doi:10.1017/aju.2024.29

SYMPOSIUM ON NEXT GENERATION EU, CRISIS BUDGETING, AND THE EMPOWERMENT OF SUPRANATIONAL INSTITUTIONS

THE NEXT GENERATION EU PROGRAM IN THE "GLOBAL RACE TO THE (GREEN) TOP"

Ginevra Le Moli and Jorge E. Viñuales***

NGEU in the Green Transformation

One significant dimension of the Next Generation EU program (NGEU) is its role in the broader context of the transition toward a low-carbon and environmentally sustainable economy and, specifically, in the global competition among major jurisdictions to become leaders in the key green industrial sectors.

In this contribution we analyze this dimension from three interrelated angles: first, we show that, as a COVID-19 stimulus package, NGEU was, from the start, "greener" than the norm, to the extent that it was structured and has effectively been used to channel substantial funds towards green spending; second, we examine the impact of the Russian invasion of Ukraine and the energy crisis it triggered, particularly in the EU, for the green orientation of NGEU as a strategy for energy security; third, we situate NGEU as a green industrial competition instrument in the "global race to the (green) top," namely the increasingly intense competition among major jurisdictions to become industrial leaders in the low carbon and environmentally sustainable economy.

We conclude that the alignment of the sustainability, energy security, and competition goals of EU energy policy is changing the nature of NGEU[1] from a temporary instrument to respond to the economic effects of the pandemic in the short term into a massive industrial policy package aimed in part at permanently transforming the energy systems of EU countries.

Greener Than the Norm

In the last two decades and particularly after the 2008 financial crisis, many countries have promoted the energy transition through green industrial policies, typically involving a range of support mechanisms for renewable energy generation, associated equipment industries, efficiency measures relating to buildings and vehicles, and different carbon pricing instruments, mainly taxes, emissions trading schemes, and, increasingly, border duties.[2]

* *Professor at the European University Institute (EUI) and Fellow of the Cambridge Centre for Environment, Energy and Natural Resources Governance (C-EENRG), University of Cambridge, UK.*

** *Harold Samuel Professor of Law and Environmental Policy and Founding Director of the Cambridge Centre for Environment, Energy and Natural Resources Governance (C-EENRG), University of Cambridge and Professor of International Law, LUISS, Rome, Italy.*

[1] On the possible futures of NGEU as either a singularity or a blueprint for the future financial architecture of the EU, see Franz C. Mayer, *NextGenerationEU and the Future of European Integration: Foreseeing the Unforeseeable*, 118 AJIL Unbound 172 (2024).

[2] Oliver Hailes & Jorge E. Viñuales, *The Energy Transition at a Critical Juncture*, 26 J. Int'l. Econ. L. 627, 639 (2023). The EU published a proposal for a first-of-its-kind carbon border adjustment mechanism (CBAM) in 2021, which following revision became applicable (in its

© The Author(s) 2024. Published by Cambridge University Press on behalf of The American Society of International Law. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

https://doi.org/10.1017/aju.2024.29 Published online by Cambridge University Press

At the EU level, a major step was taken in December 2019, with the introduction of the so-called "European Green Deal," an ambitious plan to reach net zero emissions of greenhouse gases (GHG) by 2050.[3] Whereas NGEU, adopted a few months later, was first and foremost an answer to the COVID-19 crisis and to the economic downturn in Europe, it contained a strong green industrial policy dimension.[4]

Unlike the bulk of the rescue and recovery plans hastily put in place to address the economic impacts of the COVID-19 pandemic, which went massively into supporting business as usual, NGEU earmarked a substantial share of the stimulus to achieve a green transformation. According to one estimate, by the time the pandemic started to recede in mid-2022, out of the $18.16 trillion that had been spent in rescue and recovery policies in the eighty-nine countries covered by the study, only 5.3 percent ($0.97 trillion) qualified as "green spending."[5] By contrast, NGEU required that no less than 30 percent of the funds disbursed be allocated to the green transition, as part of a broader "European Green Deal"[6] also reflected in the earmarking for green spending of 30 percent of the Multi-annual Financial Framework (MFF) 2021–2027.[7] This green share of NGEU targets nine intervention fields:[8] (1) clean energy and network; (2) clean transport and infrastructure; (3) climate change adaptation; (4) digital technologies supporting the green transition; (5) energy efficiency; (6) nature protection, rehabilitation, and biodiversity; (7) research and innovation activities supporting the green transition; (8) water and waste management; and (9) others.

Funds are allocated mainly through the Recovery and Resilience Facility (RRF) to each member state, according to the specific needs stated in its National Recovery and Resilience Plan (RRP).[9] EU countries were required to submit their RRPs between 2021 and 2022, setting their milestones and targets for all measures until 2026.[10] The RRPs were then assessed by the Commission on the basis of different criteria, including the requirement that national plan allocate at least 37 percent of the total amount to the green transition.[11] The midterm evaluation of the RRF performance published in February 2024,[12] shows that this target has been exceeded by all member

transitional phase) in October 2023. *See* Regulation 2023/956 of the European Parliament and the Council of May 10, 2023, Establishing a Carbon Border Adjustment Mechanism, 2023 OJ (L 130) 52.

[3] Communication from the Commission, The European Green Deal, COM (2019) 640 final (Dec. 11, 2019) [hereinafter EU Green Deal].

[4] Communication from the Commission, Europe's Moment: Repair and Prepare for the Next Generation, at 6–8, COM (2020) 456 final (May 27, 2020); Regulation 2021/241 of the European Parliament and of the Council of Feb. 12, 2021, Establishing the Recovery and Resilience Facility, 2021 OJ (L 57) 17 (EU) [hereinafter RRF]. See in particular, Article 18(4)(e), requiring 37% of national Recovery and Resilience Plans, "RRP," to contribute to the green transition.

[5] *See* Brian O'Callaghan et al., Global Recovery Observatory, Oxford U. Econ. Recovery Project (2021). "Green spending" is understood by reference to the associated emissions of greenhouse gases (GHG), air pollution, and impact on natural capital.

[6] EU Green Deal, *supra* note 3.

[7] Council Regulation 2020/2093 of Dec. 17, 2020, Laying Down the Multiannual Financial Framework for the Years 2021 to 2027, 2020 OJ (LI 433) 11 (EU, Euratom).

[8] NGEU, *Make It Green* (last visited Apr. 12, 2024). *See* European Commission, Directorate-General for Budget, *Green Bonds – Impact and Allocation Report – NGEU Report 2023*, Publications Off. EU (2023).

[9] For an analysis of the RRF, see Géraldine Mahieu, Paul Brans & Daniel Schulz, *The Recovery and Resilience Facility Under Next Generation EU: A Breakthrough in Economic Policy Coordination and Policy Programming*, 118 AJIL Unbound 144 (2024).

[10] *A Recovery Plan for Europe*, Eur. Council (last visited Apr. 12, 2024).

[11] RRF, *supra* note 4, Art. 18(4)(e).

[12] Communication from the Commission, Strengthening the EU Through Ambitious Reforms and Investments, COM (2024) 82 final (Feb. 21, 2024) [hereinafter RRF Mid-term Evaluation].

https://doi.org/10.1017/aju.2024.29 Published online by Cambridge University Press

states, with an average of 40 percent of green expenditure in national RRPs, and some countries going as far as devoting more than 50 percent of their expenditure to climate objectives.[13]

One innovative approach to fund the green transformation measures of RRPs has been to rely on the European Commission's borrowing capacity in international capital markets through the issuance of green bonds, under an NGEU Green Bond framework.[14] To ensure that spending of the funds raised by such bonds is genuinely "green," the Commission has set up a multi-level framework of control and assessment procedures to determine whether individual measures in RRPs can obtain financing from NGEU green bonds. The assessment starts with an evaluation of the RRPs and, in particular, of the measures related to climate-relevant expenditures. Three criteria are relevant: (1) whether the measure is part of the notified intervention field, which allows the establishment of the "climate coefficient"; (2) whether it complies with the "do no significant harm" principle, arising from Article 17 of the Taxonomy Regulation[15] and specific RRF-related guidance; and (3) whether the measure is consistent with National Energy and Climate Plans. This assessment also guarantees that appropriate milestones and targets are agreed upon. These allow the Commission to track the implementation of the measures in a meaningful and rigorous way.

According to the 2023 NGEU Green Bonds Allocation Report,[16] as of August 2023 the Commission had issued €44.2 billion of NGEU Green Bonds and close to half of this amount had been already allocated to relevant measures under national RRPs. Of the eligible expenditure, over half of it (57 percent) is not only "green" but also substantially aligned with what amounts to an environmentally sustainable activity under the Taxonomy Regulation.

The Ukraine War and the Greening of Energy Security

The focus on the green transition was further expanded after Russia invaded Ukraine, triggering a global energy crisis most acutely felt in the EU, a major importer of Russian oil and gas. The energy crisis led to what could be characterized partly as a reckoning and partly as a political window of opportunity for longstanding objectives.

The crisis had the effect of aligning three goals of energy policy[17] that had hitherto been presented as an energy trilemma:[18] economic affordability; security of supply; and sustainability (decarbonization). An influential report from the network REN21 emphasizes indeed that "a strong synergy exists between measures needed to improve energy security and those associated with the energy transition, and especially the shift to renewables. High levels of locally produced renewable energy, coupled with energy saving and better energy efficiency, improve energy security, sovereignty and diversity. This helps to reduce exposure to energy price fluctuations while at the same time reducing emissions and providing other economic benefits."[19]

[13] *Id.* at 6.

[14] Commission Staff Working Document, NextGenerationEU Green Bonds Allocation Report, SWD (2022) 442 final (Dec. 16, 2022); Commission Staff Working Document, NGEU Report 2023: Green Bonds – Impact and Allocation Report, SWD (2023) 405 final (Dec. 1, 2023) [hereinafter Green Bonds AR 2023].

[15] Regulation 2020/852 of June 18, 2020, on the Establishment of a Framework to Facilitate Sustainable Investment, OJ (L 198) 13 (EU).

[16] Green Bonds AR 2023, *supra* note 14, at 6–7.

[17] Jorge E. Viñuales, *The Ukraine War and the Energy Transition*, 4 Revue Européenne du Droit 113 (2023).

[18] *See* World Energy Council, *World Energy Trilemma Index 2022* (last visited Apr. 12, 2024).

[19] REN21, *Renewables Global Status Report 2022*, at 38; *see also* IEA, *World Energy Outlook 2022, Executive Summary*, at 20; IRENA, *World Energy Transitions Outlook 2022*, at 15.

https://doi.org/10.1017/aju.2024.29 Published online by Cambridge University Press

The REPowerEU plan,[20] developed to face the new energy insecurity situation, reflects this novel understanding. Its integration into the main instrument of NGEU, through a revision of the RRF,[21] has already resulted in a further strengthening of the green transition component of national RRPs. Since March 2023, when the revised RRF entered into force, twenty-three REPowerEU chapters have been added and approved in national RRPs focusing on energy efficiency, renewable energy production, and the development of more resilient energy networks to reduce dependency on imports from Russia.[22] The mid-term evaluation specifically portrays the opportunities arising from the integration of REPowerEU into the RRF from the perspective of green industrial policy: "REPowerEU will also promote the objectives of the Green Deal Industrial Plan and provide a more supportive environment to boost the EU industry's competitiveness and to scale up the manufacturing capacity of net-zero-tech industries."[23]

NGEU in the Global Race to the (Green) Top

As discussed so far, the NGEU program was designed to support, in part, the EU Green Deal and, later on, to support the EU's response to the energy crisis triggered by the Russian invasion of Ukraine. Remarkably, given the high prices of oil and gas (and the dramatic reduction in the cost of electricity from wind and solar PV), the affordability, sustainability, and security of supply objectives of the EU energy transition policies are now increasingly aligned. In May 2023, the EU "produced more electricity from wind and solar than from fossil fuels" for the first time in history,[24] also announcing increased ambitions in green industrial policy with the adoption of the EU's Green Deal Industrial Plan for the Net-Zero Age.[25] Thus, the conjunctural nature of the NGEU program sits within a broader industrial strategy in which the EU is competing with other countries, mainly China and the United States.

China has acquired a dominant position in the renewable energy and electric vehicles industries through massive investments that, until recently, remained unmatched even in their order of magnitude. According to one estimate, in 2021, China's investment in these sectors amounted to $266 billion, a third of total global investment and more than twice the amount invested by the United States that year.[26] The energy insecurity arising from Russia's weaponization of energy exports raised the specter of an analogous situation arising from China's dominance over the supply chain of renewable energy technologies. As a result, in 2022, alongside the adoption of China's 14th Five-Year Plan (2021–2025),[27] other major economies adopted massive green industrial policy packages, including the U.S. Inflation Reduction Act (IRA),[28] Japan's GX Green Transformation Program,[29] and the repurposing of NGEU through the integration into the RRF of the REPowerEU plan.

In this global context, the NGEU recovery plan and the NGEU Green Bond program must therefore be seen as components of the EU's industrial competition strategy. The actual expenditures of the NGEU green bond

[20] Communication from the Commission, REPowerEU Plan, COM (2022) 230 final (May 18, 2022) [hereinafter REPowerEU].

[21] RRF, *supra* note 4, as amended by Regulation 2023/435 of 27 February 2023, Art. 18.4(c), (e), (h), and (q).

[22] *Id.* at 6.

[23] *Id.* at 6–7.

[24] Report from the Commission, State of the Energy Union Report 2023 (pursuant to Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action), COM (2023) 650 final (Oct. 24, 2023).

[25] Communication from the Commission, A Green Deal Industrial Plan for the Net-Zero Age, COM (2023) 62 final (Feb. 1, 2023).

[26] *China Is the Growth Engine of World's Low-Carbon Spending*, BloombergNEF (Feb. 18, 2022).

[27] Asian Development Bank, *The 14th Five-Year Plan of the People's Republic of China—Fostering High-Quality Development*, Observations & Suggestions Series, No. 2021-01 (2021).

[28] Inflation Reduction Act, Pub. L. No. 117-169, 136 Stat 1818 (2022).

[29] An English translation of the program overview is available at: https://www.meti.go.jp/english/press/2023/pdf/0210_003b.pdf (last visited Apr. 12, 2024).

https://doi.org/10.1017/aju.2024.29 Published online by Cambridge University Press

framework suggest that such is the focus on NGEU green mandates. Indeed, out of the nine sectors where proceeds from green bonds can be spent, the spending is flowing mainly to three green transformation sectors, which account for some 75 percent of the EU green bonds eligible expenditures:[30] (1) clean transport and infrastructure (33.9 percent); (2) energy efficiency (25.8 percent); and (3) clean energy and network (16.4 percent). Other sectors account for lower percentages, namely: (1) water and waste management (6.4 percent); (2) climate change adaptation (6.2 percent); (3) research and innovation supporting the green transition (5.8 percent); and (4) others (2.2 percent). Whereas mitigation is also an objective of this measure, the greenhouse gas (GHG) emission reductions that would be reduced from the full implementation until 2026 of activities financed from green bonds is relatively small and in the region of 1.2 percent of EU emissions in 2022. This suggests that, whereas the objective of GHG emissions reduction is one important aspect of such green spending, much of it is about green industrial policy or, in other words, competition in the global race to the green top.[31]

The mid-term evaluation of the RRF performance of February 2024[32] confirms this direction of travel. As noted earlier, the evaluation concluded that all member states have exceeded the 37 percent green expenditure target, achieving 40 percent as an average, and, in some cases, over 50 percent.[33] Moreover, the integration of the REPowerEU plan into the RRF has resulted in the addition of some twenty-three REPowerEU chapters in RRPs, focusing on key areas of the green industrial transformation, such as energy efficiency, renewable energy production, and the development of more resilient energy networks.[34] Furthermore, in the same period, the European Commission took specific steps to relax the limits on green industrial policy arising from EU State aid rules, which have no equivalent in the United States, Japan, or China. These steps included a Temporary Crisis and Transition Framework specifically aligned with the Green Deal Industrial Plan[35] and the amendment of the General Block Exemption Regulation (GBER), again, with the specific aim of supporting green industrial policy.[36]

Conclusion

All in all, despite its origins in the COVID-19 pandemic, NGEU cannot be understood outside of the context of the green transformation. A parallel—and to some extent overlapping—account could be built for the digital transformation, which is also supported by NGEU. From a green industrial perspective, the decarbonization and environmental sustainability objectives pursued since the beginning by NGEU were amplified by the reconceptualization of energy security in the REPowerEU plan, and then presented quite openly as part of a Green Deal Industrial Plan for the Net-Zero Age aimed at competing with other major jurisdictions in the global race to the (green) top. The implications for NGEU as an instrument are significant. Its reorientation as a green industrial policy may well extend its life and turn it into a more permanent instrument designed to transform the energy systems of EU countries.

[30] *NextGenerationEU Green Bond Dashboard*, EUR. COMM'N (last visited Apr. 12, 2024).

[31] Green Bonds AR 2023, *supra* note 14, at 6–7.

[32] RRF Mid-term Evaluation, *supra* note 12.

[33] Green Bonds AR 2023, *supra* note 14, at 6.

[34] *Id.*

[35] Communication from the Commission, Temporary Crisis and Transition Framework for State Aid Measures to Support the Economy Following the Aggression Against Ukraine by Russia, 2023 OJ (C 101) 3 (Mar. 17, 2023) (subsequently extended in November 2023).

[36] Commission Regulation 2023/1315 of June 23, 2023, Amending Regulation (EU) No 651/2014, 2023 OJ (L 167) 1 (EU).

https://doi.org/10.1017/aju.2024.29 Published online by Cambridge University Press