication on the monetary policy strategy it would pursue[23], the ECB states:

> "As mandated by the Treaty establishing the European Community, the maintenance of price stability will be the primary objective of the ESCB. Therefore, the ESCB's monetary policy strategy *will focus strictly on this objective*." [italics added]

The secondary objective is not even mentioned. In a similar vein, the first President of the ECB made clear, in a speech in Dublin seven weeks ahead of the launch of the euro[24], that the serious concerns of the Governing Council about unemployment in the euro area would not diminish its commitment

---

[19] See Box 2 - integration provisions in the TFEU.

[20] See the United Nations Framework Convention on Climate Change ELI: http://data.europa.eu/eli/convention/1994/69/oj [1994] OJ L33/13; and the Paris Agreement [2016] OJ L282/4.

[21] Article 127(1), third sentence, TFEU; Article 2, third sentence, ESCB Statute; Article 119(1) and (2) TFEU.

[22] Yolaine Fischer, *Global warming: does the ECB mandate legally authorise a "green monetary policy"?*, in Sustainability and Financial Markets, pp.163-198, notably at page 172.

[23] *A stability-oriented monetary policy strategy for the ESCB*, press release, 13 October 1998, at: https://www.ecb.europa.eu/press/pr/date/1998/html/pr981013_1.en.html.

[24] *The ESCB's stability-oriented monetary policy strategy*, speech by the President of the European Central Bank, Dr. Willem F. Duisenberg, at the Institute of European Affairs on 10 November 1998 in Dublin, at: https://www.ecb.europa.eu/press/key/date/1998/html/sp981110.en.html.

to price stability alone; only by working towards that ultimate goal would reducing unemployment be served. A longer quote will make this perspective clear:

> "(…) let me emphasise that the Governing Council of the ECB is very concerned about the unacceptably high rate of unemployment in the euro area. However, an inflationary monetary policy would not solve Europe's serious unemployment problem. On the contrary, an inflationary policy would not only unacceptably flout the Maastricht Treaty; a Treaty, let me remind you, that has been ratified by all the Member States of the European Union and endorsed by the public in referenda in several countries, including Ireland. *An inflationary monetary policy would almost certainly lead to higher unemployment in the medium run, as long-term interest rates would rise and the benefits of price stability would be lost*. Such a policy would therefore be entirely counterproductive. Let me be very clear: *in the interest of all European citizens, the Governing Council is determined to protect price stability*. The ESCB's independence is a means to facilitate the achievement of this goal. *Only by preserving price stability and thereby creating the stable environment required for continued higher employment and growth, can the European System of Central Banks (ESCB) serve the public and address the public's understandable concerns*." (italics added)

We see here that any consideration of other policy objectives (here: employment) is seen as undermining the primary mandate, as if including high unemployment in the considerations would automatically lead the ECB to pursue an inflationary monetary policy.[25]

We see the same emphasis on the first leg of the mandate when, , in 2003, the ECB's first monetary policy strategy review was announced[26] – the secondary objective was not even mentioned.[27] It was only with the monetary policy strategy review of 2020-2021, that the introductory words to its

[25] How different it is on the other side of the Atlantic Ocean, where the US central bank, the Federal Reserve System, takes unemployment more seriously, in pursuit of its mandate "to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates"; Section 2A. Monetary policy objectives, Federal Reserve Act. (see Ben Winck, 'The government is pursuing 'maximum employment' for the first time. Here's how it differs from 'full employment' and the risks it brings.' *Business Insider.* *https://www.businessinsider.com/what-is-maximum-employment-full-employmentlabor-market-federal-reserve-risks-2021-6?international=true&r=US&IR=T#:~:text=The%20Fed%20is%20targeting%20%22maximum,inflationary%20spiral%20is%20set%20off*.

[26] *The ECB's monetary policy strategy*, press release, 8 May 2003, at: https://www.ecb.europa.eu/press/pr/date/2003/html/pr030508_2.en.html.

[27] *The ECB's monetary policy strategy after the evaluation and clarification of May 2003*, Speech by Jean-Claude Trichet, President of the European Central Bank, delivered at the Center for Financial Studies' key event, Frankfurt am Main, 20 November 2003, at https://www.ecb.europa.eu/press/key/date/2003/html/sp031120.en.html.

conclusion[28] mention the secondary mandate and highlight several elements of the Union's objectives[29]:

> "These objectives include balanced economic growth, a highly competitive social market economy aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment."

By then, the thinking of the ECB had developed such that climate change formed part of the considerations for the achievement of its *primary* mandate.

4. Secondary mandate held primary place when (re-)interpreting mandate

Until recently, then, the arguments proffered for explaining why the ECB could (or: could not) adopt policies or take measures which take climate change into account, related mostly to the secondary mandate, on the incidence of the integration provision on the environment, or on the binding nature of the Paris Agreement.[30] Stronger realisation of the impact of climate change on the fulfilment of the price stability mandate has lately shifted the focus to the ECB's primary mandate. Economists have argued that the shocks resulting from climate change and the transition risks may affect price stability and may undermine traditional methods of trying to achieve price stability to such extent that there is no need to solely rely on the secondary objective and additional arguments for the advocacy of climate change consciousness31. This change in the current of thinking also affects the approach I take here.

Below, I will now, first, undertake a more inclusive interpretation of the primary and secondary objectives and, then, enter into the further arguments for a climate conscious approach to the mandate of the ECB. Before doing so, let me explain the development of my own thinking.

5. Development of my own thinking

In my PhD thesis on the ECB, I wrote[32]:

> "(…) if two courses of action are open to the [Euro-]System, one of which is clearly more favourable to stable prices than the other, the choice should be for those measures which are most conducive to price stability. If there is no material difference in effect on price stability, the ESCB is free to choose a course of action on different grounds"

---

[28] *The ECB's monetary policy strategy statement*, at: https://www.ecb.europa.eu/home/search/review/html/ecb.strategyreview_monpol_strategy_statement.en.html. See, also, *ECB's Governing Council approves its new monetary policy strategy*, press release, 8 July 2021, at: https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708~dc78cc4b0d.en.html.

[29] While also referring to the further mandate in respect of financial stability: "The Eurosystem shall also contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system."

[30] See footnote 20 above.

[31] See Franziska Bremus , Geraldine Dany-Knedlik, & Thore Schlaak (2020). Price stability and climate risks: Sensible measures for the European Central Bank. *DIW Weekly Report*, *10*(14), 206-213.

[32] *The European Central Bank – Institutional Aspects*, 1997, p. 187.

and, referring to the objectives of Article 2 EC Treaty (now: Article 3 TEU)[33]:

> "Indirectly, therefore, these objectives also bind the ESCB."

My initial basic approach on the requirement to support economic policies[34] emphasised the absence of a single Community economic policy and the legal requirement of such (largely national) economic policies to be, themselves, bound by the overall Treaty objectives, a finding based on Article 102A EC Treaty[35], currently Article 120 TFEU – the most ignored[36] of economic union provisions in the EMU chapter, which reads:

> "Member States shall conduct their economic policies with a view to contributing to the achievement of the objectives of the Union, as defined in Article 3 of the Treaty on European Union, and in the context of the broad guidelines referred to in Article 121(2). The Member States and the Union shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources, and in compliance with the principles set out in Article 119."

I also noted the possibility for the Community to adopt economic policy measures based on Article 103 A of the European Community Treaty (TEC)[37], currently Article 122 TFEU, as a route through which the Ecofin Council could adopt EU-wide policies which the ECB is required to support.[38,39]. The recent use of this provision for the SURE mechanism[40] and the Recovery and Resilience Facility (RFF) funded by European Union Recovery Instrument[41] makes this reference more topical again. Furthermore, I

---

[33] *The European Central Bank – Institutional Aspects*, 1997, p. 190. In 1997, I added that "[i]t can certainly be argued, even in the absence of such a reference [to the Community's objectives], the ESCB were bound by Article 2's enumeration of objectives. After all, the ESCB is fully embedded in the Community legal order." This was before the CJEU confirmed, also basing itself on the reference to the Community's objectives, in the *OLAF* case that: "(…) the ECB, pursuant to the EC Treaty, falls squarely within the Community framework." Judgment of 10 July 2003 in Case C-11/00 (*Commission* v *ECB*), ECLI:EU:C:2003:395.

[34] *The European Central Bank – Institutional Aspects*, 1997, p. 187-190.

[35] *The European Central Bank – Institutional Aspects*, 1997, p. 188 and 190.

[36] In view of the often divergent, domestically focused and inward-looking economic policies of the Member States and the observed major deviations from EU economic policy recommendations (see Konstantinos Efstathiou & Guntram Wolff, 'What Drives National Implementation of EU Policy Recommendations' [2019] Bruegel).

[37] See for its text: https://www.cvce.eu/content/publication/2002/4/9/2c2f2b85-14bb-4488-9ded-13f3cd04de05/publishable_en.pdf. It is remarkable that this document is not found at the EurLex site.

[38] *The European Central Bank – Institutional Aspects*, 1997, p. 188.

[39] In this context, I noted the distinction between EC-wide and Euro Area-specific measures and the possibility that economic policy coordination for the latter may become stricter than for the Community (now: Union).

[40] SURE is the temporary mechanism to support unemployment benefits in the Member States in the COVID-19 pandemic. See Council Regulation (EU) 2020/672 of 19 May 2020 on the establishment of a European instrument for temporary support to mitigate unemployment risks in an emergency (SURE) following the COVID-19 outbreak, OJ L 159/1, 20.5.2020.

[41] The RRF is a combined loan/grant facility within the Union's multi-annual budgetary framework. See Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility, OJ L 57/17, 18.2.2021. Disbursements for the RRF will be undertaken on the basis of the European Union Recovery Instrument, based on Article 122 TFEU; see the references in recital 19 of the preamble to, and in Article 6 of, Council Regulation (EU) 2020/2094 of 14 December 2020 establishing a European Union Recovery Instrument to support the recovery in the aftermath of the COVID-19 crisis, OJ L 433I/23 , 22.12.2020.

declared the question whether the ESCB would be bound directly by the objectives of the Treaty "a matter of theoretical interest" as "the reference to Article 2 EC Treaty [now: Article 3 TEU] makes abundantly clear that the ESCB is to support economic policies with a view to contributing to the achievement of the Community's goals". I continued to say that "[i]t can certainly be argued that, even in the absence of such a reference, the ESCB were bound by Article 2's enumeration of objectives" because "the ESCB is fully embedded in the Community legal order".[42]

I still stand behind most of what I wrote in 1997 but have shifted towards a more comprehensive view of the relevance and pertinence of the secondary objective. I would no longer agree with the implication that Carel van den Berg[43] inferred from my insistence that the ECB is to support the *general* economic policies finding[44], namely:

> "This means that the ESCB can be measured not in terms of support of a specific course of action conducted by Member States or the Community, but rather by the support of *underlying trends* in economic policy." [italics added]

6. Schedule of the remainder of this chapter

As will become clear below, I deem the ECB's support for the EU's climate policies and the adoption of climate-friendly measures and operations in furtherance of the Union's Green Deal[45] to be squarely within its mandate. Also, furtherance of other economic policies and wider Union goals may be considered to be part of the ECB's mandate but that issue is beyond the scope of this chapter.

The question I endeavour to answer in the following is whether the ECB's mandate *allows*, or even *requires* it to include climate change and biodiversity considerations in exercising its functions and, if either is the case, what this might mean for its main areas of activity.

In order to do so, the recent development of thinking within the ECB is first set out.

---

[42] A prelude to the subsequent finding of the CJEU, also basing itself on the reference to the Community's objectives, in the OLAF case that: "(…) the ECB, pursuant to the EC Treaty, falls squarely within the Community framework." Judgment of 10 July 2003 in Case C-11/00 (*Commission* v *ECB*), ECLI:EU:C:2003:395.
[43] C.C.A. van den Berg, The Making of the Statute of the European System of Central Banks – An Application of Checks and Balances, PhD, 2004, p.55. Van den Berg finding that"[i]t is very difficult to make this secondary objective operational", and his sole focus on the level of interest rate set by the ECB as relevant for assessing compliance constitute a reading I would beg to differ with.
[44] *The European Central Bank – Institutional Aspects*, 1997, p. 188.
[45] See the 11 December 2019 announcement by the European Commission of the European Green Deal. This should enable Europe to become the first carbon neutral continent in the world by 2050. See the Commission Communication COM(2019) 640 final at https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1576150542719&uri=COM%3A2019%3A640%3AFIN. See, also: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en.

7. Development of ECB thinking on its primary mandate

At first sight, there seems to be not much scope to include considerations of climate change in understanding the ECB's mandate. As referred to above, recently, ECB officials have started to mention the risks climate change poses for the fulfilment of the primary mandate. ECB President Christine Lagarde clearly mentioned climate change as an element to be included in policy setting in an interview with the *Financial Times* published on 8 July 2020. She said: "(…) as we have this price stability mandate that I described for you early on, climate change actually has an impact on price stability".[46] Nine days later, ECB Executive Board member Isabel Schnabel, citing "material risks to price stability in the medium to long term" posed by climate change, underlined the need to include climate change considerations in the execution of the central bank's core mandate.[47] She mentioned two paths along which climate change may diminish the effectiveness of monetary policy:

> "large and persistent shocks to output inflation" as a result of delayed policy action against climate change, and impairment of the central bank's ability to address such shocks in case "[r]ising temperatures and an increased frequency of natural disasters (…) further suppress potential output growth and hence the real equilibrium interest rate around which central banks have to calibrate their policies".48 This line of reasoning concerns the primary (i.e., price stability) mandate, as Isabel Schnabel made clear: "Importantly, this argument is not about weighing secondary objectives, which may provide additional justifications for monetary policy taking into account climate change. It is about protecting the primary objective."[49]

It is noteworthy that, around the time that the ECB's Board members openly discussed the need to include climate change in preparation and execution of the central bank's primary function, the ECB started a consultation on a draft Guide on this matter for supervisory purposes.[50] Also, Supervisory Board Chair Andrea Enria, who had already foreshadowed climate concerns in an earlier speech,[51]

---

[46] *Interview with Financial Times*, video interview with Christine Lagarde, President of the ECB, conducted by Roula Khalaf on 7 July 2020 and posted on 8 July 2020, at: https://www.ecb.europa.eu/press/inter/date/2020/html/ecb.in200708~8418847210.en.html. Ms. Lagarde specified: "(…) even without changing our mandate, climate change has an impact. I'll tell you, it has an impact on how we model the economy going forward, how we forecast, how we measure risk, how we stress test institutions, how we value the collaterals that we receive, how we link and join forces with other national central banks to explore together what policies can actually have a decisive impact on fighting climate change. This clearly will be part of our strategy (…)". See the Financial Times, 8 July 2020: *Lagarde puts green policy top of agenda in ECB bond buying - President wants central bank to 'explore every avenue' in fight against climate change*, at: https://www.ft.com/content/f776ea60-2b84-4b72-9765-2c084bff6e32.

[47] *Never waste a crisis: COVID-19, climate change and monetary policy*, speech by Isabel Schnabel, Member of the Executive Board of the ECB, at a virtual roundtable on "Sustainable Crisis Responses in Europe" organised by the INSPIRE research network, 17 July 2020, at: https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200717~1556b0f988.en.html.

[48] Ibid.

[49] Ibid.

[50] See the draft *ECB Guide on climate-related and environmental risks - Supervisory expectations relating to risk management and disclosure,* at: https://www.bankingsupervision.europa.eu/legalframework/publiccons/pdf/climate-related_risks/ssm.202005_draft_guide_on_climate-related_and_environmental_risks.en.pdf.

[51] See footnote 1 above.

spoke out[52] about the need to take climate risks fully into account for prudential supervision. This was also reflected in public utterances in the ECB's banking supervision's Newsletter.[53]

Six weeks after her aforementioned speech, Isabel Schnabel made the same argument in favour of an ECB contribution to tackling climate change.[54] Focusing on the urgency of strong policy responses from a variety of public and private actors, arguing that "there have been few instances in the past where society and policymakers have faced such a clear and significant threat to lives, jobs and prosperity", and citing "broad agreement that climate risks continue to be mispriced in financial markets", she concludes that "current market prices are unlikely to yield the needed transition towards a carbon-neutral economy at the pace required to stimulate investment and innovation and safeguard a sustainable growth path with stable prices". This leads her to call for "collective and concerted action by all stakeholders, first and foremost by legislators and national governments" and to state that "[t]he Eurosystem, for its part, cannot be a bystander in the transition towards a carbon-neutral economy". She sees "three dimensions of support": as prudential supervisor (on which more in section M below), as large-scale investor and "as independent guardian of the single currency", where "we are investigating if and how our **monetary policy operations and portfolios** could be adjusted to reflect the fact that climate change, if not addressed swiftly, may affect the economy in ways that pose potentially material risks to price stability in the medium to long term."[55] Schnabel mentions collateral, which the ECB may decide to accept only "if it is able to fully assess climate-related risks" or which the ECB may subject to haircuts representing the (climate-related) risks involved. Reassessing the benchmark allocation for asset purchasing programmes is a second method mentioned, requiring disclosure of climate-related risks involved in the assets and perhaps extending to "excluding certain bonds – based on clear and transparent rules – that are used to finance projects that conflict with the decarbonisation objectives of the EU".[56] Implicitly acknowledging the effects on mis-pricing and fostering a 'non-green' economy that the current asset programmes are alleged to have,[57] Schnabel mentions that, by thus changing course on monetary policy, the ECB "could avoid a scenario in which

---

[52] See footnote 1 above.
[53] *Ramping up climate-related and environmental risk supervision*, ECB Supervision Newsletter, 18 November 2020, at: https://www.bankingsupervision.europa.eu/press/publications/newsletter/2020/html/ssm.nl201118_4.en.html.
[54] *When markets fail – the need for collective action in tackling climate change*, speech by Isabel Schnabel, Member of the Executive Board of the ECB, at the European Sustainable Finance Summit, Frankfurt am Main, 28 September 2020, at: https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200928_1~268b0b672f.en.html.
[55] Bold in original.
[56] Isabel Schnabel, see footnote 54 above.
[57] Sini Matikainen, Emanuele Campiglio and Dimitri Zenghelis 'The climate impact of quantitative easing' *Centre for Climate Change Economics and Policy,* 1-36.

[its] monetary policy contributes to locking in investments in sectors and technologies that are more acutely exposed to the disruptive effects of the transition to a carbon-neutral economy". All of the issues mentioned by Christine Lagarde and Isabel Schnabel were to be reflected upon in the ECB's monetary policy review.[58] This exercise in re-assessing whether the ECB's monetary policy set-up is apt for the second decade of the 21st century has been affected,[59] as so much in Europe's economy and politics, by the outbreak of the coronavirus Covid-19 in 2020. The ECB President, in a speech of 30 September 2020, summed up the challenges:

> "(…) we have to factor in a renewed focus on mitigating climate change, too, which could have an impact on inflation through progressive changes in the energy mix as we transition towards a carbon-neutral economy. Climate change affects all aspects of monetary policy: output and inflation, long-term interest rates and policy transmission. That is why we are carefully studying the implications of climate change for our primary objective as part of our strategy review." [60]

The development of the thinking at the ECB reflects the collective reflections of the central banks[61] and supervisors who have gathered to exchange views and best practices on the green transition. Before expressing my own views on the preferred interpretation of the ECB's primary mandate, it is time to make an excursion to this relevantly recent grouping.

C. NETWORK FOR GREENING THE FINANCIAL SECTOR

1. Origins and objective

The emerging awareness of the need to tackle climate change and to include the risks emanating from climate change in supervision of the financial industry and in devising monetary policy, has brought central banks and supervisors together in a dedicated association. Beginning humbly, the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) brought together eight central banks and supervisors in 2017, with the intention of exchanging best practices in this area on a voluntary basis, thus contributing to the development of financial-sector risk management related to climate and environmental threats and "to mobilise mainstream finance to support the transition

[58] See the Q&As on this exercise at: https://www.ecb.europa.eu/home/search/review/html/questions.en.html; and the *ECB Listens* portal at: https://www.ecb.europa.eu/home/search/review/html/form.en.html.
[59] ECB Press Release, *ECB extends review of its monetary policy strategy until mid-2021*, 2 April 2020, at: https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200402~942a1358ee.en.html.
[60] *The monetary policy strategy review: some preliminary considerations*, speech by Christine Lagarde, President of the ECB, at the "ECB and Its Watchers XXI" conference, Frankfurt am Main, 30 September 2020, at: https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200930~169abb1202.en.html. (underlining added)
[61] An excellent overview of the challenges and central banks' methods of facing them can be found here: Fred Pearce, *As Disasters Mount, Central Banks Gird Against Threat of Climate Change*, 18 August 2021, at: https://e360.yale.edu/features/as-disasters-mount-central-banks-gird-against-threat-of-climate-change.

towards a sustainable economy".[62] The purpose of the NGFS is now described more forcefully as follows:[63]

> "The Network's purpose is to help strengthening the global response required to meet the goals of the Paris agreement and to enhance the role of the financial system to manage risks and to mobilize capital for green and low-carbon investments in the broader context of environmentally sustainable development. To this end, the Network defines and promotes best practices to be implemented within and outside of the Membership of the NGFS and conducts or commissions analytical work on green finance."

The renewed, July 2020 Charter of the NGFS describes its objective as follows:

> "The [NGFS] is a group of Central Banks and prudential supervisory authorities willing, on a voluntary basis, to exchange experiences, share best practices, contribute to the development of environment and climate risk management in the financial sector, and to mobilize mainstream finance to support the transition toward a sustainable economy. Its purpose is to define, promote and contribute to the development of best practices to be implemented within and outside of the Membership of the NGFS and to conduct or commission analytical work on green finance."[64]

On 30 June 2021, the network of original eight agencies[65] had grown to 95 members and 15 observers.[66] Membership is geographically and institutionally diverse: central banks and supervisory agencies spanning the continents and including European Supervisory Authorities (ESAs)[67] and the central banks of monetary unions (the ECB and the *Banque Centrale des Etats de l'Afrique de l'Ouest* (BCEAO)[68]. It is noteworthy that several jurisdictions have a variety of agencies represented: their central bank and their financial sector or market supervisor. The NGFS is energetically chaired by DNB Director Frank Elderson, one of the world's two leading central bank protagonists of action against climate change, the other being Mark Carney. As a Governor of the Bank of England[69], this Canadian-

---

62 https://www.ngfs.net/en.

63 https://www.ngfs.net/en/about-us/governance/origin-and-purpose.

64 At: https://www.ngfs.net/sites/default/files/media/2020/09/03/ngfs_charter_final.pdf.

65 *Banco de Mexico*, the Bank of England, the *Banque de France* and *Autorité de Contrôle Prudentiel et de Résolution* (ACPR), *De Nederlandsche Bank*, the *Deutsche Bundesbank*, *Finansinspektionen* (the Swedish FSA), the Monetary Authority of Singapore and the People's Bank of China; see the Joint statement by the *Founding Members of the Central Banks and Supervisors Network for Greening the Financial System – One Planet Summit* at: https://www.banque-france.fr/en/communique-de-presse/joint-statement-founding-members-central-banks-and-supervisors-network-greening-financial-system-one.

66 https://www.ngfs.net/en/about-us/membership.

67 The European Banking Authority (EBA), the European Securities and Markets Authority (ESMA) and the European Insurance and Occupational Pensions Authority (EIOPA). These authorities are entrusted with the coordination of supervision of financial services in the single market and have been given specific supervisory powers. They also play a role in the implementation of the EU's green taxonomy.

68 https://www.bceao.int/.

69 Mark Carney currently is the UN Secretary-General's Special Envoy on Climate Action and Finance; see: https://www.un.org/sg/en/content/sg/personnel-appointments/2019-12-01/secretary-general-appoints-mark-joseph-carney-of-canada-special-envoy-climate-action-and-finance.

British economist delivered a key speech[70] putting climate change setting the issue squarely on the agenda in the City.[71]

2. Main deliverables

The key products of the NGFS, beyond the activation of mutual cooperation and inspiration on the global theme of climate change and the financial sector, have been a succession of reports and the guidance on its website. Among these: climate scenarios, assisting central banks and supervisors to design and analyse scenarios underpinning their preparations, and that of the financial sector agents, for the green transition.[72] Exploring the ways in which central banks can remain resilient to climate change and how they can protect their balance sheets, a March 2021 report sets out a host of options to factor in climate change into their operations.[73] The guidance given always alludes to the central bank's specific mandate and acknowledges that while "[t]here is a broad consensus among members of the NGFS that, at the very least, central banks should carefully assess, and where appropriate adopt, additional risk management measures to protect their balance sheets against the financial risks brought about by climate change", "there is as of yet no consensus among central banks as to what climate-related adjustments would be optimal", a diversity "reflecting the diversity of existing central bank operational frameworks". The inventory of options, the provision of criteria to assess the menu of options and the sketching of the strategic choices central banks face enable well-reasoned decision-making and thereby pave the way to operational choices. I have no doubt that the NGFS' work has prepared the ground for the choices made by the ECB, to be discussed in section L below.

The NGFS has also issued a number of recommendations, both to the members of its own grouping and to policy makers. The former include integrating climate-related risks into financial stability monitoring and micro-supervision (a prudential issue), integrating sustainability as a factor in central banks' own portfolios, and bridging data gaps[74]. On this issue, the NGFS calls for "convergence towards a common and consistent set of global sustainability disclosure standards" and a global taxonomy. More forward-looking data and more granular data are required to base business decisions and policy-

---

[70] "Breaking the tragedy of the horizon—climate change and financial stability", speech by Mr Mark Carney, Governor of the Bank of England and Chairman of the Financial Stability Board, at Lloyd's of London, London, 29 September 2015, at: https://www.bis.org/review/r151009a.pdf.

[71] See, also: "A New Horizon:, speech given by Mark Carney, Governor Bank of England at the European Commission Conference: A global approach to sustainable finance, 21 March 2019, at: https://www.bis.org/review/r190322a.pdf.

[72] See: https://www.ngfs.net/ngfs-scenarios-portal/, and the (second) NGFS Climate Scenarios for central banks and supervisors, June 2021, at: https://www.ngfs.net/en/ngfs-climate-scenarios-central-banks-and-supervisors-june-2021.

[73] *Adapting central bank operations to a hotter world Reviewing some options*, at: https://www.ngfs.net/sites/default/files/media/2021/06/17/ngfs_monetary_policy_operations_final.pdf.

[74] See the *Progress report on bridging data gaps*, May 2021, May 2021, at: https://www.ngfs.net/sites/default/files/medias/documents/progress_report_on_bridging_data_gaps.pdf.

making upon. A survey[75] on whether their mandates would provide an opportunity for central banks to reflect climate change in their operational framework provided insights into the diverse legal positions on the interlinkage of climate goals with the primary objective of central banks, again preparing the ground for well-founded decision-making.

3. Wider context

The Network, as a dedicated association, works within a wider context of bodies engaged in the promotion of financial stability. The Financial Stability Board[76], once headed by Mark Carney,[77] has dedicated work on the impact of climate change on financial stability[78], including stocktaking of the experience of financial authorities to take physical and transition risk into account[79] and made an inventory of the implications of climate change for financial stability.[80] The FSB's main impact has been its proposal to the G20 in 2015 to establish an "industry-led disclosure task force on climate-related risks".[81] This Task Force on Climate-related Financial Disclosures has issued Recommendations (TCFD)[82] which focus on governance, strategy, risk management, and metrics and targets. It keeps track of adherence to its Recommendations, and has issued further guidance.[83]

The central banks' central bank, the Basel-based Bank for International Settlement (BIS), is also active in this area. It undertakes research,[84] with a notable publication introducing the concept of the Green Swan.[85] It highlighted:

---

[75] *Survey on monetary policy operations and climate change: key lessons for further analyses*, December 2020, at: https://www.ngfs.net/sites/default/files/medias/documents/survey_on_monetary_policy_operations_and_climate_change.pdf.
[76] https://www.fsb.org/.
[77] See his Arthur Burns Memorial Lecture, given as Governor of the Bank of England, in Berlin on 22 September 2016: *Resolving the climate paradox*, at: https://www.fsb.org/wp-content/uploads/Resolving-the-climate-paradox.pdf.
[78] See: https://www.fsb.org/work-of-the-fsb/financial-innovation-and-structural-change/climate-related-risks/.
[79] *Stocktake of financial authorities' experience in including physical and transition climate risks as part of their financial stability monitoring*, 22 July 2020, at: https://www.fsb.org/2020/07/stocktake-of-financial-authorities-experience-in-including-physical-and-transition-climate-risks-as-part-of-their-financial-stability-monitoring/.
[80] *The Implications of Climate Change for Financial Stability*, 23 November 2020, at: https://www.fsb.org/wp-content/uploads/P231120.pdf.
[81] *Proposal for a disclosure task force on climate-related risks*, 9 November 2015, at: https://www.fsb.org/wp-content/uploads/Disclosure-task-force-on-climate-related-risks.pdf.
[82] *Recommendations of the Task Force on Climate-related Financial Disclosures, Final Report*, 15 June 2017, at: https://www.fsb.org/wp-content/uploads/P290617-5.pdf.
[83] Most recently, *Guidance on Risk Management Integration and Disclosure*, October 2020, at: https://www.fsb.org/wp-content/uploads/P291020-2.pdf. See, also, *Guidance on Scenario Analysis for Non-Financial Companies*, October 2020, at: https://www.fsb.org/wp-content/uploads/P291020-3.pdf.
[84] https://www.bis.org/topic/green_finance/research.htm.
[85] *The green swan Central banking and financial stability in the age of climate change* Patrick Bolton - Morgan Despres - Luiz Awazu Pereira Da Silva Frédéric Samama - Romain Svartzman, January 2020, at: https://www.bis.org/publ/othp31.pdf.

> "radical uncertainty associated with a physical, social and economic phenomenon that is constantly changing and involves complex dynamics and chain reactions. Traditional backward-looking risk assessments and existing climate-economic models cannot anticipate accurately enough the form that climate-related risks will take. These include what we call "green swan" risks: potentially extremely financially disruptive events that could be behind the next systemic financial crisis"

The Basle Committee on Banking Supervision (BCBS) has issued guidelines.[86] The BIS has a 'green finance' section of its Innovation Hub[87] and has even issued two green bonds, one in US dollar and one in euro, in compliance with private green bond standards ('green bond fund initiative').[88]

It is against the backdrop of these global initiatives and activities that the ECB has been reflecting on its mandate, to the interpretation of which we now return.

D. PRIMARY MANDATE: THE PREFERRED INTEPRETATION

I consider the views of the Executive Board members quoted before relevant for the interpretation of the ECB's primary mandate. This is not because economists[89] should have precedence when interpreting the law, and certainly not because the ECB Board would be able to give an authoritative interpretation unchecked by the courts and academic critique, but because an acknowledgement of climate change effects on the pursuit of the price stability mandate is especially relevant in the context of a multidisciplinary approach to interpreting the law. This is, again, no abdication of responsibility on the part of lawyers but an acknowledgement of the necessity to rely on other disciplines when it comes to society's, or nature's, effects on human behaviour and the regulation thereof. Just as economics needs to rely on (climate) science when assessing the likely impact of climate change on economic variables, so are lawyers dependent on economists' assessments of developments and relationships when interpreting an 'economic' mandate, such as that of the ECB.[90] And both depend on climate change scientists to assess the future of the planet and the actions needed to save it from its most dominant inhabitants: human animals.[91] Assuming the validity of the assessment of the impact of

---

[86] https://www.bis.org/topic/green_finance/cooperation.htm.
[87] https://www.bis.org/about/bisih/topics/green_finance.htm.
[88] *BIS launches second green bond fund for central banks*, press release, 25 January 2021, at: https://www.bis.org/press/p210125.htm.
[89] Isabel Schnabel is an economist by training; Christine Lagarde has a legal professional background.
[90] The word 'economic' is in between quotation marks because, in the law of the EMU, a distinction is made between 'economic' and 'monetary', with the latter an exclusive Union competence and the former primarily within the purview of Member States and, at any case, in the hands of the (State and Union) governments, not the central banks. See Articles 3(1)(c), 2(3), 5(1) and (2) and 136 TFEU. Here, I use the word 'economic' in the wide, non-legal sense of the word as encompassing monetary union matters. I recall paragraph 60 of the CJEU's judgment in the *Weiss* Case (judgment of 11 December 2018 in Case C-493/17, ECLI:EU:C:2018:1000): "(…), the authors of the Treaties did not intend to make an absolute separation between economic and monetary policies."
[91] See the IPCC's August 2021 report: *Climate Change 2021: The Physical Science Basis*, at: https://www.ipcc.ch/report/ar6/wg1/#FullReport.

climate change on economic variables and on the ECB's pursuit of price stability, I consider an interpretation that not only *allows* but actually *requires* the central bank to take climate change and biodiversity into account when devising and implementing monetary policy a valid and compellingly convincing interpretation of the ECB's mandate. This is my preferred interpretation of the relevant provisions.[92]

The question then is, to what extent the ECB may or should take climate change into account in setting and executing monetary policy. This will be the subject of section K below. First, I turn to a weighing of secondary objectives in the context of the issue of climate change.

E. THE ECB'S SECONDARY OBJECTIVE

1. Price stability takes precedence

When addressing the issue of climate change as relevant for the interpretation of the ECB's mandate, attention has hitherto largely focused on the secondary objective which was already discussed in the paragraphs on the history of the interpretation approach. A stated before, this requires the ECB to "support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty on European Union."[93] The secondary objective clearly has a subordinate role as the relevant provisions begin with: "Without prejudice to the objective of price stability, the ESCB shall support (…)".

The Treaty's insistence on the precedence of price stability is made abundantly clear in the provisions governing the Euro's external relations. Article 219 in Title V on international agreements of Part Five of the TFEU (relating to the Union's external action) sets out how exchange rate arrangements may be made in respect of the euro. Both in case of 'formal' exchange rate agreements (Article 219(1) TFEU)[94], unlikely in the present-day context of floating exchange rates,[95] and when adopting "general

[92] Recalling; Article 127(1), first sentence; Article 282(2), second sentence, TFEU and Article 2 ESCB, first sentence, ESCB Statute.
[93] Article 127(1) TFEU, language which is repeated in Article 282(2) TFEU and in Article 2 ESCB Statute.
[94] Article 219 (1) TFEU reads: "By way of derogation from Article 218, the Council, either on a recommendation from the European Central Bank or on a recommendation from the Commission and after consulting the European Central Bank, in an endeavour to reach a consensus consistent with the objective of price stability, may conclude formal agreements on an exchange-rate system for the euro in relation to the currencies of third States. The Council shall act unanimously after consulting the European Parliament and in accordance with the procedure provided for in paragraph 3. The Council may, either on a recommendation from the European Central Bank or on a recommendation from the Commission, and after consulting the European Central Bank, in an endeavour to reach a consensus consistent with the objective of price stability, adopt, adjust or abandon the central rates of the euro within the exchange-rate system. The President of the Council shall inform the European Parliament of the adoption, adjustment or abandonment of the euro central rates."
[95] Which came about fifty years ago at the time of writing: on 15 August 1971, US President Nixon announced the severing of the link between gold and the US dollar, which had underpinned the post-WWII Bretton Woods

orientations for exchange rate policy" (Article 219(2) TFEU)[96], the precedence of price stability is crystal clear. When the ECB is consulted on a formal agreement,[97] this consultation is to endeavour "to reach a consensus [between the Council and the ECB] consistent with the objective of price stability". Similarly, when determining the euro's rate in an exchange rate system, i.e. in applying a 'formal' agreement on the relation of the euro with the currencies of third-countries, the Council's consultations with the ECB[98] are to strive for a consensus to reach price stability. In the absence of formal arrangements for exchange-rate policy, the Council may adopt (but has refrained from doing so until now) "general orientations" which "shall be without prejudice to the primary objective of the ESCB to maintain price stability." In the previous section, an interpretation of this overriding primary mandate to maintain price stability which *permits*, nay even *requires* the ECB to take climate change and biodiversity into account has been presented as compellingly convincing.

2. Interpreting the wording of the secondary mandate

Having thus established that the priority for price stability in the ECB's mandate is omnipresent in the Treaty[99], one may start interpreting the words devoted to the secondary objective. Before exploring what they say about the relevance of climate change for the European Union's central bank, it may be useful to explain some of the peculiarities of the language used.

There is no obligation to support 'the' EU's 'economic policy' because there is none. When EMU was established, the conduct of monetary policy was centralised but economic policy remained largely an affair of the individual States. This is borne out by Articles 2(3)[100] and 5 TFEU[101] that grant coordinating powers to the Union in respect of the Member States' economic policies. Beyond prohibitions, of

system of fixed but adjustable parities between the main western currencies. See: Barry Eichengreen, *The Big Float*, 11 June 2021, Project Syndicate; at: https://www.project-syndicate.org/onpoint/nixon-shock-bretton-woods-collapse-fifty-years-later-by-barry-eichengreen-2021-06?barrier=accesspaylog.

[96] Article 219(2) TFEU reads: "In the absence of an exchange-rate system in relation to one or more currencies of third States as referred to in paragraph 1, the Council, either on a recommendation from the Commission and after consulting the European Central Bank or on a recommendation from the European Central Bank, may formulate general orientations for exchange-rate policy in relation to these currencies. These general orientations shall be without prejudice to the primary objective of the ESCB to maintain price stability."

[97] This consultation is prescribed when the Council acts on a recommendation of the Commission. Alternatively, the ECB itself can submit a recommendation to the Council for a formal exchange-rate agreement.

[98] Again, such consultations are mandated in case the adoption, adjustment or abandonment of a central rate for the euro in relation to a third currency emanates from the Commission. Alternatively, the ECB itself can submit a recommendation to the Council for determining or abandoning the euro's central rate in an agreement.

[99] And in the ESCB Statute, where Article 2 mirrors Articles 127(1) and 282(2) TFEU on the ESCB's mandate.

[100] Which reads: "The Member States shall coordinate their economic and employment policies within arrangements as determined by this Treaty, which the Union shall have competence to provide."

[101] Paragraph 1 of which reads: "The Member States shall coordinate their economic policies within the Union. To this end, the Council shall adopt measures, in particular broad guidelines for these policies.
Specific provisions shall apply to those Member States whose currency is the euro." Paragraph 2 concerns the coordination of employment policies and the right of initiative to coordinate social policies.

monetary financing of the public sector (Article 123 TFEU), of privileged access of the public sector to the financial sector (Article 124 TFEU) and of debt assumption (the 'no bail-out clause' of Article 125 TFEU)[102] and rather generally phrased obligations[103], the economic union provisions largely provide for coordination. Both general economic policy coordination (Article 121) and specific and ultimately intrusive rules on budgetary constraints (Article 126, the so-called Excessive Deficits Procedure) are provided for. Even though these Treaty provisions have been 'topped up' by the Stability & Growth Pact[104] and elaborated in economic governance rules[105], which have been vastly expanded since the great financial crisis and subsequent sovereign debt crisis, the underlying approach is one of Member State competences in the area of economic policy. This explains the reference to supporting "*general* economic polici*es*": both the 'general' and the plural (polici*es*) imply that there is, as yet, no EU (or Euro Area) economic policy, except as a result of coordination and market pressure[106] towards convergence.

Additionally, Article 122 TFEU (already referred to above) provides for the adoption of "measures appropriate to the economic situation", and allows for EU financial assistance in case events beyond a Member State's control lead to severe difficulties. As indicated before, this provision underlies common storage of strategic material and supported the temporary support mechanism in the

---

[102] Case C-370/12 *Pringle*: ECLI:EU:C:2012:756.
[103] Such as in Article 120(1), first sentence, cited above.
[104] Resolution of the European Council on the Stability and Growth Pact Amsterdam, 17 June 1997 [1997] OJ C236/1.
[105] Reference is made to the so-called 'six-pack' of legislation adopted in 2011 and the 'two-pack' which followed in 2013, and to the "Fiscal Compact Treaty'. See: Regulation (EU) No 1173/2011 of the European Parliament and of the Council of 16 November 2011 on the effective enforcement of budgetary surveillance in the euro area [2011] OJ L306/1; Regulation (EU) No 1174/2011 of the European Parliament and of the Council of 16 November 2011 on enforcement measures to correct excessive macroeconomic imbalances in the euro area [2011] OJ L306/8; Regulation (EU) No 1175/2011 of the European Parliament and of the Council of 16 November 2011 amending Council Regulation (EC) No 1466/97 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies [2011] OJ L306/12; Regulation (EU) No 1176/2011 of the European Parliament and of the Council of 16 November 2011 on the prevention and correction of macroeconomic imbalances [2011] OJ L306/25; Council Regulation (EU) No 1177/2011 of 8 November 2011 amending Regulation (EC) No 1467/97 on speeding up and clarifying the implementation of the excessive deficit procedure [2011] OJ L306/33; Council Directive 2011/85/EU of 8 November 2011 on requirements for budgetary frameworks of the Member States [2011] OJ L306/41 [the 'six-pack']; Regulation (EU) No 472/2013 of the European Parliament and of the Council of 21 May 2013 on the strengthening of economic and budgetary surveillance of Member States in the euro area experiencing or threatened with serious difficulties with respect to their financial stability [2013] OJ L140/1; Regulation (EU) No 473/2013 of the European Parliament and of the Council of 21 May 2013 on common provisions for monitoring and assessing draft budgetary plans and ensuring the correction of excessive deficit of the Member States in the euro area [2013] OJ L140/11 [the 'two-pack']; and the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, at: https://www.consilium.europa.eu/media/20399/st00tscg26_en12.pdf.
[106] The idea underlying the Maastricht concept of EMU was that, when national governments acted within the rather loose confines of the economic union provisions, markets would also induce proper (budgetary) behaviour. The 2008-2012 crisis has proven that concept to be unsustainable. This is not the place to elaborate further on the 'limping nature' of EMU (a well-developed monetary leg next to an atrophied economic union leg), or on how to redress this condition.

sovereign debt crisis[107], is now used again in the context of the pandemic crisis[108] and for the European Union Recovery Instrument[109] is based on it. Furthermore, Article 136 TFEU provides for strengthened economic policy cooperation in respect of the Euro Area Member States. Even this article does not provide for a common Euro Area economic policy.

3. The need for economic policy clarity at EU level

This state of affairs has made the required support of economic policies a rather flimsy secondary objective: without a clear, single policy to follow, all the ECB could do was ensure its monetary policy did not undermine the general trend of these policies. At the least, the ECB is to take into consideration the thrust of the economic policy recommendations to individual governments issued by the Council under the preventive arm of the SGP[110], or the Euro Area specific broad economic policy guidelines (BEPGs), issued by the Council.[111] It would be recommendable for such BEPGs to be more specific in their requirements for greening the economy and fostering the transition to a CO_2-free economy than the latest version is. Although the 'green and digital transitions' are mentioned and climate change and climate mitigation occur in the text, the ambition of these guidelines falls far short of the European Climate Law[112], adopted around the same time. For the ECB to derive guidance from EU policy makers, clarity of language and specificity of measures expected would be helpful.[113]

4. Preferred interpretation of the secondary objective

As set out above in section B, the ECB itself has held in the past that proper implementation of its primary mandate sufficed where its secondary objective is concerned: ensuring price stability would allow the achievement of the other objectives.[114] This approach to Article 127(1), second sentence,

---

[107] Council Regulation (EU) No 407/2010 of 11 May 2010 establishing a European financial stabilisation mechanism [2010] OJ L118/1.
[108] Council Regulation (EU) 2020/672 of 19 May 2020 on the establishment of a European instrument for temporary support to mitigate unemployment risks in an emergency (SURE) following the COVID-19 outbreak [2020] OJ L159/1.
[109] Council Regulation (EU) 2020/2094 of 14 December 2020 establishing a European Union Recovery Instrument to support the recovery in the aftermath of the COVID-19 crisis, OJ L 433 I/23, 22.12.2020.
[110] Article 5(2) Regulation 1466/97, as amended. These annual Council recommendations concern a Member State's National Reform Programme and simultaneously deliver an opinion on their Stability Programme. For the 2020 recommendations annex opinions, see: https://ec.europa.eu/info/publications/2020-european-semester-country-specific-recommendations-commission-recommendations_en. See the Broad Economic Policy Guidelines issued in 2015: *Council Recommendation (EU) 2015/1184 of 14 July 2015 on broad guidelines for the economic policies of the Member States and of the European Union* OJ L *192, 18.7.2015, p. 27*
[111] Council Recommendation of 13 July 2021 on the economic policy of the euro area, OJ C 283/1, 15.7.2021.
[112] See the section below on this EU regulation.
[113] The EU green taxonomy is a case in point: it assists the ECB in making 'green' investment choices.
[114] Yolaine Fischer, *Global warming: does the ECB mandate legally authorise a "green monetary policy"?*, in Sustainability and Financial Markets, pp.163-198, at p. 172.

TFEU deprives this provision of '*effet utile*' and makes it senseless as the secondary objective is read as subsumed in the primary objective.

It is submitted that, in the context of climate change, biodiversity and perhaps beyond,[115] the ECB's secondary objective and the reference to Article 3 TEU contained therein are solid bases for changing course and including climate change considerations in setting and implementing monetary policy. Even without the reference to Article 3 TEU, the clear adoption of climate-change policies by the Union mandate the ECB to heed these economic policies and to adjust its monetary policy to adapt to them. Again, I recall what I wrote in 1997: [116]"in case of such a material choice [between measures which are more, and those which are less, supportive of the economic policies in the EC], the [Euro-]System is to opt for measures which support the policies adopted by the Community."

My earlier finding[117] that the reference to the support of "the *general* economic policies in the Union" means "that the ESCB's actions can be measured not in terms of support of a specific course of action conducted by member States or by the Community, but rather by the support of underlying trends in economic policy" [118] still holds and cannot be held against supporting the EU's climate change policies. The idea is that the Eurosystem is not to gear its monetary policy towards a specific policy that is not reflected in the general economic policies (say, a particular industry policy or a State-specific policy).

5. The EU Climate Law

And, the general economic policies in the Union now clearly reflect the intention to steer Europe towards a CO_2-free economy, even the first carbon-free[119] economy in the world. The recently adopted European Climate Law[120] makes the intentions of the legislator abundantly clear.[121] Providing "a

---

[115] A case can be made for more attention to be given in setting and implementing monetary policy to employment or other social factors based on the reference to Article 3 TEU, or on the so-called 'integration provisions' on consistency with other policy objectives (Articles 7-13 TFEU). As already mentioned above, this goes beyond the scope of this chapter. For the incidence of Article 11 TFEU, see section G below.
[116] *The European Central Bank – Institutional Aspects*, 1997, p. 189.
[117] *The European Central Bank – Institutional Aspects*, 1997, p. 188.
[118] Schoenmaker Dirk, 'Greening monetary policy' [2021] Climate Policy 2021, vol. 21, no. 4, 581-592; https://doi.org/10.1080/14693062.2020.1868392.
[119] In line with Dirk Schoenmaker (Schoenmaker 2021), the term 'carbon-free' stands for the absence of "all greenhouse gas emissions, which include carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O)".
[120] Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'), OJ L 243/1, 9.7.2021.
[121] With the initiation, on 14 July 2021, of a host of implementing proposals, the European Commission has made its resolve to 'deliver the European Green Deal' crystal-clear. See, among many others, 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality, COM/2021/550 final, and proposals on land use, energy efficiency and adapting the Emissions Trading System, at: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/delivering-european-green-deal_en#documents. (See Consolidated text: Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system

framework for the irreversible and gradual reduction of anthropogenic greenhouse gas emissions by sources and enhancement of removals by sinks regulated in Union law", Article 1 reads:

> "(…) This Regulation sets out a *binding objective of climate neutrality in the Union* by 2050 in pursuit of the long-term temperature goal set out in point (a) of Article 2(1) of the Paris Agreement, and provides a framework for achieving progress in pursuit of the global adaptation goal established in Article 7 of the Paris Agreement. This Regulation also sets out *a binding Union target of a net domestic reduction in greenhouse gas emissions for 2030*." [italics added]

Article 2 is even more specific and addresses the Member States *and* the EU's institutions:

> "**Climate-neutrality objective**
>
> 1. Union-wide greenhouse gas emissions and removals regulated in Union law shall be balanced within the Union at the latest by 2050, thus reducing emissions to net zero by that date, and the Union shall aim to achieve negative emissions thereafter.
>
> 2. The relevant Union institutions and the Member States shall take the necessary measures at Union and national level, respectively, to enable the collective achievement of the climate-neutrality objective set out in paragraph 1, taking into account the importance of promoting both fairness and solidarity among Member States and cost-effectiveness in achieving this objective."

To this author it is clear that the ECB, with its balance sheet[122] equal to 60% of the euro area GDP,[123] is among the 'relevant' institutions addressed in this provision.

In the light of the above, an obligation to support these policies and adapt monetary policy towards carbon-neutrality can be derived from the ECB's secondary objective. There is no compelling reason for the ECB to avoid a judgment on the Environment, Social and Governance (ESG) performance and transition preparedness in pursuing a green monetary policy as Schoenmaker posits, based on the need to avoid "specific policies on the environment". I consider such specific involvement of central bankers in choosing between 'green' and 'non-green' a valid mechanism for realising the mandate as contained in the secondary objective, not a steering of monetary policy towards a specific policy. Rather, as central bank for the Euro Area which is clearly steering towards a carbon-free economy, the ECB is expected to serve the general economic policies adopted; this may well encompass making value judgments, naturally based on adequate research and appropriate reasoning (motivation),

---

for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC (Text with EEA relevance)

[122] See https://thetradable.com/charts/european-central-bank-balance-sheet-is-equal-to-64-of-eurozone-gdp.

[123] And its central role in banking supervision; see below.

requirements which also derive from the case law on the discretion Union institutions have in complex economic assessments.[124]

The reference to the objectives of the Union enshrined in Article 3 TEU make this obligation only more strict, as will be explained in the next section.

F. CONTRIBUTION TO THE OBJECTIVES OF THE UNION

[124] See paragraph 69 of the judgment 0f 16 June 2015 in Case C-62/14 (*Peter Gauweiler and Others* **v** *Deutscher Bundestag*), ECLI:EU:C:2015:400: "Nevertheless, where an EU institution enjoys broad discretion, a review of compliance with certain procedural guarantees is of fundamental importance. Those guarantees include the obligation for the ESCB to examine carefully and impartially all the relevant elements of the situation in question and to give an adequate statement of the reasons for its decisions", with references to the discretion of the EU legislature in areas of environmental policy (!): judgments in *Afton Chemical*, C-343/09, EU:C:2010:419, paragraph 28, and *Billerud Karlsborg and Billerud Skärblacka*, C-203/12, EU:C:2013:664, paragraph 35.

Box 1 – Treaty provisions relating to the ECB's mandate in the context of climate change [relevant elements underlined][125]

Article 127(1) TFEU

The primary objective of the European System of Central Banks (hereinafter referred to as 'the ESCB') shall be to maintain price stability. Without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty on European Union. The ESCB shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources, and in compliance with the principles set out in Article 119.

Article 11 TFEU

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.

Article 3 TEU

1. The Union's aim is to promote peace, its values and the well-being of its peoples.[126]
2. (…)
3. The Union shall establish an internal market. It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance.
It shall combat social exclusion and discrimination, and shall promote social justice and protection, equality between women and men, solidarity between generations and protection of the rights of the child.[127] (…)
4. The Union shall establish an economic and monetary union whose currency is the euro.
5. In its relations with the wider world, the Union shall uphold and promote its values and interests and contribute to the protection of its citizens. It shall contribute to peace, security, the sustainable development of the Earth, solidarity and mutual respect among peoples, free and fair trade, eradication of poverty and the protection of human rights, in particular the rights of the child,[128] as well as to the strict observance and the development of international law, including respect for the principles of the United Nations Charter.
6. The Union shall pursue its objectives by appropriate means commensurate with the competences which are conferred upon it in the Treaties.

The indirect reference to the Union's ultimate objectives in the mandate of the ECB provides an eloquent case for including climate change and biodiversity in the ECB's remit. A number of these objectives are clearly connected to the challenges of climate change. The Union strives for "the

[125] Reproduced from my study SSM and the SRB accountability at European level: room for improvements? Banking Union, prepared for European Parliament's Economic Governance Support Unit (EGOV), April 2020, at: https://www.europarl.europa.eu/RegData/etudes/STUD/2020/645726/IPOL_STU(2020)645726_EN.pdf.
[126] Protection against climate change would contribute to the well-being of Europeans.
[127] Future generations will bear the brunt of climate change so that solidarity with our off-spring is an imperative.
[128] Human rights include the right to life (Article 2) and environmental protection (Article 37) under the Charter of Fundamental Rights of the European Union ('EU Charter').

sustainable development of Europe based on balanced economic growth and price stability"[129]; both the element of 'sustainability' and the 'balance' in the growth objective are evident indications of the relevance of climate change related issues. Similarly, "a high level of protection and improvement of the quality of the environment"[130] is a clear indication of the 'green' objectives the Union seeks to achieve – again an obvious indication for the ECB to observe this aspect in pursuing monetary policy[131].

Two elements of the EU's objectives relate to intergenerational issues, which climate change clearly is – if the present generation in charge does not take adequate action it may be too late for the next generation to save the world as we know it or even to sustain human habitation across the globe. The Union strives for "solidarity between generations and protection of the rights of the child"[132] and, in the context of "its relations with the wider world", it is "to contribute to (…) the protection of human rights , in particular the rights of the child".[133] Even though the latter objective was situated by the Treaty authors in the global context, it may be assumed that the protection of human rights, which include social and economic rights,[134] is also intended to address those of its own citizens. Furthermore, the interests of European citizens and those of other jurisdictions coincide when it comes to combatting climate change[135] so that addressing human rights in the context of extra-Union situations still underscores the relevance of taking climate change into account for the central bank. Again, a reference to children is a clear indication of the forward-looking, inter-generational approach of the Treaty when it comes to the Union's objectives. I take these references as clearly validating taking into account climate change in the conduct of monetary policy. This also holds true for the objective of "contribut[ing] to the protection of its citizens"[136] which must be understood as encompassing their right to life and to development,[137] aspects which are seriously threatened by climate change. It is "the sustainable development of the Earth"[138] which most obviously concerns a global issue like climate change. Because the ECB's mandate indirectly refers to this objective, as well,

---

[129] Article 3(3), second sentence, TEU. (underlining added)
[130] Article 3(3), second sentence, TEU. (underlining added)
[131] A strong plea for honouring its secondary mandate, arguing – like I do – that the ECB is legally required to incorporate climate change considerations into its monetary policy framework, came from Martin Sandbu: *The ECB should follow the Fed's embrace of a second mandate*, Financial Times, 31 August 2020, at: https://www.ft.com/content/380e6290-ded1-4050-aa5f-9c3d1b9ed2bd.
[132] Article 3(3), fourth sentence, TEU. (underlining added)
[133] Article 3(5), second sentence, TEU. (underlining added)
[134] Article 34 EU Charter
[135] Even though one evidently has to admit that the effects of climate change will affect inhabitants of jurisdictions with less economic development more harshly and will affect the poor worse than the rich. Also, inhabitants of unprotected low-lying jurisdictions, such as several Pacific Ocean islands, Bangladesh or the Maldives, are more at risk than those of geographically higher-situated, or better protected, human beings.
[136] Article 3(5), first sentence, TEU. (underlining added)
[137] Article 2 EU Charter.
[138] Mentioned as an objective of the Union in Article 3(5), second sentence, TEU. (underlining added)

there is no doubt in my mind that there is an obligation to support policies that help to preserve the Earth, and to adopt policies in the ECB's own fields of competence that help the Earth to develop in a sustainable manner. A final reference is of a legal nature: "the strict observance and the development of international law, including respect for the principles of the United Nations Charter"[139] would seem to imply that the Union will uphold its obligations under the Paris Agreement, and any other international agreement in the area of climate change and biodiversity[140] and that, consequently, the ECB has to abide by, as well. This argument is a prelude to the reasoning in respect of Article 216(2) TFEU, to be expounded in section H.

G. INTEGRATION PROVISIONS

1. The incidence of Article 11 TFEU *(integration provision relating to environmental protection)*

Even though, on the basis of the reasoning set out above, I conclude that the ECB has a clear mandate to green its monetary policy (and remember: the reasoning followed here also applies to other fields of competence, subject to their specificities, as it is only for the sake of easy reading that these sections focus on monetary policy), it is worthwhile to further explore additional arguments. One such argument, which has been strongly made by Javier Solana,[141] is the incidence of Article 11 TFEU on the environment.[142]

Article 11 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." The provision forms part of a Title[143] in the Treaty that instructs the Union to be consistent in its policies and activities (Article 7) highlighting six aspects which need to be observed: equal treatment, especially between men and women (Article 8); employment and social

[139] Article 3(5), second sentence, final words, TEU. (underlining added)

[140] UN Framework Convention on Climate Change; UN Convention on Biological Diversity; Council Directive 92/43/EEC Habitats Directive (Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora); European Parliament and Council Directive 2009/147/EC Birds Directive (Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds, OJ L 20/7, 26.1.2010); the Convention on International Trade in Endangered Species of Wild Fauna and Flora; he Bonn Convention on Migratory Species (CMS); the Bern Convention on the Conservation of European Wildlife and Natural Habitats (https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/104?module=treaty-detail&treatynum=104).

[141] Javier Solana, 'The Power of the Eurosystem to Promote Environmental Protection', *European Business Law Review* 30, no. 4 (2019): 547-576.

[142] The use of the term 'environment' reveals a perception of reality as humans standing aloof from, rather than being part of a whole including nature.

[143] Title II (**Provisions having general application**) of Part One (**Principles**) of the TFEU.

aspects (Article 9); non-discrimination (Article 10); environmental protection (Article 11); consumer protection (Article 12) and animal welfare (Article 13).[144]

As a ‘horizontal’ or ‘cross-sectional’ clause, Article 11 intends to ensure that environmental concerns are integrated in all policies, which must include monetary policy. Moreover, the reference to ‘sustainable development’ in Article 11 may be taken to include the Sustainable Development Goals (SDGs)[145]

The SDGs are objectives for the achievement by 2030 of a global society in which hunger and extreme poverty have been banned, adequate health and quality education are available, clean water and sanitation, affordable clean energy and decent work while climate action is undertaken, gender discrimination ended and good governance provided. The 17 goals have been adopted in a Resolution of the General Assembly of the United Nations (UNGA).[146] As a UNSG resolution is not a legally binding instrument, the SDGs derive their power from the vision of a better world for all and should inspire public authorities, private actors and non-governmental organisations (NGOs) alike. As it is written on a UN website: “While the Global Goals are not legally binding, governments are expected to take ownership and establish national frameworks for the achievement of the 17 Goals”.[147] Because of their interdependency, the SDGs provide an fitting framework for a sustainable and equitable world.

2. General consistency clause (*Article 7*)

Beyond the specific instruction contained in Article 11 TFEU, the general consistency clause of Article 7 TFEU which instructs the EU to “ensure consistency between its policies and activities”,[148] is a strong argument for the ECB to ensure its policies and activities are congruent with those of the EU at large,

---

[144] The remaining provisions of this Title concern services of general economic interest (Article 14), transparent governance (Article 15), data protection and privacy (Article 16) and respect for religious and non-confessional organisations (Article 17).
[145] A statement on the European Commission’s website (“We are committed to implement the SDGs in all our policies and encourage EU countries in doing the same”), at: https://ec.europa.eu/international-partnerships/sustainable-development-goals_en, may not be legally convincing but is an indication of the commitment by the EU’s executive to the SDGs.
[146] *Transforming our world: the 2030 Agenda for Sustainable Development*, Resolution A/RES/70/1, adopted on 25 September 2015; see: https://sustainabledevelopment.un.org/index.php?page=view&type=111&nr=8496&menu=35.
[147] At: https://www.globalgoals.org/faq.
[148] Yolaine Fischer argues that “specific attention must also be given to Article 7 TFEU”; op. cit., at p. 173.

where the Commission,[149] the Parliament[150] and the European Council[151] have endorsed the Green Deal and the transition towards a carbon-free economy by 2050.

3. Application to the CSPP

Solana's contribution emphasises the Corporate Sector Purchasing Programme (CSPP), part of the ECB's Asset Purchasing Programme (APP). Solana's central question is formulated as follows: "The indirect effect that the CSPP is having on climate change raises an evident question: is the Eurosystem bound by an obligation to protect the environment?" Relying on case law in respect of the integration principle for environmental protection in other fields,[152] Solana convincingly argues[153] that the ECB, in devising monetary policy, must likewise adhere to Article 11 while correctly conceding that "absolute priority of environmental protection would be untenable".[154] He argues that "failure to comply with [Article 11 TFEU] could raise serious doubts about the validity of monetary policy measures",[155] although he expects a "lenient standard of compliance with Art. 11 TFEU" should the CJEU be confronted with a question about the legality of monetary policy measure in the context of Article 11 TFEU.[156] The value of Javier Solana's contribution lies in his insistence that the Eurosystem "take into account horizontal objectives of environmental protection when designing and implementing the

[149] See footnote 45 above.

[150] See the references to "the impact of climate change on inflation dynamics and transmission risks in monetary policy" and to "the ECB, as a European institution, [being] bound by the Paris Agreement" and the [call] on the ECB to align its collateral framework with climate change-related risks and to disclose its level of alignment with the Paris Agreement, as well as examining such alignment in the banking sector" and the call "for a proactive and qualitative risk management approach which integrates climate change-related systemic risks" in the European Parliament's resolution of 10 February 2021 on the European Central Bank - annual report 2020; at: https://www.europarl.europa.eu/doceo/document/TA-9-2021-0039_EN.html.

[151] See the European Council conclusions of 20 June 2019, at: https://www.consilium.europa.eu/media/39922/20-21-euco-final-conclusions-en.pdf. Notably quotes: "The EU can and must lead the way, by engaging in an in-depth transformation of its own economy and society to achieve climate neutrality" and "to ensure a transition to a climate-neutral EU in line with the Paris Agreement (…)", and "The EU and its Member States remain committed to scaling up the mobilisation of international climate finance from a wide variety of private and public sources". The European Council conclusions of 12 December 2019 stated: "the European Council endorses the objective of achieving a climate-neutral EU by 2050, in line with the objectives of the Paris Agreement" (with Poland resisting this conclusion); see: https://www.consilium.europa.eu/media/41768/12-euco-final-conclusions-en.pdf. The 11-12 December 2020 European Council conclusions were even more explicit: "To meet the objective of a climate-neutral EU by 2050 in line with the objectives of the Paris Agreement, the EU needs to increase its ambition for the coming decade and update its climate and energy policy framework. To that end, the European Council endorses a binding EU target of a net domestic reduction of at least 55% in greenhouse gas emissions by 2030 compared to 1990. It calls on the co-legislators to reflect this new target in the European Climate Law proposal and to adopt the latter swiftly"; see: https://www.consilium.europa.eu/media/47296/1011-12-20-euco-conclusions-en.pdf.

[152] Solana mentions the common agricultural policy, the common transport policy, the internal market and the common commercial policy.

[153] Solana, p. 558.

[154] Solana, p. 559.

[155] Solana, p. 549.

[156] Solana, p. 561.

policy measures that aim at its primary objective of price stability", in what he calls "the procedural obligation laid down in Art. 11 TFEU" beyond the "substantive dimension" of the provision. Moreover, by citing rather formalistic answers by ECB President Mario Draghi to questions on the environmentally adverse effects of the CSPP,[157] Solana drew attention to the lack of engagement on the issue of climate change that as recently as 2017 appeared to reign in Frankfurt. How times have changed.

4. Integration provisions: my approach

My own approach to Article 11 TFEU in relation to the mandate of the ECB is that, even if there were no convincing arguments derived from the primary mandate, or from the secondary mandate and the references to the Union's ulterior objectives (which there are plenty, as argued above), Article 11 TFEU clearly obliges the European Union's central bank to take the environment seriously into account when devising monetary policy.[158] This obligation concerns the *procedural* steps towards devising monetary policy (i.e., research, options of measures, and so on) <u>and</u> the *substantive* contribution to environmental protection: whenever price stability may be maintained in manners conducive to protection of the environment, the opportunity to adopt such 'green' measures may not be foregone.

Box 2 – Treaty integration provisions

Article 7 TFEU
The Union shall ensure consistency between its policies and activities, taking all of its objectives into account and in accordance with the principle of conferral of powers.
Article 8 TFEU
<u>In all its activities, the Union shall aim to eliminate inequalities, and to promote equality, between men and women.</u>
Article 9 TEU
In defining and implementing its policies and activities, the Union shall take into account requirements linked to the promotion of a high level of employment, the guarantee of adequate social protection, the fight against social exclusion, and a high level of education, training and protection of human health.
Article 10 TEU
In defining and implementing its policies and activities, the Union shall aim to combat discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation.
Article 11 TEU
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.

[157] See the Committee on Economic and Monetary Affairs, 'Transcript of the Monetary Dialogue with Mario Draghi, President of the ECB, Held on 25 September 2017', p 11 at: https://www.ecb.europa.eu/press/key/date/2017/html/ecb.sp170925_2_transcript.en.pdf.
[158] This is also supported by the general consistency clause of Article 7 TFEU.

H. APPLICATION OF ARTICLE 216(2) TFEU: BINDING THE ECB TO 'PARIS'

A further argument to consider 'greening' of the ECB's activities legally imperative derives from Article 216(2) TFEU. This provides that "[a]greements concluded by the Union are binding upon the institutions of the Union and on its Member States." With the EU a signatory to the Paris Agreement, which is has ratified[159], the 2016 convention binds all EU institutions, including the ECB. Without elaborating on the scope and nature of the Paris Agreement[160], it is useful to recall its objective, as set out in Article 2(1):

> "(a) Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1,5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;
>
> (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and
>
> (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development."

In the context of finance, the following provision[161] seems of particular relevance:

> "3. As part of a global effort, developed country Parties should continue to <u>take the lead in mobilizing climate finance</u> from a wide variety of sources, instruments and channels, <u>noting the significant role of public funds</u>, through a variety of actions, including supporting country-driven strategies, and taking into account the needs and priorities of developing country Parties. Such mobilization of climate finance should represent a progression beyond previous efforts." (underlining added, RS)

As an EU institution, the ECB should ensure that, in implementing its mandate in an independent fashion, its activities are in line with the EU's global commitments to "reduce the risks and impacts of climate change" and help "mobilis[e] climate finance". Since Eurosystem financing (of banks, also to support their role in providing credit to the real economy) can be characterised as "public funds", Article 9(3) of the Paris Agreement may be considered addressed to the Euro Area's central banks.

In the context of Article 216 TFEU, it may be recalled that the European Parliament has reminded the ECB on several occasions of being bound by the Paris Agreement. It did so in its reports on the ECB's

[159] See footnote 20.
[160] On which others have contributed widely; see Jacquet, Jennifer, and Dale Jamieson. "Soft but significant power in the Paris Agreement." *Nature Climate Change* 6.7 (2016): 643-646 and Clark, Kayla. "The Paris Agreement: It's Role in International Law and American Jurisprudence." *Notre Dame J. Int'l Comp. L.* 8 (2018): 107
[161] Article 9(3) Paris Agreement.

annual reports for 2017[162], 2018[163] and 2019.[164] In its feedback to the European Parliament on the resolution on its 2018 annual report, the ECB explained how it takes climate change into account.[165] After first pointing at the measures governments can take, who are said to have "a broad spectrum of policy options available to them to tackle climate change, including carbon pricing through fiscal measures", the ECB acknowledges that central banks can "support and complement the collective endeavour of governments by focusing on their areas of competence". It specifies that, in the monetary policy review, "the ECB will closely examine the risks that climate change poses to the conduct of monetary policy and how climate change considerations can be included in the Eurosystem's monetary policy framework", mentions[166] that it is "already contributing to the transition to a low-carbon economy" by holding 20% of the "eligible green bond universe" under its corporate bond purchasing programme the CSPP[167], announces that its micro- and macroprudential frameworks may incorporate climate-related risks and recalls further involvement. This includes membership of the NGFS and technical input into the work of the Technical Expert Group on Sustainable Finance[168] which assisted the European Commission in the development of an EU taxonomy for green finance. Furthermore, the ECB stated it was "exploring how to further incorporate climate change concerns in

[162] Paragraph 25 of the European Parliament resolution of 16 January 2019 on the ECB Annual Report 2017 (2018/2101(INI)) reads as follows: "25. Recalls that the ECB as an EU institution is bound by the Paris agreement; invites the ECB, in full respect of its mandate, its independence and the risk management framework, to integrate the commitment to the Paris agreement and economic, social and governance principles (ESG principles) into its policies;". Available at: https://www.europarl.europa.eu/doceo/document/TA-8-2019-0029_EN.html.

[163] Paragraph 19 of the European Parliament resolution of 12 February 2020 on the European Central Bank Annual Report for 2018 (2019/2129(INI)) reads as follows: "19. Recalls that, as an EU institution, the ECB is bound by the Paris Agreement on climate change and that this should be reflected in its policies, while fully respecting its mandate and its independence; welcomes the emergence of a discussion about the role of central banks and supervisors in supporting the fight against climate change; calls on the ECB to implement the environmental, social and governance principles (ESG principles) into its policies, while fully respecting its mandate and its independence;". Available at: https://www.europarl.europa.eu/doceo/document/TA-9-2020-0034_EN.html.

[164] European Parliament resolution of 10 February 2021 on the European Central Bank Annual Report 2020 [meant is: 2019], at: https://www.europarl.europa.eu/doceo/document/A-9-2021-0002_EN.html#title1.

[165] ECB, Feedback on the input provided by the European Parliament as part of its resolution on the ECB Annual Report 2018, 7 May 2020 at: https://www.ecb.europa.eu/pub/pdf/other/ecb.20200507_feedback_on_the_input_provided_by_the_european_parliament~4d3f01294d.en.pdf.

[166] Adding "following the principle of market neutrality", on which more below.

[167] On the green bonds purchases by the Eurosystem under the CSPP, see *Purchases of green bonds under the Eurosystem's asset purchase programme*, prepared by Roberto A. De Santis, Katja Hettler, Madelaine Roos and Fabio Tamburrini and published as part of the ECB Economic Bulletin, Issue 7/2018, at: https://www.ecb.europa.eu/pub/economic-bulletin/focus/2018/html/ecb.ebbox201807_01.en.html. See, also, FAQ on sustainability-linked bonds, at: https://www.ecb.europa.eu/paym/coll/standards/marketable/html/ecb.slb-qa.en.html.

[168] https://ec.europa.eu/info/publications/sustainable-finance-technical-expert-group_en.

its own operations" (staff pension fund portfolio[169], own funds portfolio[170]) and that it was "stepping up its analytical and research capabilities on climate change". Two years later, in feedback to the European Parliament's resolution on the ECB Annual Report 2019[171], the ECB set out the many steps it had undertaken (inauguration of the climate change centre, acceptance of certain sustainability-linked bonds as collateral and for asset purchases, the announcement of annual climate-related disclosures for Eurosystem euro-denominated non-monetary policy portfolios, incorporating environmental standards in the own funds and pension fund portfolios, integrating climate risk into stress-testing, publication of the Guide on climate-related and environmental risks) and mentions the monetary policy strategy review in which it was "assessing further steps".[172]

Since , the monetary policy review has led to further 'greening' of the ECB's activities.

In the context of the binding nature of international agreements, it should be recalled that such norms are also in existence, or in preparation, for biodiversity. The 1993 Convention on Biological Diversity,[173] ratified by the European Union,[174] is scheduled to be followed up by a convention in 2022 at the Kunming Biodiversity Conference.[175] In a resolution[176] of January 2020, the European Parliament called

---

[169] Which works with "a selective exclusion list" and whose investment managers, as "signatories of the United Nations Principles for Responsible Investment" must apply proxy voting guidelines incorporating environmental, social and governance considerations." On the UNPRI, see: https://www.unpri.org/pri/.

[170] Where "the ECB is investigating if and how climate-related considerations can be integrated".

[171] The relevant paragraphs in the European Parliament's resolution of 10 February 2021 on the European Central Bank Annual Report 2020 (2020/2123(INI)) read as follows:

"Actions against climate change

18. Notes, respecting the independence of the ECB, the impact of climate change on inflation dynamics and transmission risks in monetary policy; recalls the impact of the ECB in maintaining price stability; recalls that the ECB, as a European institution, is bound by the Paris Agreement;

19. Takes note of President Lagarde's commitment to examine climate-friendly changes to ECB's operations and 'to explore every avenue available in order to combat climate change'; calls on the ECB to align its collateral framework with climate change-related risks and to disclose its level of alignment with the Paris Agreement, as well as examining such alignment in the banking sector;

20. Welcomes the fact that the purchases of green bonds and their share of the ECB's portfolio continue to increase;

21. Encourages efforts to increase research capabilities regarding the impact of climate change on financial stability and the euro area;". See: https://www.europarl.europa.eu/doceo/document/A-9-2021-0002_EN.html#title1.

[172] ECB, Feedback on the input provided by the European Parliament as part of its resolution on the ECB Annual Report 2019, 14 April 2021, at: https://www.ecb.europa.eu/pub/pdf/other/ecb.20210414_feedback_on_the_input_provided_by_the_european_parliament~7d4de6f4c2.en.pdf.

[173] OJ L 309/3, 13.12.1993, ELI: http://data.europa.eu/eli/convention/1993/626/oj. See, also: https://www.cbd.int/doc/legal/cbd-en.pdf.

[174] See: https://www.cbd.int/information/parties.shtml.

[175] See: https://www.unenvironment.org/events/conference/un-biodiversity-conference-cop-15.

[176] European Parliament resolution of 16 January 2020 on the 15th meeting of the Conference of Parties (COP15) to the Convention on Biological Diversity, at: https://www.europarl.europa.eu/doceo/document/TA-9-2020-0015_EN.pdf. Parliament "calls on the Commission and the Member States to strengthen the implementation

for this follow-up agreement to contain "legally binding targets". The EU's own Biodiversity Strategy[177] for 2030 is part of the European Green Deal, which shows the close connection between the climate change and biodiversity objectives.

I. OPEN MARKET ECONOMY PRINCIPLE

1. The open market principle: a novelty in EU law

The "principle of an open market economy with free competition, favouring an efficient allocation of resources" was inserted into primary EU law as guiding the functioning of EMU. The injunction can be found in Article 119(1) and (2) TFEU and thus include the economic union 'pillar' of EMU to which the first paragraph is devoted just as much as the monetary 'pillar' which the second paragraph of Article 119 specifies. The principle is mentioned twice and ahead of Article 119(3) where the "guiding principles" for the entire enterprise are specified[178]. The principle of an open market economy is repeated[179] in the second sentence of Article 127(1) TFEU where specifically the ESCB is addressed: "The ESCB shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources, and in compliance with the principles set out in Article 119".

The principle has been reformulated from the draft that the Committee of Governors had proposed[180] which was a mere injunction "to act consistently with free and competitive markets"[181]. Even though the insertion of the open-market principle was an innovation and an explicit confirmation that the EEC project was one of free markets, as many had held before the Maastricht Treaty specified so, this principle is not an effective hindrance against a 'green' tilt of the Eurosystem's activities, as will be explained below. At the outset of EMU, I wrote that "[t]his admonition may make it difficult for the ESCB to adopt monetary control measures which are contrary to free competition between financial institutions or which contain an element of subsidy."[182] The Eurosystem should endeavour to avoid

---

mechanisms of the CBD and to actively pursue the development of ambitious legally binding targets, detailed timelines, clear performance indicators, tracking instruments and peer review/reporting mechanisms based on common standards – ideally in cooperation with sub-national governments – to ensure full transparency and accountability for the Parties and the overall effectiveness of the next Global Biodiversity Strategy plan".

[177] https://ec.europa.eu/environment/strategy/biodiversity-strategy-2030_en.

[178] The guiding principles are: stable prices, sound public finances and monetary conditions and a sustainable balance of payments.

[179] The TEU, in Article 3(3) also refers to "a highly competitive social market economy" in the context of the internal market. This paragraph mentions this objective as one of many; it contains – in the same sentence – other objectives including "a high level of protection and improvement of the quality of the environment".

[180] See the draft statute and the accompanying commentary of 16 November 1990, at: https://www.ecb.europa.eu/ecb/access_to_documents/document/cog_pubaccess/shared/data/ecb.dr.parcg2019_0109draftstatute19901115.en.pdf?2a924dc4462ce1045313d1acd5d00949.

[181] [*The European Central Bank – Institutional Aspects*, 1997, p. 181]

[182] *The European Central Bank – Institutional Aspects*, 1997, p. 191.

measures which evidently count as a subsidy to one market participant over the other, or to one clearly delineated class of market participants over a competing category. In this perspective, the principle seeks to extend to the financial sector's engagements with the central bank the prohibition of state aid (Article 107 TFEU). The principle cannot be read as requiring the central bank to be treat all classes of assets similarly: distinctions on the basis of creditworthiness are a clear example of permitted differentiation between assets and, hence, issuers. This already indicates that taking the risks ensuing from climate change into account in distinguishing between assets does not infringe the principle of an open market economy.

2. Market neutrality argument

Yet, an often cited rebuke to calls for the ECB to include climate change considerations in its non-standard monetary policy measures is that this would run counter to the principle of market neutrality. The ECB itself, in its response to the European Parliament in the context of its accountability vis-à-vis Europe's parliamentarians, recalls the principle of market neutrality.[183] Often, reference is made to the principle of an open market economy favouring an efficient allocation of resources, enshrined in the Treaty, and actually introduced when the EMU provisions were adopted in the Treaty of Maastricht.[184] These two principles, although closely related, should be distinguished. The first (market neutrality)[185] is a self-imposed rule that central banks apply to their operations, whereas the second is a public-law injunction to the European central banking system. Moreover, as will be argued below, the second rule does not stand in opposition to an interpretation of the ECB's mandate as requiring it to actively operate in a manner which helps diminish climate change and loss of biodiversity.

As early as 2006, the ECB announced that, in its portfolio operations, it would follow the market neutrality principle.[186] In an exposé on managing its foreign reserves, own funds and pension fund portfolios, the ECB stated: "The ECB's portfolio management activities are subject to strict rules which ensure market neutrality, ethical behaviour and a strict separation between portfolio management and policy-making", explaining 'market neutrality' as follows: "[The ECB] endeavours, in its portfolio management activities, not to cause any undue distortion in market prices. In practice, this means that

[183] See the ECB, Feedback on the input provided by the European Parliament as part of its resolution on the ECB Annual Report 2018, footnote 165 above.
[184] The Treaty of Maastricht established the European Union and amended the Treaty establishing the European Economic Community (EEC Treaty), inter alia with provisions on EMU.
[185] See Jens van 't Klooster, *The Myth of Market Neutrality: A Comparative Study of the European Central Bank's and the Swiss National Bank's Corporate Security Purchases*, DOI: https://doi.org/10.1080/13563467.2019.1657077, 18 September 2020.
[186] Portfolio management at the ECB, Monthly Bulletin April 2006, at: https://www.ecb.europa.eu/pub/pdf/other/pp75-86_mb200604en.pdf?b9a17c47ba3fa4e5313bc0b8345d3a1e.

the ECB's portfolio management activities are only conducted in markets that are deep and liquid enough to ensure that portfolio management transactions are easily absorbed at market-determined prices."[187]

In explaining its CSPP, the ECB also explained its adherence to 'market neutrality', again with a reference to the principle of an open market economy.[188] More generally, for all the asset purchasing programmes, the ECB confesses that it "adheres to the principle of market neutrality".[189]

The 'principle of market neutrality' only is a rule when emanating from the ECB itself, as can be read in its Guideline on NCBs' asset and liabilities management.[190] Although the ECB has presented 'market neutrality' as the operational concept which serves the principle of an open market economy,[191] it is submitted that there is no legal requirement to operate market neutrality under the Treaty-given principle.

3. Open market principle does not require ECB to act in line with dysfunctional markets

First and foremost, the principle of an open market economy does not oblige the ECB to act in conformity with markets that are dysfunctional. The additional words "favouring an effective allocation of resources" in the injunction to follow the market-conformity principle make clear what the Treaty authors intended: the had in mind that monetary policy should not undermine freely functioning markets to bring about an efficient allocation of resources. After all, that's what free

[187] See footnote 186 above.

[188] The ECB's corporate sector purchase programme: its implementation and impact, in: ECB Economic Bulletin, Issue 4/2017, at: https://www.ecb.europa.eu/pub/pdf/ecbu/eb201704.en.pdf. The reasoning is as follows: "In pursuing its objective of maintaining price stability, the ECB is mandated to act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources. Consequently, 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 bonds.1"

[189] See the explanation of the APP on its website: https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html.

[190] In Guideline (EU) 2019/671 of the European Central Bank of 9 April 2019 on domestic asset and liability management operations by the national central banks (recast) (ECB/2019/7), OJ L 113/11, 29.4.2019, ELI: http://data.europa.eu/eli/guideline/2019/671/oj, the ECB imposes the following limitation on remuneration: "The remuneration of non-monetary policy deposits other than government deposits shall take into account the principles of proportionality, market neutrality and equal treatment. (…)": Article 4(2) **Limitations on the remuneration of non-monetary policy deposits**.

[191] In a reply to a written question from an MEP relating to sustainability considerations, President Lagarde wrote, as recently as 21 November 2019: "In the implementation of monetary policy, the operational concept of market neutrality has been considered the most appropriate concept to, on the one hand, ensure the effectiveness of the ECB's monetary policy measures from a price stability perspective and, on the other hand, respect the principle of an open market economy". Letter from the ECB President to Mr Ernest Urtasun, MEP, on monetary policy, at: https://www.ecb.europa.eu/ecb/access_to_documents/document/correspondence/shared/data/ecb.dr.cor20191121Urtasun.en.pdf; the MEP's question (Z-045/2019) is found here: https://www.europarl.europa.eu/doceo/document/ECON-QZ-641438_EN.pdf.

markets are supposed to do: ensure that resources are allocated through the price mechanism resulting from demand and supply in an as efficient manner as possible. There is widespread agreement that current market mechanisms do not lead to an efficient allocation of resources when the effects on climate change are included in their assessment. When prices do not reflect the true costs or benefits of an instrument for society as a whole, markets do not lead to Pareto efficiency. The European CO_2 emission scheme has precisely been introduced to ensure that the carbon effects of production are 'priced in'192 . Should monetary policy adopt the outcome of current markets as a given which the central bank feels bound to accept and follow, this policy would effectively go *against* an efficient allocation of resources by prolonging the financing of non-green production factors.

It is, therefore, submitted, that the principle of an open market economy with free competition favouring an effective allocation of resources does not stand in the way of a 'greening' of the ECB's activities.[193] This principle is even considered to require the opposite: a recalibration of the ECB's operations to reflect a truly efficient and market conform outcome. Of course, this raises issues of taxonomy (which assets can be considered 'green'?) and requires an assessment that needs to be underpinned by adequate reasoning (why the central bank opts for certain operations or classes of assets rather than blindly following the current market outcomes). Such issues do not amount to an adequate rebuttal of the legal assessment that the market conformity principle does not stand in the way of a greening of operations, indeed, that it requires such greening. This author reads the principle not as *opposing* a greening but as *requiring* it.

4. Bank of England on market neutrality

In this context it is interesting to note that another central bank seems to embrace a perspective under which its own 'market neutrality principle' in a novel fashion. Bank of England Governor Andrew Baily suggested[194] to become "climate change consistent neutral": to distinguish between assets in their climate-related effects and then not to make a distinction among such 'green' assets. I consider this a valid approach, also for other central banks that are (self-)bound to market neutrality.

192 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

[193] Contrary to the stance taken by Bundesbank President Jens Weidmann, *How central banks should address climate change*, Financial Times, 19 November 2020, at: https://www.ft.com/content/ed270eb2-e5f9-4a2a-8987-41df4eb67418.

[194] How to Build Back Greener After the Pandemic, Bloomberg podcast by Stephanie Flanders and Lucy Meakin 29 October 2020, at: https://www.bloomberg.com/news/articles/2020-10-29/how-to-build-back-greener-after-the-pandemic and pic.twitter.com/ZaGhud6JGq. The statement was brought to my attention by a tweet from Positive Money of 29 October 2020, at: https://twitter.com/positivemoneyuk/status/1321819698007281670?s=11.

5. Open market principle not enforceable

As a further consideration on the principle of an open market economy, it is recalled that, admittedly in another (internal market) context, the Court has ruled[195] that Articles 3a, 102a and 103 EC Treaty (currently Articles 119, 120, 126 TFEU) "do not impose on the Member States clear and unconditional obligations which may be relied on by individuals before the national courts. What is involved is a general principle whose application calls for complex economic assessments which are a matter for the legislature or the national administration." Yolaine Fischer, whose writing[196] drew my attention to this, also refers to the Opinion of the Advocate General[197] in this reference for a preliminary ruling on the compatibility with EU law of the French system of fixed book prices, in which he opines that the articles cited are "rather principles which, on their own, have no binding legal effect but which are to be viewed in conjunction with the other provisions of Community law which define their content more closely"[198] and concludes: "(….) obligations may arise for Member States only from provisions of Community law which are worded in a sufficiently specific, precise and clear manner. However, that specifically is not so in the case of the abovementioned general principles of an open market economy with free competition and economic policy."[199] I agree with Fischer that this assessment of the effect of the principle of an open market economy also applies to EU institutions, such as the ECB. The ECB is free to act within its discretion in the complex economic assessments it is bound to make pursuing its price stability mandate and carrying out its functions having due regard to the principle without this prescribing a fixed outcome irrespective of the circumstances the ECB faces.

J. FURTHER ARGUMENT: EMERGENCY RATIONALE AND CLIMATE STABILITY PRECONDITIONS AS A FALLBACK

For the sake of completeness, reference should be made to other arguments that may be advanced for the conclusion that climate change is to be included in the setting of monetary policy. A first such reasoning relates to the emergency nature of the impending global disaster should climate change not be countered and halted. For the central bank of a region representing 16% of global output[200] not to take climate change into account would amount to a gross neglect of its duties. This approach can be likened to the perspective taken in 2012 when the ECB, faced with widespread disbelief in the

[195] Judgment of 3 October 2000 in Case C-9/99 (*Échirolles Distribution SA* v *Association du Dauphiné and Others*); ECLI:EU:C:2000:532

[196] Yolaine Fischer, Global warming: does the ECB mandate legally authorise a "green monetary policy"?, in Sustainability and Financial Markets, pp.163-198.

[197] Opinion of Advocate General Alber of 6 June 2000; ECLI:EU:C:2000:299.

[198] Opinion, paragraph 49.

[199] Opinion, paragraph 50.

[200] See https://www.statista.com/statistics/253512/share-of-the-eu-in-the-inflation-adjusted-global-gross-domestic-product/

continuity of the single currency and with actual preparations for its demise across business, acted with President Mario Draghi's famous statement in London: "Within our mandate, the ECB is ready to do whatever it takes to preserve the euro. And believe me, it will be enough."[201] This statement preceded the announcement of a set of monetary policy measures, announced but never implemented, that were intended to dispel market speculation on the end of the euro.[202] Faced with existential threats, this time to the continuity of society and the economy as we know it, interpreting one's mandate stretching it to the limits may be considered justified.

A slightly different perspective is that taken by Yolaine Fischer where she argues that climate stability is a precondition for obtaining price stability,[203] or even that "the survival of the euro is a prerequisite [for] the Eurosystem's mandate", and that "the preservation of the existence of the euro (…) is an essential – or existential – part of the Eurosystem's primary objective, i.e. the preservation of price stability."[204] Her argument is, essentially, that in worst case scenarios which would unfold if no climate action is taken, there is no single currency to be the guardian of or price stability to be maintained as EMU may be considered at risk in economic and political upheavals triggered by climate change.

These additional interpretative routes, relying on 'emergency' powers, provide ammunition to the new reading of the ECB's mandate that I present here. I consider the arguments based on the primary and secondary objective, on the consistency clauses and on the binding nature of international agreement adequate for this reading without a need to rely on 'emergency' powers.

Finally, a word on the precedence of central banking action and its appropriateness when other actors fail to act. Here, a quote from a UNEP study[205] is worth citing:

> "The case for central banks to pursue sustainability objectives beyond their traditional core mandates of maintaining monetary and financial stability can be seen as an application of the theory of the second best. If first best policies for fixing the misallocation of capital cannot be implemented, then the government may resort to a second best policy and mandate the central bank or financial supervisor to address negative environmental externalities by using the tools they have at their disposal. Thus, it is important to initially consider if other actors can adopt first best policies that make a policy engagement of the central bank redundant. If

[201] Verbatim of the remarks made by Mario Draghi, speech by Mario Draghi, President of the European Central Bank at the Global Investment Conference in London, 26 July 2012, at: https://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html.
[202] The so-called Outright Monetary Transactions (OMT); press release, Technical features of Outright Monetary Transactions, 6 September 2012, at: https://www.ecb.europa.eu/press/pr/date/2012/html/pr120906_1.en.html.
[203] Yolaine Fischer, at p. 174.
[204] Yolaine Fischer, at p. 177.
[205] Ulrich Volz, *On the Role of Central Banks in Enhancing Green Finance*, at: http://unepinquiry.org/wp-content/uploads/2017/02/On_the_Role_of_Central_Banks_in_Enhancing_Green_Finance.pdf.

> first best policies are impossible because of political deadlock or the weakness of the institutions that should pursue them, possible second best policies by other agents – including the central bank – and their potential distortions need to be considered".

In this paper, the argument is that governments may mandate central banks to act when other (political) action fails. I would argue that this 'second-best' option may also be applicable when the mandate is already, implicitly, 'green', as I have argued, and primary decision-making is inadequate.

K. IMPLICATIONS OF THE REASONING

What does the approach set out above to the mandate imply for monetary policy? Before going into this, a look at the EU Taxonomy is in order since the ECB may have to rely on classification of activities as ESG-conform.

1. EU Taxonomy

The EU is developing a taxonomy for ESG activities and assets. A number of legal acts set out the requirements for labelling items as in conformity with ESG standards. They also impose transparency requirements. This legislation is also meant to assist in avoiding 'greenwashing'. Central to these standards is the **Taxonomy Regulation**[206] which defines what can count as an 'environmentally sustainable investment'. It defines environmental objectives[207]: climate change mitigation and adaptation, the transition to a circular economy, the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control and the protection and restoration of biodiversity and ecosystems. It sets out[208] what a substantial contribution to any of these objectives entails. The activities that substantially harm environmental objectives. Technical screening criteria will be specified in delegated acts adopted by the Commission.[209] The first of such legal acts, the EU Taxonomy Climate Delegated Act,[210] defines these criteria for economic activities substantially contributing to climate change mitigation or adaptation. The lengthy detailed

[206] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198/13, 22.6.2020.
[207] Article 9, Taxonomy Regulation.
[208] Articles 10-16, Taxonomy Regulation.
[209] Articles 19 and 23, Taxonomy Regulation.
[210] Adopted on 4 June 2021 for scrutiny by the Council and the European Parliament and, therefore, not yet in force; see: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=PI_COM:C(2021)2800. It is to apply as of 1 January 2022.

descriptions,[211] not yet including the agricultural sector, require navigating for which an EU Taxonomy Compass has been devised.[212]

Further main legal acts in the EU Taxonomy are the **Sustainable Finance Disclosures Regulation** (SFDR),[213] the **Non-Financial Reporting Directive** (NFRD),[214] the **Benchmark Regulation**[215] and the **Benchmark Regulation Amendment**.[216] These are all further implemented in technical standards, including by the ESAs.[217,218] The taxonomy is a sign of the implementation of the SDGs and the Paris Agreement, to which the preamble of several of the legal acts specifically refer.[219]

The EU Taxonomy therefore is another clear indication of the legislative intent to green the economy, to encourage the transition to a carbon-neutral economy and to re-direct financial flows to sustainable investments. This is a further clear indicator of the desirable direction of the economy in the eyes of the legislator. Also, the criteria and benchmarks resulting from the taxonomy will be guidance for the ECB when re-directing its own portfolios and activities towards sustainable finance.

2. Taking a longer-term perspective?

Taking a brief look into what a new reading of the ECB's mandate might entail in the area of monetary policy,[220] the very first change to expect might be inclusion of a longer-term perspective into the ECB's monetary policy stance. This might mean, inducing into the expectations of business and households

---

[211] The delegated act contains a mere 15 pages but its annexes run into hundreds of pages; see: https://ec.europa.eu/info/law/sustainable-finance-taxonomy-regulation-eu-2020-852/amending-and-supplementary-acts/implementing-and-delegated-acts_en.

[212] https://ec.europa.eu/sustainable-finance-taxonomy/.

[213] Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector, OJ L 317/1, 9.12.2019.

[214] Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups OJ L 330/1, 15.11.2014.

[215] Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014, OJ L 171/1, 29.6.2016; consolidated text at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02016R1011-20191210.

[216] Regulation (EU) 2019/2089 of the European Parliament and of the Council of 27 November 2019 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks, OJ L 317/17, 9.12.2019.

[217] By way of example, see EBA, ESMA, EIOPA, Final Report on draft Regulatory Technical Standards with regard to the content, methodologies and presentation of disclosures pursuant to [Articles of the SFDR], JC 2021 03, 2 February 2021, at: https://www.esma.europa.eu/sites/default/files/library/jc_2021_03_joint_esas_final_report_on_rts_under_sfdr.pdf.

[218] See: https://www.esma.europa.eu/policy-activities/sustainable-finance/climate-related-benchmarks.

[219] See recitals 2 and 3 of the preamble to the Taxonomy Regulation, and recitals 1-3 of the SFDR.

[220] Other areas of activity will be the subject of sections below.

an element of long-term prediction, namely that the transition to a CO_2-free economy will be accompanied by sufficient measures from the side of the central bank to maintain price stability. Thus, the scenario planning that central banks and supervisors expect banks subject to their supervision to undertake, is an activity that central banks must engage in themselves. The research and planning undertaken by central banks can be expected to be influenced by climate change in any reading of their mandates. A clear presentation of how climate change would affect monetary policy, in either a doom scenario or one of addressing the climate change challenge, was given by Benoît Coeuré in 2018.[221] He identified the shocks, their distribution and persistence that affect the devising of monetary policy, while discussing options to change course in respect of monetary policy portfolios where his analysis shied away from a more robust interpretation of the mandate.

3. Including climate change variables and risks into account in policy-setting

Such scenario planning would then spill over from research into policy. Where transition risks and physical risks undermine the goal of price stability, one expects the central bank to incorporate such variables in its monetary policy stance.

4. The ECB's own funds

A quick win in greening a central bank's activities concerns the bank's own funds, i.e. its capital, and its own pension fund's investments. Provided there is a sufficiently clear taxonomy on which to base its investment decisions, the central bank can start playing its part by ensuring these are 'greened'. This underscores the importance of a proper taxonomy on which big strides have been made. It is these examples that ECB President Christine Lagarde gave in her press conference on 23 January 2020. She referred to the ECB Pension Fund, its paid-up capital and reserves and, furthermore, mentioned the Corporate Sector Purchasing Programme (CSPP) and collateral. She also recalled the elements described in the previous section: having climate risk embedded in risk assessment, models, forecasts and including it in the financial stability approach in the ESRB: stress testing and pilot.[222]

5. Favouring or requiring green collateral?

---

[221] *Monetary policy and climate change*, speech by Benoît Cœuré, Member of the Executive Board of the ECB, at a conference on "Scaling up Green Finance: The Role of Central Banks", organised by the Network for Greening the Financial System, the Deutsche Bundesbank and the Council on Economic Policies, Berlin, 8 November 2018 https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp181108.en.html.

[222] Press conference by Christine Lagarde, President of the ECB, Frankfurt am Main, 23 January 2020, at: https://www.ecb.europa.eu/press/pressconf/2020/html/ecb.is200123~0bc778277b.en.html. Ms Lagarde did not make mention of the Public Sector Purchasing Programme (PSPP) share for marketable debt instruments issued by international or supranational institutions located in Euro Area, or of 'green' T-LTROs (*targeted* long-term refinancing operations, i.e. 'linked to [the banks'] loans to non-financial corporations and households'.

Ensuring that "climate-related financial risks are given due consideration in their own risk management" is an element of greening that even a long term (former) sceptic like Jens Weidmann favours.[223] The ESCB Statute requires lending by the Eurosystem to be effected "based on adequate collateral" (Article 18.1, second indent, *in fine*). Thus it is even without giving climate considerations the role welcomed by this author that a case can be made for working towards a system in which collateral is only acceptable if it will not be tainted by deterioration due to climate change. Accepting securities issued by industries which engage in economic activities that will become redundant, or bonds representing companies whose assets become stranded is no wise policy for any financial market operator. It is forbidden territory for a central banking system working under the injunction of collateral adequacy, such as the Eurosystem. Should the taxonomy for financial products be insufficient to make a distinction between good and less-good assets, the ECB will have to undertake its own research to establish the level of risk it can run when accepting collateral in an economy that is transitioning. An interesting suggestion by Jens Weidmann is for the Eurosystem to "consider only purchasing securities or accepting them as collateral for monetary policy purposes if their issuers meet certain climate-related reporting obligations"[224], thus relying on adequate disclosure by the market to weigh the risk profile of its portfolio of assets purchased or of collateral accepted. A slightly different angle was already taken on this point by then-Executive Board member Benoît Coeuré in his 2018 speech on climate change and the Eurosystem,[225] where he alluded to the effect of the introduction of a green taxonomy which "once adopted, [would] automatically be reflected in our collateral framework. That is, once markets and credit risk agencies price climate risks properly, the amount of collateralised borrowing counterparties can obtain from the ECB will be adjusted accordingly."

Beyond its own risk measurement requirements, the obligation to support the economic policies in the Union would also provide a valid legal argument for greening collateral. In this context, mention may be made of the argument put forward during the hearing before the Committee on economic and monetary affairs of the European Parliament by Frank Elderson, as a candidate for the function of Executive Director at the ECB.[226] In his view, the mandate and the requirement of adequate collateral necessitate that climate change risk (physical risk, transition risk) are taken into account.

6. Greening asset purchasing programmes

[223] The quote is from his contribution to the *Financial Times* cited in footnote 193 above.
[224] This quote also is from his contribution to the *Financial Times* cited in footnote 193 above.
[225] *Monetary policy and climate change*, Benoît Cœuré, cited in footnote 221 above.
[226] Public hearing on 9 November 2020, at: https://www.youtube.com/watch?v=CWam9_AL4Y&ab_channel=PositiveMoneyEurope. See, also, Mr Elderson's opening statement, at: https://www.dnb.nl/actueel/algemeen-nieuws/speeches-oud/opening-statement-by-frank-elderson-to-the-economic-and-monetary-affairs-committee-of-the-european-parliament/

As already intimated before, working towards a 'green threshold' for the purchasing of assets would be another step the central bank can make to ensure its observance of climate-related risk management and support of climate policies. Here, the same instruments that would apply for the greening of collateral can be put to good use: an adequate green taxonomy, ratings based on disclosures by financial market participants and own research into the measure of contribution to a CO_2 neutral economy or to transitioning towards such an economy. Taking the carbon intensity of assets into account in the context of monetary policy has been proposed by Dirk Schoenmaker: "a tilting approach to steer or tilt the allocation of the Eurosystem's assets and collateral towards low-carbon sectors, which would reduce the cost of capital for these sectors relative to high-carbon sectors."[227]

7. Greening bank lending: green TLTROs?

As a final example of the kind of changes that can be brought about in the monetary policy sphere once the central banks heed their mandate in a climate change-relevant manner, Targeted Long-Term Refinancing Operations (TLTROs) may be mentioned. Such operations serve to finance the banks in the Euro Area with the specific intention of ensuring that such financing results in on-lending to the real economy (hence: "targeted"). When banks report on their on-lending activities they will receive an extra advantageous interest rate on their borrowing, in current circumstances: will be paid by the ECB for on-lending. A greening of such operations would entail that the criterion for the ECB's subsidy is widened to include an element of sustainability: solely on-lending which supports activities that are considered 'green' or that contribute to the transition to a CO_2-free economy will be subsidised. Such green TLTROs have been proposed by Jens van 't Klooster and Rens van Tilburg[228], who advocate a selective approach to the ECB's refinancing of banks' lending activities, based on the EU's green taxonomy. Commercial banks should prove the taxonomy compliance of individual loans to households and firms for construction, renovation and energy-saving measures for such lending to count in the context of a Green TLTRO. The authors argue that the ECB should " start a limited pilot programme today targeted on funding for building and renovations in accordance with the Taxonomy requirement for real estate". It is clear that such a programme relies even more heavily on the appraisal capacity of the ECB than relying on ratings of 'greenness' of securities based on the taxonomy as, here, the ECB needs to validate the reporting by banks of their 'green' on-lending. Yet, this is not different *in principle* from the task it has set itself by engaging in unconventional central banking

[227] Dirk Schoenmaker, *Greening monetary policy*, Bruegel Working Paper, Issue 02, 19 February 2019. Also available in a 6 November 2020 version at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3242814.
[228] Jens van 't Klooster, Rens van Tilburg, *Targeting a sustainable recovery with Green TLTROs*, September 2020 (*Positive Money Europe* & *Sustainable Finance Lab*), at: http://www.positivemoney.eu/wp-content/uploads/2020/09/Green-TLTROs.pdf.

operations with TLTROs, which is based on banks reporting their on-lending to the real economy. As with other greening operations, green TLTROs rely on the existence of an appropriately developed taxonomy.

L. WHAT THE ECB HAS DECIDED

1. Monetary policy review results

After this already lengthy discussion of the history of the interpretation of the ECB's mandate in the context of EU policy preferences including on climate change, and of my preferred interpretation of the mandate, both primary and secondary and embedded in other Treaty provisions, it is time to have a look at the ECB's projected climate change measures. These were announced at the end of the monetary policy review, on 8 July 2021. The press release[229] and comprehensive action plan[230] make clear the ECB's commitment crystal-clear. The first lines read as follows:

> "The ECB's Governing Council is strongly committed:
> > to further incorporating climate change considerations into its monetary policy framework;
> > to expanding its analytical capacity in macroeconomic modelling, statistics and monetary policy with regard to climate change;
> > to including climate change considerations in monetary policy operations in the areas of disclosure, risk assessment, collateral framework and corporate sector asset purchases;
> > to implementing the action plan in line with progress on the EU policies and initiatives in the field of environmental sustainability disclosure and reporting". [231]

Before elaborating on the action plan, the communiqué states that

> "the Governing Council underlines its commitment to more systematically reflect environmental sustainability considerations in its monetary policy. The decision follows the conclusion of the strategy review of 2020-21, in which the reflections on climate change and environmental sustainability were of central importance."[232]

A clear reference to the political primate:

> "Addressing climate change is a global challenge and a policy priority for the European Union. While governments and parliaments have the primary responsibility to act on climate change, within its mandate, the ECB recognises the need to further incorporate climate considerations into its policy framework."[233]

is followed by an eloquent explanation of the reasons why climate change affects price stability:

---

[229] *ECB presents action plan to include climate change considerations in its monetary policy strategy*¸ press release, 8 July 2021, at: https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1~f104919225.en.html.
[230] Detailed roadmap of climate change-related actions, at: https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1_annex~f84ab35968.en.pdf.
[231] See the ECB press release of 8 July 2021.
[232] Ibid.
[233] Ibid.

> "Climate change and the transition towards a more sustainable economy affect the outlook for price stability through their impact on macroeconomic indicators such as inflation, output, employment, interest rates, investment and productivity; financial stability; and the transmission of monetary policy. Moreover, climate change and the carbon transition affect the value and the risk profile of the assets held on the Eurosystem's balance sheet, potentially leading to an undesirable accumulation of climate-related financial risks."[234]

Even the legal obligation to incorporate climate change into its policies is highlighted:

> "With this action plan, the ECB will increase its contribution to addressing climate change, *in line with its obligations under the EU Treaties.*"[235] [italics added]

On the measures in the action plan, it is stated that:

> "The design of these measures will be *consistent with the price stability objective* and should take into account the implications of climate change for *an efficient allocation of resources*."[236] [italics added]

This wording makes clear that price stability and the efficiency injunction will be prevalent: the two main elements of discussion on what the ECB can, or must, do, as set out above.

The areas of climate change action announced by the ECB will be:[237]

1. **Macroeconomic modelling and assessment of implications for monetary policy transmission** – developing models and analyses on the impact of climate change and 'related policies'[238] on the economy and corporates and citizens[239];
2. **Statistical data for climate change risk analyses** – developing 'experimental indicators' on 'green financial instruments and the carbon footprint of financial institutions' and the latter's exposure to physical risk. Again, this element relates to EU policy-making and legislation as the development is to be "in line with progress on the EU policies and initiatives in the field of environmental sustainability disclosure and reporting" ;
3. **Disclosures as a requirement for eligibility as collateral and asset purchases** – by 2022, the ECB is to detail plans on requiring disclosure for private assets[240] to include this as "as a new eligibility criterion or as a basis for a differentiated treatment for collateral and asset purchases". Here, too, EU policy-making on sustainability disclosure is dominant. Also, proportionality – the crucial element in the judicial assessment of central bank measures –[241] is mentioned as a means to take account of SMEs;
4. **Enhancement of risk assessment capabilities** – developing climate stress tests to the Eurosystem's balance sheet, based on the already existing

[234] Ibid.
[235] Ibid.
[236] Ibid.
[237] Formatting taken over from the ECB communication.
[238] The policies adopted to address climate change for which governments and parliaments have the primary responsibility, as the ECB stated. Of course, these public actors include the EU's political institutions: Parliament, Council, European Council.
[239] In ECB parlance: 'households and firms'.
[240] Note: not for public assets, thus keeping the PSPP out of focus.
[241] The case law on the OMT and the PSPP; see footnotes 4, 5 and 6 above.

climate stress methodology for the economy as a whole. Credit Rating Agencies (CRAs) will face scrutiny as to whether they adequately incorporate climate change risks into their credit ratings;

5. **Collateral framework** – climate risks are to be included in the assessment of the adequacy of collateral posted. Monitoring "structural market developments in sustainability products" and, surprisingly, a readiness "to support innovation in the area of sustainable finance within the scope of its mandate", in the context of which reference is made to the 20 September 2020 press release on acceptance of sustainability-linked bonds as collateral[242];
6. **Corporate sector asset purchases** – corporate bonds purchases by the ECB will "incorporate climate change criteria, in line with its mandate". This means there needs to be "alignment of issuers with, at a minimum, EU legislation implementing the Paris agreement through climate change-related metrics or commitments of the issuers to such goals". Disclosure of climate-related information of the CSPP will begin in 2023. Such disclosures are already undertaken for the non-monetary policy portfolios.[243] (Based on a "common stance for climate change-related sustainable and responsible investment principles for euro-denominated non-monetary policy portfolios", the ECB and the NCBs of the euro area are preparing climate-related disclosures by 2023, starting on the basis of the "recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) as the initial framework". The TCFD[244] was mandated by the Financial Stability Board (FSB) to develop standards for transparent climate-related disclosures.[245] Among the four categories of disclosures (Governance, Strategy, Risk Management, Metrics and Targets, graphically depicted as shown), the Eurosystem will be "reporting, as a minimum, in the category of metrics and targets"

Source: Figure 2 of the TCFD's June 2017 Recommendations

[242] *ECB to accept sustainability-linked bonds as collateral*, press release, 22 September 2020, at: https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200922~482e4a5a90.en.html.

[243] *Eurosystem agrees on common stance for climate change-related sustainable investments in non-monetary policy portfolios*, press release, 4 February 2021, at: https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210204_1~a720bc4f03.en.html.

[244] See: https://www.fsb-tcfd.org/.

[245] See the *Recommendations of the Task Force on Climate-related Financial Disclosures*, 15 June 2017, at: https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf

2. Assessment

It is too early to adequately measure the ECB's announcement on climate change. A fair assessment needs to await actions and follow-up. Still, a couple of initial remarks may be made.

The ECB has come a long way in acknowledging the issue of climate change and addressing it in its policies and activities: it is at the forefront of central banks taking action. Its example is likely to move other central banks. And, while governments are still the main agents that need to move on climate change, a clear direction from the central banks may spur the public authorities to do their part.

A greening of portfolios and collateral will of necessity be undertaken gradually, as ECB Board Member Isabelle Schnabel made clear in an interview[246]. Also, drawing up criteria to select bonds will take time: "(…) we need to draw up new criteria for selecting bonds. For example, we could in the future buy more bonds from firms that commit to the goals of the Paris climate agreement and thus show that they are willing to adapt their business model." So, making progress will take time.

There is an obvious lacuna in the action plans: the public sector bonds purchased are not (yet?) included in the re-direction. With more EU sovereigns, and the EU itself, issuing green bonds, this may be an element to be included in further steps towards fostering the green transition.

Biodiversity is not part of the climate action plan but it is an element in the ECB's Environmental Statement[247] but is clearly in sight of the ECB's Board members.[248] Broadening the scope of the transitional policies to reflect the danger to the planet and, by implication, to the economy of the Euro Area and its monetary and financial stability, of biodiversity loss is a commendable next objective for the ECB.[249] The less visible impact of biodiversity loss and the absence, thus far, of binding international

---

[246] In her interview with *FOCUS Magazin*, conducted by Carla Neuhaus on 17 August and published on 20 August 2021, at: https://www.ecb.europa.eu/press/inter/date/2021/html/ecb.in210821~186713780d.en.html, Isabel Schnabel said, on re-directing the CSPP: "it would not make sense to completely exclude climate offenders" because "We have to focus on accelerating the transition to a climate-neutral economy. Excluding certain sectors or firms from our asset purchase programme would be counterproductive. In order to lower emissions, firms with high levels of carbon emissions are extremely important because they offer scope for making the most progress. If these firms want to become climate-neutral, they are dependent on favourable financial conditions." On buying green bonds only, she stated: "a purely green asset purchase programme would not be realistic at present in any case".

[247] See the 2021 Update, at: https://www.ecb.europa.eu/ecb/orga/climate/green/pdf/ecb.environmentalstatement202107~e1430ebcae.en.pdf.

[248] Frank Elderson, *Patchy data is a good start: from Kuznets and Clark to supervisors and climate*, keynote speech at the ECB-EBRD joint conference on "Emerging climate-related risk supervision and implications for financial institutions", Frankfurt am Main, 16 June 2021; at: https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210616~44c5a95300.en.html.

[249] NGFS Occasional Paper, *Biodiversity and financial stability: exploring the case for action*, at: https://www.ngfs.net/sites/default/files/medias/documents/biodiversity_and_financial_stability_exploring_the_case_for_action.pdf.

agreements, may explain (but not justify) the absence, hitherto, of inclusion of biodiversity loss in the ECB's plans.

3. What the ECB had already undertaken

Prior to the monetary policy strategy review announcements on climate change action, the ECB had already undertaken various measures in this area. Beyond a 'Green ECB' campaign in its premises, exhorting staff and visitors to act 'green', the environmental impact of the central bank's activities is being mapped and steadily improved.[250] This included energy and material efficiency, travel reductions and much more.

An early action on climate change effected by the ECB has been the innovative stress test for physical and transition risk announced[251] in the Spring of 2021. Encompassing "approximately four million companies worldwide and 2,000 banks – almost all monetary financial institutions in the euro area", the ECB, in cooperation with *Urgentem*[252] and *Four Twenty Seven*[253], effected a climate change stress test based on scenario planning. In this first-of-its-kind exercise, the ECB mapped both physical and transition risks, finding that these are "two sides of the same coin: greater policy action may increase the impact of transition risks, but at the same time reduce physical risks in later decades."[254] The idea behind the effort was to "help ensure that the financial system is resilient to the transition to a low-carbon economy, by providing more and better information to market participants on the risks from climate change."[255]

Also, the ECB has established a *Climate Centre*[256] to centralise all research and policy making in the field. A former employee from the Dutch central bank, which has been at the vanguard of climate change-related policies in the area of central banking, was appointed as its first head.[257]

[250] As elaborated in the *2021 update of the ECB's Environmental Statement*, at: https://www.ecb.europa.eu/ecb/orga/climate/green/html/ecb.environmentalstatement202107~e1430ebcae.en.html.
[251] *Shining a light on climate risks: the ECB's economy-wide climate stress test*, THE ECB BLOG post by Luis de Guindos, ECB Vice-President, 18 March 2021, at: https://www.ecb.europa.eu/press/blog/date/2021/html/ecb.blog210318~3bbc68ffc5.en.html.
[252] A data provider on emissions and climate risk; see: https://www.urgentem.net/.
[253] Currently Moody's ESG Solutions; see: https://427mt.com/.
[254] *de Guindos*, op. cit, adding: "This relationship is one of the key elements captured and quantified in the ECB economy-wide climate stress test."
[255] *Ibidem*.
[256] *ECB sets up climate change centre*, press release, 25 January 2021, at: https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210125_1~3fc4ebb4c6.en.html.
[257] *ECB appoints Irene Heemskerk as head of its climate change centre*, press release, 30 April 2021, at: https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210430~2042cc7f07.en.html.

M. PRUDENTIAL SUPERVISION: A DIFFERENT ENVIRONMENT

1. The legislative framework for prudential supervision

In this separate[258] element of its mandate, the ECB is operating in a different environment. Although vested with the same level of independence as for monetary policy and all its tasks[259], the fact of the matter is that prudential supervision concerns the application to supervised entities of standards set by the legislator. Thus, norms established elsewhere, both at Union level and beyond (global standard-setting bodies such as the Basle Committee on Banking Supervision (BCBS) and the Financial Stability Board (FSB)), and at national level,[260] prescribe what the ECB can do when it seeks to incorporate climate change in its supervision. It is for this reason, that the ECB has to rely on the element of 'risk' to base any furtherance of climate-related supervision on. After all, risk is the pervasive factor in prudential regulation: avoiding and containing risk, or provisioning for its realisation, is what banks need to do and what supervisors look into. The Union's prudential framework has hitherto been very modest when it comes to addressing climate change. Even the most recent amendments to the Single Rulebook,[261] only introduced a minimal greening. Apart from a requirement for the European Banking Authority to undertake a study and for the Commission, on the basis thereof, to *potentially* propose legislation for a dedicated treatment of ESG-relevant exposures[262], and an additional requirement for the EBA to study[263] the inclusion of ESG factors in the annual Supervisory Review and Evaluation

[258] Article 25 SSM Regulation requires a separation between the prudential supervisory and monetary functions: an internal 'Chinese wall' maintaining different decision-making lines on distinct issues: monetary policy versus prudential policy and even versus systemic financial stability: the ECB's tasks in relation to the European Systemic Risk Board (ESRB) are also to be separated from the SSM-related tasks.

[259] The basic provision on independence is Article 130 TFEU which basically outlaws any interference from political bodies with the ECB's exercise of its powers and the carrying out of its tasks and duties. This is echoed in Article 7 ESCB Statute. The preamble to the SSM Regulation states the following: "the ECB should exercise the supervisory tasks conferred on it in full independence, in particular free from undue political influence and from industry interference which would affect its operational independence" and follows up with Article 19 on independence of the ECB and the National Competent Authorities (NCAs) which carries the same language as Article 130 prohibiting the giving, or seeking, of instructions from bodies politic by members of the ECB's Supervisory Board.

[260] The ECB is to apply "all relevant Union law, and where this Union law is composed of Directives, the national legislation transposing those Directives": Article 4(3) SSM Regulation.

[261] See the interactive Single Rulebook at: https://www.eba.europa.eu/regulation-and-policy/single-rulebook/interactive-single-rulebook.

[262] The EBA is to report by 28 June 2025 "whether a dedicated prudential treatment of exposures related to assets or activities associated substantially with environmental and/or social objectives would be justified", 'if appropriate' followed by a legislative proposal from the Commission: Article 501 c Capital Requirements Regulation (CRR)).

[263] This study was issued on 23 June 2021: *EBA report on management and supervision of ESG risks for credit institutions and investment firms* (EBA/REP/2021/18); at: https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Reports/2021/1015656/EBA%20Report%20on%20ESG%20risks%20management%20and%20supervision.pdf.

Process (SREP)[264] there are just a modest disclosure requirement for credit institutions. Under CRR2, banks need to disclose "information on ESG risks, including physical risks and transition risks, as defined in the [EBA] report referred to in Article 98(8) of [CRD5]".[265] This disclosure is to take place annually for the first year and, thereafter, biannually.[266]

2. Risk as a central element of prudential supervision

Being bound by the – thus far – minimalist approach of the legislator in this field of activity, the ECB has to rely on the element of risk, pervasive in supervisory standards, to include climate concerns in its supervision.[267] It has done so. The ECB published a *Guide on climate-related and environmental risks* whose subtitle makes clear what it entails: *Supervisory expectations relating to risk management and disclosure*[268]. The Guide presents supervisory expectations for 'significant credit institutions' (i.e., banks under direct supervision of the ECB)[269] which are said to be not binding but to be taken on board in the supervisory dialogue with banks. Thus, even though formally non-binding, the Guide's 'expectations' will form the basis for SSM's engagement with the banks and may result in SREP decisions requiring changes to solvency requirements, governance and risk management. The Guide is rife with supervisory expectancies on understanding environmental risks, taking them into account in a bank's business strategy and risk management systems and own stress testing, while arguing for disclosure according to the European Commission's *Guidelines on non-financial reporting: Supplement on reporting climate-related information*.[270]

[264] This is the (in Basle parlance) 'Pillar 2' of supervision: the supervisor's annual exercise whether solvency, liquidity, risk management and governance of a supervised entity are sufficient, potentially leading to extra requirements for an individual bank beyond what is generally required: Articles 97 and 104 CRD5. Pillar 1 concerns the general solvency and liquidity requirements; pillar 3 refers to the disclosure requirements that seek to infuse a market-induced correction to the assumption of excessive risks.

[265] Article 449a CRR 2.

[266] On 1 March 2021, the EBA has published a consultation on these ESG disclosures: *Implementing Technical Standards (ITS) on prudential disclosures on ESG risks in accordance with Article 449a CRR*, at: https://www.eba.europa.eu/implementing-technical-standards-its-prudential-disclosures-esg-risks-accordance-article-449a-crr#pane-new-7bdd87fb-e02f-492a-99d6-129449e3cf9d.

[267] Presaged by Andrea Enria in his speech in November 2019 when he said: "so far, [banks] have addressed climate change from the angle of corporate social responsibility. Now they should expand their focus and approach it also from the angle of risk management and disclosure."

[268] *ECB publishes final guide on climate-related and environmental risks for banks*, press release, 27 November 2020, at: https://www.bankingsupervision.europa.eu/press/pr/date/2020/html/ssm.pr201127~5642b6e68d.en.html.

[269] And with an exhortation to National Competent Authorities (NCAs) "to apply the expectations set out in this guide in their supervision of less significant institutions in a manner that is proportionate to the nature, scale and complexity of the activities", in the interest of a "consistent application of high supervisory standards across the euro area".

[270] OJ C 209/1, 20.6.2019.

3. Climate change considerations in supervision

The question this chapter seeks to answer is whether such a climate-related approach by the ECB is within its mandate. Due to the instruction of the Treaty[271] and the legislator[272] to serve financial stability and the widely recognised negative potential effects of climate change on financial stability, there is no doubt in my mind that the ECB's mandate in this area also includes climate change-related approaches and measures. Naturally, as indicated, within the framework of the hitherto modest legislative supervisory framework.

Additional reasons may be adduced, here, as well, based on the secondary mandate of the ECB and on the provisions set out above (Articles 11 and 216(2) TFEU). After all, the secondary mandate to support economic policies in the Union also fully supports taking full account of the clear direction of EU policies to convert the continent's economy into free of CO_2 emissions and to transit to a circular economy by 2050.

4. Climate-risk litigation

Finally, as explained by Frank Elderson, the risk of climate litigation is to be taken into consideration. Supervisory authorities and central banks may become the subject of such litigation and, indeed, already are: "While central banks and supervisors should of course not overstep their mandate, there is also a legal risk of being sued for failing to act and comply with legal obligations."[273] Climate litigation[274] is a novel phenomenon leading to notable judicial decisions.[275] Although governments and corporations have been the main targets, central bank have come in the picture, as well. A striking example concerns the proceedings started by environmental charity *Client Earth*[276] against the Belgian central bank[277] for 'failing to meet environmental, climate, and human rights requirements when purchasing bonds from fossil fuel and other greenhouse-gas intensive companies' in the context of the

[271] Article 127(5) TFEU and Article 25.1 ESCB Statute.
[272] The SSM Regulation mentions 'financial stability' eleven times, notably in recital 55 of the preamble: "The conferral of supervisory tasks implies a significant responsibility for the ECB to safeguard financial stability in the Union, and to use its supervisory powers in the most effective and proportionate way. (…)".
[273] *The embrace of the horizon: Forcefully moving with the changing tide for climate action in financial sector policies*, speech by Frank Elderson, Chair of the Central Banks and Supervisors Network for Greening the Financial System, Member of the Executive Board and Vice-Chair of the Supervisory Board of the ECB, at The Green Swan Conference – Coordinating finance on climate, Frankfurt am Main, 3 June 2021, at: https://www.bankingsupervision.europa.eu/press/speeches/date/2021/html/ssm.sp210603~e0388eab0d.en.html.
[274] *Climate Change Litigation: Global Perspectives*, eds. Ivano Alogna, Christine Bakker and Jean- Pierre Gauci, Brill Nijhoff, 2021 provides an excellent overview of climate litigation across the globe.
[275] [reference to the chapter in our book on climate litigation]
[276] https://www.clientearth.org/.
[277] *Banque Nationale de Belgique/Nationale Bank van België/Belgische Nationalbank*; https://www.nbb.be/en.

ECB's CSPP.[278] Their argument is based on violation of Articles 11 TFEU (the environmental integration provision)[279] and Article 37 of the Charter of Fundamental Rights of the European Union[280] through the purchase of purchasing bonds from fossil fuel and other greenhouse-gas intensive companies. The plaintiff seeks a preliminary ruling from the CJEU on the issue. This could mean that a similar case as *Weiss* ensues: an NCB implied in litigation on its execution of Eurosystem-wide operations.[281] Although this litigation concerns monetary policy, not prudential supervision, it is a clear example of the risk of climate-related litigation facing central banks which may encompass all of their activities and policies.

An overview of climate litigations can be found at a website[282] co-hosted by the Sabin Center for Climate Change Law at Columbia Law School.[283] It contains two databases of climate change litigation, one for U.S. climate change litigation and one for non-U.S. cases.

Box 3 – *prudential provisions relating to climate change and ESG*

Article 501c Capital Requirements Regulation (CRR2)
Prudential treatment of exposures related to environmental and/or social objectives
EBA, after consulting the ESRB, shall assess, on the basis of available data and the findings of the Commission High-Level Expert Group on Sustainable Finance, whether a dedicated prudential treatment of exposures related to assets or activities associated substantially with environmental and/or social objectives would be justified. In particular, EBA shall assess:
(a) methodologies for the assessment of the effective riskiness of exposures related to assets and activities associated substantially with environmental and/or social objectives compared to the riskiness of other exposure;
(b) the development of appropriate criteria for the assessment of physical risks and transition risks, including the risks related to the depreciation of assets due to regulatory changes;
(c) the potential effects of a dedicated prudential treatment of exposures related to assets and activities which are associated substantially with environmental and/or social objectives on financial stability and bank lending in the Union.
EBA shall submit a report on its findings to the European Parliament, to the Council and to the Commission by 28 June 2025.
On the basis of that report, the Commission shall, if appropriate, submit to the European Parliament and to the Council a legislative proposal.

Article 98(8) Capital Requirements Directive (CRD5)
Technical criteria for the supervisory review and evaluation

[278] *ClientEarth v. Belgian National Bank*, reported at: http://climatecasechart.com/climate-change-litigation/non-us-case/clientearth-v-belgian-national-bank/.
[279] See section G above.
[280] This reads as follows:
Article 37 **Environmental protection** A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development.
[281] The difference being that, in *Weiss*, the plaintiffs relied on exceeding of the ECB's mandate and violation of the national constitution whereas, in *ClientEarth v BNB*, the claims rest on violation of EU environmental law.
[282] http://climatecasechart.com/climate-change-litigation/.
[283] https://climate.law.columbia.edu/.

8. EBA shall assess the potential inclusion in the review and evaluation performed by competent authorities of environmental, social and governance risks (ESG risks).
For the purposes of the first subparagraph, EBA's assessment shall comprise at least the following:
(a) the development of a uniform definition of ESG risks, including physical risks and transition risks; the latter shall comprise the risks related to the depreciation of assets due to regulatory changes;
(b) the development of appropriate qualitative and quantitative criteria for the assessment of the impact of ESG risks on the financial stability of institutions in the short, medium and long term; such criteria shall include stress testing processes and scenario analyses to assess the impact of ESG risks under scenarios with different severities;
(c) the arrangements, processes, mechanisms and strategies to be implemented by the institutions to identify, assess and manage ESG risks;
(d) the analysis methods and tools to assess the impact of ESG risks on lending and financial intermediation activities of institutions.
EBA shall submit a report on its findings to the Commission, the European Parliament and to the Council by 28 June 2021.
On the basis of the outcome of its report, EBA may, if appropriate, issue guidelines, in accordance with Article 16 of Regulation (EU) No 1093/2010, regarding the uniform inclusion of ESG risks in the supervisory review and evaluation process performed by competent authorities.

Article 449a CRR2
Disclosure of environmental, social and governance risks (ESG risks)
From 28 June 2022, large institutions which have issued securities that are admitted to trading on a regulated market of any Member State, as defined in point (21) of Article 4(1) of Directive 2014/65/EU, shall disclose information on ESG risks, including physical risks and transition risks, as defined in the report referred to in Article 98(8) of Directive 2013/36/EU.
The information referred to in the first paragraph shall be disclosed on an annual basis for the first year and biannually thereafter.

N. OTHER TASKS: PAYMENTS

A brief word on other tasks to end this exploration of the ECB's mandate in the context of climate change with. Among the ECB's other tasks most[284] are not relevant in this perspective but the issue of euro banknotes[285] and the oversight function over the payment systems are. (The ECB's wider financial-stability remit[286], beyond prudential supervision[287], is not discussed here as the concerns and mandate issues relevant for the "specific tasks" in the context of the SSM are applicable there as well.)

[284] Its advisory function: consultation on national and Union legislation in its fields of competence (Article 127(4) TFEU; Article 4 ESCB Statute); and its external reserves and forex functions: to conduct foreign-exchange operations consistent with the provisions of Article 219 of that Treaty; and to hold and manage the official foreign reserves of the Member States (Article 127(2), second and third indent, TFEU, Article 3.1, second and third indent, ESCB Statute).
[285] Article 128(1) TFEU, Article 16 ESCB Statute.
[286] Set out in Article 127(5) TFEU and Article 25.1 ESCB Statute and relevant in the context of the ESRB.
[287] Pursuant to Article 127(6) TFEU and Article 25.2 ESCB Statute.

Banknotes, made of cotton, are an area where environmental and climate concerns are primary concerns. In its *2020 update of the ECB's Environmental Statement*[288], the ECB makes clear how is assesses and addresses these issues. Manufacturers need to provide ISO certificates on the quality management, the environmental management and health and safety of the banknote production. Certified organic cotton is said to be used for over half of the banknotes produced, with a 100% target. There is no legal argument against taking environmental and climate considerations fully into account under the responsibility of the ECB to issue banknotes.[289]

With respect to the oversight of payment systems[290], the instruction "to promote the smooth operation of payment systems" has been taken to consist in the oversight by the Eurosystem of national payment systems and the provision of the TARGET[291] infrastructure payment services for settling financial transactions.[292] This is not the place to discuss the validity of this somewhat limited approach to the widely-drawn mandate.[293] However, the impact of climate change and the transition to a CO_2-free economy, do lend themselves to the following considerations.

Any further development of payment systems infrastructure and oversight may wish to take into account elements of the climate change challenge. The efficacy and efficiency of payment systems oversight may contribute to their environmental soundness.[294] The potential introduction of a Central Bank Digital Currency (CBDC) raises issues of energy consumption of blockchain technology. Whatever the choices made in these areas, from a legal perspective, there is clarity on the inclusion of climate and environmental considerations in this part of the mandate, as well. Here, as well as in respect of monetary policy and prudential supervision, the secondary mandate and the additional supporting elements adduced provide valid legal grounds for the inclusion of climate change considerations in the

[288] At: https://www.ecb.europa.eu/ecb/climate/green/html/ecb.environmentalstatement202010~d0c3d15950.en.html.

[289] The authorisation of bank notes issuance is an exclusive ECB competence; the issue of the notes themselves is reserved for the ECB and NCBs. Euro coins are issued by the Member States, with the ECB authorising their volume (Article 128(2) TFEU).

[290] Article 127(2), fourth indent, TFEU and Article 3.1, fourth indent, ESCB Statute.

[291] TARGET stands for Trans-European Automated Real-time Gross settlement Express Transfer system.

[292] These are: a real-time gross settlement (RTGS) system (TARGET2), a securities settlement platform (T2S) and a TARGET Instant Payment Settlement (TIPS) for instant payments in euro. See: https://www.ecb.europa.eu/paym/target/html/index.en.html.

[293] One may question the approach to continue with national payments systems instead of building an EU-wide one. This has legal and political ramifications and may be attributed to the choice of a decentralised model for the central banking system of the monetary union. This decentralised approach does nothing to instil a sense of coherence and irreversibility of the adoption of the single currency; it has been a source of divisive debate based on perceived credit channelled in a book-keeping system for cross-border transactions.

[294] An environmentally inspired study may research whether less partitioning of the payments systems and more interaction across borders would result in a lower environmental impact.

implementation of the ECB's tasks. Again, the conclusion is not that the ECB is *permitted* to include climate change but that it is *mandated* to do so.

O. CONCLUDING REMARKS

Having reflected on the history of the interpretation of the European Central Bank's mandate, and discussed the international developments concerning climate change on central banking and financial-sector supervision (NGFS, TCFD, BIS), this chapter concluded as follows. The ECB's primary mandate of maintaining price stability is predominant, in the core provisions (Articles 127(2) and 119(3) TFEU) and in the rules on exchange-rate policy (Article 219(1) and (2)TFEU). The ECB's secondary mandate (to support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union; Article 127(2) TFEU) clearly supports an interpretation of its remit which takes climate change, and biodiversity loss, fully into account since the economic policies in the EU and the EU's Climate Law make the direction of the Union's policymakers crystal clear. Similarly, the Union's objectives (Article 3 TEU) explicitly include climate-change related objectives: sustainable development, balanced economic growth, a high level of protection and improvement of the quality of the environment, solidarity between generations and protection of the rights of the child, the protection of human rights, in particular the rights of the child, protection of the Union's citizens, and the sustainable development of the Earth. Beyond these strong arguments to read the mandate as not only *permitting* but *requiring* the ECB to take full account of climate change and biodiversity loss, additional arguments can be derived from the integration provisions (Articles 11 and 7 TFEU) and from the binding nature of the Paris Agreement (Article 216(2) TFEU). The EU's Charter of Fundamental Rights provides an additional legal argument (Article 37) for my preferred reading of the ECB's mandate. Whereas these legal arguments suffice, recourse to the primary mandate alone would be sufficient since the ever clearer consequences of climate change for price stability, and for financial stability, lead me – together with others – to conclude that there is a legal *requirement* to fully integrate climate change and biodiversity loss in the monetary policy operations of the ECB, not: a mere *authorisation* to do so. The open-market principle (Articles 127(1) and 119(2) TFEU) does not form an obstacle to this reading. On the contrary, it requires the ECB to support well-functioning markets which the current price setting of financial and other products are far from. There is no 'market neutrality principle' under EU law (even though central banks may have acted in accordance with this rule). An emergency situation reading of the mandate, and a focus on the relationship between climate stability and primate stability may further buttress this interpretation.

This reading may have consequences for a variety of operations of the ECB, from investing its own funds in green assets to re-assessing and re-directing asset purchasing programmes for climate impact and requiring proof of 'green-ness' for collateral. All of this presupposes the existence of a robust green taxonomy, which the EU has adopted and is fast developing. Other elements of change may include taking a longer-term perspective in the price-stability objective and incorporating climate and biodiversity variables in research and policy-making. The results of the ECB's monetary policy strategy review and an overview of the actions already undertaken show that the Euro Area's central banking system has firmly taken the road towards climate resilience and incorporation of climate change into its activities.

These activities include prudential supervision where the same legal grounds as applied to monetary policy apply. However, in this area, the legislative norms paly a dominant role. Due to their – thus far – very limited integration of climate change and biodiversity loss into account, the ECB will have to rely on the risk element inherent in any prudential standards to include climate change into its supervisory activities. It has done so already, *inter alia* with the adoption of its *Guide on climate-related and environmental risks* and the implementation of a wide-ranging climate change stress test.

As to other ECB tasks, the promotion of the smooth operation of payment systems and the issue of bank notes seem most relevant from the perspective of climate change. The oversight of payments systems, and the possible introduction of a Central Bank Digital Currency, both provide opportunities to include environmental soundness. It is concluded, on the basis of the same arguments as prevail in the context of monetary policy, that the ECB is legally bound to do so.

It is too early to provide an assessment of what has been undertaken thus far. Yet, recently realised movements on climate change, as well as the conclusions of the monetary policy strategy review and the announced climate action plan show a deep commitment and seem to indicate a willingness to embrace the full rigour of the ECB's legal obligation in respect of climate change and biodiversity loss.

René Smits, 29 August 2021