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Exogenous Shocks and Proactive Resilience in the EU: The Case of the Recovery and Resilience Facility

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Abstract

The Covid-19 pandemic prompted economic policy innovations in response to new exogenous shocks, resulting in economic recovery policies at the national and supranational level. This paper considers the modalities of these policy innovations and their long-lasting effects in the case of the European Union (EU), focusing on the Next Generation EU (NGEU) programme and its centrepiece, the Recovery and Resilience Facility (RRF). We discuss the novelties in the design of the NGEU/RRF in comparison to previous EU structural funds, aimed at reducing regional divergences across the EU. The NGEU is changing the way the EU finances itself as never before had the European Commission borrowed at such large scale and long maturities on financial markets. In the paper, we identify potential gaps in the design of the EU Recovery Funds, due to their focus on thematic clusters with limited linkages to other vertically designed EU programmes, an absence of microeconomics considerations, and likely spending overlap with the Structural and Investment (ESI) Funds. The scope for coordination is evident as, on top of the new RRF Funds, EU countries will have to absorb the unspent ESI Funds from the 2014-20 Multi Financial Framework (MFF) and those recently allocated under the new 2021-27 MFF. Considering these challenges, we articulate a proactive resilience framework for the design and implementation of policy instruments in the EU.

Keywords: Resilience, Economic governance, EU policies, Investment incentives, Next Generation EU, Recovery and Resilience Facility, ESI Funds

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Exogenous Shocks and Proactive Resilience in the EU: The Case of the Recovery and Resilience Facility

1. Introduction

The Covid-19 pandemic triggered several economic policy innovations which led to economic recovery policies at the national and supranational level in the wake of a new set of macroeconomic shocks. The focus of this paper is on the Next Generation EU (NGEU) programme and its centrepiece, the Recovery and Resilience Facility (RRF). The latter is the result of EU governance reforms, leading the way to the European Commission (EC) issuing bonds on capital markets and then transferring the proceeds as grants and subsidized lending to EU countries in response to the new challenges posed by the pandemic. The NGEU programme was originally designed as a one-time and temporary intervention, but - if successful - it could potentially signal a new direction for EU fiscal and economic policy coordination (Fuest, 2021). In the first section of the paper, we discuss the rationale and the structure of the programme. In the second section, we review the implementation experience so far and the novelties in comparison to previous EU cohesion initiatives, such as the Structural and Investment (ESI) Funds. The third section of the paper provides a framework for the assessment of the RRF and the long-term implications of a permanent joint funding structure. We highlight the potential role of objectives and priorities of RRF-like initiatives, which can become the building blocks of a proactive resilience framework in the EU, focusing on absorption and recovery.

Our paper is relevant to three streams of literature on economic policy innovations. First, we introduce a broader perspective for the assessment of the Covid-19 policy instruments in the context of the EU economic recovery. Second, we enrich the literature on EU cohesion policies with a detailed discussion of policy design and novelties of a specific new instrument – the RRF – drawing on its operational modalities. Third, we provide case study evidence on the role of proactive initiatives for the enhancement of economic resilience, i.e., the ability of countries to withstand shocks and recover quickly to their growth potential, in addition to previous proposals in the literature for reactive adjustments.

2. Political economy considerations

2.1 Policy incentives in the EU

It is often recognised that the EU has a unique system of institutions and relationships between different levels of government and governance resulting in close attention to policy incentives and performance aspects of the budgeting process. As a matter of fact, the EU scores higher than most countries in the standard "OECD index of performance budgeting frameworks" thanks to highly developed processes for scrutinising and approving the budget in parliamentary, political and auditing terms (OECD, 2017).

Historically, the EU budget has been primarily an investment-focused budget with annual ceilings laid down in the 7-year Multiannual Financial Framework (MFF), which have on average contributed to about 1% of EU-wide GDP and 2% of EU-wide public expenditure. Despite the relatively small size and limited macro-economic implications of the EU budget – particularly when compared with national budgets – the emphasis in the past on allocating resources

towards specific EU-wide goals has attempted to avoid duplications with national budget allocations, and make sure that the EU acted within its mandate and could justify its spending in terms of results and impacts.

However, as each 7-year MFF is partitioned into annual ceilings, performance signals have often been missing in the annual budgeting cycle, which, albeit with a time lag, tended to follow EU macroeconomic trends. Previous EU cohesion initiatives, such as the ESI Funds – which were by far the main EU funding source until the current 2021-2027 MFF – were disbursed based on actual costing of investment items, with little connections to policy steering and achievement of milestones (see also Begg et al., 2014).

The novelty of the NGEU programme and its centrepiece, the RRF, is that this new EU funding source has been set up as a continuous performance-based instrument, which means that payments are conditional upon the on-going fulfilment of milestones and targets underpinning the reforms and investments in the respective National Recovery and Resilience Plans (NRRPs). It aims to create an embryonic European collective mechanism of mutual fiscal support and economic policy peer control – which has been recognised for a long time as the necessary fiscal complement to the already existing European Monetary Union (EMU) – while enhancing the institutional and budgetary functions of the European Commission (De Grauwe, 2011; Luo, 2021; Reichlin, 2020).

As a matter of fact, NRRPs are embedded in the European Semester, the EU's framework for economic policy coordination, with the additional request to achieve ambitious green and digital targets. Investments – mainly of a capital expenditure nature and rigorously of a "one-off" nature – are meant to be directed toward technology-heavy industries and sectoral clusters that are recognized to have higher economic multipliers and implications on long-term economic growth (Hepburn et al., 2020; Batini et al., 2021; Hausmann et al., 2021). The challenge of putting together multiyear plans for investments and

structural reforms, with clear deliverables in the digital and green areas, has itself been a novel exercise for national governments and the European Commission, with the latter clearly in the driving seat due to a hands-on preventive approach aimed to ensure the quality and consistency of the national plans from their design stage (Sandbu, 2021).

On the other hand, the return of the EU Recovery Funds and their impact on the EU-wide economic output is a combination of factors such the economic structure of each country, their location and national borders, tenure in the EU and membership of the Euro area, the instruments used, the policy assumptions, the productive capacity per euro spent, and the effect on confidence and expectations (Canova and Pappa, 2021; Liadze and Macchiarelli, 2021). Such enhanced policy steering at the EU level is unprecedented and must balance different national agendas driven by often competing political economy needs. The mechanism represents external market discipline in both the funding and the investment framework, which finds a precedent only in the experience of some EU countries such as Greece under the Enhanced Surveillance Framework post-2010.

2.2 The rationale for NGEU and the RRF

The NGEU programme – the European Commission's EUR 800 billion plan, equivalent to 5.3% of the EU GDP (in 2020 prices) – aims to make European economies more sustainable, resilient over the long term, and better prepared for the opportunities represented by the green and digital transitions in light of the societal challenges accelerated by the pandemic. Furthermore, there is a consensus that Covid-19 has exposed large vulnerabilities both at EU and national level with fundamental questions about the adequacy of the newly created NGEU to meet the challenges Europe faces requiring an ambitious medium-run recovery programme (Creel, 2020; Reichlin, 2020), let alone the

legitimacy and sustainability of the long-standing European political economy settlement (Bergsen, 2020).

NGEU also endeavours to boost aggregate demand, by acting as leverage for private and public sector investment from commercial banks, International Financial Institutions (such as, the European Investment Bank and the European Bank for Reconstruction and Development) and National Promotional Banks which have the incentive to deploy their own balance sheet in support of the roll-out of the EU funds. However, the EU Recovery Funds are meant for the EU, not the Euro area, and – as such – are not specifically designed to address the challenges that arise from having a European Central Bank (ECB) without a corresponding centralized fiscal authority (Reichlin, 2020).

The large majority of the NGEU budget, amounting to 100% of the loans and 80% of the grants, is channelled through the RRF. Each member state can request EU grants and concessional loans, based on a set of macroeconomic indicators, to boost structural reforms and long-term public and private investments. The exogenous – yet uneven - shock of the pandemic and the risk of a deep recession helped EU policy makers to circumvent the usual moral hazard criticism by moving the goalpost from mutualizing the stock of legacy debt to financing longer-term new investment opportunities.

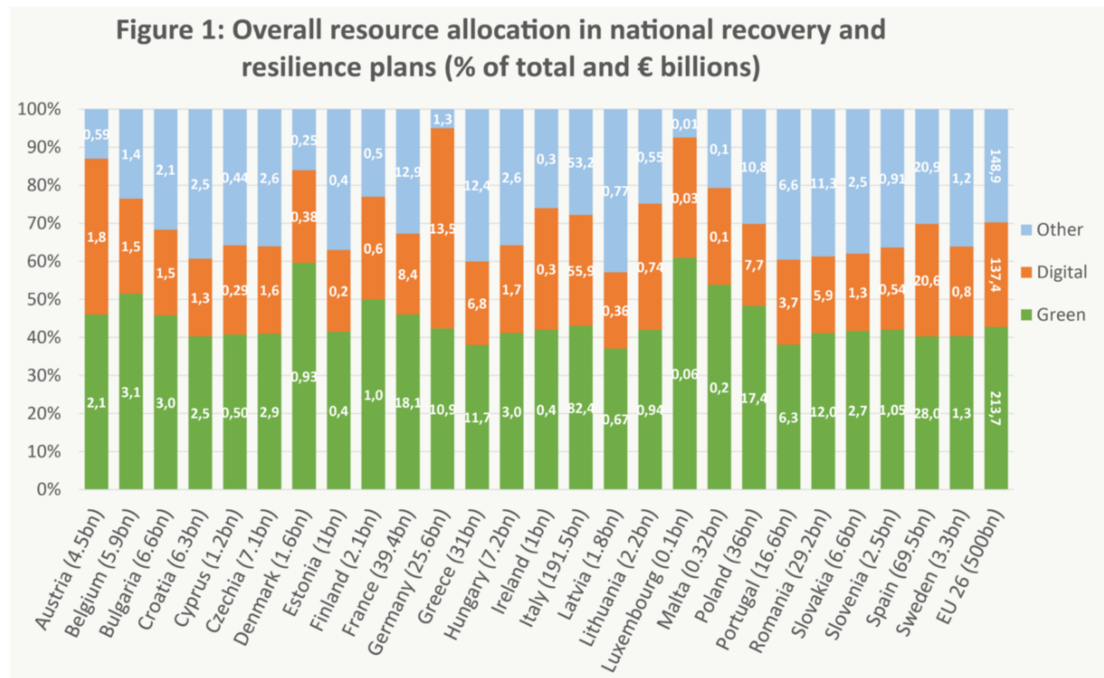
The allocation of RRF grants involves a considerable degree of economic and fiscal solidarity. Allocations are tilted towards EU countries with weaker GDP per capita, higher unemployment rates and higher public debt ratios, thus fostering convergence and strengthening of the EU – and the currency union, as a result. This allocation decision is expected to lighten the debt burden through boosting higher growth potential, which is a particularly important consideration for the fiscal sustainability of countries with debt/GDP ratios

more than 2.5 larger than what requested by the Maastricht criteria, e.g., Italy and Greece.

While demand of RRF grants has been ubiquitous, demand for RRF loans has come from the most hard-hit countries in Southern and Eastern Europe, confirming the need to put in place a broader funding structure which follows the pursuit of cohesion and economic convergence across the Union (Giacon and Macchiarelli, 2021a; b; c).

The RRF involves a certain degree of spending discretion. Darvas at al. (2022) provides a comparison of the green and digital components of the individual plans. Countries, that have received relatively smaller RRF grants amounts as a percentage of their GDP, have presented plans almost exclusively concentrated on green and digital spending (i.e. Germany, Luxembourg, Denmark, etc.), while EU countries, that have been allocated larger amounts of RRF grants, have presented more diverse plans with higher spending allocations to 'other' non-classified expenditure (i.e., non-green and non-digital shares of spending), mainly around social and healthcare expenditure. Specifically on the green targets, whilst all submitted 27 NRRPs exceed the minimum 37% green / climate benchmark, a few EU countries have used more than half of their allocation towards climate objectives. Related to the digital targets, most Member States went beyond the 20% minimum digital threshold, with 26% of the RRF allocation at the EU level being dedicated to digital objectives.

Figure 1: RRF grants and loans' allocation by green, digital and other targets



Source: Darvas et al. (2022)

2.3 The economic potential of RRF

All 27 National Recovery and Resilience Plans have been submitted by June 2022. Member States have requested the full amount of available RRF grants (i.e., EUR 338 billion), 70% of which must be committed by December 2022 and the remaining 30% by December 2023. As per article 11 of the RRF Regulation - while the allocation of the initial 70% of RRF grants was based on the Autumn 2020 European Commission forecasts - the maximum financial contribution related to the remaining 30% grant component has been updated in June 2022 on the basis of the latest Eurostat data reflecting the change in real GDP growth over 2020 and the aggregate change in real GDP for the period 2020-2021. This has meant that the allocation of the remaining 30% of the grant component has been lowered (or increased) in a number of EU countries based on diverging economic performances post Covid-19 economic shock (European Commission, 2022).

Twenty-five National Recovery and Resilience Plans have been endorsed by the Commission and the Council with only Hungary and the Netherlands still waiting for formal approval. Twenty EU countries have received pre-financing of up to 13% of their total allocation based on the approval of the NRRPs by the end of 2021; 13 underlying operational arrangements have been concluded, leading to the submission of 11 payment requests and the disbursement of RRF funds based on achieved milestones to 8 Member States (Spain, France, Italy, Greece, Portugal, Croatia, Slovakia, and Latvia). Of these frontrunners, Spain has already received the second RRF tranche of 2022. The steady implementation of the EU-RRF has led to the disbursement of around 20% of the allocated RRF funds, i.e., about EUR 57 billion in pre financing upon approval of the RRPs in 2021 and about EUR 43 billion upon fulfilment of milestones and targets in 2022, bringing the total RRF amount disbursed by the European Commission to the EUR 100 billion landmark one year after the official submission of the first plans (EC RRF Review Progress Report, 2022; Tamma 2021).

The swift pace of disbursements so far shows the effectiveness of the RRF financial instrument and the strong commitment of Member States to implement related reforms and investments (European Commission, 2022). Furthermore, there appears to be a balanced progress in implementing both reforms and investments. Examples of reforms with fulfilled milestones include Croatia's adoption of an Act on the Alternative Transport Fuels, Greece's adoption of a law on waste management, Italy's adoption of legislation to reform the justice system, Portugal's National Strategy to Combat Poverty as well as Spain's National Digital Competences Plan. Examples of investments with fulfilled targets include Croatia and Italy's support to companies to boost energy efficiency and the use of renewable energy in the industry sector, France's granting of 400.000 bonuses for private housing

renovation, as well as Greece's launched tenders for the construction of 13 Regional Civil Protection Centres.

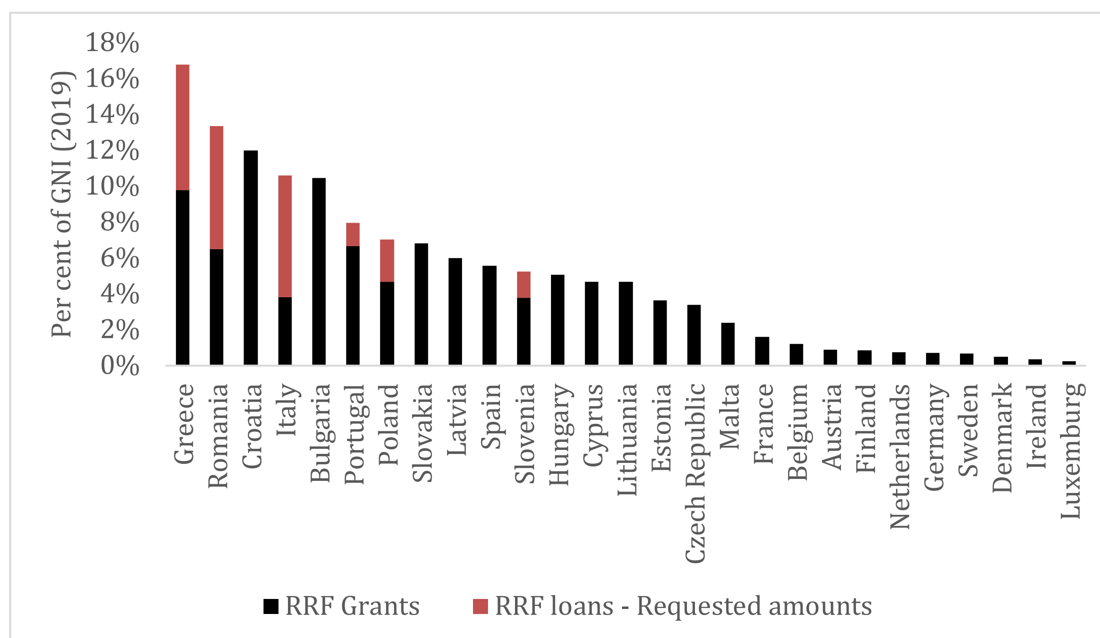
On the other end, only 7 EU Member States (Greece, Italy, Portugal, Poland, Romania, Cyprus and Slovenia) have requested RRF loans amounting to a total of EUR 165 billion at current prices out of the maximum available amount of set by the RRF Regulation amounting to EUR 360 billion in 2018 prices and EUR 385.8 billion at current prices (which sets the amount of loans still available for request at around EUR 220 billion at current prices). Overall, the limited interest for the loan component may lead to lost opportunities and prevent the RRF from reaching its full economic potential. However, EU Member States can still request loan support until 31 August 2023 and – most importantly – the European Commission has recently suggested, as part of the REPowerEU Proposal, that EU countries can express their intention regarding the possible uptake of RRF loans 30 days after the entry into force of the new Regulation.

With the current loan and grant allocations, the impact of the NGEU and EU-RRF Funds has been estimated by the EC, the ECB and the IMF to contribute to an increase of EU GDP growth of up to 1.5% higher than the baseline scenario for 2022. An early study by Liadze and Macchiarelli (2021) has estimated that the EU Recovery Funds would imply a debt-based fiscal expansion of 0.65% of GDP on average over the five years between 2021 and 2026, with countries that are among the scheme's major beneficiaries, such as Italy and Greece (as per the figure below), benefiting from an extra 3% and 2% of GDP at the peak, respectively, thus more than countries which have decided not to apply for the loan component

Even if the economic effects of the NGEU/RRF cannot be fully disentangled from other current developments, we can conclude that they have had positive effects on confidence, thanks to their role in protecting the fiscal space of EU Member States from the substantial economic shock of the Covid-19 pandemic,

and more recently the economic ramifications of the Russian war in Ukraine. Indeed, RRF grants are expected to fund up to 25% of total recovery support measures in 2022 across the EU (Thygesen at al., 2022).

Figure 2: Requested allocations of RRF loans and grants as a % of Gross National Income



Source: European Commission (RRF grant and loans) and World Bank data (GNI 2019). Authors' elaborations

3. Modalities of implementation

3.1 Legacy issues and lessons from the EU Structural Funds

The EU Recovery Funds do not form part neither of the revenues nor of the expenditures side under the EU MFF, thus diverging from the standard funding practice via national budgetary contributions from EU countries (Leino, 2020). This has been made possible via the unanimous adoption of all EU27 national parliaments of the Own Resources Decision (ORD), which was

meant to legally offer with its "quasi-constitutional nature" the necessary democratic legitimacy of the NGEU/RRF innovative funding proposal. The investment stimulus provided by the EU Recovery Funds includes fine-tuning opportunities in response to concerns about European resilience, especially at a time of elevated geopolitical risk and green transition uncertainties after Russia's invasion of Ukraine.

Most importantly, the EU Recovery Funds have been designed to be additional in terms of policy objectives and implementation channels to the existing MFF/ESIF and can also build on the lessons learnt over decades of policy implementation in the EU. While the EU Recovery Funds broadly aim to help the recovery and resilience of EU economies, ESI Funds aim to promote economic, social and territorial cohesion among the Member States and regions of the EU (Lopriore, 2022).

Over the 2014-2020 MFF period alone, the ESI Funds amounted to EUR 461 billion of EU spending and – complemented by national co-financing - have triggered an overall investment of EUR 640 billion to foster socio-economic convergence and territorial cohesion (EC Summary Report on ESIF implementation, 2021). Concrete achievements of the ESI Funds deployed in the previous MFF programming period included supporting 3 million enterprises with additional working capital, creating 236,500 new jobs, and improving the energy efficiency of more than 350,000 households among other things.

However, in the past, several legacy issues have been identified with the design and deployment of ESI Funds such as the lack of timely implementation, limited project upstreaming capacity, and a funding substitution effect for the national budgetary component. They also tended to suffer from poor absorption capacity from national and regional Managing Authorities – which typically did not exceed 50% of the allocated ESI Funds at the end of the

respective MFF programing period – and lack of focus, in that they often prioritized basic infrastructure projects instead of advancement and reconstruction of the productive environment and the support of investments.[1]

These represent areas of concern for the implementation of the newly created EU Recovery Funds as well. The initial optimism about the absorption of the RRF Funds is justified by a few important differences compared to ESI Funds: while the latter typically required national co-financing from national budgets, which was not always available, EU Recovery Funds can finance up to 100% of project costs. Furthermore, most ESI Funds were administered by local government officials lacking access to sound and bankable projects. In contrast, the EU Recovery Funds are administered largely by national officials in the Ministry of Finance with limited involvement of regional authorities. As a matter of fact, most EU countries (such as Greece with its Recovery and Resilience Agency) have set up dedicated teams to draw up plans and implement them, as necessary conditions for the avoidance of implementation delays (Crescenzia, 2021).

As the EU Recovery Funds are designed to promote forward-looking complementarities, mainly in the areas of green and digitalization, the advantage of this approach is that it provides guidance for well-defined and narrow project level priorities. Finally, unlike ESI Funds which have a grace period of up to three years, the RRF Funds expire at the end of 2026, are conditional on the fulfillment of biannual milestones and new RRF tranches are only released if progress is being made on the previous tranche.

[1] Drawing on previous experience, Crescenzia et al. (2021) suggest that the risk of delays in RRF – like projects is 3 times higher than for traditional projects.

However, we have also identified a few possible gaps in the original design of the EU Recovery Funds, mainly due to the focus on thematic clusters with limited linkages to other vertically designed EU programs, an absence of microeconomics considerations, and overlaps in terms of funding available under the ESI Funds and the EU cohesion policy. This is particularly relevant as, on top of the new RRF Funds, EU countries will have to absorb the remaining funds from the 2014-20 budget and those for the new 2021-27 MFF. Since 2021-27 Partnership Agreements – and thus Operational Programmes and concrete project calls– are only slowly starting to be finalised in most EU countries – as the initial focus was on the adoption of the Recovery Plans - the key source of information available comes from the 2014-20 programming period priorities.

If the parallel implementation of the EU cohesion policy programmes / ESI Funds and the Recovery Plans / EU-RRF can indeed lead to conflicts and overlaps, additional administrative burden, or lack of strategic alignment between the funded investments and project pipelines, there are at least a few areas / criteria that differentiate the two funding programmes:

Timeline: While most of the RRF funding is front-loaded and must be achieved by the end of 2026, national and regional managing authorities are looking at the new ESI Funds as a more long-term instrument whose eligibility horizon will stay on until 2030. Therefore, for the same projects, EU countries could deploy first the EU Recovery Funds and then the ESI Funds, as long as they do not cover the same expenditure (i.e., principle of no double funding). For example, Portugal aims to support initial investments in green hydrogen in an initial phase via its allocation of EU Recovery Funds and – only subsequently - with the ESI Funds' allocation.

Territorial separation: Whereas the RRF funds can be deployed at the entire country level, a substantial amount of ESI Funds has historically been targeted

to the Less Developed Regions (with GDP per capita below 75% of the EU average), benefitting from the highest economic catch-up potential but also less overall fiscal multiplier effects.

Sectoral differentiation: As a large number of EU countries has decided to exceed the green and digital targets under their national recovery plans, it is fair to argue that EU recovery funds' deployment will likely be more targeted in a narrower number of economic sectors (energy efficiency, renewable energy generation and storage, clean mobility, 5G and fiber optics roll-out, etc.) whereas ESI Funds have historically been spread among several Operational Programmes, thematic priorities and economic sectors.

Typologies of beneficiaries: The two EU Funding Programmes can at times target different types of final beneficiaries, i.e., when it comes to energy efficiency in buildings, for example, the RRF often targets public beneficiaries while the ESI Funds target more private beneficiaries (Lopriore, 2022).

Table 1: RRF vs ESIF funds, legacy issues and lessons learnt

	RRF Funds	ESIF Funds
Timeline for deployment	Grants: 70% legally committed by 31 Dec. 2022; 100% legally committed by 31 Dec. 2023. Loans: Last request by MS by 31 August 2023; Last disbursement request by 2026.	Remaining funds from 2014-2020 with N+3 rule (until 2023) New funds for 2021-2027 with N+3 rule (until 2030)
Targeted Sectors	Primarily public sector projects and reforms Private sector projects are eligible if project details are included in the national RRPs.	Public or private sector projects focusing on Innovation, research, digital agenda, support to SMEs, low-carbon economy.

		Social inclusion, training and education, employment. Trans-European transport networks and green energy and transport projects.
Flow of funds	RRF Funds fully managed by MSs: RRF Funds flow directly through the MS national budget upon completion of milestones agreed with the Commission in RRPs (no direct EC payment to projects. No parallel national co-financing required). EU MSs can work with IFIs and NPBs including in co-financing with RRF grants and loans; setting up Financial Instruments; topping up the InvestEU MS compartment & providing funds for advisory support.	Funds under EC/MSs Shared Management: ESIF Funds flow through the MSs respective Managing Authorities / Line Ministries and/or regional authorities who decide how to allocate the funds. EU MSs are expected to work with IFIs including in using ESIF funds as investment grants to co-finance with IFIs, setting up Financial Instruments managed by IFIs; topping up the InvestEU MS compartment & providing funds for advisory support.
Eligible costs	100% of project costs (provided no double funding from EU funds)	Co-financing rates vary between 50% and 85% with obligation for MSs for national co-financing
Policy Focus	At least 37% of RRF Funds for each MS must target climate initiatives At least 20% of RRF Funds for each MS must target digital transition "Do no significant harm" Principle	Smarter Europe. Greener Europe. Connected Europe. Social Europe.
Main constraints	The detailed project information required to be submitted in each RRP could prevent the inclusion of demand-driven private project pipelines. Milestones payments under the RRF could cause delays in the context of co-financing.	Slow take up & limited absorption due to cumbersome delivery mechanisms. In the public sector, there are several financial constraints & limited project development capacity. In the private sector, there is a need to streamline the due diligence of participating IFIs / NPBs and decision-making processes should be more tilted in favour of smaller size investments.

Source: Authors' elaboration.

3.2 The policy cycle

Experience with ESI Funds (and other existing EU funding programs) has already driven funding and investment decisions of various policy institutions at different governance levels (i.e., European Commission, national governments, IFIs and private sector's financiers), including in the set-up and early implementation of the EU Recovery Funds and the decision to anchor them around the European Semester as the main institutional vehicle. The European Semester is based on Country Reports and non-binding (even if Treaty-based) Country-Specific Recommendations (CSRs) that are initially proposed by the European Commission and whose outcome is formally in the hands of the Council of EU member states. In the governance context of the EU Recovery Funds, the Semester is perceived as appropriately allowing striking a balance between providing adequate constraints of a harmonized and coordinated economic governance framework, while leaving considerable leeway to EU countries to choose and implement their preferred domestic policy options.

The latter is essential since many of the issues addressed in the context of the EU Recovery Funds are firmly of national competences and because part of the newly available funding consists of EC loans to EU Member States, though actual loan uptake is lower than originally foreseen. Furthermore, the EU Recovery Funds address three dimensions of EU consensus building: the fiscal dimension, the rule-of-law dimension, and the policy dimension, especially under the climate and digitalization agendas.

Concerning the fiscal dimension, a compromise was reached in the EU Council to issue common EU debt to fund budgetary grants (and loans) to EU member states as a significant step in fiscal risk-sharing, i.e., EU debt would be repaid from common resources rather than by the beneficiary EU countries. In so

doing, rules on liability sharing among EU countries related to the EC issuing (and having to repay) bonds on the capital markets have been defined in advance, to keep in check any irreversible mutualization of debt.

On the rule-of-law dimension, the Court of Justice of the European Union (CJEU) has recently ruled positively on a mechanism introduced by the EU in December 2020, which linked the disbursement of the EU Recovery Funds to criteria such as judicial independence and transparency. The EC is therefore formally allowed to invoke its rule-of-law mechanism to withhold the money.

Concerning the policy dimension, about 60 per cent of RRF Funds should fund projects targeting the green transition and digital transformation, while the requirement of eligibility with the EU's Do No Significant Harm guidance provides a further important overlap with the implementing partners' sustainability approach and overall goal to achieve Paris alignment.

Finally, the RRF Regulation is clear that the criteria related to compliance with the CSRs and the strengthening of the growth potential, job creation and economic, social and institutional resilience should require the highest score in the EC evaluation of the national recovery plans.

3.3 Policy innovations and their significance

3.3.1 Market-based funding

The EU recovery funds are being paid for by issuing new EU debt as NGEU bonds, establishing for the first time a large-scale joint funding model to support government spending and reforms in EU countries.[2] According to

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[2] This model builds on the recent success of the European Commission's 'Support to mitigate Unemployment Risks in an Emergency (SURE)' bonds which were able to raise EUR 100 billion on the capital markets to counter short-term unemployment in the EU due to the Covid-19 pandemic. While the SURE and the new ESM Pandemic Crisis Support instrument were agreed with limited conditionality, they were both very narrow in scope and duration. SURE proved

early ECB estimates (Giovannini et al., 2020), Next Generation EU issuances will raise the joint EU debt by a factor of roughly 15 times, making it the largest ever experiment in supranational euro-denominated debt sharing.

The Commission has had a very successful issuance record so far, having raised 121 billion euros in long term funding over ten syndicated transactions and eight bond auctions as well as 58 billion euros in short term funding via the EU Bills programme. These, together, have enabled the disbursement of 67 billion euros in grants and 33 billion euros in loans to member states under the Recovery and Resilience Facility by the end of June 2022.

In June 2021, the 20 billion euros inaugural issue represented something of a landmark: the largest-ever institutional bond issuance in Europe, the largest-ever institutional single tranche transaction, and the largest amount the EU has raised in a single transaction. Furthermore, the Commission has recently launched the process for organizing the settlement of NGEU bonds through the payment and settlement infrastructure of the Euro system, to be aligned with the arrangements used by EU sovereign issuers and the ESM, whose bond transactions are settled in central bank money (EC, 2022). Strong interest has followed over the past several months as the issuance of NGEU bonds provides an opportunity to buy into a 'safe-haven' while getting a marginal return over the German Bunds. The fact that more than 30% of NGEU bonds will be green bonds is also expected to attract investors and could lead to considerable savings for the EU due to the lower spread over the benchmark.

On the other hand, the fast pace and large volumes of EU bonds' issuance is already causing questions as to whether the Commission's bonds can be fully

successful in deploying resources to protect jobs and incomes affected by the pandemic. However, the ESM initiative had little success as the stigma of conditionality seemed to extend to this new instrument as well.

absorbed by the market and how this will affect volatility and spreads, particularly at a time when the ECB has interrupted net assets' purchases under its Pandemic Emergency Purchase Programme (or PEPP), thus releasing alternative safe-haven assets, i.e., German bonds, that were typically considered 'scarce' because of the central bank's demand.

3.3.2 Conditionality

The economic governance changes introduced with the RRF will have an enduring impact. Over the medium term, most Member States will face much more severe fiscal constraints than in the years preceding the crisis, with increased pressures on fiscal discipline. Simultaneously, policymakers have become aware of the magnitude of cross-border spillovers in an economy as integrated as the EU/eurozone where contagion cannot be contained within a single Member State. As a result, conditionality requirements on the RRF have been used for the first time above and beyond macroeconomic criteria, involving other dimensions of European governance.

The new regime of conditionality for the protection of the EU budget and the EU Recovery Funds has been in force since 1 January 2021 with the creation of a horizontal 'conditionality mechanism' that makes EU countries' access to funds from the EU budget conditional on respect for the principles of the rule of law. This allows for the disbursement of EU RRF Funds to be suspended, reduced, or interrupted by the Council on the initiative of the Commission if a Member State breaches the rule of law. The Commission has not yet approved the Hungarian Recovery Plan due to concerns over the rule of law and it has only recently endorsed the Polish Recovery Plan, after a year of discussions, while including judiciary reforms among the first set of milestones that the Polish government must achieve to receive the first tranche of EU Recovery Funds in H2 2022.

Furthermore, another form of conditionality revolves around the close link of the disbursement of the EU Recovery Funds with the compliance with the Commission's Country-Specific Recommendations, including the completion of structural reforms that national governments have often avoided for years. It is without doubt that EU countries previously at the center stage of the European sovereign debt crisis – Italy, Spain, Greece, and Portugal – have so far emerged in a rather positive light with most of their plans receiving initial praise and then full EC endorsement from the European Commission for their high-quality and serious level of ambition in terms of investments and policy reforms. Previous experiences and the ability to implement reforms in front of market and institutional creditors seems to have served many of the Southern European economies well in taking seriously the Commission's requests to allocate EU funding efficiently (see also Giacon and Macchiarelli, 2021a; b; c).

Looking ahead for the implementation and full deployment of the RRF Funds, there are also some lingering reasons to worry that proposed structural reforms – such as steps to reduce barriers to investment, improve the ease of doing business, reform the judicial system and improve public administration - might not be fully implemented in EU countries with weaker implementation capacity.

One important lesson from the 2010 sovereign debt crisis is that governance of structural reforms and strings attached to conditionality principles in the domain of structural EU cohesion are difficult to achieve as countries must not only legislate reforms but implement them too (see also Begg et al., 2014).

3.3.3 The enhanced role of International Financial Institutions (IFIs)

Another novelty of the EU Recovery Funds is the enhanced role of international financial institutions, national promotional banks, and commercial banks. Private sector projects to be financed via RRF loans depend in many cases on

their commercial pipelines, creating an important private sector-led investment stream in the implementation of NGEU and the RRF facility. IFIs can also assist the countries in delivering policy objectives, manage technical assistance for project preparation and implementation, and leverage the EU recovery grants and loans by attracting other private co-financiers to facilitate successful programme delivery.

Typical conditions of IFIs engagement under RRF include the alignment with their country strategy priorities, targeting market gaps with substantial financing needs, a selective engagement based on their added value, additionality to existing activities on their own balance sheets and the mobilization of private co-financiers. The most typical sectors of intervention of IFIs intervention include the areas of green growth (i.e. financing renewable energy, electricity storage projects, hydrogen production, green cities, clean mobility, and improving the energy efficiency of buildings); accelerating the digital transformation (i.e. 5G, gigabit networks and fiber optic networks, broadband projects, digital upskilling and reskilling programmes, support for the digitalization of businesses with a particular focus on SMEs, start-ups and greater cloud usage); and financing research and development, as well as innovation projects outside the digital sector such as in the field of climate innovation (i.e. fertilizers and cement sectors).

Table 2: Example of potential engagement of IFIs under the Polish national RRP

Measure	Description	Timeline	Type and amount of support	IFI channels
Energy efficiency and RES in industrial companies	Support for industrial and energy processes to improve energy efficiency & reduce energy	31 December 2023	Concessional loans EUR 300m	Providing own resources and deploying RRF loans

	intensity, leading to a reduction of energy consumption, together with investments in renewable and low-carbon energy sources in enterprises.			
Construction of offshore wind farms	Support for projects participating in Phase I of the development of OWF in Poland. Total supported capacity shall be 1500 MW.	30 September 2022	Concessional loans EUR 3.25bn	Financing for all accompanying investments along the supply chain
Green transformation of cities	Support for mitigation of the impact of cities on climate change and the health of their inhabitants by lowering greenhouse gas and other pollutant emissions (RES, Zero-emissions transport, etc)	31 December 2025	Concessional loans EUR 2.8bn	Providing own resources and deploying RRF loans & TA
Energy storage system	Support for the modernisation of the existing pumped hydroelectric energy storage and the purchase and installation of a back-up electricity storage facility with a	30 June 2026	Concessional loans EUR 200m	Providing additional intermediated finance and deploying RRF loans

	capacity of 4-5 kWh each.			
Robotisation and digitalisation in enterprises	Support for the digitalisation of business processes, supporting the transition towards Industry 4.0 with a particular focus on robotisation and operational technologies	30 June 2026	Grants EUR 450m	Providing additional direct finance and TA
Supply chain of **agri products**	Support to SMEs in the agri-food sector to modernise their infrastructure and equipment	Q2 2024	Grants EUR 1.3bn	Providing additional direct finance and TA
Modern electronic **communication networks**	Improve telecom investors' access to repayable financial support to boost the deployment of 5G networks, including remote areas with lower economic profitability.	30 June 2026	Concessional Loans EUR 1.4bn	Providing own resources and deploying RRF loans (Greek Loan Facility model)
Access to very high-speed internet in white spots	Increase the number of households covered by fixed broadband network focusing on white next generation-access (NGA) areas	30 June 2026	Grants EUR 1.2 bn	Providing additional direct finance and TA
Robotisation and digitalisation in enterprises	Support for the digitalisation of business processes,	30 June 2026	Grants EUR 450m	Providing additional direct finance and TA

	supporting the transition towards Industry 4.0 with a particular focus on robotisation and operational technologies			
Supply chain of agri products	Support to SMEs in the agri-food sector to modernise their infrastructure and equipment	Q2 2024	Grants EUR 1.3bn	Providing additional direct finance and TA
Modern electronic communication networks	Improve telecom investors' access to repayable financial support to boost the deployment of 5G networks, including remote areas with lower economic profitability.	30 June 2026	Concessional Loans EUR 1.4bn	Providing own resources and deploying RRF loans
Access to very high-speed internet in white spots	Increase the number of households covered by fixed broadband network focusing on white next generation-access (NGA) areas	30 June 2026	Grants EUR 1.2 bn	Providing additional direct finance and TA

Source: Authors' elaboration.

The most concrete IFIs engagement under the RRF funds so far has been in Greece through the Corporate Loan Facility, which is an important component of the Greek Recovery and Resilience Plan. With an allocation of €30.5 billion, Greece is the country receiving one of the largest amounts of RRF funds

compared to its Gross National Income (>16% of 2019 GNI). It was also among the first EU member states to obtain EC and Council's approval for its RRP in the summer of 2021 as well as the subsequent disbursement of RRF funds based on the achievement of previously agreed investments and reforms' milestones. The first set of milestones included the signing of Operational Agreements with two IFIs (EBRD and EIB) as well as the launch of a tender for Greek commercial banks (six banks eventually became implementing partners).

Greece requested the full allocation of RRF loans (12.7 billion EUR) in an attempt to address the large financing needs of the Greek economy, the interest rate differential/premium of Greek government bonds above the European Commission's NGEU bonds and the high funding cost of the average Greek corporate, in comparison to the EU average. From the point of view of project structuring, the Greek Recovery and Resilience Facility is unique insofar as it promotes financial discipline by private sector final beneficiaries which must pay back the loans, encourages proper risk assessment by market players in the absence of Greek state guarantees, and leverages RRF funds through co-financing with private sector funding sources. Under the Greek RRF Corporate Loan Facility, EBRD agreed to manage up to EUR 500 million RRF funds, EIB up to EUR 5 billion and commercial banks the remaining amount.[3]

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[3] The implementation of EBRD's Greek RRF Framework demonstrates the active interest from the private sector. By summer 2022, a strong pipeline has been established and the first transaction of an EBRD EUR 150 million loan to the Hellenic Telecommunications Organisation (OTE) has been approved. This transaction will support the connection of 371,000 Greek households to Fibre-To-The-Home (FTTH) in 12 regions outside of Greece's major cities, improving access to high-speed broadband, promoting regional inclusion and accelerating the digitalisation of the economy, aligning it fully with the RRF Digital Transition Strategic Pillar. A second operation refers to a EBRD EUR 10 million loan to the family-owned exporting mid-size corporate Hatzopoulos to support investments for the transition to recyclable and sustainable products, the acquisition of new machinery as well as an R&D project focused on circular economy principles. The successful execution of IFI originated transactions in Greece is likely to have a strong signalling effect among corporates with solid investment upstreaming capacity.

4. RRF and Exogenous Shocks

4.1 New macroeconomic conditions in 2022 post-war in Ukraine

In the last decade alone, the Euro Area/EU witnessed at last five direct shock: (i) the 2008/09 financial crisis; (ii) the sovereign debt crisis in 2010; (iii) the migration crisis; (iv) the Covid-19 pandemic; and (v) the Russia-Ukraine war; all of which required an increase in public expenditure and deficits, particularly at a time when the ECB monetary policy for the Euro area had its hands tied.

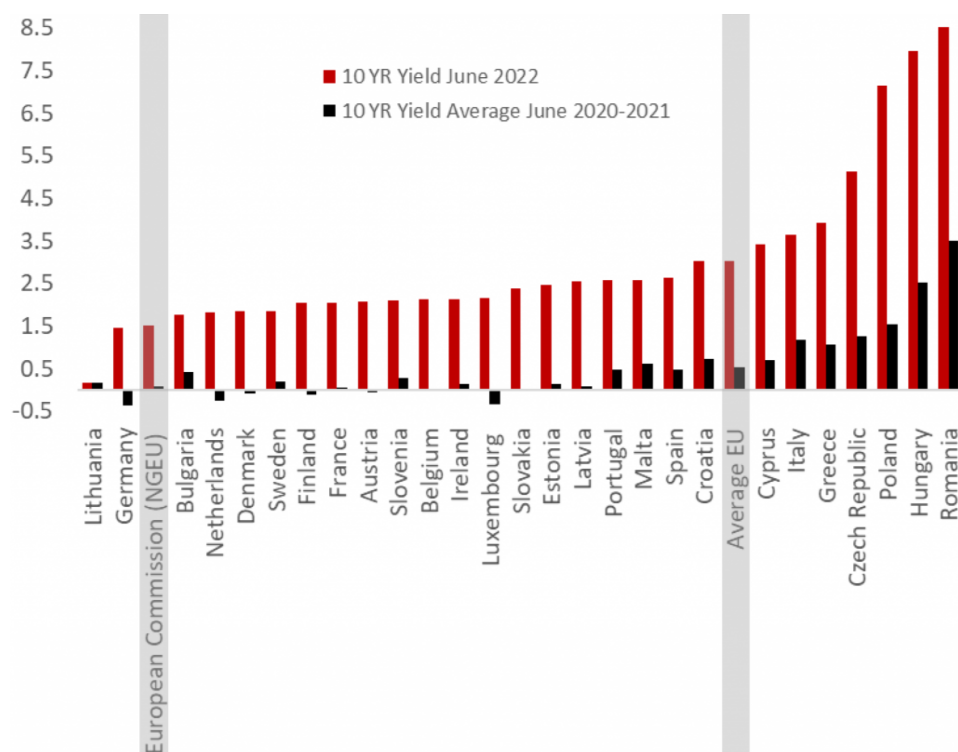
The macroeconomic framework in which the RRF funds' tranches have started to be released is quite different from the one in which the Facility had been agreed in the summer of 2020. Until early 2022, market-based incentives for RRF loan-taking were admittedly low, particularly for countries whose borrowing costs were lower than the cost faced by the Commission with its NGEU joint-liability.

More generally, from a financial point of view, despite the fact that the Commission's rating is currently better than the rating of 22 out of 27 EU member states, those with a AAA rating (such as Germany, Luxembourg, Austria, Netherlands, Finland and Sweden) have found it unappealing to borrow from the EC – even if at concessional rates – as their national interest rates are still below, on par or just slightly above the NGEU Bonds (Figure 3).

As capital market conditions have deteriorated over the course of 2022, following Russia's invasion of Ukraine and a move towards a global monetary tightening cycle, more EU countries will have incentives to request RRF loans. This was evidenced by the behavior of Italian bonds more recently, after the ECB concluded new net investments under its Pandemic Emergency Purchase Programme (PEPP) as well as its longer-running Asset Purchase Programme (APP), followed by political turmoil as the result of Italy's PM Mario Draghi

resignation. This forced to ECB to a historical compromise: increasing its main policy rates by 50 bps in July 2022, while, at the same time, using its flexibility in deploying PEPP reinvestments as "first line of defence" and announcing a new permanent *anti-fragmentation* tool to shield high-debt countries away from market speculation in case PEPP reinvestments fail to keep spreads under control (Bartzokas et al., 2022a; 2022b; Greene, 2022; Springford, 2022).

Figure 3: Market yields of government bonds with maturities of ten years, and European Commission's first and latest issuance under Next Generation EU, June 2022 (per cent)



Source: Authors' elaborations based on data from the European Central Bank and European Commission. Data for the Next Generation EU bond refers to the weighted average yield at the corresponding 10-year maturity.

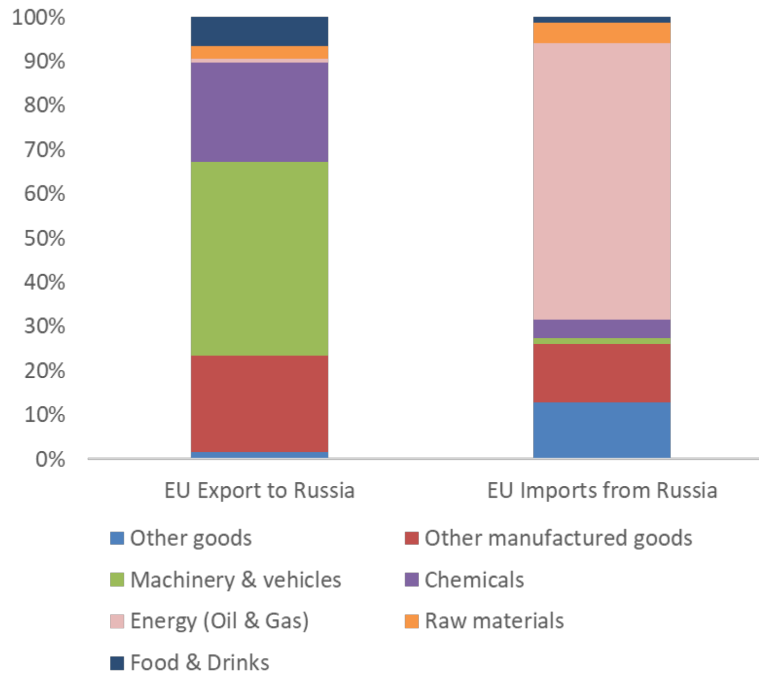
Should an increasing number of EU countries tap into the full amount of RRF loans to which they are entitled (i.e., equal to 6.8% of their 2019 Gross National Income in current prices as per the RRF Regulation), the Commission's

borrowing on financial markets will need to match or even surpass that of the largest eurozone sovereign borrowers (Italy, France, Germany and Spain) over the next few years – while it was still trailing behind all four of them in terms of gross issuance in 2021. Finally, should several EU countries opt to request the entire loan allocation to which they are entitled, this could have important ramifications on the EU's funding strategy or even break the upper threshold of the funding targets that the Commission has set for itself in terms of bond issuance on the markets. For sake of illustration, a conservative loan allocation - which would increase the number of EU countries with the incentive to request RRF loans but still exclude Austria, France, Finland, Germany, Luxemburg, the Netherlands, and Slovakia - would exceed the EUR 360 billion in 2018 prices indicated as the original upper threshold in the RRF Regulation.

4.2 The challenges posed by the war in Ukraine

The war in Ukraine represented yet another challenge to the stability of Europe, both politically and economically. It further represents a massive cost to the global economy, which has been quantified in the region of USD 1.5 trillion, according to the National Institute of Economic and Social Research (Liadze et al., 2022a; b). Central and Eastern European Countries as well as Germany and Italy are most exposed to the worst economic effects of the war, given their trade linkages and reliance on Russia's energy exports.

Figure 4: EU trade with Russia by product group



Source: Authors' elaborations based on data from the European Commission.

The EU institutions have responded to the war at Europe's Eastern border with direct support to Ukraine as well as indirect measures to alleviate the economic, financial and social ramifications of the war in the most affected EU Member States (Liadze et al., 2022a; b), taking concrete actions such an increase in public expenditure focusing on the accommodation of Ukrainian refugees and broad-based subsidies for European households struggling with surging energy prices.

Considering the war, European governments are likely to confront fiscal pressures from additional spending mainly on energy security, defense and refugees' support, which is estimated to increase the EU budget deficit by between 1.1 and 4% of GDP in 2022 (Eurostat, 2022). This will have the biggest implications on NGEU and the EU-RRF. Thus, the EU Recovery Funds can find a new *raison d'être* in boosting the EU energy independence from Russia. The

EU has long been Russia's number one energy client, fostering a heavy degree of dependency on Russian gas, oil and coal in that order, amounting overall to 40% of EU imports (Figure 4). In 2022 alone the EU spent almost EUR 100 billion on Russian fossil fuels, a figure that, despite sanctions, might be surpassed by the end of 2022 due to increased energy prices.

To phase out such dependency, EU leaders have tasked the EC with drafting a years-long roadmap, called REPowerEU, which came with a EUR 210 billion price tag in additional investment between now and 2027, half of which will go straight into the deployment of renewable energy systems. With the 2021-2027 MFF already capped for the next years and EU member states unwinding fiscal stimuli at the national level, the only game in town will be the NGEU and the RRF funds. This would come with several benefits:

NGEU and RRF funds are raised on the capital markets by the EC itself, which enjoys a consistent AAA credit rating.

Contrary to other EU programmes, where the money is raised through an intricate combination of public funds and "leveraged" private investment, RRF is a direct injection of new real cash.

EU finance ministries have been requested to tap into the untouched RRF loans to finance the projects and reforms necessary to wean the bloc off Russian fossil fuels. The Commission is also willing to re-distribute loans according to the interest shown by the EU member states, to allow countries that have reached the limit of their allocated loans, like Italy, Greece, and Romania, to access additional credits.

However, NGEU and the EU-RRF are clearly defined as temporary mechanisms (European Fiscal Board, 2022) and, as such, they would represent only a temporary compromise solution. EU member states have been asked to add a new REPowerEU chapter for energy security to their national RRPs. Since

Russian coal and seaborne oil are already under an EU-wide sanctions, most new investments will be devoted to renewable energy generation and storage, energy-efficiency measures, and the diversification of gas suppliers, mainly through the augmented purchases of liquefied natural gas (LNG). The RRF contains a "do no significant harm" principle which is supposed to ensure that no activity under the RRF funds runs counter to the EU's overarching goals of preserving the environment and mitigating climate change. Nevertheless, the humanitarian tragedy of the war and its economic ramifications are pushing the Commission to potentially amend the Do No Harm rule (related to climate and the environment) for those specific actions that guarantee the "immediate security" of supply of oil and gas. Over EUR 10 billion have been earmarked for non-Russian LNG and pipeline gas and up to EUR 2 billion for revamping critical oil infrastructure.

Furthermore, the European Commission has also proposed to increase the RRF's available funds by EUR 20 billion from the sale of EU Emission Trading System (ETS) allowances currently held in the Market Stability Reserve. Finally, it also opened the possibility for EU countries to transfer a larger share of their 2021- 2027 ESI Funds allocation under the Common Provision Regulation to their RRF allocation from 5% to up to 12.5%, considering a substantial alignment between the RRF and the ESI Funds' objectives.

4.3 Building blocks for proactive resilience

In previous sections, we examined the political economy context, the novelties, and the new challenges during the implementation of NGEU/RRF. Our review confirms that the RRF is a significant economic policy innovation in response to an exogenous shock. Furthermore, we can draw lessons learned from the design and implementation of this policy initiative applicable to similar policy instruments aiming at proactive resilience in the EU.

In the policy making practice, resilience is a reactive concept focusing on short term challenges for adjustment and recovery.[4]. In Table 3 we propose a taxonomy with three building blocks, i.e., focus, scale, and impact for the assessment of medium term and long-lasting aspects of resilience. Our assessment of the experience of the RRF demonstrates that top-down objectives for economic resilience need to be complemented with a robust assessment of funding gaps and fine-tuning to avoid the underutilization of scarce resources. The importance of market-based solutions for large scale policy initiatives is confirmed with the successful experience of RRF in raising funds from the markets.

Of similar importance is the mobilization of IFIs in the implementation of market-based solutions for the enhancement of proactive resilience. They catalyze the availability of private funding and provide best practice selection processes in financial intermediation when the depth of local financial systems is not adequate.

Finally, the role of complementarities and the importance of a built-in fine-tuning process is of critical importance for the successful implementation of a proactive resilience policy agenda. In terms of flexibility, the EU Recovery Funds have already benefited from a chance to respond to concerns about European (mainly energy-related) resilience, especially at a time of elevated geopolitical risk and green transition uncertainties such as the current one.

The value added of this approach is demonstrated with concrete actions points under the Greek Corporate Loan Facility, which represents an interesting case study due to the relatively advanced implementation stage - with various

[4] A taxonomy of reactive resilience priorities was discussed at the Eurogroup on 13 September 2017, see European Commission (2017).

underlying loans to final Greek beneficiaries being signed - its clearly stated objective to support the Greek real economy after a prolonged investment gap as well as the large expected macroeconomic implications of the EU Recovery Funds for the Greek economy.

Table 3: A proactive resilience framework for the design and implementation of RRF type instruments in the EU

Research questions	Context	Design priorities	Implementation gaps	Best practise agenda	Policy Implications	Action Points for Greek Corporate Loan Facility
Focus	Selection process	National plans with top-down objectives	Thematic clusters with limited micro considerations	Transmission mechanisms from incentives to output and impact	Assessment of funding gaps with open-data platforms	Monitoring credit supply and demand SMEs certification initiatives
Scale	Market based solutions	- Cost of capital - Enhanced role of IFIs	Cost justification	Adoption of financial innovations	Balance sheet approach for risk appetite	Local development financing capacity Controls for delayed implementation
Impact	Structural change	Resilience	Complementarities with Cohesion policies and public investment	Fine tuning processes	Upgrading lower productivity segments	Mobility and reforms for exporting non-tradables Adjustment of priorities for energy/green projects

Source: Authors' elaboration

5. Conclusions

In this paper we provide a review of the modalities and the potential long-lasting effects of Next Generation EU (NGEU) programme and its centerpiece, the Recovery and Resilience Facility (RRF). The NGEU is changing the way the EU finances itself as never before had the European Commission borrowed at such large scale and long maturities on financial markets.

There are several points worth emphasizing (Giacon and Macchiarelli, 2022):

First, this new EU initiative brings together three relevant and interrelated dimensions of consensus building (fiscal, rule of law, and policy priorities around green and digital).

Second, it is innovative insofar as it is strictly tied to an ongoing monitoring mechanism of tranches of EU funds being disbursed upon the achievement of clear milestones, both linked to investments and structural reforms, as well as a strict connection to conditionality around the rule of law.

Third, it is timely as it opens the way to other future large scale European Commission borrowing plans, including as part of a response to current EU energy investment needs following Russia’s invasion of Ukraine.

Fourth, it promotes the ownership of national authorities in the design and implementation of their national plans but also their reliance on international financial institutions for co-financing with their own balance sheet, mobilizing private financing, managing technical assistance, and helping with unlocking policy reforms.

Fifth, it provides an opportunity to EU member states to meet the challenge of achieving higher economic complexity, facilitate further integration in

European supply chains, invest in skills and ecosystems, and to explore the appropriate green capabilities and attract foreign direct investment (Hausmann et al., 2021). This would help alleviate the "fiscal dominance" problem and allow the ECB to ensure that its Euro-area wide monetary policy is effective to target inflation and prevent spreads rising, without weakening the resolve of governments to keep debts sustainable.

Sixth, experience so far demonstrates that policy makers in Southern European countries such as Greece, Spain, Italy, and Portugal have reflected on lessons learned from the previous euro area sovereign debt crisis, taking reforms and investment milestones seriously and moving ahead in the implementation of their Recovery and Resilience Plans and further disbursements of RRF tranches. Indeed, these countries have been the first cohort of EU member states whose plans have been approved by the EU Council. They have also received the initial tranches of RRF funds based on the European Commission's positive assessments of their achievement of several milestones covering reforms and investments in various areas (energy efficiency, electric mobility, waste management, labour market, taxation, business environment, pensions, healthcare, public transport, and many others).

Seventh, and as a counterpoint, special attention ought to be paid to some Eastern and South-Eastern European countries where investment needs are high, risks of capital flight and exchange rate volatility increasingly worrying, and there are already some delays in the implementation of the plans and the flow of new funds into their economies. Given past problems of scarce absorption capacity and bankable projects, the role of international financial institutions such as the EIB and the EBRD has become increasingly linked to the success of this new pan-European funding and policy initiative.

Eight, we identify potential gaps in the design of the EU Recovery Funds, due to their focus on thematic clusters with limited linkages to other vertically designed EU programmes, such as the ESIF, an absence of microeconomics considerations, and likely spending overlap with previous ESIF. The scope for coordination is evident as, on top of the new RRF Funds, EU countries will have to absorb the unspent ESIF funds from the 2014-20 MFF and those recently allocated under the new 2021-27 MFF.

Finally, we highlight the potential role of three categories of objectives and priorities of RRF-like initiatives, which can become the building blocks of a proactive resilience framework for the design and implementation of policy instruments for cross border public goods and adjustment to exogenous shocks.

References

Bartzokas, A., Giacon, G., and Macchiarelli, C., (2022a), "Assessing the ECB's new Transmission Protection Mechanism." EUROPP - European Politics and Policy .

Bartzokas, A., Giacon, G., and Macchiarelli, C. (2022b), "The Euro Area's Monetary-Fiscal Policy Interactions After 2020: A New Normal?" (Box A), National Institute Economic Review, 261.

Batini N., G. Melina, M. di Serio and M. Fragetta (2021), "Building Back Better: How Big Are Green Spending Multipliers?", IMF Working Papers, No 2021/087, International Monetary.

Begg, I., Macchiarelli, C., Bachtler, J., Mendez, C., & Wishlade, F. (2013), "European economic governance and EU cohesion policy: report to the European parliament", *Committee on Regional Development*, European Parliament, IP/B/REGI/IC/2013-086.

Bergsen, P., Billion-Galland, A., Kundnani, H., Ntousas, V., and Raines, T., (2020), "Europe After Coronavirus: The EU and a New Political Economy", 1–20. London: Chatham House.

Canova F., and Pappa, E., (2021), "What are the likely macroeconomic effects of the EU Recovery plan?", CEPR Discussion Paper No. DP16669.

Creel, J., Holzner, M., Saraceno, F., Watt, A., and Wittwer, J., (2020), "How to Spend it: A Proposal for a European COVID-19 Recovery Programme", Policy Brief 72. Paris: French Economic Observatory.

Crescenzia, Riccardo et. al (2021), "Mind the Covid-19 crisis: An evidence-based implementation of Next Generation EU", Journal of Policy Modelling Vol. 43, pp 287-297.

Darvas Z., M. Domínguez-Jiménez, A. Devins, M. Grzegorczyk, L. Guetta-Jeanrenaud, S. Hendry, M. Hoffmann, K. Lenaerts, A. Tzaras, V. Vorsatz, P. Weil (2022), European Union countries' recovery and resilience plans, Bruegel blog, 10 June.

De Grauwe, Paul (2011), "The Governance of a Fragile Eurozone", CEPS Working Paper No. 346, May.

European Commission (2017) Economic resilience in EMY: Thematic Discussions on Growth and Jobs. Note for the Eurogroup, Brussels, 13/9/2017.

European Commission (2020), "Recovery and Resilience Facility: Maximum Grant Allocations"https://ec.europa.eu/info/sites/default/files/about_the_european_commission/eu_budget/recovery_and_resilience_facility_.pdf .

European Commission (2021), "Questions and Answers: The Recovery and Resilience Facility" https://ec.europa.eu/commission/presscorner/detail/it/qanda_21_481.

European Commission (2022), "Review report on the implementation of the Recovery and Resilience Facility" https://ec.europa.eu/info/sites/default/files/com_2022_383_1_en.pdf .

European Commission (2022), "RRF: Update of the maximum financial contribution", Note to European Parliament https://ec.europa.eu/info/sites/default/files/2022_06_30_update_maximum_financial_contribution_rrf_grants.pdf .

EIB, Investment Report 2021/2022: Recovery as a springboard for change. https://www.eib.org/en/publications/investment-report-2021 .

EU Budget Policy Brief, (July 2022), "The EU as an Issuer: The Next Generation EU Transformation", https://ec.europa.eu/info/sites/default/files/about_the_european_commission/eu_budget/policy_brief_web_13.07.pdf .

EU Regulation (2021/241) establishing the Recovery and Resilience Facility https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0241 .

EU Proposal amending Regulation (EU) 2021/241 as regards REPowerEU chapters in recovery and resilience plans and amending Regulation (EU) 2021/1060, Regulation (EU), https://ec.europa.eu/info/system/files/com-2022-231_en.pdf .

Fuest, C. (2021), "The NGEU Economic Recovery Fund", CESifo Forum, ISSN 2190-717X." ifo Institut – Leibniz-Institut für Wirtschaftsforschung an der Universität München, München 22 (01): 03–8.

Giacon, R., and Macchiarelli, C., (2021a), "The EU's recovery funds should be released when Europe's economies can reopen", EUROPP - European Politics and Policy.

Giacon, R., and Macchiarelli, C., (2021b), "After the Covid-19 Pandemic, Europe Must Look East, and Not Just South", National Institute of Economic and Social Research (NIESR) Blog.

Giacon, R., and Macchiarelli, C., (2021c), "Serendipity or a Missed Chance? On the Interaction Between Vaccine Distribution and the EU Recovery Funds", The Economists' Voice 18 (1), 115-127.

Giacon, R., and Macchiarelli, C., (2022), "A Hamiltonian moment for Europe? Demystifying Next Generation EU and the EU's recovery funds", EUROPP - European Politics and Policy.

Giovannini, A., S. Hauptmeier, N. Leiner-Killinger, and V. Valenta. 2020. "The Fiscal Implications of the EU's Recovery Package." ECB Economic Bulletin (6/2020).

Greene, M., (2022), "Crisis looms if the ECB's new tool comes up short", FT Opinion.

Hausmann, R., Santos, M., Macchiarelli, C., and Giacon, R., (2021), "What Economic Complexity Theory Can Tell Us about the EU's Pandemic Recovery and Resilience Plans". Growth Lab / European Politics and Policy.

Hepburn, C., O'Callaghan, B., Stern, n., Stiglitz, J., and Zenghelis, D., (2020), "Will COVID-19 Fiscal Recovery Packages Accelerate or Retard Progress on Climate Change?" Oxford Review of Economic Policy 36(Supplement): 359–381. Oxford University Press.

Leino, P., (2020), "Next Generation EU: Breaking a Taboo or Breaking the Law?" CEPS in Brief. Brussels: Centre for European Policy Studies.

Liadze, I., and Macchiarelli, C., (2021), "Simulating the Effect of the EU Recovery and Resilience Facility in NiGEM." (Topical Feature I), National Institute Economic Review, 257

Liadze, I., C. Macchiarelli, P. Sanchez-Juanino (2022a), "Re-evaluating the Economic Costs of the Russia-Ukraine Conflict in NiGEM" (Topical Feature I), National Institute Economic Review, 260.

Liadze, I., C. Macchiarelli, P. Mortimer-Lee, P. Sanchez-Juanino (2022b) "The Economic Costs of the Russia-Ukraine Conflict" NIESR Policy Paper No. 32, 2 March.

Lopriore, M., (2022), "Recovery plans and structural funds: how to strengthen the link?", European Institute of Public Administration (EIPA).

Luo, C. (2021), "The COVID-19 Crisis: The EU Recovery Fund and its Implications for European Integration – A Paradigm Shift." European Review, First View 1–19.

OECD, (2017), "Budgeting and Performance in the European Union: A review in the context of EU Budget Focused on Results".

Reichlin, L. (2020), "Everything You Need to Know About the EU's 500 Billion COVID-19 Recovery Fund", the World Economic Forum COVID Action Platform.

Sandbu, M. 2021, "EU Recovery Funds Will Flow at Last and Could Be Game-Changers", Financial Times.

Springford, J., (2022), "A new EU fiscal regime could make the ECB truly independent", Insight .

Tamma, P. (2021), "Recovery Fund Slalom: 5 Things to Know About Europe's Relief Package", POLITICO.

Thygesen, Niels, R., Beetsma, M., Bordignon, X., Debrun, M., Szczurek, M., Larch, M., Busse, M., Gabrijelcic, L., Jankovics, J., Malzubris (2022), "Assessment of the fiscal stance appropriate for the euro area in 2023", European Fiscal Board, June.

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