Too green to be true?
Forging a climate consensus at the European Central Bank

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Abstract. In its strategy review, the European Central Bank's Governing Council unanimously decided to make climate change one of its priorities for the coming years. In this article, we try to understand how this change was achieved, and to what extent it represents a break from *central banking as usual*. To do so, we rely on mixed methods, studying ECB policies, speeches, and exchanges with the European Parliament, as well as conducting semi-structured interviews. We show that the integration of climate change is largely due to the replacement of half the Executive Board within a year, which enabled climate change to be moved up the agenda. However, this shift should not be confused with the achievement of a consensus for climate activism. Indeed, after some timid attempts to push ECB towards explicit support for the transition, such a promotional agenda has been abandoned after the strategy review. While this choice has allowed the ECB to overcome its internal gridlock, it also has important drawbacks, increasing its technocratisation, tensions over the ECB's legitimacy and reducing the range of possible policies.

Keywords: European Central Bank, climate change, low-carbon transition, monetary policy, financial stability, green central banking

JEL Codes: B52, E42, E52, E58, G18

[†] The author would like to thank Tanguy Bonnet for his precious research assistance in analysing the ECB speeches and proofreading the manual coding of qualitative variables. The reviews and discussions of earlier versions of this text by Benjamin Braun, Jézabel Couppey-Soubeyran, Jens van't Klooster and Laurence Scialom were valuable in improving the manuscript. Errors remain the sole responsibility of the author. Contact: jdeyris@parisnanterre.fr

1. Introduction

In June 2000, economist and member of the European Parliament (MEP) Alain Lipietz (Greens) was the first to question the European Central Bank (ECB) about climate change. His question was simply ignored by Governor Willem Duisenberg, and the monetary hearing session went on. Ten years later, the climate change issue was raised again in an official speech, but from a rather superficial perspective: the ECB could 'make an effective contribution to our efforts to stop climate change' by promoting the development of electronic invoicing to foster paper savings (Tumpel-Gugerell, 2010).

Another decade later, the situation has changed considerably, and global warming is no longer relegated to the margins of the ECB's agenda. The Governing Council voted unanimously in its mid-2021 strategic review for a four-year action plan to integrate climate change into the core missions of the European Central Bank (ECB, 2021). This represents a clear break with the stances taken by European central bankers just a few years before, who saw climate change as a challenge to be tackled by political authorities alone. How was this change achieved? To what extent does it represent a break with the usual practices and ideas of central banking? What can we expect from the future implementation of ECB's climate action plan?

To answer these questions, we rely on a mixed methodology. First, we use textual analysis techniques to study the speeches of ECB Executive Board members that address the climate challenge. Second, we study the exchanges between the ECB and the European Parliament concerning climate change, through letters or monetary hearings questions. Third, we compare these words with ECB's deeds through a close reading of its official strategy, instrument implementation and policy stances regarding past and future climate efforts. Last, we supplement our analysis through semi-structured interviews with senior European central bankers and MEPs engaging with ECB's climate efforts. The triangulation from the various empirical materials allows us to do three main contributions to the literature.

First, this article aims to provide the first fine-grained account of the rapid changes unfolding within the ECB about the climate challenge. Before 2018, the issue of climate change was rarely addressed, and always as a distant challenge of little relevance to central banking. The following two years were marked by discord within the ECB regarding the climate challenge, with opposing views being expressed publicly. This tension was only resolved in 2020, when half of the Executive

Board was renewed within a year. Since then, climate change is unanimously considered a genuine central banking issue, affecting both financial and price stability. The appointment of new members by the European Council, some of whom had clearly stated their commitment to climate change, had a much greater impact than European Parliament demands for climate action through accountability mechanisms.

Our second objective is to understand to what extent this new consensus represents a paradigm shift or a marginal addition to the core *central-banking-as-usual* framework. To do so, we pay particular attention to the rationales put forward by European central bankers to justify their climate action. We show that the climate-related policies implemented by the ECB are increasingly justified by a 'prudential' narrative, i.e. a defensive risk-based approach that aims at improving financial resilience in the face of climate-related dynamics (Baer et al., 2021). More 'promotional' efforts to proactively encourage the transition to a low-carbon economy through credit guidance are absent from the climate action plan decided in 2021. Yet, such agenda was not always ruled out. We show that several members of the Executive Board pushed for a more proactive approach, mobilising the ECB's secondary mandate as a justification for proactively supporting the EU's objectives, but that this narrative was abandoned after the June 2021 strategy review. Thus, it seems that the unanimous approval by the ECB's governing council of the four-year climate action plan was only made possible by moving away from promotional policies and embedding its climate action in a 'single materiality' approach.

Last, we discuss whether this prudential strategy is suited to address the climate challenge. On the one hand, the risk-based narrative has already allowed for genuine changes in practices, and future action could further the greening of ECB policies through 'strategic ambiguity' (van 't Klooster, 2021). But on the other hand, this strategy entails clear drawbacks. First, it takes ECB further away from coordination and enhanced democratic accountability. Second, it creates legitimacy problems, as the fundamental uncertainty surrounding climate risks considerably limits the legitimacy of a risk-based approach that cannot rely on clear, commonly accepted metrics. Third, it precludes any promotional policy that cannot be backed by prudential narratives, such as preferential interest rates for green activities that may be needed to escape the 'greenflation doomloop'.

The remainder of this article is organised as follows. Section 2 provides a short literature review and introduces our methodology and materials. In Section 3, we present our main results, showing how climate change has gradually emerged as a relevant issue for central banks at the ECB. These results are then discussed in Section 4, which attempts to understand how this change came about, and what the consequences are for the role of the ECB in the low-carbon transition. We conclude in section 5.

2. Literature review, methodology and materials

2.1. Literature review

Unlike what 'institutional amnesia' might suggest, central banks were not so long ago active far beyond their price stability mission (Braun & Downey, 2020). For example, Banque de France used during the post-war era its credit policy instruments to fulfil a wide range of objectives, whether industrial policy, trade policy, financial policy, or even budgetary policy (Monnet, 2018). More generally, credit-guidance policies were widespread across the globe, and successfully contributed to steering credit towards non-financial firms and accelerating industrialization (Bezemer et al., 2021; Mikheeva & Ryan-Collins, 2021). These policies were then abandoned and central banks, endowed with institutional independence from their political counterparts, scaled back the scope of their actions to focus solely on inflation control, during a period known as the 'Great Moderation' (Stock & Watson, 2002).

After thirty years of central bank independence and neutralization of credit policies, we may be entering a new era in which central banks regain some of their lost powers, re-entering more coordinative efforts with governments (Deyris et al., 2022; Scialom, 2022). The global financial crisis has indeed triggered important changes in central banks' actions, paradigms and ideas, reflected, for example, in the emergence of countercyclical macroprudential policies (Baker, 2013, 2018), the normalization of quantitative easing practices (Ronkainen & Sorsa, 2018), and the increasing purchase of sovereign debt on secondary markets (Gabor, 2021). The global financial crisis – and the following sovereign debt crisis – have both provided the European Central Bank an opportunity to reinterpret 'by stealth' the rules of the game and to extend its sphere of influence (Schmidt, 2016). This move may have been in large measure forced, due to political authorities' inaction, translating into 'institutional loneliness' (Mabbett & Schelkle, 2019). In short, the ECB

and other high-income country central banks have engaged in (or have returned to) broader and more far-reaching interventions since the global financial crisis, sometimes despite the lack of new formal powers.

In recent years, climate change has emerged as one of these new fields of action for central bankers, since the seminal speech of the Governor of the Bank of England, Mark Carney (2015). Since, a growing number of climate-related financial policies have been implemented in the past few years all around the world (D'Orazio, 2021). The sizes and shapes of these policies vary as central banks are not created equal in regards with their 'green policy space'. On the one hand, emerging countries benefit from wider mandates allowing for more far-reaching policies (Dikau & Volz, 2021a, 2021b). On the other hand, the central banks of high-income countries, still bound by narrow mandates and political independence, are engaging in more timid greening. They generally refuse to intervene as directly in the allocation of capital and settle for more passive roles by implementing informational policies to foster climate-related risks disclosure. However, as with the management of the global financial crisis, the 'institutional loneliness' triggered by political authorities' inaction in the fiscal or regulatory sphere could push central banks to green their actions even without formal changes to their mandates (Baer et al., 2021).

For van 't Klooster (2021), such a shift may be underway within the ECB. Without any new democratic input, ECB officials have abandoned the liberal ideas hard-wired in their mandate to embrace 'technocratic Keynesianism', relying on 'strategic ambiguity' to bridge the inconsistencies between the two. If the rebirth of macroprudential policy and the reintroduction of public bond purchases at a massive scale represent important changes in central banking operations, there is still debate to what extent they truly entail an ideational shift (Gabor, 2021; Levingston, 2021). More importantly for the purpose of this paper, it is still quite unclear what position climate-action entails in all of this, as most of the debate has focused on post-crisis transformations such as macroprudential policy or fiscal-monetary coordination. This is precisely the gap that this article tries to bridge, questioning to what extent climate action within the ECB might represent a break from *central banking as usual* or rather a marginal addition to a generally untouched core of ideas.

2.2. Methodology and materials

For the purpose of this paper, we follow a mixed-methodology similar to that used by Braun et al. (2021), in an attempt to escape the usual problems with ECB studies due to the opacity of this

institution. Indeed, if general accounts of the monetary policy committee sessions are available since January 2015, precise minutes and votes within the Governing Council remain confidential, and archives will only be shared with a delay of 30 years.

First, we rely on public speeches and official communications to try to approach ECB officials' positions. This has been done multiple times by the political economy literature, although not on climate change issues to the best of our knowledge (see e.g. Braun, 2021; Diessner & Lisi, 2020; Ferrara, 2020; Moschella & Diodati, 2020). While still a second-best material, public discourses are valuable resources for scholars. Indeed, communication is seen as increasingly important by central bankers themselves for so-called 'forward guidance' purposes (see e.g. Coenen et al., 2017), leading to regular and polished communications that have the explicit goal of shaping agents perceptions and anticipations. The performativity of their discourses is therefore not only recognised, but also actively pursued by central bankers. In this paper, we make these communications our primary material, which we explore using textual analysis methods (see Annex 1).

Second, we investigate the exchanges between the ECB and the Members of the European Parliament (MEPs). MEPs have two ways of interacting with members of the ECB. On the one hand, they can send a letter to the President of the ECB, or to the Vice-Governor responsible for financial stability, which are obliged to answer. On the other hand, MEPs can also directly ask their questions at the Monetary Hearings that take place every three months. Such interactions provide more interesting resources for MEPs and scholars, as questions are not sent in advance and require the ECB governor to respond on the spot. The MEPs letters and Monetary Hearing Q&As are available on the Commission's website, and the letters of answer are published on the ECB website. For both letters and questions in the Monetary Hearings, we followed a similar methodology than for speeches. We retrieved climate-related question using stemmatisation and lemmatisation and searching for keyword roots ('climat-', 'sustain-', 'carbon-', 'green-', 'fossil-'). We also retrieved the party membership to capture how partisan affiliation influences political demands on the conduct of monetary policy, as already shown for unemployment or growth (Ferrara et al., 2021).

Third, we complement the study of spoken words with a systematic review of regulations and policy documents concerning ECB's climate efforts. This includes monetary policy accounts, monetary policy decisions, as well as dedicated climate-related announcements, reports and in-house research.

Special attention is drawn to the actual and planned developments in the ECB's policy framework regarding climate change. Indeed, we aim to articulate the ECB's discourse and stated rationales with its actual deeds to point out possible discrepancies.

Finally, a series of semi-structured interviews with European central bankers and Members of the European Parliament allowed us to obtain insider views on the balance of power at the European Central Bank about climate-related issues. Central bankers interviewed are mainly senior executives, coming from the ECB and from national central banks, in order to capture the possible diversity of opinions in the Council of Governors. MEPs interviewed are members of the ECON commission that engage with the ECB on climate-related matters, either through monetary hearing questions or letters. The detail of these interviews is described in Annex 2.

3. Results: climate change mainstreaming at the ECB

In this section, we highlight how climate change has come to the fore within the ECB, taking an increasing share of its agenda. To do so, we provide a detailed account of how its public positions evolved through speeches of its Executive Board members and compare those words with the deeds of the ECB. We show how climate change has transformed from a distant challenge to a central bankers' problem in just a few years.

3.1. Warning words in a warming world

The first striking fact regarding climate change in ECB public positions is the quantitative increase of official speeches addressing this topic. As Figure 1 shows, the topic was mentioned only very rarely before 2018, appearing in a maximum of 3 percent of speeches. Starting in 2018, the number of speeches mentioning climate change slowly increased until it reached 20% in 2020. By 2021, this shift accelerated, with the proportion of speeches mentioning climate change reaching almost one in two. Figure 2 shows that the number of occurrences of 'climate' (and its derivatives) also skyrocketed in recent years. It rose steadily from 2018 to 2020 and then jumped to around 900 occurrences in 2021, at a level comparable to the mentions of 'inflation' (and its derivatives) of previous years.

Figure 1. Climate change in ECB speeches

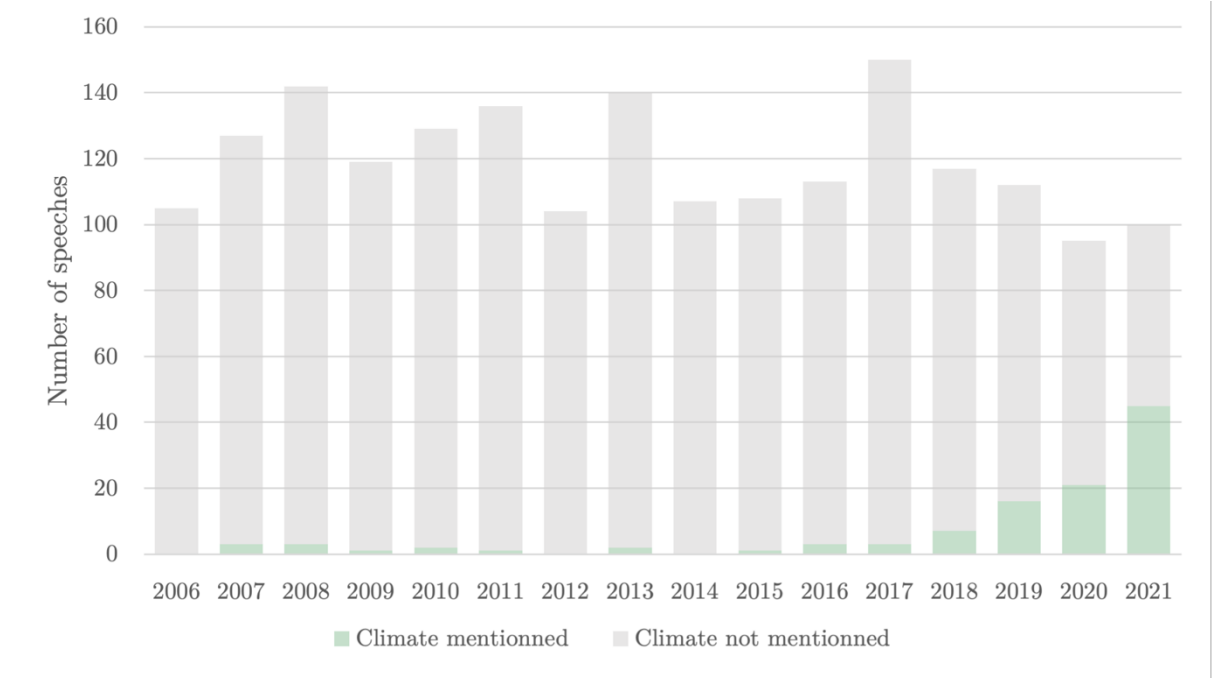
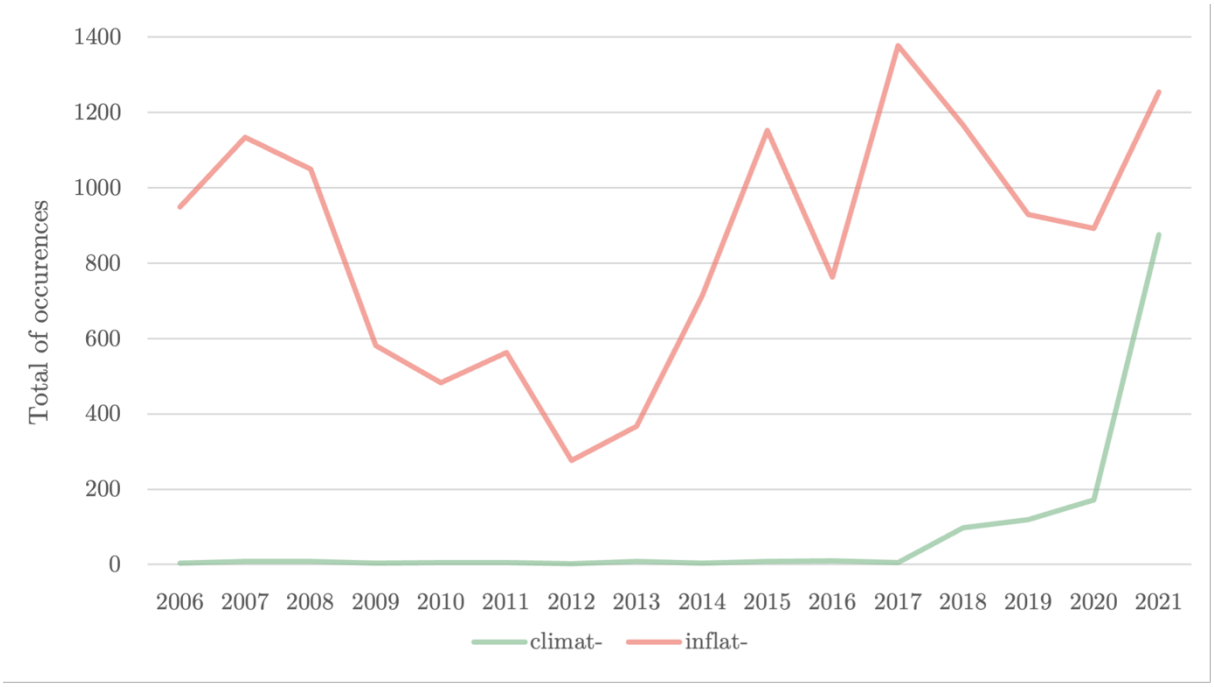


Figure 2. Climate change and inflation occurrences in ECB speeches



Besides this quantitative shift, recent years have witnessed a qualitative evolution. Indeed, climate change has been increasingly addressed as a central banker's problem, linking it to the ECB's missions, mandate and instruments.

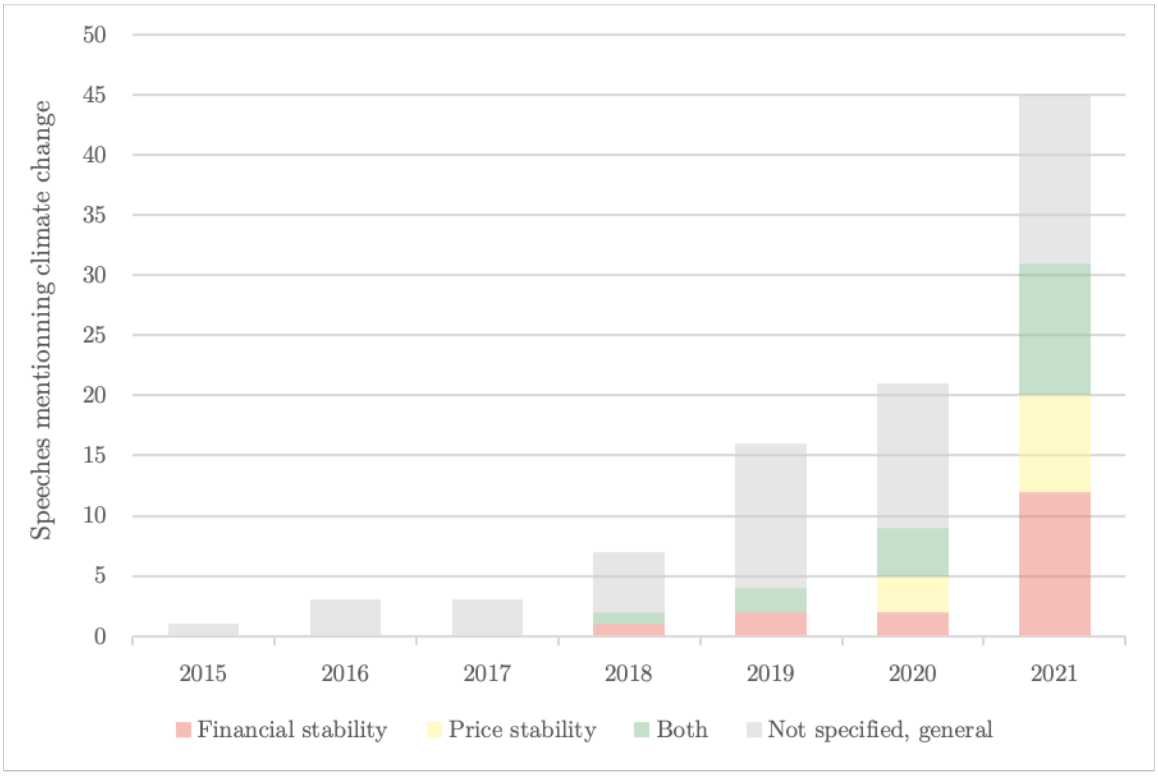
3.2. Climate change and ECB missions

The European Central Bank's has two main missions. First, it has to ensure price stability, keeping inflation 'around 2 percent in the medium term' (ECB, 2021). Second, it must ensure financial stability through the supervision of systemic banks. At first sight, climate change might seem remote from these concerns. Yet, it has been shown that climate change might be a threat for both[1], and several central bankers quickly followed Carney's (2015) seminal contribution by putting the issue on their agenda (e.g. Knot, 2015; Villeroy de Galhau, 2015).

Yet, before 2018, ECB speeches addressing global warming were usually mentioning it just once, and always referred to it as a 'great challenge' facing humanity, like digitalisation or demographic ageing. It was only with Lautenschläger (2018) and Benoît Cœuré (2018) speeches that climate change began to be framed as a central banker's problem. In the following years, the number of speeches making this link soared, and climate change even became the main focus of some speeches, whether to develop the links between climate and price stability (Schnabel, 2021) or between climate-related risks and financial stability (Elderson, 2021a). In 2021, more than two thirds of the speeches mentioning climate change explicitly mentioned it as a threat to all or part of the ECB's missions, as shown by Figure 3.

[1] Climate-related dynamics represent a threat for both financial and price stability. First, the acute and chronic consequences of climate change represents a 'physical risk' to the financial system (Batten et al., 2016) whereas 'transition risks' might lead to unanticipated losses in financial markets due to the decline of certain activities along the transformation to a low-carbon economy (Battiston et al., 2017). Second, climate change could also have significant impacts on price stability through temperature shocks (Mukherjee & Ouattara, 2021), increased number of disasters (Beirne et al., 2021; Parker, 2018), or through energy prices and transition dynamics (Schnabel, 2022; World Bank, 2021).

Figure 3. Climate change and ECB missions



ECB members increasingly see climate change as a direct threat to the success of their missions. However, does the ECB's mandate allow them to react?

3.3. Climate change and ECB mandate(s)

On that matter, the last few years have seen an impressive shift in stances. In 2018, Benoît Cœuré (2018) and Mersch (2018) were the first two to take positions. On the one hand, Benoît Cœuré argued that the financial and price stability implications of climate change meant that the ECB could not play a spectator role and had to 'actively support the transition to a low carbon economy'. Three weeks later, Mersch defended the opposite view. He argued that central banks should avoid to 'venture into [such] a political agenda with distributional consequences' and warned against the possibility of undermined legitimacy and possible litigation if the ECB was to take any green action.

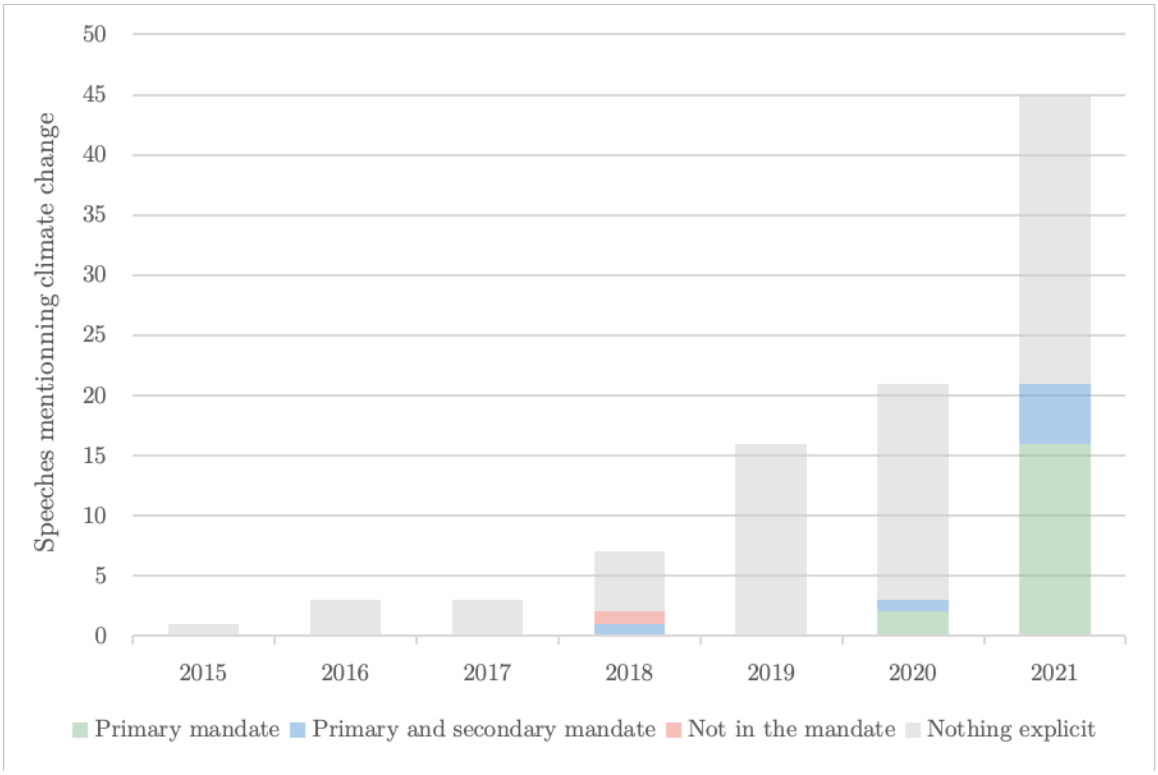
To understand this discrepancy, one needs to look at the mandate of the ECB. The 1992 Treaty on the Functioning of the European Union (TFEU) does not specify anything about climate change, but is broad enough to leave the door open to various interpretations. On the one hand, the mandate states that 'the primary objective of the European System of Central Banks (ESCB), shall be to maintain price stability', and that 'The ESCB shall act in accordance with the principle of an open

market economy with free competition'. If, like Yves Mersch argues, climate change's threat for price (or financial) stability is over-stressed, then ECB should not act regarding climate change, and avoid any action that may have distributional consequences.

On the other hand, the same article also states that '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' (emphasis added). Said Article 3 of the Treaty states that the 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*' (emphasis added). This is often referred as the 'secondary mandate' of the ECB, being hierarchically subordinated to the achievement of the primary objective. Besides climate-related risks for financial and price stability, this secondary mandate provides additional justification for greening (Van Tilburg & Simić, 2021).

After the 2018 opposition between Mersch and Cœuré, no explicit positions were taken regarding ECB's mandate for almost two years, as illustrated by Figure 4. However, a large share of speeches implicitly relied on the primary mandate by framing climate change as a threat for financial or price stability, hence acknowledging its relevance for the ECB. The year 2020 marked a second shift, with Lagarde (2020) and Schnabel (Schnabel, 2020b) making again an explicit statement that climate change was within the scope of the primary mandate, 2 years after Cœuré. Besides, Schnabel (2020a) also made an allusion to the secondary mandate. The secondary mandate was then mobilised in ECB speeches 5 other times in early 2021, thanks to Schnabel, Elderson and Lagarde. Far from the fears of mission creep evoked by Mersch, inaction is since 2020 seen as the biggest risk to the ECB's legitimacy (Elderson, 2021b).

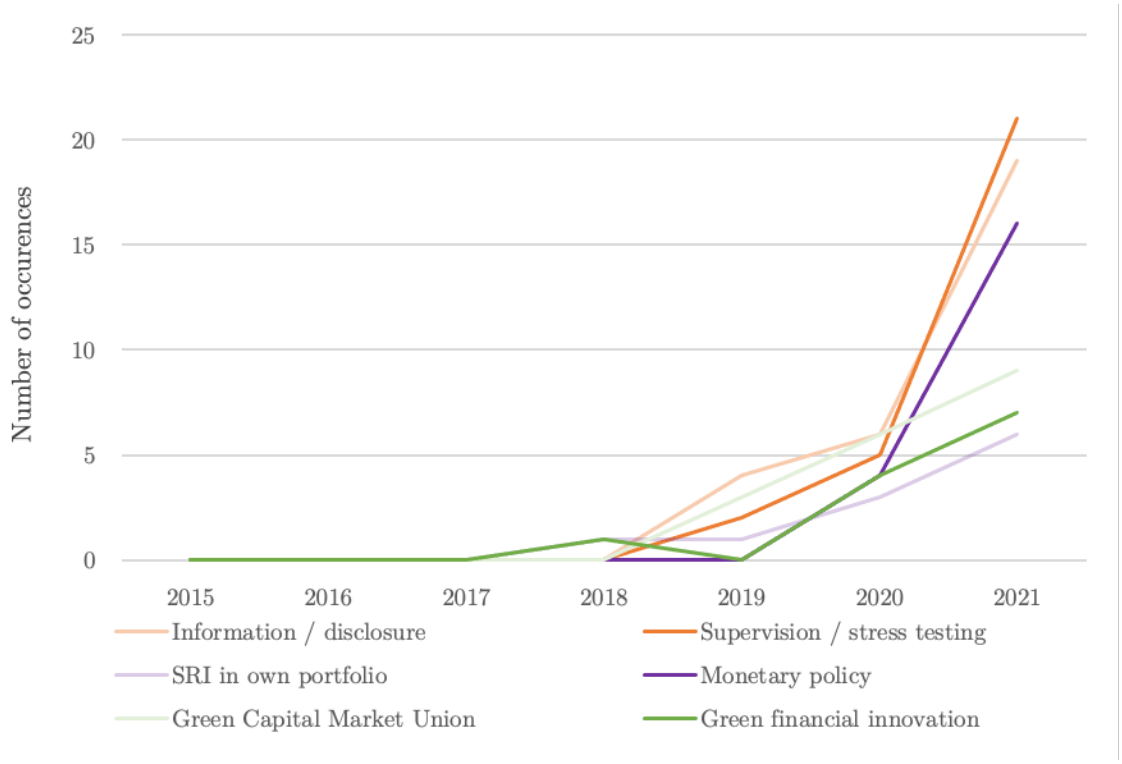
Figure 4. Climate change and ECB mandate



3.4. From words to deeds

As climate change began to be considered as relevant for ECB's missions and mandate, European central bankers began to discuss ideas on how to integrate climate change in their policymaking. Leaving aside the support for e-invoicing mentioned a decade ago by Tumpel-Gugerell (2010), the first mention of ECB climate efforts appeared in Coeuré's speech (2018). He recalled that (i) the ECB managed its own portfolio with ESG criteria and (ii) that its quantitative easing program led to significant green bond purchases. In 2019, three other instruments were mentioned in speeches (see Figure 5). European central bankers started to discuss the need to improve information disclosure, to conduct climate stress tests, and to call for a green capital market union to foster the development of sustainable finance. Last, they started to discuss the possibility of modifying their monetary policy operations in 2020.

Figure 5. Climate change and ECB instruments



Words were not always followed by action, but the number of climate initiatives within the ECB significantly increased from mid-2020 onwards. First, the European Central Bank tried to build expertise. It joined the Network for Greening the Financial System[2] (NGFS) steering committee in July 2020 and launched an in-house climate change research centre in January 2021 in order to better understand the macroeconomic consequences of climate change on ECB's missions and instruments. Second, it also engaged in climate-related policymaking. For example, the ECB drafted a methodological guide on financial climate risks (BCE, 2020b), and launched a climate stress test programme for the main European banks (Elderson, 2021c). It also decided in September 2020 to accept sustainability-linked bonds as collateral (BCE, 2020a). But the *point d'orgue* of its climate commitment was decided during its strategy review of July 2021. It led to a four-year climate action plan that was accepted unanimously by the extended Counsel of Governors. First, it announced that it would be pushing for more informational disclosure about climate-related risks. Second, it established climate stress-testing as a new routine, with possible future capital requirement

[2] The NGFS is a network of central bankers and financial regulators across the globe that aims to mutualise expertise on climate-related topics to facilitate policy implementation and diffusion across its members.

consequences. Third, it acknowledged the need to integrate climate-related factors in the conduct of its monetary policy and announced the possible reform of its corporate asset purchases and collateral frameworks, that were criticised for their carbon bias (Dafermos et al., 2020, 2021).

4. Discussion: climate change, technocratic struggle and the strategy review backlash

From the empirical data presented in the previous section, three periods can be isolated in the history of climate change at the ECB. Before 2018, climate change was not seen as a relevant topic, even though Carney (2015) had already launched the topic in the central banking sphere. Between 2018 and 2020, conflicting views were publicly expressed regarding its relevance, and most speeches did not problematise climate change in central banking coordinates. It was only from 2020 onwards that climate change truly became consensual and put at the fore of its agenda, being incorporated in actual policy developments and becoming a central part of ECB's 2021 strategy review. In this section, we aim to understand how this shift was achieved, and what it entails for the future climate efforts of the ECB.

4.1. Climate mainstreaming and technocratic change

Since its creation, the ECB's mandate has remained unchanged. As explained above, it only provides loose guidelines for European central bankers, especially regarding the climate challenge. This room for interpretation is both a strength and a weakness for central bankers. On the one hand, it provides them with a sufficiently plastic basis for dealing with situations that were not foreseen at the time of the delegation, which is particularly useful in the event of a crisis. On the other hand, this vagueness leaves them at the constant mercy of legal or political attacks against the choices they make without any political or democratic input (de Boer & van 't Klooster, 2020). Could it be that the ECB's climate mainstreaming was caused by such external pressure, gradually altering the views of the Governing Council members? We argue that this is not the main reason, and that this change was driven more by an internal technocratic shift through the renewal of the Board.

Of course, MEPs did question the ECB on the climate issue, and many exchanges have taken place on this topic since 2015. MEPs mobilised the various tools at their disposal to make the ECB accountable, via questions at the Governor's quarterly monetary hearings before the ECON Committee, and via parliamentary letters that allow any MEP to get a written answer from the

ECB President. Figures 6 and 7 show the number (and share) of letters and questions dealing with climate change and detail for each the political affiliation of its author.

Figure 6. Climate-related questions to ECB

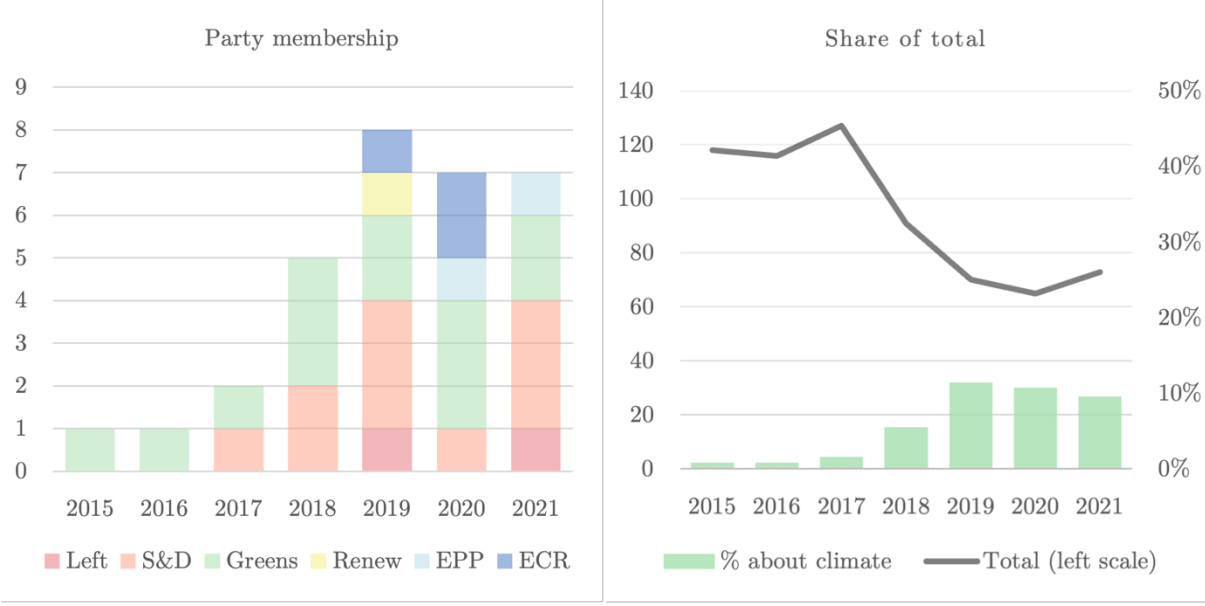
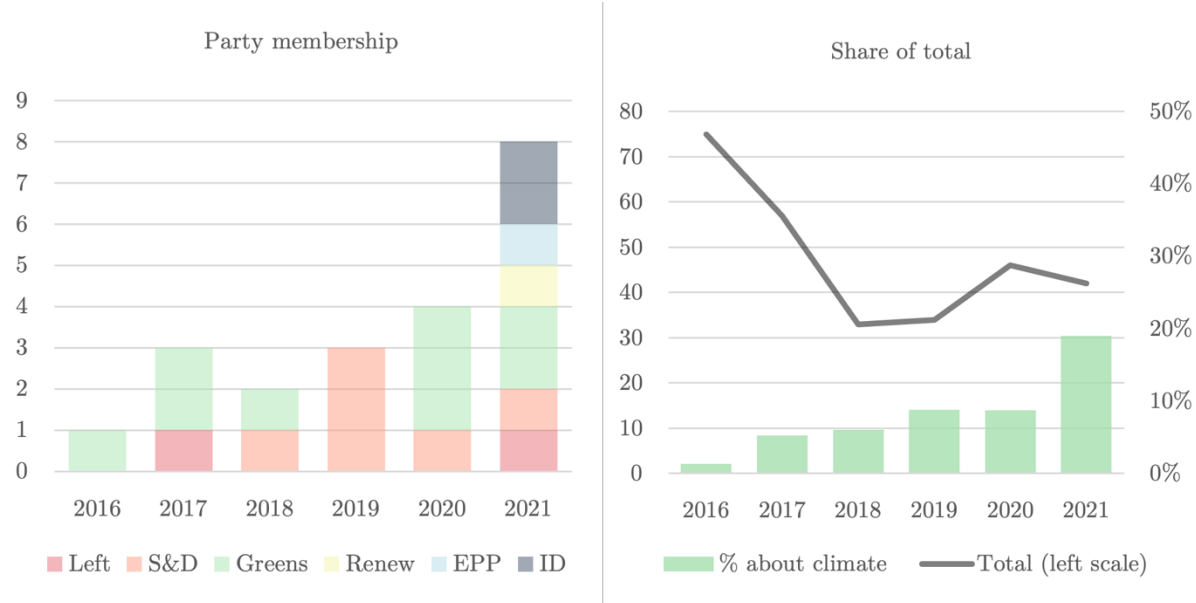


Figure 7. Climate-related letters to ECB



But we argue that this was not really an important driver of ECB's climate mainstreaming. As these figures show, questions and letters regarding the climate challenge largely preceded the ECB's climate actions, which for many years simply ignored these demands from the left. These requests remained however marginal, representing about 10% of the interactions, even decreasing slightly

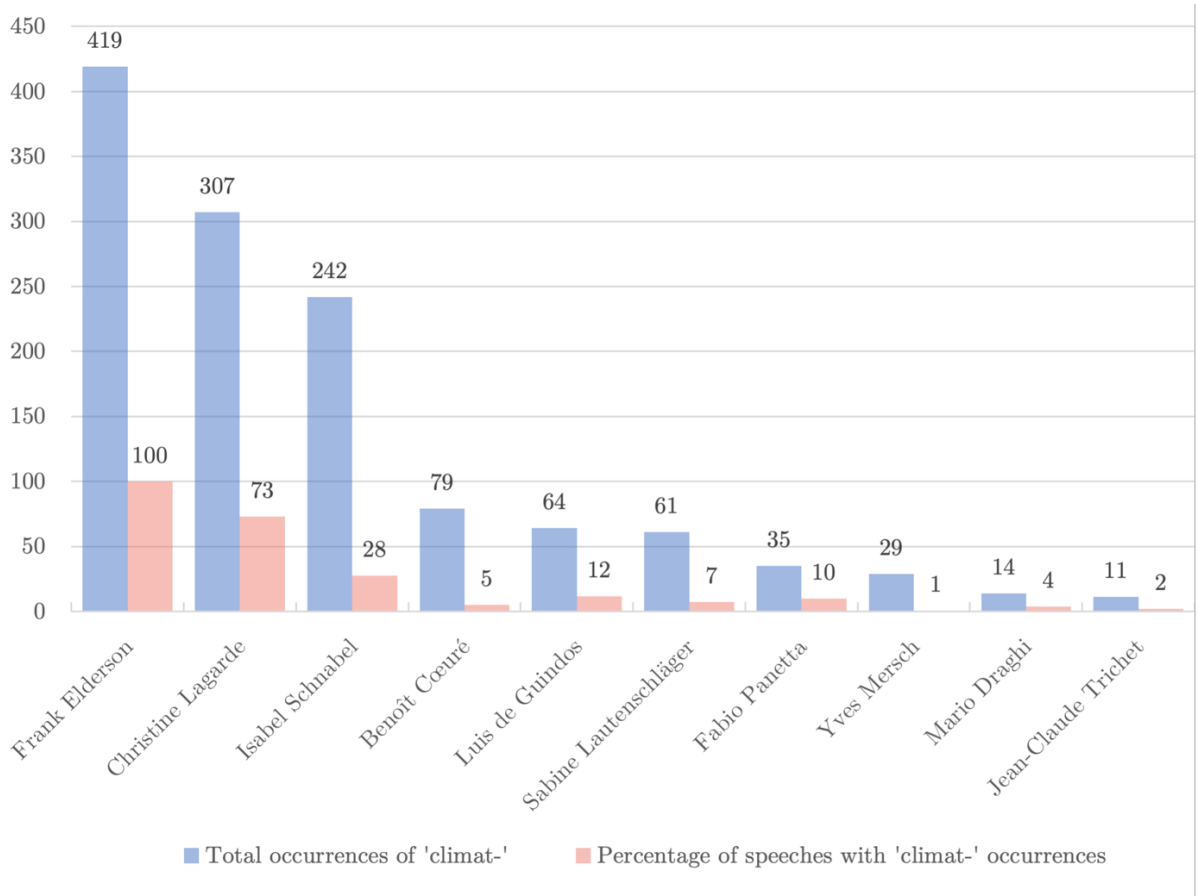
for the monetary dialogues. The number of letters, on the other hand, doubled in 2021, the year the ECB announced its climate action plan. However, this rebound was due to right-wing parties who, unlike their left-wing counterparts, did not push *ex ante* for more greening, but instead protested *ex post* against ECB climate agenda. Indeed, there seems to be a strong political divide structured around the left-right axis. Far from the consensus reached in 2021 among the Governing Council, the strategic review has instead split the European Parliament in two.

Rather than being the result of mounting political momentum from the European Parliament, we argue that climate mainstreaming must be attributed in large part to a change in leadership. Indeed, half the Executive Board was renewed in the span of a year, which is an important and infrequent event, as the terms of office are 8 years long. Besides, the three members who left the Board were in fact the most reluctant to green the ECB's actions. Sabine Lautenschläger resigned in September 2019 for a disagreement over Quantitative Easing, and was replaced by Isabel Schnabel. Mario Draghi left office a few months later, and was succeeded by Christine Lagarde. Finally, Yves Mersch finished his mandate at the end of 2020 and was replaced by Frank Elderson (previously President of the NGFS). Interviews reveal that the three newcomers, contrary to the three previous members of the Governing Council, are rather *dovish* when it comes to incorporating climate change into ECB's actions. It also shows in speeches and interviews, as Elderson, Schnabel and Lagarde quickly became the most committed climate advocates within the board, as shown in Figure 8. Frank Elderson, for example, has used the word 'climate' (and its derivatives) more than 400 times in his 10 speeches since taking office. The topic was present in every one of his speeches. During the same period, he did not mention inflation once.

Not only newcomers talk more about the climate, but they also embrace completely different views about ECB's role. As previously discussed, Lagarde, Schnabel and Elderson all embrace a broader interpretation of the ECB mandate and acknowledge the relevance of the 'secondary mandate' for the climate challenge. They also highlight in several speeches the promoting role of ECB in accepting green or sustainability-linked green bonds in their monetary policy framework. This marks a clear break with the views of their predecessors. Lautenschläger and Mersch were both in favor of a restricted interpretation of the mandate, considering climate action as a dangerous drift away from ECB missions. Besides, they not only argued against green support in the name of market neutrality, but also explicitly warned that the rapid growth of the green financial niche

represented a financial risk to be monitored, even picturing the overvaluation of green assets as a third type of climate-related risk (Lautenschläger, 2018; Mersch, 2018). This 'green bubble' aspect is completely absent from the speeches of the new ECB Board Members, who rather embrace a very promotional and optimistic view of green financial innovations.

Figure 8. Climate change and ECB's Executive Board



4.2. The backlash of the strategy review

The renewal of the Executive Board has sparked the integration of climate change at the ECB. What we in turn want to understand now is if this incorporation of climate-related issues triggered some deep changes in ECB officials' views of their own role in the transition, or if it was a more limited addition to the *central-banking-as-usual* framework.

To answer this question, we rely on the framework proposed by Baer et al. (2021) that separates prudential from promotional motives for action. On one hand, the 'prudential' instruments are those justified by the desire to foster the resistance of the financial system in the face of climate-related risks. These are defensive, reacting to transition or physical risks, and embrace a 'single

materiality' approach, only factoring in the threat posed by climate change to finance. On the other hand, 'promotional' instruments are those justified by the desire to help climate change mitigation by greening financial flows, regardless of the associated risk. These are proactive, 'market-shaping' rather that 'market fixing' and assume a credit guidance role for a more sustainable future. They embrace the opposite end of the 'double materiality' approach, looking how finance can contribute to climate change mitigation. Of course, some instruments could be motivated by both narratives, but some others clearly belong to one or the other category.

Looking at ECB's double hierarchical mandate, one could imagine both prudential and promotional narratives as argumentative resources used by ECB governors to justify the greening of their actions, given the prominence it has taken in their speeches. Yet, by looking at ECB speeches, answers, letters, official documents and climate-related policies, it seems that the promotional motive has made only a brief and tentative appearance between mid 2020 and mid 2021 and disappeared completely after the strategy review.

Indeed, it appears that the three main instruments chosen by the strategy review to be carried out are all justified by prudential arguments alone. First, ECB wants to improve disclosure about climate-related risks to improve financial stability in the face of climate challenges through methodologies, guides and disclosure incentives. Second, the ECB wants to increase its supervision, and the number and severity of climate-related stress tests. Last, ECB is willing to incorporate climate change into its monetary policy by tilting its corporate asset purchases program and modify its collateral framework. While the first two instruments are unquestionably prudential, the last one could be framed as a credit guidance instrument to support the transition. Yet, it is not the case. The motives put forward by the ECB to incorporate climate criteria to its monetary policy are to (i) protect its balance-sheets from climate-induced losses and (ii) incentivise the pricing of climate-related risks that may not been fully reflected yet. The possible impact on the mitigation of dirty financial flows is seen at best as a positive externality but is usually carefully left out from justifications.

Second, the three other instruments evoked by the ECB across the years (socially responsible investment for its own portfolio; fostering the green capital market union; promoting green financial innovations) do rely on promotional narratives but are to a large extent not *actual policies*. First, the 'socially responsible management' of the ECB's portfolio is, by definition, not part of its

monetary policy. This choice therefore only concerns its own funds and the pension plans of its employees, a negligible part of its balance sheet, separate from its monetary creation powers. Second, the support for green bonds that is sometimes put forward in speeches is spurious, as ECB buys these assets only in the same proportion as others (ECB, 2017). Indeed, the ECB keeps resting on the 'myth' of market neutrality (van 't Klooster & Fontan, 2020) to portray its monetary policy as not picking winners and losers. Therefore, the only green bonds held by the ECB are purchased to the extent that they are eligible, in the same proportions as any other type of asset, without any form of promotional favoritism. Third, the support for a green capital market union (CMU) might not be so new and have little to do with climate-related objectives. Indeed, as shown by Baudraz (2021) the CMU has been advocated by ECB members as a way to foster growth or resilience across the Euro area since 2015 (see De Guindos, 2019 for a paradigmatic defence of CMU). It's only become recently presented as a way to foster the low-carbon transition, framing the fragmentation of capital markets and remaining national idiosyncratic regulations as a brake for the low-carbon transition (see e.g. Lagarde, 2021). Therefore, painting the CMU green is just a way of providing new arguments in favour of the same old mantra of macroeconomic stabilization through capital market integration. Moreover, this call for reform cannot be envisioned as any type of ECB policy, as CMU remains primary under the hands of the European Commission (Braun et al., 2018).

The ECB has nevertheless implemented a genuine promotional policy: the support of sustainability-linked. This new asset class allows companies that emit them to finance themselves at a lower cost if they meet a sustainability target set in the design of the bond. Since the beginning of 2021, the ECB accepts these new assets in its collateral framework (ECB, 2020). This decision is indeed promotional[3], as it cannot be backed by any prudential narrative, and contrary to the other promotional efforts put forward in ECB speeches, is an actual policy *coup de pouce*. Indeed, these assets were not fulfilling one of the conditions for being accepted as collateral by the ECB, having varying-coupons. Derogating to its principles to accept these new financial products as collateral

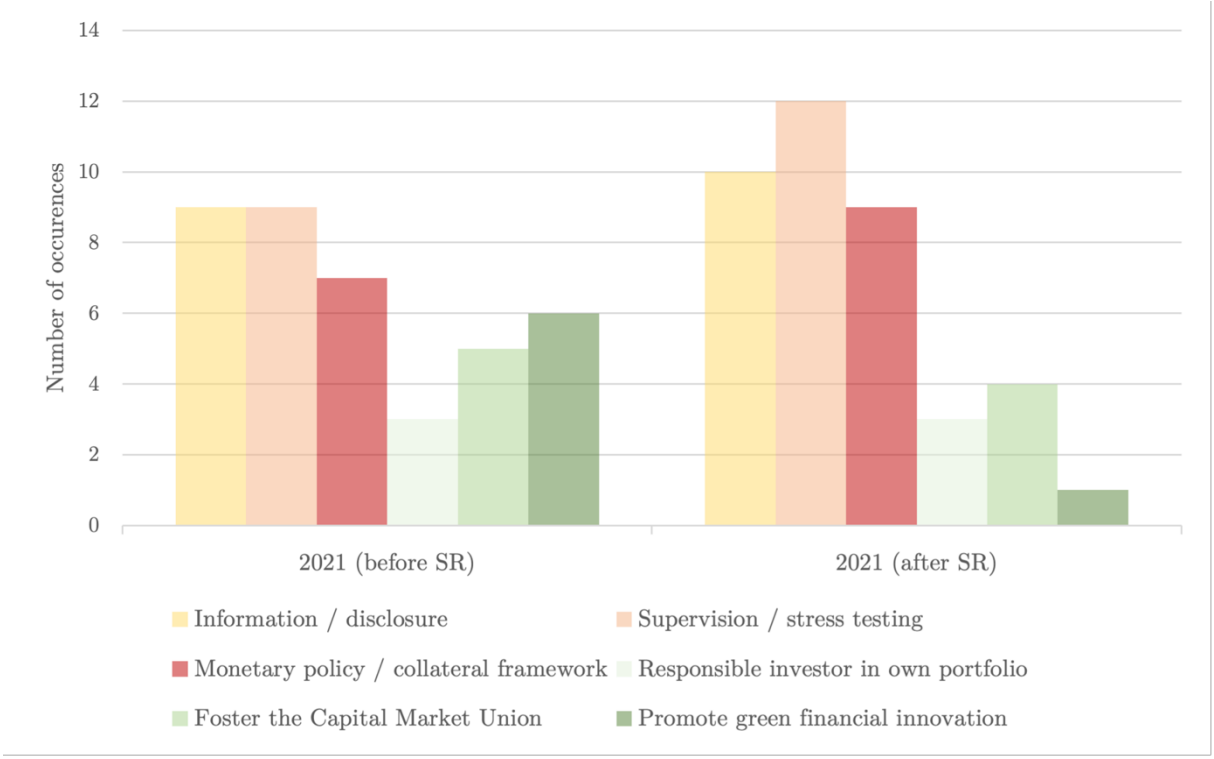
[3] Lagarde explicitly recognised this being a promotional *coup de pouce* in her answer to Eugen Jurzyca (ECR) in the Monetary Hearing of the ECB (19/11/2020) 'What I think you're referring to is a decision that has been made to actually accept a particular derogation in terms of the structure of the green bonds that we accept, which provides for a variable coupon as opposed to a fixed coupon, which was the rule previously. *And that will certainly help buying, or rather accepting as collaterals, some of those green bonds*, because quite a few of them are climate-related and therefore have an element of uncertainty about them' (emphasis added)

transformed them from niche illiquid assets to shadow money that can be exchanged for cash, which may explain the current overvaluation of these bonds and its 8-fold increase in issuance in 2021 (Berrada et al., 2022).

But here again, the strategy review seems to have turned the tables. First, this measure was taken between mid 2020 and mid 2021, before the strategy review. Second, this type of promotional measure has been completely left out of the climate plan, which does not include the extension of the collateral framework to any new green assets that would be given preferential treatment. Third, the support to sustainability-linked bonds ceased to be mentioned in public discourse or parliamentary exchanges after the strategy review. Between September 2020 and July 2021, Lagarde used this example as a showcase for the ECB's voluntarism in 5 out of 7 responses to parliamentary letters addressing the issue of climate change, even when it had no clear link to the question[4]. This policy was also put forward in 6 speeches during the period. But after the strategy review, while political demands for stronger promotional efforts kept growing, sustainability-linked bonds never appeared again in public speeches or monetary hearing sessions and appeared only once in the 8 answer letters from Lagarde to MEPs asking about climate action. Thus, this policy has ceased to be a good example for ECB members in terms of its climate policy. Such a drop of promotional motivated 'instruments' in ECB public discourses also concerns the other previously discussed policies, as shown by Figure 9.

[4] Letters Z-038/2020, Z-040/2020, Z-049/2020, Z-056/2020, Z-006/2021.

Figure 9. Promotional and prudential after the Strategy Review



Last but not least, we argue that the strategy review marks the end of the promotional agenda because it marked the end of references to the secondary mandate in ECB speeches. Indeed, in addition to Cœuré's (2018) speech, the 6 evocations of the secondary mandate by ECB board members took place in a short period between July 2020 and June 2021. After the strategy review and the publication of the action plan, the secondary disappeared completely from ECB public speeches and letters. Although ECB legal staff recognise the secondary mandate could provide a legitimate basis for ambitious climate action (Ioannidis et al., 2021), our interviews show this is being frowned upon by some central bankers in 'frugal' countries such as Belgium, Austria, and Germany. These governors see the secondary mandate as a pandora's box that should remain unopened. They fear that utilizing the secondary mandate would mark a first step towards a dangerous drift away from the ECB's main mission, namely price stability. Other objectives, too broad and undefined, should remain the responsibility of elected political authorities alone.

Based on this evidence, it seems that the unanimity around the strategy review and the climate action plan was not achieved without a counterpart. Contrary to the somewhat hasty conclusion of a steady progress towards a greener ECB, some of its climate-friendly ambitions had to be scaled back to achieve a political balance within the Governing Council. The mainstreaming of the climate issue was only achieved by abandoning promotional narratives and ensuring that the secondary

mandate would not be used to support proactive climate-related financial policies. This transpires from the monetary stability account of the meeting that voted the strategy review (08 July 2022), stressing that the rationale for action is only based on the primary mandate. Therefore, it appears that this meeting was a critical juncture, the Governing Council accepting the climate action plan as long as it only embraces a single materiality and prudential approach to climate action.

4.3. The shortcomings of strategic ambiguity

This choice of a prudential approach that discards double materiality and secondary mandate motives has important consequences for the future of climate action at the ECB.

On the one hand, one should not overlook that this choice has interesting advantages. First, it was a way of breaking the deadlock within the Governing Council, some of whom rejected climate action altogether for the fear of a promotional slippery slope. Translating the climate issue into the coordinates of usual central banking considerations while closing the discussion about the secondary mandate allowed to lift this blockage. Second, a prudential approach can lead to policies that do have promotional consequences. If the ECB were to adopt an updated principle of 'market efficiency' (as previously discussed by Schnabel (2021) and foreseen in the ECB's four-year climate plan) in place of 'market neutrality', this would imply going against market signals to penalise carbon-intensive assets in its collateral framework (Dafermos et al., 2021), or even excluding certain assets from its private sector purchase program, going against ECB's current carbon bias (Dafermos et al., 2020; Matikainen et al., 2017). Admittedly, the principle of market neutrality would only be abandoned by ECB officials for prudential reasons only, to (i) protect its own balance sheet from losses related to stranded assets and (ii) encourage market participants to re-examine the market prices of dirty capital stocks, whose risk may be underestimated. But while advocated on prudential grounds, the drop of market neutrality for market efficiency would nonetheless push in the direction of a facilitated transition, rendering credit more expensive for polluting activities, therefore having promotional consequences. This is a perfect example of what van't Klooster (2021) calls 'technocratic Keynesianism', the ECB engaging in (green) distributional policies while relying on 'strategic ambiguity' to hide actual changes and credit guidance operations behind risk-based narratives.

On the other hand, we argue that this strategic ambiguity choice has important shortcomings. As with financial regulation, relying only on prudential rationales is a 'risky bet' (Smoleńska & van 't

Klooster, 2021), as closing the door on promotional narratives comes with a number of inherent limitations. First, it means remaining locked in the previous prudential paradigmatic framework that suffers from multiple drawbacks for tackling the climate challenge (Chenet et al., 2021; Dafermos, 2021; Smoleńska & van 't Klooster, 2021). The climate-relevant information is scarce, suffers from comparability and availability limitations, and methodologies to assess climate-related risks supplementing actuarial calculus with scenario analysis are still in an early stage (Taylor, 2022). Due to the radical uncertainty surrounding climate change, standard datasets and backward-looking risk assessments are irrelevant, preventing the ECB from relying on a set of depoliticised, market-tested indicators. Besides, even if such datasets and methodologies existed, the temporal mismatch between financing/repayment and production/pollution as well as the very insufficient internalisation of the carbon externality in market prices contributes to disconnecting, sometimes totally, the transition risk carried by a financial asset from the threat it creates for the environment. Therefore, it could be perfectly rational and risk-free for the ECB to accept coal-backed assets as collateral if the associated transition risk is expected to materialise after the redemption of the collateral.

Second, relying on prudential narratives only means pushing further the technocratic content of central banking rather than accepting a more cooperative inter-institutional solution with a more democratic clarification of authorization gaps (de Boer & van 't Klooster, 2020, 2021). Indeed, as central banks are the main producers of expertise in monetary policy (Dietsch et al., 2019), the prudential approach puts ECB in the uncomfortable position of being both judge and jury, and thus risks undermining its legitimacy (Monnet, 2021). As we have just seen, this is especially true for climate change, as methodologies and data availability do not provide unequivocal commonly accepted answers. Besides, going against the market-valuation through an updated market efficiency principle means also to go against the de-politicization strategy that the ECB has been trying to follow the past decades (van 't Klooster, 2022), and ECB's willingness to quickly build up internal expertise does not protect against legal attacks. While economic rationale for 'market efficiency' might give technical reasons to go green, it might not align with the legal perspective 'which is concerned with accountability and independence issues that arise when a non-majoritarian institution such as the ECB decides whether economic activity should occur in "green" or "dirty" sectors' (Steinbach, 2022). Relying only on prudential rationales implies to double down on

technocratic expertise fragilised by the inherent limitations of climate-related uncertainty and might not be sufficient to escape legitimacy concerns or adverse legal action.

Third, relying on prudential-only narratives restricts the range of possible instruments and policies for the ECB. Indeed, not mobilizing the secondary mandate makes it impossible for the ECB to pro-actively steer capital towards sustainable finance or subsidise certain types of green activities detached of risk rationales. Any effort to do so, such as the one made with sustainability-linked bonds, is likely to be challenged due to their lack of formal support[5]. This sheds new light on the case of green targeted long term refinancing operations (TLTROs) that were advocated by multiple academics and non-profits as a way to foster green credit in Europe (van 't Klooster & van Tilburg, 2020). In a response to MEP Bas Eickhout (Greens), Lagarde explicitly recognised in November 2020 that such an instrument was discussed internally for the Strategy Review. But in November 2021, in response to MEP Aurore Lalucq (S&D), she admitted that the Governing Council had decided to set aside this instrument for the time being. Although not surprising given our hypothesis about the strategy review, this choice could become an important issue in the future as the energy crisis develops. Indeed, such preferential interest rates for sustainable activities could be a way for the ECB to break from the 'greenflation doomloop' by keeping the cheap liquidity tap open for sustainable investments in renewable energies while tightening its monetary policy for other economic activities (Campiglio et al., 2022). In the absence of such a preferential mechanism, expensive initial investments with long-term returns, such as renewables, are likely to suffer greatly from an increase in discount rate. A rise in rates could then significantly slow down the phasing in of renewables and the phasing out of fossil fuels, further slowing down the transition and exacerbating long term climate-led inflation and financial instability.

5. Conclusion

Based on the policies pursued and announced and the narratives put forward to justify them, the integration of climate change into ECB policies seems to be moving in a reformist rather than a revolutionary direction. After a period of uncertainty, it appears that the window of opportunity for a broader interpretation of the mandate including supportive objectives has been closed after

[5] In fact, sustainability-linked bond acceptance was already challenged in the Monetary Hearings session of November 2020 by right-wing MEP Eugen Jurzyca (ECR)

the Strategy Review. Still, the usual instruments and risk-motivated rationales could be used to tentatively guide credit towards a more sustainable future. The fact that the discussion can be framed in terms of risk and market failure helps to bring climate change into the discussion without having to drop the whole *central-banking-as-usual* paradigm, and the drop of the market neutrality doctrine on behalf of prudential narratives will nevertheless have welcome promotional consequences. However, this temporary bricolage does not resolve deeper contradictions. In fact, it deepens them. First, the specificities of climate change and its inherent radical uncertainty raise deep concerns about the feasibility and legitimacy of a purely technocratic greening. Second, it distracts the ECB from any heightened coordination with its political counterpart to resolve its authorization deficits in a more democratic manner (de Boer & van 't Klooster, 2021). Third, such a policy choice forces the ECB to restrict itself to a portfolio of instruments that can be motivated based on risk-based narratives. Despite their potential relevance as the transition dynamics accelerate, promotional policies such as green TLTROs remain out of reach if the ECB sticks to a narrow reading of its mandate, in line with its usual strategy of depoliticization.

In the last Monetary Hearing of 2021, Lagarde had to answer a question on ECB's secondary mandate by MEP Chris MacManus (Left). She answered that the ECB could actually make use of that supportive mandate provided that it did not go against price stability and that the Parliament clarified the list and hierarchy of secondary objective[6]. Such guidance was provided only a few months later, the 14th of February 2022 after the vote of a Resolution about ECB's annual report (European Parliament, 2022). In just a few paragraphs in a section devoted to climate change, this resolution recalls that the ECB, as an EU institution, is bound by the EU's climate commitments under the Paris agreement and points out that the ECB's secondary mandate requires it to support EU objectives. It also notes ECB's focus on financial risks and calls for a dual materiality approach following the principles of the EU sustainable finance framework. Finally, the resolution regrets the carbon intensity of the European monetary policy and ECB's poor support for green financial assets.

[6] 'As part of the secondary objectives, we obviously have the economic development, we have the respect for the environment and the fight against climate change, and so on and so forth. Clearly, those have to be taken into account, *particularly if those secondary objectives are stated very clearly by the other institutions, and in particular by the European Parliament*' (emphasis added)

It is too early to know if this resolution will be acted upon. The ECB remains one of the most independent central banks with regards to its political counterpart – at least *de jure*. Therefore, ECB may very well ignore these political demands, especially in times of rising inflation. Unlike the Bank of England, which inherited a clear climate mandate in 2021 to incorporate promotional objectives, the ECB is still constrained by the treaties that govern its actions, written almost 30 years ago. While these have been reinterpreted multiple times since the financial crisis, it remains to be seen to what extent their plasticity will allow for the incorporation of extra-monetary concerns such as climate change - and whether this will be sufficient.

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Annex 1.

We rely on the speech database provided by the ECB (ECB, 2019), downloaded in early January 2022, that contains all speeches by members of the ECB's Executive Board from its inception until 31 December 2021, for a total of n=2633 speeches. Missing information on speakers was added manually. Then, we processed the corpus to remove punctuation, stop words, stemmatise (keeping only the root of the word) and lemmatise (putting words in their neutral form) the speeches. In this way, we avoid missing words derived from those we are interested in ('climatic', or 'inflationary' for example). Finally, we isolated in the corpus the speeches that mentioned the stem 'climat' at least once (199 speeches). We then went through these speeches to manually remove 91 false positives (e.g. 'economic climate', 'political climate', etc.), leaving 108 relevant speeches[7]. The relevant speeches were then all read, and qualitative variables were coded manually along three dimensions to characterise the way climate change was addressed by the speaker:

1. Is climate change presented as a direct problem for central bank missions, or only in general terms? If so, does it mention financial stability, price stability or both?
2. Is the ECB's mandate explicitly mentioned? If so, is it only the primary mandate or also the secondary mandate?
3. What are the possible policy instruments mentioned by the ECB to meet this climate challenge?

Coding was done independently by two people, the author and a research assistant, and then compared to reduce the subjectivity of the exercise. The database of the 108 speeches enriched with these qualitative variables is available from the author upon request.

[7] We also searched the database for other relevant keywords such as 'green economy', 'low carbon' and 'green bond' to make sure we did not miss any relevant speech.

Annex 2.

The table below presents a summary of the semi-structured interviews conducted for this research. Central bankers interviewed were mainly senior executives, coming from the ECB and from national central banks to capture the possible diversity of opinions in the council of governors. MEPs interviewed were active or former members of the ECON commission that engage with the ECB on climate-related matters, either through questions or letters.

No	Interviewee	Date	Type
1	Senior official from a national CB	11/2021	Video call
2	Senior official from a national CB	12/2021	Video call
3	Senior official from ECB	12/2021	Video call
4	Senior official from a national CB	02/2022	Video call
5	Senior official from a national CB	03/2022	Video call
6	MEP (Socio-Democrats)	04/2022	Video call
7	Former MEP (Greens)	04/2022	Video call
8	MEP (Greens)	05/2022	Video call
9	MEP (Left)	06/2022	Written Q&A
10	MEP (ECR)	06/2022	Video call
11	MEP (Renew)	06/2022	Written Q&A