


Theoretical Aspects of Biodiversity Protection in European Monetary Legislation

Marko Dimitrijević

PhD, Associate Professor and Jean Monnet Module for European Monetary Law (MONELA) Academic Coordinator, Chair for Law and Economy, Faculty of Law, University of Niš; correspondence address: Trg kralja Aleksandra 11, 18000 Niš, Serbia; e-mail: markod1985@prafak.ni.ac.rs

 <https://orcid.org/0000-0003-4406-9467>

Keywords:

biodiversity,
monetary law,
monetary stability,
environmental
protection,
central bank
legislation

Abstract: The subject of the analysis in the paper is an overview of the causes, features, and consequences of the tendency of “greening” the concept of modern monetary law and central bank legislation to preserve natural resources in the context of biodiversity and provide a contribution to the realization of sustainable and humane economic development. In this sense, the paper tries to indicate the potential contribution of “green monetary legislation” in controlling and solving environmental problems, where a special place is devoted to identifying the potential ecological dimension of the mandate of the (European) Central Bank as the supreme monetary institution of the EU. In the following text, attention is paid to the functional analysis of the arguments that can justify the inclusion of environmental risks in central bank legislation. In contrast, in the further text, attention is paid to identifying the potential legal basis for biodiversity protection in the central bank mandate. Although at first glance, it may seem that monetary legislation has no direct connection with environmental law and policy, practice shows that there is a high degree of functional and content consistency between the goals of contemporary environmental and monetary policy, which only speaks in favor of the thesis of the “green lex monetar.” By applying the dogmatic, axiological, and comparative legal methods, the author aims to point out the biggest dilemmas and challenges in the central bank’s legal contribution to environmental concerns, identify certain solutions *de lege lata*, and possibly offer certain common recommendations *de lege ferenda*.

1. Introduction

Unlike traditional branches of law, central bank law as a relatively new legal discipline due to the hybrid character of monetary norms enjoys a certain qualitative advantage in controlling the mentioned environmental problems. That primarily occurred due to the flexibility of monetary norms, relatively quick adaptation to new circumstances, and lower transaction costs of its application (because the negotiation procedure and designing secondary monetary rules from decrees, appeals, programs, regulations, and instructions is time and financially less demanding than the norms of hard monetary norm contained in primary monetary legislation).

Today, the primary task of a central bank is to ensure monetary stability, which usually refers to price stability and targeted inflation rates (under its primary mandate), and general financial stability (which falls under its secondary mandate). However, we can also notice a strong tendency toward the continual and profound evolution of central bank responsibilities. Nowadays, these extend to achieving certain standards in areas such as cohesion policy, human rights protection, and combating financial crime.¹ Environmental aspects of a central bank's mandate are not entirely new, considering the previously mentioned hybrid nature of monetary legal norms, which incorporate elements of both private and public law. Environmental policy has become an integral subsystem of general economic policy, and due to the high degree of synthetic-dialectical interconnection among its subsystems, it is logical to expect central banks to contribute to defending the primordial connection between humanity and nature. Monetary stability and environmental protection represent typical examples of public goods that are highly correlated, so the connection between normative regulation of public monetary management and environmental protection is quite natural and logical. According to the concept of humankind concerns developed in the area of international environmental law which emphasizes the need for coordination between states and international organizations in achieving environmental goals the same approach can be used in achieving international monetary stability as one more example of global public

¹ Marko Dimitrijević, *Pravo Evropske centralne banke* [Law of the European Central Bank] (Niš: Centar za publikacije Pravnog fakulteta u Nišu, 2023), 121–25.

good beside environmental conservation.² This is especially vital in a time of dynamic technological progress (information revolutions), which heavily relies on the use of environmental inputs in its development. Although the central bank's involvement in environmental protection is secondary, it remains relevant from a practical standpoint. Every positive contribution and effort in this area, even modest and limited in scope is equally important if we are to achieve sustainable outcomes and milestones on the path toward a net-zero, nature-positive economy. Therefore, recent central bank activities in this field are a natural consequence of the evolving framework around the provision of public goods. Beyond traditional monetary law as an independent and established legal branch, we can now speak of a new generation of “monetary rights” understood as the rights of monetary inhabitants³ to a stable, healthy, and trustworthy currency. In a world lacking the conditions for a healthy environment, it seems that such a right risks becoming a hollow concept.

Clearly, central banks are not sub-legislators (or co-legislators) in the field of environmental protection, nor do they possess the specialized knowledge to define environmental goals.⁴ However, this does not justify “eco-monetary nihilism” or a passive stance towards environmental crises. We believe that a more active role for central banks in environmental policy is a reflection of global humanitarian concern, emphasizing the need for international coordination among monetary authorities to preserve natural resources. This approach is particularly relevant to international monetary law, especially regarding the preservation of monetary stability as a global public good. Given the hypothesis that every monetary action has some impact, direct or indirect, on human quality of life, it is reasonable to further explore how central bank decisions and measures may affect natural resources. While this field of study is still in its early stages, growing

² See more about humankind's common concerns in: Thomas Cottier, ed., *The Prospects of Common Concerns of Humankind in International Law* (Cambridge: Cambridge University Press, 2020).

³ Monetary inhabitants are people who live under the monetary jurisdiction of a state where we can see the implementation of its primary and secondary monetary legislations.

⁴ Chiara Zilioli and Michael Ioannidis, “Climate Change and the Mandate of the ECB: Potential and Limits of Monetary Contribution to European Green Policies,” *Common Market Law Review* 59, no. 2 (2022): 363–94, <https://doi.org/10.54648/cola2022029>.

legal initiatives and agendas are offering sophisticated frameworks for the convergence between environmental protection regulations and monetary stability frameworks. The first part of the paper refers to the place of environmental risks in contemporary monetary legislation, while the second part refers to establishing the bridges between the need for biodiversity protection and the legal mandate of the (European) central bank for such contribution, while in the conclusion author finds that greening the monetary and central bank legislation must be reached without jeopardizing its primary and secondary task in providing monetary and general financial stability.

2. A Review of the Concept of Environmental Risks in Contemporary Monetary Law

The interest of central banks in researching the connection between climate risks and the functions of monetary policy in the last decade is increasingly attracting the attention of theorists of monetary law when they deal with the issue of functional independence in the work of the supreme monetary institution. In considering the existence of a legal basis for undertaking an environmentally responsible monetary policy, the science of monetary law applies *de minimis* approach (with which we also fully agree) because the central bank, when creating a monetary strategy, must take into account the risks caused by climate change (including the risks aimed at the transition to the so-called low-carbon economy) because they target the degree of effectiveness in the effectiveness of financial and price stability as the main value of monetary legislation.⁵ It seems that the aforementioned principle simultaneously enables the central bank to take an active part in finding a unique answer when it comes to environmental challenges, but in a way that does not undermine its primary and secondary mandate, but on the contrary only supports it more strongly, taking into account the sensitivity of price stability to changes in the fluctuations in the value of productive factors. In practice, the greening of the central bank mandates can be achieved through several legislative interventions,

⁵ Piergiuseppe Spolaore, "Scientific and Regulatory Approaches to 'Green' Central Banking: The State of Art from a Legal Perspective," *Rivista di Diritto Bancario: Dottrina e giurisprudenza commentate*, no. 4 (2023): 496–560.

where it is most often realized through amendments to the prudential regulation of capital requirements or the application of requirements for additional capital buffers. In circumstances of more extensive application of non-conventional measures of monetary policy (such as quantitative easing) defining precise green parameters related to the eligibility criteria of assets with the function of collateral can also represent a significant solution. At the same time, in this context, it is important to note the increasingly frequent insistence on the so-called material dimension of the transparency of climate-related financial risks that are observed (both at the systemic level and at the level of operations of concrete companies and other business entities).⁶ In that sense, the regulation of capital requirements as a standard prudential measure is based on the system of risk-weighted capital ratios, where their greening can be done in two ways: the first involves reducing the percentage of approval of risky loans and encouraging the so-called green loans (the so-called green supporting factor), which would favor the investment of loan capital in sustainable business ventures because they cost less in terms of capital requirements (which would also increase the demand for such loans compared to traditional ones that are not environmentally motivated). Otherwise, in the monetary law of the EU, the number of proponents of defining and applying special lending programs related to climate change is increasing massively, and their agenda concerns the introduction of the so-called “green dual interest rates” where lower (even zero) interest rates should be applied to lending to green projects, which would allow greater investment in renewable-energy projects, which was also emphasized by the submission of an “open letter” to the Commission (which received a lot of academic support).⁷

Recently, the international monetary community has particularly focused attention on comprehensive analyses of nature-related environmental risks, especially on the challenges of preserving biodiversity (that is, reducing its loss), which became evident after the first detailed

⁶ Christos Gortsos, *The Eurosystem's Monetary Policy at 25 (1999–2023): Legal Aspects of the Single Monetary Policy in the Euro Area – From the Establishment of the Eurosystem to the Current Inflation Crisis* (Zurich: EIZ Publishing, 2024), 181–82.

⁷ Ibid.

OECD studies on this topic (2019), and were then supplemented by many others studies elaborated by private and public sector actors, civil society and extensive academic reports.⁸ In that manner, one of the first central banks that started research this topic is the De Nederlandsche Bank, which began researching financial risks associated with the loss of biodiversity (2020), where a major problem in their proper identification is the selection of adequate and suitable methodological instruments that will explain the interaction of the ecosystem with the economic system, and how ecosystems function in general – in terms accessible to the monetary-legal profession, because biodiversity cannot be described it is illusory to reduce it to a poor indicator like that, for example, feasible in the case of climate change where that indicator is met and brought under the measurement of harmful CO₂ emissions).⁹ Also, in many studies of biodiversity, it is emphasized that increasing the accumulation of physical and human capital cannot be a justification for the reduction and loss of natural resources, because increasing income in a world without sustainable biodiversity calls into question the sole existence of humanity.¹⁰ The success of the greening of monetary policy and the mandate of the central bank is directly conditioned by the careful development of scenarios and methodological tools for capturing the limited substitution of ecosystem services and its non-linearity (which is reflected in the difficulty of identifying critical thresholds that must not be crossed in the realization of economic activities), but also by establishing special mechanisms for monitoring the transition of this type of environmental risks between different economic sectors, which is a *conditio sine qua non* of achieving the desired transformative changes in society and the economy in which the biodiversity preservation is a priority goal.

Observing the monetary legislation in a comparative legal and global context, it seems that the largest number of central banks have developed some kind of specific climate action plan, which explicitly determines their approach, motive, sense, and instruments of action in the context of

⁸ Mathilde Salin et al., “Biodiversity Loss, and Financial Stability: A New Frontier for Central Banks and Financial Supervisors?,” *Bulletin de la Banque de France* 237, no. 7 (2021): 2–3.

⁹ Ibid., 5.

¹⁰ Partha Dasgupta, *The Economics of Biodiversity: The Dasgupta Review* (London: HM Treasury, 2021).

addressing climate-related risks associated with climate change (whether in the form of conducting pilot studies or stress tests), it is clear the intention of the supreme monetary institution to be involved in the process of protecting natural resources consistently. When identifying and positioning the ecological dimension of the central bank's mandate, it is necessary to keep in mind that just descriptive (formally legal) changing the authorities under the mandate *per se* is not sufficient (and we would add that it is not even necessary) when the central bank is already overloaded with numerous tasks in the field of monetary and general financial policy, maybe a more suitable solution is fine-tuning the input legitimacy of political parties with the output legitimacy of institutions that already actively participate in preserving the environmental resources in all its aspects. In this way, an intermediate space is created in which the central bank, with its expertise, can offer a more visible contribution to the fight against harmful climate changes and the preservation of biodiversity, but in a way that does not complicate its existing organizational structure into a position in public monetary management. Such cooperation in the form of horizontal inter-political coordination is not legislatively and resource-demanding and can be established in the form of an open method of coordination based on the exchange of opinions, guidelines, and the issuing of joint announcements,¹¹ whose main addressees are entities that are actively legitimized in environmental policy, in contrast to the participation of the central bank where this level of activity is present at a lower level and is not so immediate (although this does not in any way diminish the concrete contributions that it can offer in the preservation of natural resources).

When it comes to EU monetary law, a potential legal basis for legitimising “the desire” of the European Central Bank to contribute to the achievement of environmental goals can be found in Article 11 of the EU Treaty, but in a way that does not undermine its main goal (price stability). The integration of environmental principles into ECB law must be carried out in a way that does not affect the essence and form of its mandate in practice, which does not mean that environmental principles are always in conflict with the achievement of price stability and then their support

¹¹ See more about EU economic policy coordination: Armin Steinbach, *Economic Policy Coordination in Euro Area* (London: Routledge, 2014).

and application can be broadly considered under the ECB's primary mandate.¹² When it comes to the obligation to support other EU goals (Article 3 of the EU Treaty), under which environmental policy can naturally be subsumed, it should be noted that the text itself does not contain provisions on establishing priorities between other goals. The ECB enjoys full discretion to decide which targets to accept "first." The addition of new responsibilities to the ECB must not be at the expense of the redistribution of already existing responsibilities in the context of price and general financial stability but is only done to harmonize the existing domain of responsibilities with new tasks. We believe that it is more correct to speak of environmental policy in the legislation of central banks as a new task of the central bank, and not as a newly formed competence (which does not in any way obscure its place in the concept of the work of central banks) but on the other hand, it must be separated from the primary field of its activity in an essential and formal legal sense, because the reason for the existence of central banks is monetary stability as a public good, not the preservation of nature, no matter how technocratic it may sound (even a bit unnecessary), but also inevitable because responsibility and salvation from environmental problems cannot fall into the hands of central banks alone.

Environmental risks in the banking management and operation of the EU are elaborated by the Basel III framework,¹³ which pays special attention to their constitutive elements and distinguishes, within the structure of environmental risks, between physical and transitional ones that do not represent a separate category of financial vulnerabilities but represent the drivers translating into financial threats through various transmission channels (such as lower profitability, real-estate value, household wealth or asset performance or increased compliance and certain type of legal costs).¹⁴ In the recent literature on monetary law, it is emphasized that taking into account

¹² Christian Calliess and Ebru Tuncel, "Greening the Euro? The Impact of the Environmental Integration Clause (Art. 11 TFEU) on the European Central Bank (ECB) Primary and Secondary Objectives," *Berlin e-Working Papers on European Law*, no. 136 (2022): 1–3.

¹³ Regulation (EU) 2024/1623 of the European Parliament and of the Council of 31 May 2024 amending Regulation (EU) No 575/2013 as regards requirements for credit risk, credit valuation adjustment risk, operational risk, market risk, and the output floor (Text with EEA relevance) PE/80/2023/REV/1 (OJ L, 2024/1623, 19 June 2024).

¹⁴ Christos Gortsos, *European Banking Regulation Handbook*, vol. 2, *Substantive Aspects of European Banking Law and Regulation* (Cham: Palgrave Macmillan, 2025), 63–64.

their potential double materiality, the mentioned risks materialize in two ways where on the financial materiality side, the financial performance of that counterparty can be affected by environmental factors, while on the environmental materiality side, the activities of a counterparty may harm the environment, which may then become financially material for this counterparty through triggering or reinforcing a negative outside-in impact.¹⁵

Nature-related risks can be understood as risks with a negative impact on the economy, individual financial institutions, or the financial system as a whole, which are a direct consequence of the degradation of natural resources such as biodiversity and the loss of the ecosystem induced by it.¹⁶ Climatic and environmental risks find their place in almost every category of relevant risks that the central bank oversees, starting from strategic risks and business-model risks, through market, credit, and insurance risks to operational risks and liquidity risks, which is perhaps the best indicator of the necessity of involving central banks in all activities related to environmental protection. We think that the inevitability of the occurrence of environmental risks in the prudential framework implies a very careful calibration of the trajectory of their management, because the conscientious acceptance of their existence and the fundamental importance of prudential supervision by the central bank can give the necessary credibility and legitimacy in an even greater range and, at the same time, provide a certain amount of “humanity” to public monetary operations and, generally speaking, its work, which supports the thesis of the humanization of monetary policy, in which man is at the center, and not only monetary stability as a public good which in a world without conditions for a healthy life represents nothing more than an abstract idiom.¹⁷ At the same time, taking into

¹⁵ Ibid., 65. Between these two types of environmental components risks there are very sophisticated trade-off links in a manner that transition to a more sustainable economy may increase the risks to credit institutions, considering the potential impact on their counterparties or invested assets and *vice versa*.

¹⁶ Network for Greening the Financial System, “Nature Related Financial Risks: A Conceptual Framework to a Guide Action by Central Banks and Supervisors,” Technical Document, NGFS, July 2024, p. 10, accessed January 1, 2024, https://www.ngfs.net/system/files/import/ngfs/medias/documents/ngfs_conceptual-framework-on-nature-related-risks.pdf.

¹⁷ Marko Dimitrijević, “The Importance of the Concept of Environmental Protection in the Law of the European Central Bank,” *Foreign Legal Life* 68, no. 3 (2024): 403–19, https://doi.org/10.56461/SPZ_24305KJ.

account the differences that, in monetary jurisdictions, shape the postulates of independence in the work of central banks, i.e., the specific scope of their independence (especially the aspect of institutional and functional independence), it is necessary to bear in mind that the potential of the central bank to deal with the effect of environmental risks on monetary stability in the broadest sense of the word may vary. In more developed monetary jurisdictions, in addition to identifying problems, it also implies a concrete response (solution) to them, while in smaller monetary jurisdictions may remain at the level of identification depending on the specific legislative capacity of the central bank. It is for this reason that cooperation between central banks becomes an important instrument for more successful greening of monetary policy, where the Network for Greening the Financial System (NGFS) always represents the best example and indicator of the readiness of supreme monetary institutions to engage in this process.

3. Establishing a “Legal” Bridge between Biodiversity Conservation and the Mandate of the (European) Central Bank

Coordinated action between countries at the global level represents the first step in devising purposeful responses related to the preservation of biodiversity and human well-being, and the necessary condition for that coordination is influenced by the existence and collection of consistent, reliable, and location-specific data (since only on the basis of accurate information can optimal legal mechanisms be designed).¹⁸ Through the transparent exchange of information (which strengthens the environmental dialogue at the same time), the axiological matrix of legal norms of a certain branch of law is viewed and understood more precisely. In that process, it determines the existence (or non-existence) of a connection with concrete ecological values, which can later be the basis for derogation or the adoption of new legal solutions that are more environmentally conscious.

Today, as we have already emphasized, the central bank is faced with financial risks associated with biodiversity in its work, primarily through decisions on the purchase of assets (which it accepts as collateral) and (or)

¹⁸ Brian Blankespoor, Susmita Dasgupta, and David Wheeler, “Bridging Conflicts and Biodiversity Protection: The Critical Role of Reliable and Comparable Data” (WB Policy Research Working Paper 11076, February 2025), 22–23.

through the exposure of its counterparties in credit operations.¹⁹ By adjusting the collateral framework and through its operations on the open financial market, the central bank can increase its exposure to the mentioned risks, that is, generate a greater loss of biodiversity. To adequately adjust monetary policy actions, the central bank must focus on the risk classification to recognize those that are the most obvious (indisputable) and whose harmful effects on biodiversity is unquestionable where the adoption of targeted monetary policy measures must be started immediately (even before all risks are fully identified – because the time costs of delayed monetary and legal decisions are very large and almost irreparable in the case of biodiversity conservation). Therefore, the precautionary principle requires that in the circumstances of balancing the need for robust data processing and the costs of non-sharing, central banks must act in the early stages of observed biodiversity damage on the basis of incomplete data, and not wait for the final data processing when the loss may be more far-reaching. In this sense, we believe that the delay in the processing of complex data does not reduce the legitimacy of the measures taken by the central bank, but, on the contrary, it indicates the awareness of the problem's importance that cannot be delayed and requires an adequate response, which is not the first time in the history of the central bank legislation development that it is required to act as an adaptive organization in circumstances that (sometimes) do not support the adoption of a little bit revolutionary (controversial) decisions (because the convergence of environmental risks in public law monetary operations certainly undoubtedly represents a significant novelty in contemporary monetary legislation).

In determining the ECB's response to challenges in the preservation of biodiversity, only the conceptual definition of it arises as a preliminary question, because in academia and practice it is often equated with the protection of ecosystems and the protection of nature, although they are not synonyms. Biodiversity is characterized by heterogeneity and by complex, dynamic cause-and-effect relationships. As a result of which, from a formal legal point of view, neither the discipline of monetary law (nor any other

¹⁹ Pierre Monnin, "Monetary Policy Operations and Biodiversity Loss," Council on Economic Policies, CEO Policy Brief, March 2022, 9–10, accessed June 15, 2024, <https://www.cepweb.org/monetary-policy-operations-and-biodiversity-loss/>.

positive legal discipline) can currently offer a unique instrument validation that would be equivalent to the loss of biodiversity and led to the restoration of the previously disturbed state. That somewhat content-based elusiveness of the meaning of its content speaks in favor of the gradual creation of a heterogeneous corpus of international biodiversity law that incorporates diverse instruments of disciplines from the domain of public law and private law sciences in order to shape a unique response in the fight.²⁰ It is in this light that we can and should observe the functions of monetary and legal norms in the field of biodiversity conservation, as one of the many instruments that the modern legal order uses to protect fundamental rights to a healthy environment. The greening of monetary legislation and the legislation of central banks cannot be implemented in the absolute sense of that word, nor is something like that really necessary because the *modus operandi* of the central bank cannot be that of the environmental protection agency. However, integration of environmental risks in the broadest sense into the work of central banks contributes to the protection of nature in all its manifestations, which, in conjunction with the measures and instruments of other branches of law where this integration is more complete by the nature of things, i.e., the more compatible causes of relationships that are regulated, can result in achieving the desired outcome.

Interestingly, the ECB recently published two papers on biodiversity-loss risks, with a special focus on the spread of physical and transition risks. A notable innovation in these studies is the exploration of potential credit-portfolio losses resulting from biodiversity loss.²¹ These studies reflect the principles of green central banking, where central banks incorporate ecological risks into the formation and adaptation of monetary strategies and other regulatory mechanisms. The *ratio legis* behind this research lies in the need to identify the EU economy's exposure to physical risks stemming

²⁰ Felix Ekardt et al., "Legally Binding and Ambitious Biodiversity Framework, and Human Rights Law," *Environmental Science Europe* 35, no. 80 (2023): 2–4, <https://doi.org/10.1186/s12302-023-00786-5>.

²¹ Before greening the monetary legislation and the legislation of the central banks, it is necessary to identify the cause-and-effect mechanism between the climate system, ecological pressures, and biodiversity in order to find adequate actions for the central bank in that field. See more in: Andrej Ceglar et al., "The Impact of the Euro Area Economy and Banks on Biodiversity," *ECB Occasional Paper*, no. 335 (2023): 4, 27–28, <https://dx.doi.org/10.2139/ssrn.4651049>.

from ecosystem service degradation. The findings show that non-financial corporations (NFCs) in the euro area are significantly dependent on ecosystems through supply-chain linkages. Notably, around 75% of bank corporate loans are highly dependent on biodiversity.²²

Today, central banks increasingly recognize nature-related risks as material financial risks, which, if left unregulated, can lead to transmission risks and the emergence of physical risks in the future. Some general *de lege ferenda* guidelines for reshaping monetary legislation may include: stricter rules on problematic asset types in collateral frameworks, setting concentration limits on carbon-sensitive or environmentally harmful assets discouraging financing of companies engaged in environmentally damaging activities, and integrating nature-resource-loss considerations into bank lending decisions, moving beyond just climate risk. Thus, the regulation of collateral frameworks must evolve to include not only climate-related risks but broader climate change considerations, supporting comprehensive risk management and market signaling. Still, to meet these criteria, we must define the threshold and scope of central bank activities, avoiding the externalization of environmental costs from the private sector to monetary institutions, which have limited tools but should not remain passive.

When it comes to the legitimacy of central bank action in the area of environmental protection, the literature on monetary law distinguishes between so-called prudential and promotional reasons that justify such interventions. Prudential reasons relate to risk mitigation, which falls within the traditional mandate of central banks primarily concerned with maintaining price and financial stability, where climate-related factors can affect price levels. On the other hand, promotional reasons involve actions by the central bank that go beyond the scope of its existing (primarily monetary) mandate. In this second category, the central bank becomes one of the actors that initiates and promotes a gradual transition toward a low-carbon economy. While this is certainly not its primary goal, it can be broadly

²² See more about this in: Maud Abdelli, Uuriintuya Batsaikhan, and Carolin Carlella, “Natures Nudge: The Role of Collateral Frameworks in the Transition Towards a Sustainable Economy,” WWF, October 2024, accessed December 11, 2024, <https://wwfint.awsassets.panda.org/downloads/ecb-collateral-framework-report.pdf>; Simone Boldrini et al., “Living in a World of Disappearing Nature: Physical Risk and the Implications for Financial Stability,” *ECB Occasional Paper Series*, no. 333 (2023), <https://doi.org/10.2139/ssrn.4630721>.

viewed as aligned with the realization of other contemporary responsibilities central banks undertake. To fulfill these expanded functions, central banks through their influence on commercial banks can contribute to the preservation of natural resources. This influence can be exercised through incentives and targets that signal the need to incorporate climate risks into lending practices.²³ When discussing the legitimacy of the green-central-banking concept, it is important to recognize that it concerns the justification for using coercive authority over citizens, which should be grounded in the will and preferences of those citizens, while also being effective in achieving goals and avoiding risks that are perceived as collective concerns.²⁴ A central bank is, of course, not and cannot be a democratically elected institution, as it acts in the role of the guardian of monetary sovereignty, while also serving as a monetary regulator and the main innovator in monetary policy. This does not diminish the importance of ensuring legitimacy in its decision-making. Today, more than ever, it seems that central banks are attuned to the needs of their citizens and respect their preferences as demonstrated by numerous activities, such as extensive research into the issuance of public digital currencies and non-standard actions aimed at protecting natural resources.

Generally speaking, as we said, financial risks related to nature can be recognized in practice as physical risks (arising from the degradation of natural resources and the loss of ecosystem services) or transition risks (arising from the non-compliance of economic actors with actions aimed at protecting, restoring or reducing negative impacts on nature).²⁵ Although

²³ Peter Dietsch et al., “Green Central Banking,” in *The Philosophy of Money and Finances*, eds. Joakim Sandberg and Lisa Wareski (Oxford: Oxford University Press, 2021), 3–4.

²⁴ Fritz W. Scharpf, “Economic Integration, Democracy, and Social Welfare,” *Journal of European Public Policy* 4, no. 1 (1997): 18–36, <https://doi.org/10.1080/135017697344217>.

²⁵ Network for Greening the Financial System, “Nature-Related Financial Risks,” accessed June 2, 2025, https://www.ngfs.net/system/files/import/ngfs/medias/documents/ngfs_conceptual-framework-on-nature-related-risks.pdf. The Network for Greening the Financial System (NGFS), which currently gathers 114 members from 90 different monetary jurisdictions, best confirms the legislative capacity of this coordinating body in the current and especially upcoming adjustment of monetary goals with environmental standards, because, in a relatively short period since its establishment, it has established a significant monetary-ecological framework within which central banks, as well as international monetary organizations, can adjust their monetary operations so that they are environmentally friendly.

at first glance it may seem that risks are inherent in activities with an indisputable negative impact on natural resources, it is necessary to point out that in some circumstances they represent negative consequences of activities that were primarily aimed at the renewal of natural resources that are no longer consistent with the current regulatory requirements and practices, as a result of which they appear as outdated or inappropriate, which is why they must also be phased out from the system of environmental protection, which may require a certain time in terms of canceling such legislation from a positive normative framework, thus in the context of summarizing the already produced consequences of its implementation (which certainly cannot be an exclusive task of the central bank, but implies the organized action of various subjects of environmental management). A particularly significant category of transitional risks in this sense is the risk of initiating legal disputes aimed at environmental protection, which can be diverse in terms of causes, but the most numerous are those related to changes in policies and behavior that call for responsibility for non-compliance with certain environmental standards and guidelines.

The ECB's strong contribution to the realization of environmental policy goals can be found in its unequivocal support for the long-term goals of strengthening the competitiveness of the EU economy in a way that is compatible with the sustainable finance plan and the agreed agreement, where the position of the ECB in assisting with the purposeful reallocation of capital to projects and sectors that use clean technologies and renewable energy is indirect but still significant. In this regard, the incorporation of climate risks into future structural operations of monetary policy is a significant novelty.²⁶

Regardless of the perhaps modest contribution of central banks in climate-change control, the question of whether, when, and how central banks should participate in climate-change control is gaining more and more relevance. Therefore, any change or interpretation of monetary legislation and the legislation of central banks must be accompanied by the simultaneous development of a concrete methodological framework, which,

²⁶ Opinion of the European Central Bank of 8 May 2025 of Proposals for Amendments to Corporate Sustainability Reporting and Due Diligence Requirements, CON 2025/10 (OJ C, C/2025/3667, 8 July 2025) 2–10.

in addition to checking the fit of environmental risks under the central bank's field of work, will also be accompanied by the question of the opportunity and convenience of such ecological monetary behavior, which can be brought under the arguments of duties and business standards of the banks themselves and later possible assessment of the legality of such actions by the court.²⁷ Also, in considering the contributions made by central banks in the field of environmental policy, it is necessary to make a distinction between what in the context of existing legal, economic, and scientific determinants the central bank can undertake (or should refrain from doing) and what the central bank must (or must not) undertake. Taking into account that in some comparative monetary jurisdictions, price stability can be understood as economic prosperity or sustainable development, the care of environmental goods can be seen more broadly and find a foothold of protection within the primary mandate of the central bank, where the development path of the content of the primary mandate itself is more determined as a result of the prevailing economic theories of the eighties of the last century during pronounced inflationary processes that were later only taken over by other monetary jurisdictions on the principle of emulation. At the same time, in practice, a distinction can be made between defining the central bank's primary mandate in a horizontal sense (when monetary stability is not exclusively linked to price stability) and when the central bank's mandate is defined in an instrumental sense (where the legal text itself indicates indicatively what the central bank should undertake within its competences, but without offering a concrete argument, i.e., an explanation in support of such an action).²⁸ It can be noted that the greening of the mandate is more rewarding in the case of a horizontal approach that is more flexible and leaves the monetary legislator more room for nice maneuvers to include new activities in the field of work of central banks. After all, it seems to us that the decision on the active role of central banks in the environmental dialogue is not something that the central bank can decide on its own, because such changes and mandate extensions

²⁷ David Ramos Munoz, Antonio Cabrales, and Angel Sanchez, "Central Banks and Climate Change, Fit, Opportunity and Sustainability in the Law and Beyond," *European Banking Institute (EBI) Working Paper Series*, no. 119 (2022), 1–2, accessed June 10, 2023, <https://ebi-europa.eu/publication-working-paper-series-no-119/>.

²⁸ *Ibid.*, 14–16.

are also a previous political issue on which the government decides. In the definitive shaping of the ecological mandate of the central bank, the approach with which we completely agree, it advocates the idea that central banks today need a kind of “new model of the social contract,”²⁹ that will review the previously established and recognized tasks of the supreme monetary institution, interpret them, and adapt them to the spirit of the times we live in, in such a way that they more closely monitor the dangers that the endangerment of natural resources brings with it.

What is common to both physical and transitional risks is the object of action, because both types of risks can equally affect economic flows at the micro, macro, regional, and sectoral levels, thereby influencing business decisions and the legal position of households, companies, and creditors.³⁰ The ECB’s interest in the domain of environmental policy is not so surprising given the decline of biodiversity most obviously on European soil, even though EU Member States are signatories to the Convention on Biological Diversity (1992), which is implemented in practice through the conclusion of a separate category of mixed agreements that fall under EU law, but their status in community law is equated to purely community acts where the European Communities enjoy priority for implementation. Such a specific legal matrix of these agreements in practice therefore binds all EU institutions, and thus also the ECB in accordance with Article 216(2) of the Treaty, which, in addition to the previously established potential legal bases for supporting environmental goals established by Articles 127 of the EU Treaty and Article 117 of the ESCB/ECB Statute provide an added note of consistency. The last and perhaps the most obvious proof of the convergence of the objectives of the EU centralized monetary policy and the value of the environmental policy is the so-called climate and natural plan of the ECB for the period 2024–2025,³¹ which relies on the results achieved by the

²⁹ Ibid., 115.

³⁰ Marguerite O’Connell, “Birth of a Naturalist? Nature-Related Risks and Biodiversity Loss: Legal Implications for the ECB,” *ECB Legal Working Papers Series*, no. 22 (2024), 6–7, accessed September 10, 2024, <https://www.ecb.europa.eu/pub/pdf/scplps/ecb.lwp24-643-ca542d0.en.pdf>.

³¹ “ECB Steps Up Climate Work with Focus on Green Transition Climate and Nature-Related Risks,” European Central Bank, Press Release, January 30, 2024, accessed May 11, 2025, <https://www.ecb.europa.eu/press/pr/date/2024/html/ecb.pr240130-afa3d90e07.en.html>.

implementation of previous action plans. The mentioned measure of the single monetary policy now used the ecological logic of the previously approved Corporate Sector Purchase Program, which has a better environmental performance compared to the originally approved program (2016), which, following the provisions of classical monetary legislation, was oriented towards a market-benchmark, i.e., the exposure of the Eurosystem to economic sectors that are carbon sensitive.³²

Taking into account the challenges that exist and the determination of nature-related risks, which are reflected in the absence of fundamental values of biodiversity, the non-linearity of ecosystems, the limited sustainability of natural capital prone to cascading risks, numerous potential scenarios of the evolution of biodiversity and other problems, we must admit that each specific type of engagement of central banks in this field is more than valuable and at the same time a good indicator of the readiness and courage of monetary entities to tackle challenges. Another reason that justifies the increasing degree of involvement of central banks in the domain of environmental policy is related to the frequency of different environmental litigation, which in the broadest sense of the word can be understood as disputes initiated before administrative, investigative, and (or) judicial instances that are related to climate issues and the violation of various sources of hard and soft law that has nature as its object of protection.³³ Central banks in environmental litigation may sometimes face criticism if they accept or buy property of other institutions that potentially do not respect or violate the norms of environmental protection in their operations, which requires central banks to invest additional efforts in better understanding the causes, nature and manifestations of environmental threats. Also, the involvement of the central banks in this problem reflects, to some extent, the broader issue of state responsibility for the resulting environmental damage, which, although present in the area of international environmental

³² “ECB Takes Further Steps to Incorporate Climate Change into its Monetary Policy Operations,” European Central Bank, Press Release, July 4, 2022, accessed April 17, 2024, <https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220704~4f48a72462.en.html>.

³³ Joana Setzer et al., “Climate Change Litigation and Central Banks,” *ECB Legal Working Paper Series*, no. 21 (2021): 2–5, <https://dx.doi.org/10.2139/ssrn.3977335>.

law from the beginning, clearly still has many challenges in identifying and applying responsibility in its various forms.³⁴

4. Conclusion

Even in a time of serious ecological imbalances and stress, the primary task of monetary-law subjects must remain the preservation of monetary stability as a public good, but this cannot be achieved in isolation from natural conditions (nor can it mean anything in a world where there are no basic conditions for life and health). The “greening” of monetary policy and law, at first glance, may seem controversial, but we must emphasize that the newly established authority of the central bank to preserve the general financial stability (lender-of-last-resort function and even cohesion policy values) for a long period was inapplicable (even strictly prohibited by the provisions of hard monetary legislation). It is undoubtedly clear that environmental disasters have direct consequences on the objectives of monetary policy and that they can no longer be observed at isolated levels, which is best confirmed by the signing of the Paris Climate Agreement (2015), as well as the growing number of national, regional and international monetary frameworks in the world recognizing the potential impacts of climate change to the banking sector and the insurance sector. In a wider context, we believe that eco-friendly monetary legislation is a direct product of shaping public monetary management on a “more humane approach,” where every monetary action impacts human rights and where the right to a healthy environment is particularly precious where protection from biodiversity loss maybe represents and confirms that right to a healthy environment and right to a stable currency are mutually dependent.

³⁴ Maciej Nyka, “State Responsibility for Climate Change Damages,” *Review of European and Comparative Law* 45, no. 2 (2021): 131–52, <https://doi.org/10.31743/recl.12246>.

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