

# European monetary policy: Between market neutrality and climate change

## Abstract

Climate change has also become a relevant topic in the financial sector. According to a survey of 33 central banks, 70 percent describe climate change as a major threat to financial market stability. Thus, if climate change threatens the stability of the financial markets and worries central banks, the next question is what role does climate change play in the current monetary policy of the eurozone and other currency areas? This article will address this question, drawing on speeches by the European Central Bank (ECB) Governing Council. The article analyses the speeches of the ECB Governing Council with a view to establishing how the ECB's top management handle climate change and what kinds of institutional change result from the new green policy. The paper will show that in recent years, the issue of climate change has increasingly moved from a marginal position towards the centre of the ECB Executive Board's agenda. Gradually, the growing awareness of the problem has resulted in institutional change: Climate change was initially seen as a risk factor for the financial markets – it is now considered a threat to price stability itself. Redefining the relationship between climate change and the ECB's primary task has created new scope for action. Now, it is not only a matter of the ECB gathering knowledge on climate change and integrating that into its own calculations and models, but also of it pursuing an active monetary policy in the fight against climate change. In this context, the concept of market neutrality has been abandoned and replaced by the more interventionist principle of market efficiency.

**Keywords:** climate change, European Central Bank, market neutrality, institutional transformation, neo-institutionalism

## 1. Introduction

Climate change has now also become a pertinent topic on the financial markets. According to a survey of 33 central banks, 70 percent described climate change as a major threat to financial market stability in 2019 (Zydra, 2020). The consequences of climate change, such as higher temperatures or unstable weather conditions, can affect supply chains, which in turn can have negative impacts on financial flows and thus the financial markets. Central bankers also consider their own organisations as bearing part of the responsibility, with only 12 percent defining the fight against climate change as a singular political challenge, i.e., a task for governments and international organisations, and not for central banks (Zydra, 2020). This raises the question of the role and significance of climate change in the current monetary policy debates. This question will be discussed, drawing on speeches given by the European Central Bank (ECB) Governing Council.

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Christine Lagarde has advocated an active green monetary policy since taking office as President of the ECB in November 2019 (Wiebe, 2020). Critics outside of the financial markets, such as Greenpeace, welcome her plans in principle. However, they also fear that the planned measures would not go far enough or run the risk of being just greenwashing, while critics within the financial markets accuse her of overstepping her bounds (Wiebe, 2020; dpa, 2021). For example, Jens Weidmann, former President of Deutsche Bundesbank, also sees the need for central banks to deal with climate change, but warns that the ECB (pursuing Christine Lagarde's plans) is going too far. Former member of the Executive Board of the ECB, Otmar Issing, goes even further, concluding that "[t]here can be no such thing as a 'green' monetary policy" (Issing, 2020, own translation). Following a discursive institutionalism approach, the article analyses the speeches given by the ECB Executive Board, which consists of the President, the Vice-President, and four other members and can be understood as the top management of the ECB. The paper poses a series of questions including since when climate change has been considered a challenge for the ECB, what measures the ECB Executive Board intends to take to fight climate change, and how it legitimises its actions. Based on the answers to these questions, it will then be discussed whether the ECB Executive Board is pursuing new institutional paths in the fight against climate change, or if it is resorting to familiar strategies. The main thesis is that the basic institutional order of European monetary policy is not questioned in formal and legal terms, but in practice, new options for action and thus a climate-related monetary policy are gradually being developed.

The article is structured as follows. Firstly, based on the state of the art, it will be discussed how the ECB responded to new challenges in the past and how the current approach to problem management affects the way it deals with climate change. Next, the theoretical framework and the methodological design are presented. In the two empirical chapters that follow, the speeches are analysed, first quantitatively then qualitatively. Finally, the results are discussed.

## **2. The ECB Governing Council's reactions to the euro crisis and the concept of market neutrality**

In December 2019, the European Commission presented its "European Green Deal" concept, the aim of which is to make the EU climate neutral by 2050 (Sikora, 2021; Wolf et al., 2021). The Green Deal is part of the European climate policy that has been pursued for several decades (Pianta & Lucchese, 2020). Among other things, the concept emphasises the need to re-regulate the financial markets and to make them more sustainable. Thus, according to the Green Deal, financial markets are one field which needs to be addressed to successfully combat climate change. In parallel, since 2018, the ECB has also stepped up its efforts to develop a climate-friendly monetary policy for the eurozone (Bongardt & Torres, 2021). The

ECB's discussions and contributions to climate policy are thus connected to the European Green Deal but also broaden the European fight against climate change, as the ECB strategy not only aims to re-regulate the financial markets but also to develop a new monetary policy. The ECB's proposals and actions have therefore resulted in strong scholarly interest and have already been widely studied. However, studies to date have focused mainly on the effects of the ECB's measures and whether they are sufficient (Alogoskoufis et al., 2021; Hilmi et al., 2021; Giuzio et al., 2019; Monasterolo, 2020). So far, less research has been conducted into how the reorientation of the ECB's strategy can be explained. The current study aims to close this gap. However, to this end, it first seems necessary to look at how the ECB has responded to new "external" challenges so far.

The ECB is more independent than other central banks, but its mandate and therefore its scope for action are also more limited (Dyson, 2009; Torres, 2013).

*"The primary objective of the European System of Central Banks [...] 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." (Treaty on the Function of the EU Article 127)*

The ECB is primarily committed to price stability and should only secondarily support the EU's economic agenda (Dyson, 2009; van 't Klooster & Fontan, 2020, 868). From the beginning of the eurozone, there was vigorous debate about what monetary policy approach was covered by the mandate of price stability, whereby the Deutsche Bundesbank together with the German government are in favour of a restrictive definition, while their French counterparts mostly favour a broader understanding of the scope for action (Jabko, 2010; Gabor, 2012). During the euro crisis, the ECB Executive Board demonstrated its willingness to interpret its mandate creatively in case of doubt (Flachmeyer & Paul, 2018, 503). The "whatever it takes" speech by ECB President Mario Draghi is often seen as a turning point in the crisis (Hodson, 2013; Holmes, 2014; Matthijs, 2014). Draghi's announcement that the ECB was ready for and able to introduce far-reaching purchase programmes calmed the financial markets so that the planned measures never had to be put in place. The aim of one of the planned programmes "Outright Monetary Transactions" was that the ECB would buy public bonds from governments that had financing problems and were also taking out loans from the European Stability Mechanism (De Grauwe & Ji, 2015; Gabor & Vestergaard, 2018). But even beyond this announcement, the ECB expanded its range of instruments during the euro crisis. Since 2009, through various different programmes, the ECB has been buying public and private securities on the financial markets together with the national central banks (De Santis et al., 2018). In addition to this, in April 2020, the Pandemic Emergency Purchase Program was introduced to help combat the consequences of the COVID-19 pandemic.

Something all these purchase programmes have in common is that they were controversially discussed from the start and were also the subject of court hearings in Germany, for example. In all known judgments, however, the legality of the measures was confirmed by the courts (Vobruba forthcoming). In addition, the ECB has made substantial effort to legitimise the programmes. On the one hand, this was done by referring to price stability, with the argument that the purchase programmes would be an important step to prevent inflationary tendencies in the eurozone (Salines et al., 2012, 669). They should therefore stabilise the eurozone, but not help individual governments and national economies. If the latter happens at all, then it would be as a side effect (for a critical evaluation of the argument, see Claeys et al., 2015). On the other hand, the purchase programmes for private bonds, in particular, have been legitimised using the concept of market neutrality. Market neutrality implies that the purchase portfolio reflects the existing structures of the respective bond markets (Dafermos et al., 2020, 6), as it is not up to the central bank to “correct market disruptions, political measures or omissions” (Weidmann, 2020, 2, own translation). The concept of market neutrality was invented to placate the critics that feared far-reaching interventions on the financial markets. At the same time, the concept in fact drew on an old idea. As with the concept of market neutrality, the ECB builds on the principle of “monetary neutrality” (Lebaron, 2000, 209), which was already postulated before the crisis. “Monetary policy was said to be neutral in the sense that it did not change the relative prices of financial assets” (van ‘t Klooster & Fontan, 2020, 869). Accordingly, monetary policy claims not to explicitly intervene in price developments and to leave price formation to free market forces.

Following the logic of market neutrality, the purchase programmes replicate the existing market structures, and in the process, indicators such as country, sector and rating group serve as the main benchmarks (Dafermos et al., 2020). This implies, in a nutshell: central banks from countries with larger markets buy more bonds than central banks from countries with smaller markets. The German Bundesbank holds 24 percent of all corporate bonds purchased, while Belgian bonds account for four percent. This also explains why, for example, the German central bank only buys German corporate bonds and Luxembourg, Dutch and Maltese corporate bonds are all bought by the Belgian central bank. In addition, the size of the sectors, which include the automotive, telecommunications, and food industries, as well as the health and insurance sectors, matters. Consequently, the bonds of different companies are bought according to the shares of the individual sectors in the market. For example, the automotive industry accounts for 12 percent of the selected companies, which accounted for 11 percent of the purchase programme volume in 2020. Finally, bonds in different rating groups are classified and purchased according to the same principle.

With the purchase programmes, the ECB, together with the national central banks, responded to the new problems arising from the euro crisis by increasing its own

scope for action. At the same time, they drew on existing lines of argument. The concept of market neutrality helped appease critics who feared monetary policy would be politicised.

*"It is not the job of the Eurosystem to penalise or encourage specific industries. Our primary goal is to ensure price stability. (...) One component of our expansive monetary policy is securities purchase programmes. In order for these to be effective, they must be broad in scope. In order to ensure this and to prevent a distortion of the market developments, the principle of 'market neutrality' applies." (Weidmann, 2020, 2, own translation)*

According to this interpretation, the concept of market neutrality enables the purchase programmes to operate in the markets without interfering with the market dynamics.

However, market neutrality also drew new criticism, mainly levelled at the fact that the apparently depoliticised monetary policy was far from neutral, and would actually strengthen existing power structures (van 't Klooster & Fontan, 2020). Two studies from the ECB itself came to a similar conclusion. They show that companies benefit from participating in the buy-out programmes because this reduces their borrowing costs (De Santis & Zaghini, 2019, 28; Abidi & Miquel-Flores, 2018, 30). The studies also indicate that the companies are aware of this benefit and have adapted their financial strategies to the purchase programmes (De Santis & Zaghini 2019, 28, Nordine & Miquel-Flores 2018, 30). Those who are selected for the programme thus improve their market position. Above all, companies with a good economic standing, from economically strong sectors and countries, have a higher chance of being selected for and participating in the programme. In sociology, this is referred to as the "Matthew effect" (Merton, 1985), as already successful companies receive more of these benefits more easily. Thus, there are strong indicators that the purchasing programmes are far from neutral, even if they do not explicitly promote certain companies, they at least perpetuate the status quo.

Based on the criteria of country, sector and rating group, the bond markets are statistically recorded from a specific perspective. A study by the University of Bristol (Dafermos et al., 2020), commissioned by Greenpeace, shows that other indicators depict market structures differently and may therefore consider other companies to be worth buying. The study not only asks which bonds are bought by which companies, but also how much energy they consume and what share of European employment and the gross value chain they contribute. For example, bonds issued by energy-intensive and energy-consuming companies make up 60 percent of private bonds purchase programmes. At the same time, however, these are companies that only account for 18 percent of European employment. They also only have a 30-percent share in the gross value chain (Dafermos et al., 2020, 10). According to this study, it is clear that the purchasing programmes reinforce a specific status quo, including the energy-intensive industries often being able to profit most from the programmes.

The ECB's reaction to the euro crisis shows that the central bank is ready to creatively redefine its narrow scope of action. However, by conservatively safeguarding this with an emphasis on path-dependent justifications, it also supports the existing structures. This sparks criticism and how the ECB can respond to the climate debate with this form of monetary policy remains an open question.

### 3. Institutional perspective and methodology

Using the discursive institutionalism developed by Schmidt (2008, 2010, 2014, 2016), the aim of this article is not to focus on the question of what the ECB Executive Board actually does in the fight against climate change, whose interests dominate, and/or how these actions are to be evaluated, but rather to understand how the ECB Executive Board perceives and assesses climate change and what kinds of strategies it has identified to combat it. The starting points here are the ideas that are developed by the ECB Executive Board about climate change. The term "idea" is used very broadly here, as ideas can be both cognitive and normative (Campbell, 1998, 384). "Cognitive ideas elucidate 'what is and what to do'", whereas normative ideas indicate "what is good or bad about what is in light of 'what one ought to do.'" (Schmidt, 2008, 305). In order to understand the action of the ECB Executive Board in the context of climate change, it is therefore necessary to ask on a cognitive level, how it perceives climate change, its impact on the financial markets, and thus its significance for monetary policy. Then on a normative level, we must ask what need for action the top management of the ECB defines in order to tackle climate change and how it legitimises its own action strategy.

It is well known in sociological theory, that developments become societal problems when the relevant actors define them as problems (Habermas, 1973). Becoming aware of a problem is therefore a precondition – and the first step – in order to be able to respond to the problem. Consequently, to combat climate change, the first step must be for the ECB's top management to recognise and define climate change as a challenge. After an issue has been defined as a problem, the next steps are then to make sense of the situation (Schmidt, 2008, 305). As there is no single response to climate change, the question of what needs to be done is highly disputed. Sense-making (Weick, 2000) means that the actors develop an understanding about what is going on. Based on its own understanding of the situation, the ECB Executive Board can then define a strategy to tackle it.

However, in order to be able to implement this strategy successfully, the Board must also ensure that its own approach is accepted by the other actors in the field. The challenge for the ECB's top management is therefore to answer the question: How "to build legitimacy for change in a context of institutional-legal constraints and politico-economic divisions" (Schmidt, 2016, 1033). A legitimisation strategy has to be developed (Tarim, 2012), which means that the ECB faces the challenge of reconciling the new (climate policy) approaches to action with the existing legal

framework. It is therefore important to understand how the ECB Executive Board legitimates its own actions to tackle climate change. Of particular interest here is how the Executive Board positions its own climate change policy approach in relation to the previous institutionalised policy approach of the ECB.

Based on a reconstruction of problem definition, sense-making and legitimation, it is then possible to discuss the institutional consequences of the ECB's climate policy strategy. Drawing on Streeck and Thelen (2005), the changes in the discourse can then be examined. One question to ask is whether these changes have been incremental or abrupt. Different scenarios are possible here. By treating climate change as a new problem, the previous patterns of institutional perception and evaluation can lose their validity and have to be replaced. However, this scenario is rather unlikely, since not even the euro crisis has led to such a break (Schmidt 2016). Another unlikely scenario is that there is a temporary rupture, eventually seeing the ECB revert to the original institutional understanding. However, these kinds of changes tend to occur in institutional crises, which has not (yet) happened with this issue. Such abrupt changes are therefore less plausible, while incremental developments seem more likely. The last chapter showed that the central bankers tried to increase the legitimacy of their actions during the euro crisis by stressing the path dependence of their own strategy. It is now an open empirical question whether dealing with climate change represents a continuous or discontinuous change in the institutional order (Koning, 2015), in other words whether the changes are path dependent or represent a change of path.

The following analysis focuses only on what is happening front of stage and does not look at the backstage (Goffman, 2013). It is thereby not possible to clarify how and under what circumstances the assessments and decisions are made by and within the ECB Executive Board. However, this article can help us understand how the top central bankers of the ECB position its climate policy in the political and public discourse. The analysis is based on a qualitatively led mixed method approach. While, in a first step, a descriptive quantitative analysis helps us understand when climate change was recognised as a problem, based on the speeches, the main qualitative content analysis can, in a second step, reconstruct the kind of arguments that are used. The data basis of the empirical analysis that followed comprised 1,727 speeches, each given by a member of the ECB Executive Board between the founding of the ECB and the end of June 2022 and all of which were available on the ECB's website. First, we asked how many speeches mentioned the term climate change at all. A total of 81 speeches were identified here (for which the manuscripts are fully accessible and in which climate change is mentioned). The second question was whether the term climate change was used more than twice. This reduces the number to 35 speeches, which were subjected to a targeted content analysis (Hsieh & Shannon 2005). The aim of the content analysis was to establish who was assigned responsibility for combatting climate change, whether climate

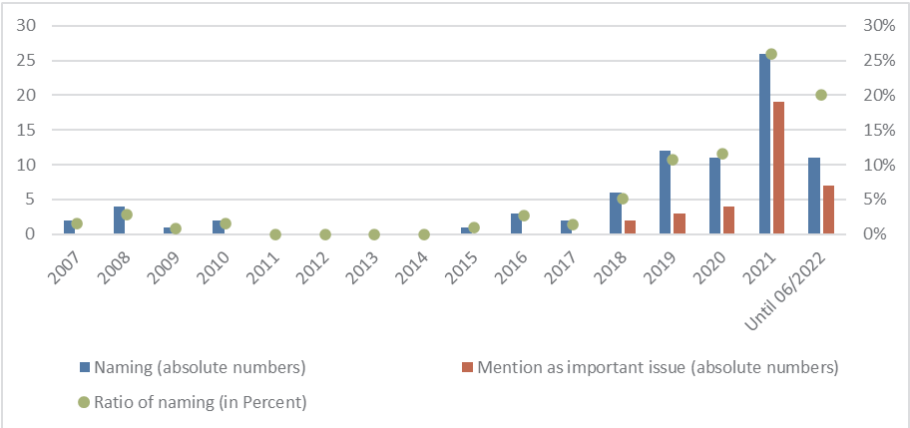


change was seen as a risk for the financial markets or price stability, and whether there was a preference for the concept of market neutrality or something else.

4. Problem awareness: The significance of climate change in the speeches of the ECB Executive Board

As already mentioned above, the first step towards tackling a problem is to be aware of it. Climate change is a relatively recent topic in the speeches of the ECB's top management. The first time it was mentioned was in 2007. Between the years 2007 and 2010, the term "climate change" appeared in speeches only sporadically (see Table 1). At the peak of the euro crisis, it was then no longer mentioned for a few years, and from 2015 onwards, there were isolated mentions again. This marginal importance of the term in the ECB's speeches changed in the winter of 2018/2019. Since then, the term has not only been mentioned more frequently, references to it have also increased year on year. In contrast to the euro crisis, it appears that the COVID-19 pandemic has not displaced the topic; the relationship between climate change and the pandemic in the speeches will be discussed later. Thus, since winter 2018/2019, climate change has become a frequent topic in the speeches of the ECB Executive Board. In addition, its position in the speeches changed from marginal to central, and the share of climate-related speeches increased.

Table 1: Mentions of climate change in the speeches of the ECB Executive Board



During the period from the first mention in 2007 to 2018, the term "climate change" was named only once or twice, if at all, in the speeches given by the top ECB management. No speech could be found, in which the issue of climate change was of central importance. When it was mentioned before the euro crisis, it was considered a global challenge that needed to be addressed at the global level by



international organisations. For example, a speech by then ECB President Trichet stated:

*“This dialogue [with the Asian-Pacific region, JP] will focus on issues of global dimension which will be at the top of the agenda in the years ahead. These include, for instance: cross-border investment climate change, energy efficiency, and development, particularly in Africa.” (Jean-Claude Trichet, 25 February 2008)*

Climate change was seen primarily as a problem of the Global South. Later, after the euro crisis between 2015 and 2018, it was identified as a European problem that needed to be addressed jointly by the different EU Member States. For example, Executive Board member Benoît Cœuré emphasised:

*“Nevertheless, allow me two remarks: Many of the challenges with which the Union is confronted: be they refugees, be they terrorism, climate change, or the state of the economy point to the fact that we need to strengthen our capacity to work together in a spirit of joint responsibility.” (Benoît Cœuré, 1 February 2016)*

Climate change became a European problem, but the responsibility for the problem still seemed to be primarily in the hands of other political organisations. As then ECB President Draghi said in 2017 “in each case, governments can only take effective action by acting together as a union” (4 May 2017). For the whole period between 2007 and 2018, the statements had more of an appeal character. Climate change was identified as a problem about which somebody had to do something, without the ECB itself being seen as responsible.

This changed in winter 2018/2019: The percentage of speeches referring to climate change increased, and more and more of them began to identify climate change as a central issue for the ECB. In 2021, for instance, climate change was already mentioned and discussed in a quarter of the speeches (see Table 1).

*“While there is a wide recognition that environmental externalities should be primarily corrected by first-best policies, such as taxes, all authorities, including the ECB, need to reflect on, and consider, the appropriate response to climate change.” (Benoît Cœuré, 8 November 2018)*

In the speeches, combating climate change is still considered a political task for governments and the international community. However, as climate change and its consequences are now also perceived as a threat to financial markets, it is also referred to as a challenge for the central bank.

To summarise: When it comes to problem awareness, for a long time, climate change was a minor topic in the ECB’s speeches (both in terms of the percentage of the speech and in terms of content). The situation changed in the winter of 2018/2019. Since then, climate change has been mentioned in more speeches and has also become a more important topic in those speeches. November 2018 can be identified as a turning point, when climate change became a central topic in the speeches for the first time. As the speeches themselves show, this was the time when the ECB joined the Central Banks and Supervisors Network for Greening the Financial System (NGFS) initiative. This network was founded the year before

by national central banks and the ECB has been a permanent member ever since. Thus, it was not – as was sometimes the public impression – Christine Lagarde who placed the issue on the ECB's agenda; the importance of the issue began to increase even before her tenure. She did, however, contribute to politicising the issue. After all, she was the first ECB President to make climate change a prominent topic in her speeches.

## 5. Climate change as a monetary policy problem

Since winter 2018/2019, climate change has been considered a challenge for the ECB by its own Executive Board. However, this does not mean that it was clear from the beginning how the ECB's top management planned to react to this new challenge and how it would legitimate that action. Rather, the development of the ECB's action and legitimisation strategy seem to be part of an ongoing process of interpretation regarding how to understand and evaluate the relationship between the financial markets and climate change. Roughly speaking, two strands of argument can be identified in the speeches analysed here. These lines of argument have resulted in two different action strategies and two different legitimisation approaches: The first line of argument was more conservative, while the second, newer one is more innovative.

### 5.1 Climate change as a risk for financial markets

In November 2018, Benoît Cœuré, a member of the Executive Board, recognised climate change as a threat to the financial markets and therefore as a challenge for the ECB:

*"An area that has received less attention though, both in policy and in academia, is the impact of climate change on the conduct of monetary policy. Today I would like to contribute to this debate and offer a way of thinking about how climate change fits into our current monetary policy framework, the way we react to shocks, and the way we think policy propagates through the economy, and how it may affect our monetary policy implementation. I will argue that climate change can be expected to affect monetary policy one way or the other." (Benoît Cœuré, 8 November 2018)*

On the one hand, this was a break with previous perceptions. On the other, the consequences of this were less radical than one could expect. Climate change was now seen as a potential risk to the financial markets that needed to be considered in the control and monitoring management of the same.

*"We need to extend our knowledge about the macroeconomic effects of climate change, in particular in key areas like inflation, productivity and trade. [...] The second area where we can already make progress is on properly reflecting climate risks. There is a growing awareness today that banks and financial institutions are exposed to material climate risks." (Christine Lagarde, 5 February 2020)*

The lack of knowledge surrounding the issue of climate change was now seen as a major uncertainty that would jeopardise price stability. To turn this uncertainty into calculable risks, the ECB's top management declared it an important goal to

collect data on the macro and the micro level and then incorporate this into its own calculations.

The new understanding of the relationship between climate change and financial markets resulted in an incremental change of the existing management strategy, without identifying the need to change existing institutional arrangements. The new aim was to collect data about climate change and its consequences for the financial markets and to extend the existing risk assessment to include climate change in its calculation. Climate change became a benchmark that could be used to assess current economic developments at the macro level and the economic risk of financial actors at the micro level.

*"Deviating from market neutrality and interfering with economic policy risks exposes the ECB to litigation. It is not up to the central bank but to elected governments to decide which industry is to be closed and when. As central bankers, we have to respect and implement legitimate decisions in this context."* (Yves Mersch, 27 November 2018)

At the same time, the central bankers explicitly refrained from taking their own measures against climate change. The importance of market neutrality was emphasised. The fight against climate change was still seen as a battle to be waged by political actors.

To summarise: In the first phase of the debate, climate change was seen primarily as a confounding factor to be incorporated into the already existing calculations and statistical models. In the words of Streeck and Thelen (2005), it was an incremental change in the institutional discourse, while maintaining the logic of the existing line of argument. In their speeches, the central bankers did not question the institutions of the ECB in light of this new challenge, but the plan was to adapt the existing models to the new circumstances. The aim was to gather knowledge about climate change and its consequences and thus turn this incalculable uncertainty into a calculable risk.

## 5.2 Climate change as a monetary problem

At the start of the climate debate within the ECB, the central bankers focused on the question of knowledge about the relationships between climate change and the financial markets. In summer 2020, a new shift in the argumentation could be observed.

*"Climate change, if not addressed swiftly, can be expected to affect the economy in a way that poses material risks to price stability in the medium to long term. [...] The longer the risks of global warming are ignored and policy action delayed, the higher the risks of very large and persistent shocks to output and inflation."* (Isabel Schnabel, 17 July 2020)

Climate change is now no longer only defined as a threat to the financial markets, but to price stability itself. The fight against climate change is now placed at the centre of the ECB's monetary policy. In this new argument, the COVID-19 pandemic is used as an example of external disturbances to the global economy en-

dangering both the domestic economy and price stability and needing to be tackled by the central banks. This argument is made for instance by Isabel Schnabel, when she highlights that:

*“The pandemic is therefore a stark reminder that preventing climate change from inflicting permanent harm on the global economy requires a fundamental structural change to our economy, inducing systematic changes in the way energy is generated and consumed.” (Isabel Schnabel 14 June 2021)*

In line with this new argument, the concept of market neutrality was first questioned and then replaced. Up until then, market neutrality had been taken for granted, now it is argued that the concept of market neutrality is no longer a primary law. For instance, ECB Executive Board member Isabel Schnabel stressed:

*“According to this view [which is the traditional one], market neutrality is the benchmark central banks should use when purchasing bonds issued by corporates. The other view is that central banks have to respond to market failures and incorporate the far-reaching risks that climate change poses to price stability when designing their policy instruments.” (Isabel Schnabel, 17 July 2020)*

Market neutrality is now presented as one of several possible approaches to fulfil the primary mandate of safeguarding price stability. At the same time, both the practical usefulness and the normative significance of the concept are questioned. It is stressed that the ECB's previous purchase decisions would not have corresponded to the market proportions and therefore the concept of market neutrality.

*“The ECB already now deviates from market neutrality in several instances. For example, the application of eligibility criteria for purchases implies that the ECB's bond holdings are not necessarily proportional to market capitalisation. Furthermore, under the public sector purchase programme (PSPP) and the pandemic emergency purchase programme (PEPP), sovereign bond purchases are guided by the ECB's capital key rather than market capitalisation.” (Isabel Schnabel, 14 June 2021)*

This removes much of the concept's meaning and prepares for its replacement, as a change of concepts seems to be less radical given that in practice, in the past, the ECB did not apply the concept of market neutrality particularly strictly anyway. In contrast to earlier pronouncements, mandatory compliance with market neutrality is no longer pushed for or presented as an empirical fact. In addition, the ECB's top management also refer to external studies, which emphasise that the previous market-neutral purchase programmes were not climate friendly.

*“The application of the market neutrality principle implies that our corporate sector purchase programme (CSPP) currently exhibits an inherent bias towards large firms in carbon-intensive industries. This emission bias appears to be driven by firms' underlying issuance behaviour: large firms in carbon-intensive sectors are more likely to enter the bond market, which results in the ECB's CSPP portfolio having a relatively high emission intensity.” (Isabel Schnabel, 14 June 2021)*

The Board thus takes external criticism (see above) and makes it its own. The concept of market neutrality is now understood as a sticking point in the fight against climate change. Consequently, it seems only logical to introduce a new concept to replace the old one. Isabel Schnabel proposed one idea for a replacement:

*“In view of such market failures, it seems appropriate to replace the market neutrality principle by a market efficiency principle. Such a principle would explicitly recognise that a supposedly neutral market*

*allocation may be suboptimal in the presence of externalities. It would allow us to acknowledge that market failures may drive a wedge between market prices on the one hand and efficient asset values that internalise externalities on the other. Nevertheless, in line with the provisions of the Treaties, considering climate externalities under the market efficiency principle would need to be consistent with maintaining a functioning price discovery mechanism.” (Isabel Schnabel, 14 June 2021)*

For a long time, it was argued that the markets would find the correct equilibrium and that the ECB should not interfere with market dynamics through its interventions. Now, however, it is admitted that markets can make mistakes, casting doubt on the notion that market intervention is not legitimate. According to the principle of market efficiency, the ECB should not reproduce the market structure in its monetary policy, but help overcome market failures, while fulfilling the primary mandate of safeguarding price stability.

To summarise: Since 2020, the discourse has changed again, with two new reinterpretations and reassessments of the situation being identified in the speeches of the ECB’s top management. Climate change is now seen as a direct threat to price stability, which is why something must be done about it. And markets are seen as flawed in their response to climate change, which is why intervention is possible here. In future, the plan is to develop new criteria for the purchasing programme, for both public and private bonds. The same applies to the portfolio held by the ECB, and the collateral which banks have to deposit at the ECB. Climate risks should therefore play a role in purchasing decisions and purchase quotas. Thus, what can be observed here is a replacement process and therefore a gradual transformation, namely an incremental change in how markets are interpreted. On the one hand, it involves the development of path dependence, as the primary goal of the ECB is still price stability. On the other hand, it also involved a change of path, as the ECB Executive Board began to redefine parts of the existing management strategy. The concept of market neutrality was questioned and delegitimated, and then replaced by the market efficiency principle.

## 6. Discussion

The aim of the article was to understand the process of recognition and assessment of climate change by the ECB Executive Board and how it has influenced the ECB’s monetary policy. It was shown that the issue of climate change has increasingly moved from a marginal position to the centre of the ECB Executive Board’s agenda. Gradually, the growing awareness of the problem resulted in an institutional change: Climate change was initially seen as a risk factor for the financial markets, it is now considered a threat to price stability itself. Redefining the relationship between climate change and price stability and therefore the ECB’s primary task has opened up new scope for action. Now, it is not only a matter of the ECB gathering knowledge on climate change and integrating it into its own calculations and models, but also of it pursuing an active monetary policy in the fight against

climate change. In this context, the concept of market neutrality was abandoned and replaced by the more interventionist principle of market efficiency.

The ECB's top management legitimises its actions by unconditionally adhering to the goal of price stability. By repeatedly emphasising that the ECB is only fulfilling its mandate of price stability, the central bankers emphasise the path dependency of the ECB's developments and limits its possible options for action. However, by declaring climate change to be a threat to price stability, this legitimisation strategy also creates new room for manoeuvre. Gradually, the ECB has been able to redefine its relationship with the financial markets and climate change without questioning its institutional framework and by doing so has developed a new institutional path.

This article drew on the speeches of the ECB's top management. This provided insight into the ECB's ideas about climate change but did not explain the consequences of the ECB's new climate-friendly monetary policy. Currently, the ECB plans to use the newly created scope for action in the future to introduce a new climate-neutral monetary policy (ECB, 2022). In the case of loans taken out by the Eurosystem, the plan is for the collateral to be more climate friendly and fulfil stricter criteria in the future. For instance, new asset classes are to be applied from the end of 2024. In the case of the ECB's own portfolio, analyses of the bonds in terms of the CO<sub>2</sub> consumption of potential companies are to play a bigger role in the future. Finally, climate risks are to be further integrated into the ECB's risk calculation and assessment and the Bank's knowledge of those risks further expanded. In order to improve the external assessment of climate risks, the plan is also to ask rating agencies to be more transparent about how they include climate risks in their ratings. All these new endeavours seem to be innovative. However, to understand the outcome of this new policy, further research is necessary provide insight into how the new strategies are implemented and what kinds of efforts are made by the ECB.

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