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Applying Economic Resilience to Fiscal Policy

How fiscal policy can help increasing the EU's economic resilience

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Imprint

Authors

Lukas Bertram, Lydia Korinek, Maximilian Engel

Editor

Dimitrios Lampropoulos

Please cite as

Bertram, L., Korinek, L., Engel, M. (2023). Applying Economic Resilience to Fiscal Policy: How fiscal policy can help increasing the EU's economic resilience. ZOE Institute for Future-fit Economies: Cologne.

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The financial support of our funders is greatly appreciated to make this work possible.

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The relevance of economic resilience for fiscal policy

Since the outbreak of the global economic and financial crisis in 2008, crises have become more common. As such, policymaking needs to adapt to this new reality. This means not only dealing with high levels of uncertainty, but also being prepared to quickly react to crises and mitigate the devastating consequences on economies and societies.

Thus, becoming resilient to shocks and crises has never been more important for the EU. The heads of states and governments of EU Member States recognise the urgency of coordinated actions in the light of multiple crises, and have committed to enhancing the EU's economic resilience at the European Council in December 2022. Transforming our economies in a green and just way is fundamental to building economic resilience in the EU. This will require fast investments into green infrastructure, for example to accelerate the expansion of renewable energy production capacities to become energy independent. More than half of the required investments in climate-compatible infrastructure cannot be expected to yield a satisfying return. Public funding plays thus a pivotal role in this transition and helps mobilise spin-off private capital (D'Aprile et al. 2020). As such, fiscal policy is an important enabler for building economic resilience through advancing the green and just transition.

This paper delineates how the concept of economic resilience can be integrated into fiscal policy instruments and tools. To this end, the Economic Resilience Index (ERI) will be applied, an index that compares economic resilience of EU Member States (Hafele et al. 2023). The index is based on a coherent theoretical framework of economic resilience (Hafele et al. 2022). Building on the ERI, the following part will investigate how fiscal space calculations can be complemented by a perspective on economic resilience. Likewise, the paper discusses the potential of the ERI to be applied in allocation keys for common funding instruments at the EU level. This is demonstrated by the example of the Recovery and Resilience Facility (RRF) and shows the differences between allocating funds with the goal of recovering from drops in GDP and employment in the short-run and building economic resilience in the long-run.

Integrating Economic Resilience into Fiscal Policy

Economic Resilience and Fiscal Space

In the EU fiscal framework, which is presently under revision, the leeway that Member States have in their public budgets to build economic resilience is determined by fiscal space estimations. This is currently composed as follows: While the 3% deficit rule sets the same limit for all Member States, the structural budget balance rule sets an additional country-specific limit based on the business cycle positions of Member States. Building on the output gap (the difference between the actual and the potential output of an economy) this rule grants more fiscal space the further an economy is below its potential, i.e., the further the current business cycle position of a country is below its neutral business cycle position.

As long as a Member State's budget deficit does not exceed 3% of GDP, its fiscal space is thus determined by its business cycle position. This comes with the benefit of allowing for countercyclical fiscal policy. In booms, the structural budget balance rule allows for smaller deficits than in recessions. This can help in stabilising the economy, which is especially important in times of crisis when economies enter a recession.

However, this also creates some problems. First, technical problems like the unobservability of potential output, and the proneness to estimation errors and revisions, which undermine the countercyclical nature of this concept. In fact, this often leads to procyclical outcomes (Darvas et al., 2018; Gootjes & de Haan, 2022). Second, even without technical problems fiscal space is determined

based on short-term business cycle positions only (Heimberger & Kapeller, 2017). Hence, the current EU fiscal framework hinders Member States to prepare for economic crises in the long-run. Building resilient economies capable of coping with crises and creating economic stability requires an adjustment of the EU's fiscal framework and, in particular, of the estimates of fiscal space.

Thus, it is worth exploring whether the short-term business cycle perspective in fiscal space estimations could be complemented by a long-term perspective on economic resilience. Giving Member States fiscal space for increasing their economic resilience would allow them to transform their economies and build economic resilience. Countercyclical fiscal policy would continue to stabilise the economy in the short-term, and the consideration of economic resilience performances would help to stabilise the economy in the long-term. Moreover, becoming resilient and being able to deal with crises is not only a goal in and of itself for economies, but can also contribute to debt sustainability and the health of public finances.

Integrating a perspective on economic resilience into fiscal space estimation requires a quantification of economic resilience. Hafele et al. (2023) have developed the ERI that measures the economic resilience of EU Member States. As table 1 shows, the ERI consists of 27 resilience indicators grouped into six resilience dimensions. The final scores (1 being the best possible performance and 0 being the worst possible performance) are presented in table 2[1].

Dimension	Determinant	Indicator
Economic Independence	Economic Complexity	Economic Complexity Index
	Energy independence	Energy imports dependency
	Export market diversity	Export partner concentration
	Supply chain vulnerability	Import partner concentration
	Natural resources access	Resource productivity
Education & Skills	Skills	Brain retention
	Reskilling	Adult participation rate in education and training
	Education quality	Programme for International Student Assessment (PISA)
	Research & Development	Scientific publications
Financial Resilience	Corporate finances	Firm's financial constraints[25]
	Household finances	Household saving rate
	Public finances	Refinancing cost
	Financial equality	Income quintile share ratio S80/S20
Governance	Government effectiveness	Trust in government
	Institutional quality	Regulatory quality
	International collaboration	International co-operation in research
	Welfare state quality	Government expenditure on health, education, and social protection
Production Capacity	Employment	Long term unemployment rate
	ICT capacity	ICT service sector in GDP
	Innovation	Innovative enterprises
	Investment	Investment share of GDP
Social Progress and Cohesion	Economic participation	Employees in trade unions[26]
	Employment quality	Job satisfaction
	Gender equality	Gender employment gap
	Social cohesion	People at risk of poverty or social exclusion
	Regional cohesion	Regional dispersion of income
	Trust	Trust among people in neighbourhood

Table 1: Dimensions, Determinants, and Indicators of the ERI

[1] More information about the ERI, its methodology, and results can be found in Hafele et al. (2023).

Rank	Country	Score	Rank	Country	Score
1	Sweden	0.78	14	Hungary	0.45
2	Denmark	0.74	15	Lithuania	0.41
3	Finland	0.74	16	Latvia	0.41
4	Netherlands	0.67	17	Croatia	0.40
5	Germany	0.65	18	Spain	0.39
6	Austria	0.64	19	Italy	0.39
7	Ireland	0.63	20	Slovakia	0.38
8	Belgium	0.63	21	Portugal	0.35
9	Estonia	0.62	22	Poland	0.32
10	Slovenia	0.62	23	Bulgaria	0.29
11	France	0.56	24	Greece	0.28
12	Czechia	0.51	25	Romania	0.25
13	Cyprus	0.49			

Table 2: Country Ranking of ERI Scores

Table 3 compares the ranking of average fiscal space of Member States between 2010 and 2019 based on the structural budget balance rule, with the ranking based on ERI scores[2]. The lower the ERI score, the more fiscal space a Member States would get for increasing its economic resilience.

Country	Fiscal Space Rank	Reverse ERI Rank	Difference	Country	Fiscal Space	Reverse ERI Rank	Difference
Greece	1	2	-1	Estonia	14	17	-3
Spain	2	8	-6	Latvia	15	10	5
Denmark	3	24	-21	Romania	16	1	15
Italy	4	7	-3	Slovakia	17	6	11
Finland	5	23	-18	Lithuania	18	11	7
Netherlands	6	22	-16	Austria	19	20	-1
Slovenia	7	16	-9	Hungary	20	12	8
Cyprus	8	13	-5	Belgium	21	18	3
France	9	15	-6	Czechia	22	14	8
Ireland	10	19	-9	Bulgaria	23	3	20
Sweden	11	25	-14	Poland	24	4	20
Portugal	12	5	7	Germany	25	21	4
Croatia	13	9	4				

Table 3: Comparison of classical fiscal space ranking and ERI-based fiscal space ranking

Looking at the ranking of the fiscal space granted, which is based on economic resilience, there are clear differences compared to the classical ranking of fiscal space. While Greece, Denmark, and Spain were granted most fiscal space in the past, granting fiscal space based on the ERI would give Romania, Greece, and Bulgaria the most fiscal space. Countries with a comparatively high economic resilience like Denmark, Finland, and the Netherlands, can be found way lower in the ERI fiscal space ranking than in the classical fiscal space ranking. Conversely, low-resilience countries like Poland

[2] The current version of the ERI measures relative resilience, i.e., the economic resilience of Member States in relation to each other. As a result, it does allow for a ranking of how fiscal space could be granted but not for an exact calculation of how much fiscal space each Member State would get.

and Bulgaria would get relatively more fiscal space based on the ERI than based on the classical fiscal space estimations. In general, Central and Eastern European Countries tend to be granted relatively more fiscal space based on the ERI than based on the classical fiscal space estimations.

Overall, the results show how complementing classical fiscal space estimations with a resilience-based approach would lead to different amounts of fiscal space for Member States. Low-resilience countries would benefit as they would be granted more fiscal space in order to increase their economic resilience. For this approach to unfold its full potential, it is critical that Member States actually use their fiscal space for increasing their economic resilience. Regular progress monitoring as part of the European Semester could ensure that Member States are effectively increasing their economic resilience[3].

Moreover, the drastic differences between the ERI-based ranking and the classical ranking imply that the economic resilience performances should not determine fiscal space alone. Rather they can complement existing or new fiscal space estimation methods, which ensure that the short-term business cycle position is taken into account, to allow for countercyclical fiscal policy.

Economic Resilience and EU funds

Another way for fiscal policy to increase economic resilience of EU Member States is distributing common EU funds based on economic resilience performances. The ERI results show divergence in terms of economic resilience within the EU. Economies that were hit hardest by previous and current crises are among the least resilient, and hence among the least prepared for future crises[4]. This threatens the EU's economic resilience, as crises can spill over across Member States due to the interdependence of Member States' economies. Thus, it is of common interest for the EU to increase the economic resilience of its least resilient Member States.

The creation of a central fiscal capacity is a common proposal with many advantages (European Commission 2022). Such an instrument could address longer-term challenges by providing common public goods that would promote sustainable growth and help contain inflation and/or improve macroeconomic stabilisation. Accordingly, this section explores how economic resilience can be the basis for the distribution of common EU funds aimed at strengthening the economic resilience of Member States and thus the EU as a whole.

Under the RRF, funds were distributed based on population size, and GDP and employment shortfalls.[5] This method was chosen, as the RRF was designed as a short-term response to the COVID crisis that caused drops in economic activity and employment. Funds under a common EU fund aimed at increasing economic resilience, on the other hand, would have to be distributed according to economic resilience performances, thereby giving most funds to least resilient countries.

To ensure such a distribution, funds could be distributed in a way that the per capita distribution corresponds to the reverse ERI ranking. Per capita grants would be highest for the least resilient country

[3] For example, Member States that do not increase economic resilience could be mandated to justify missed targets or could be sanctioned.

[4] For example, Bulgaria and Romania are disproportionally hit by the current cost of living and energy crisis and Greece was strongly affected by the euro crisis.

[5] The maximum financial contribution available for each member state under the RRF was calculated by taking into account each member state's population size, the inverse of the GDP per capita, the average unemployment rate over the past five years compared to the union average and the fall in real GDP in 2020 as well as the fall in real GDP in 2020 and 2021 combined.

and lowest for the most resilient country. Table 4 compares the allocation of funds under the RRF with such a potential allocation based on the ERI[6].

Country	ERI Allocation		RRF Allocation		Diffference Funding Allocation	
	total	per capita	total	per capita	total	per capita
Sweden	1,778,075,060.00 €	173.81 €	3,289,248,000.00 €	321.52 €	-1,511,172,940.00 €	-147.72 €
Denmark	1,356,340,100.00 €	233.61 €	1,551,746,000.00 €	267.26 €	-195,405,900.00 €	-33.66 €
Finland	1,292,217,470.00 €	234.19 €	2,085,805,000.00 €	378.01 €	-793,587,530.00 €	-143.82 €
Netherlands	5,847,621,720.00 €	338.36 €	5,962,324,000.00 €	345.00 €	-114,702,280.00 €	-6.64 €
Germany	31,377,494,470.00 €	377.95 €	25,619,175,000.00 €	308.59 €	5,758,319,470.00 €	69.36 €
Austria	3,517,777,920.00 €	397.10 €	3,462,169,000.00 €	390.82 €	55,608,920.00 €	6.28 €
Ireland	2,029,848,140.00 €	413.90 €	989,186,000.00 €	201.70 €	1,040,662,140.00 €	212.20 €
Belgium	4,780,822,680.00 €	417.34 €	5,925,271,000.00 €	517.24 €	-1,144,448,320.00 €	-99.90 €
Estonia	579,030,380.00 €	437.06 €	969,515,000.00 €	731.81 €	-390,484,620.00 €	-294.75 €
Slovenia	938,656,590.00 €	451.08 €	1,777,322,000.00 €	854.11 €	-838,665,410.00 €	-403.03 €
France	38,607,778,390.00 €	573.75 €	39,377,074,000.00 €	585.18 €	-769,295,610.00 €	-11.43 €
Czechia	7,275,140,000.00 €	683.12 €	7,071,676,000.00 €	664.02 €	203,464,000.00 €	19.10 €
Cyprus	654,873,630.00 €	747.66 €	1,006,170,000.00 €	1,148.73 €	-351,296,370.00 €	-401.07 €
Hungary	8,186,021,990.00 €	837.64 €	7,175,838,000.00 €	734.27 €	1,010,183,990.00 €	103.37 €
Lithuania	2,617,014,860.00 €	936.59 €	2,224,690,000.00 €	796.19 €	392,324,860.00 €	140.41 €
Latvia	1,808,688,460.00 €	942.04 €	1,963,088,000.00 €	1,022.46 €	-154,399,540.00 €	-80.42 €
Croatia	3,935,213,720.00 €	965.40 €	6,296,831,000.00 €	1,544.76 €	-2,361,617,280.00 €	-579.36 €
Spain	46,613,067,460.00 €	993.10 €	69,528,050,000.00 €	1,481.30 €	-22,914,982,540.00 €	-488.21 €
Italy	59,893,170,380.00 €	1,001.28 €	68,895,833,000.00 €	1,151.78 €	-9,002,662,620.00 €	-150.50 €
Slovakia	5,623,764,670.00 €	1,031.80 €	6,329,994,000.00 €	1,161.38 €	-706,229,330.00 €	-129.57 €
Portugal	11,669,245,360.00 €	1,135.51 €	13,910,387,000.00 €	1,353.60 €	-2,241,141,640.00 €	-218.08 €
Poland	45,939,178,500.00 €	1,209.79 €	23,856,987,000.00 €	628.26 €	22,082,191,500.00 €	581.53 €
Bulgaria	9,218,483,360.00 €	1,316.92 €	6,268,706,000.00 €	895.52 €	2,949,777,360.00 €	421.39 €
Greece	14,293,462,270.00 €	1,332.77 €	17,773,895,000.00 €	1,657.30 €	-3,480,432,730.00 €	-324.53 €
Romania	27,726,012,440.00 €	1,428.11 €	14,248,020,000.00 €	733.89 €	13,477,992,440.00 €	694.22 €

Table 4: Comparison of grants under RRF and ERI-based allocation

Accordingly, Romania, Greece, and Bulgaria would get most grants per capita while Sweden, Denmark, and Finland would get the least. Compared to the RRF distribution, Romania, Bulgaria, and Poland would receive way more funds per capita whereas Spain and Croatia would receive way less. In general, Central and Eastern European Countries tend to receive more funds as under the RRF.

Central and Eastern European countries have the greatest needs to accelerate the green and just transition. Since these countries caught up in terms of economic growth with other European countries based on emissions-intensive growth models, they tend to oppose progressive climate and environmental policies (Gräbner-Radkowitsch & Hafele, 2022). Hence, supporting these countries to transform their economies into more resilient and ecologically sustainable ones is crucial, and can help increase their acceptance of progressive climate and environmental policies.

The differences to the RRF do not come as a surprise, as the RRF was established as a crisis-response instrument, whereas the time horizon of a fund focused on building economic resilience would be more long-term. Such an economic resilience fund would have to be complemented by a range of other policies for increasing economic resilience, especially because building economic resilience requires different means, not all of which can be supplied by a common EU fund[7].

[6] For the sake of comparability, the sum of funds under the ERI approach equals the sum under the RRF. Similarly, the spreads of per capita funds are harmonised (in both approaches the ratio of the highest per capita funds to the lowest per capita funds is the same). The exact size of the spread can be adjusted subject to political decisions.

[7] For example, while grants could help financing an expansion of renewable energy capacity to address energy dependencies, an improvement of the quality of institutions cannot be achieved by funds alone.

Conclusion

With multiple crises in the recent past and the corresponding economic consequences, building economic resilience has become a major goal for the EU that various policy areas need to contribute to. Of particular importance is the role of fiscal policy, which needs to support Member States' ambitions to build economic resilience, by providing sufficient fiscal leeway for resilience-enhancing investments and expenditures. This can be achieved in two ways. First, classical fiscal space estimations can be complemented by a measure of economic resilience such as the ERI. Granting low-resilience Member States more fiscal space can strengthen the EU's economic resilience, provided that the additional fiscal space is used for increasing economic resilience. Second, the distribution of grants under common EU funds with the purpose to increase economic resilience could be determined by the ERI. Given this different purpose compared to the RRF, this would lead to a different distribution than under the RRF, mainly benefitting Central and Eastern European Countries in the quest to build economic resilience. As economic resilience is a multidimensional concept that requires the interplay of many different policy areas, the discussed integration of economic resilience into fiscal policy cannot guarantee the economic resilience of the EU alone. Rather, increasing economic resilience needs to be understood as an encompassing task, in which fiscal policy plays a crucial but not a standalone role.

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