



RECOVERY AND RESILIENCE

REFLECTION PAPERS

No. 1 | January 2022

Francesco Corti
CEPS Associate Researcher

Daniel Gros
CEPS Distinguished Fellow

Tomás Ruiz de la Ossa
CEPS Intern

Alessandro Liscai
CEPS Intern

Tamas Kiss-Galfalvi
CEPS Researcher

David Gstrein
ifo Institute Junior Economist

Elena Herold
ifo Institute Junior Economist

Mathias Dolls
ifo Institute Senior Economist

THE RECOVERY AND RESILIENCE FACILITY

A SPRINGBOARD FOR A RENAISSANCE OF PUBLIC INVESTMENTS IN EUROPE?



RECOVERY and RESILIENCE

REFLECTION PAPERS

REFLECTION PAPERS

No. 1 / January 2022

The Recovery and Resilience Facility: A springboard for a renaissance of public investments in Europe?

Francesco Corti, Daniel Gros, Tomas Ruiz, Alessandro Liscai,
Tamas Kiss-Galfalvi, David Gstrein, Elena Herold, Mathias Dolls

Francesco Corti is Associate Researcher, Daniel Gros is Distinguished Fellow, Tomás Ruiz de la Ossa and Alessandro Liscai are Interns and Tamas Kiss-Galfalvi is a Researcher at CEPS. David Gstrein and Elena Herold are Junior Economists and Doctoral Students, and Mathias Dolls is a Senior Economist, Deputy Director of the ifo Center for Macroeconomics and Surveys, Head of Inequality and Redistribution and Coordinator EconPol at ifo Institute.

CEPS is an independent think tank based in Brussels. Its mission is to produce sound policy research leading to constructive solutions to the challenges facing Europe today. Unless otherwise indicated, the views expressed are attributable only to the authors in a personal capacity and not to any institution with which they are associated.

Available to download for free from the CEPS website (www.ceps.eu)

Image credit: Vecteezy.com © CEPS 2022

The mantra accompanying the deployment of the NGEU funds is that Europe needs a huge increase in public investment to succeed in the green and digital revolution. The funds provided by the Recovery and Resilience Facility under the National Recovery Resilience Plans are supposed to finance new projects to supplement, not to supplant national efforts. This is also called additionality which has long been a key principle of the EU cohesion policy. According to this principle EU financial intervention should not substitute for national funding that would have been used in the absence of EU intervention.

Since the establishment of the regional policy, the extent to which EU spending is ‘additional’ has been fiercely disputed between European Commission, central government, local authorities and the research community. The European Regional Development Fund (ERDF), one of the main instruments for correction of regional imbalances within the Union, has been criticised for being used by Member States to cover expenditure that had already been incurred instead of complementing national efforts (McAleavey 1995). Fritz Scharpf memorably dismissed the Regional Fund as an insignificant programme reflecting national priorities, pointing out that *‘the only interesting question is whether European funds will add to, or substitute for, national expenditures, but the ability of national dogs to wag the European tail is not really in doubt’* (1988: 25 1). Still today, despite reforms in the governance of the EU budget, various doubts have been raised as regards the practical implementation of the principle of additionality in the EU cohesion policy. For instance, Varblane (2016) argues that structural funds have replaced the Baltic countries’ own funding in education, de facto substituting national spending. By contrast, other authors found that inflows from cohesion funds actually result in additional public expenditure and that, hence, the cohesion policy funds tend to increase the net amount of public structural/development expenditure in recipient countries (Šlander and Wostnerc 2018)

The debate around additionality has acquired a new importance with the launch of the Recovery and Resilience Facility. Additionality is enshrined in the legal texts: Article 5(1) of Regulation (EU) 2021/241 indeed specifies that *“financial support from the Facility shall not, unless for duly justified cases, substitute recurring national budgetary expenditure and shall respect the principle of additionality of the Union funding”*. In other words, RRF funds must not replace public or equivalent structural expenditure by a Member State. Article 9 of the RRF Regulation further specifies that *“financial support under the Facility should be additional to the support provided under other Union programmes and instruments”*. This means that investment projects may receive support from other Union programmes and instruments provided that such support does not cover the same cost.

If articles 5 and 9 recall the traditional EU cohesion approach to additionality principle, the RRF Regulation - as well as the guidance on the national plans - attached also a specific weight to “EU value added”, stressing that EU funds should be used to the Union overall benefit and/or in line with EU priorities and do not replace national spending that Governments would, anyway, implement. Article 4 of the Regulation explicitly refers to generating ‘European value added’ as a general objective of the programme and article 32 specifies that in the interim and ex-post evaluation of the Facility, the Commission shall assess not only the efficiency of the use of the resources and the extent to which the plans achieve the RRF stated objectives, but also the European added value.

Several studies have already studied the alignment of the national recovery and resilience plans with the RRF objectives (Corti et al. 2021, Darvas et al. 2021) as well as on the development and implementation of cross-country projects (Dias et al. 2021).

However, an assessment of the additionality of the RRF investments in terms of proposal of new projects is still missing. The Commission staff working documents analysing the national plans include granular information on both the alignment of the plans with the six RRF flagship objectives, as well as on the share of cross-country projects. Yet, based on the Commission's assessments alone, one cannot conclude whether Member States' proposed measures were already part of an ongoing (or planned) project nor whether the RRF funds are financing (ongoing) projects to which other (national or not) funds could not be gathered at sufficient levels.

The purpose of this short contribution is to shed light on the additionality of public investments under the Recovery and Resilience Facility.¹ To this end, we propose to look at additionality both from a macro and micro perspective. We apply the micro approach to six national recovery and resilience plans: Austria, Belgium, Germany, Spain, Italy and Portugal.

A macro and micro approach to measure additionality

According to the RRF Regulation and the Commission guidance to member states on the recovery and resilience plans, an investment is understood as an expenditure on an activity, project, or other action, which is consistent with a broad concept of capital formation in areas such as fixed capital, human capital, and natural capital.² Investments can be direct (e.g. financing a project with public money) or indirect (e.g. public schemes to incentivise private investments, such as for example building renovations to improve energy and resource efficiency or digitalisation of small businesses). Investments may also take the form of financial instruments, support schemes, subsidies and other facilities, especially given their capacity to crowd-in additional private investments. This would include inter alia, guarantees, loans, equity and venture capital instruments and the setting-up of dedicated investment vehicles. Based on this definition, we can measure the additionality of the recovery and resilience plans by looking at their impact on the increase in public investments.

Macro approach

The principle of additionality can be understood as requiring that public investment increases along with RRF funding. One would thus expect that the size of the RRF transfers is positively correlated across member states with an increase in public investment, which is defined in national account statistics as general government gross fixed capital formation (GFCF).

¹ This paper partly builds on an ongoing study requested by the European Parliament (IP/A/ECON-ED/IC/2021-089). An earlier version of the paper has been published as an [EconPol Policy Brief](#).

² Fixed capital is broadly equivalent to the concept of 'gross fixed capital formation' used in national accounts. Human capital is accumulated by means of spending on health, education and training, etc. Natural capital is enhanced by actions aiming at increasing resource efficiency and the share of renewable natural resources, protecting or restoring the environment, or by mitigating/adapting to climate change.

It is not straightforward to measure the impact of RRF funding on public sector GFCF. Many member states were planning to increase public investment, already long before the Covid-19 crisis. It would thus not be appropriate to just look at the increase in public sector GFCF in the next years relative to the pre-pandemic level.

We propose to look at a different measure, namely the extent to which public investment will be higher than planned before the crisis (and before the NGEU). We thus compare the forecast for public GFCF before the outbreak of Covid-19 with the most recent forecast published by the Commission in Autumn 2021. Since the Commission forecasts is only two years forward looking, we can compare today's forecast for 2022 with member states' forecasts included in the Stability Programme of 2019. The difference between these two forecasts for the level of GFCF in 2022 can provide a measure of the shock to public investment due to the crisis. The question is whether the size of the unexpected increase in public investment is related to the amount of NGEU funding a country receives.

Results of the macro approach

In applying this method, one needs to decide how to measure the unexpected increase in public sector investment.

One alternative is to look at the difference in the forecasts as percentage of GDP. For example, if one takes a country for which public sector investment was forecast in 2019 to reach 2.0 % of GDP in 2022, but the forecast is now for 2.5 % of GDP (in 2022), this constitutes an absolute increase of 0.5 percentage points of GDP. In another country investment might have been much higher to start with, e.g. 4.0 % of GDP, but forecast to increase to 4.5 % of GDP. This would also constitute an increase of 0.5 percentage points of GDP. However, in the first case, the relative increase would be 25 %, against only 12.5 % in the second case.

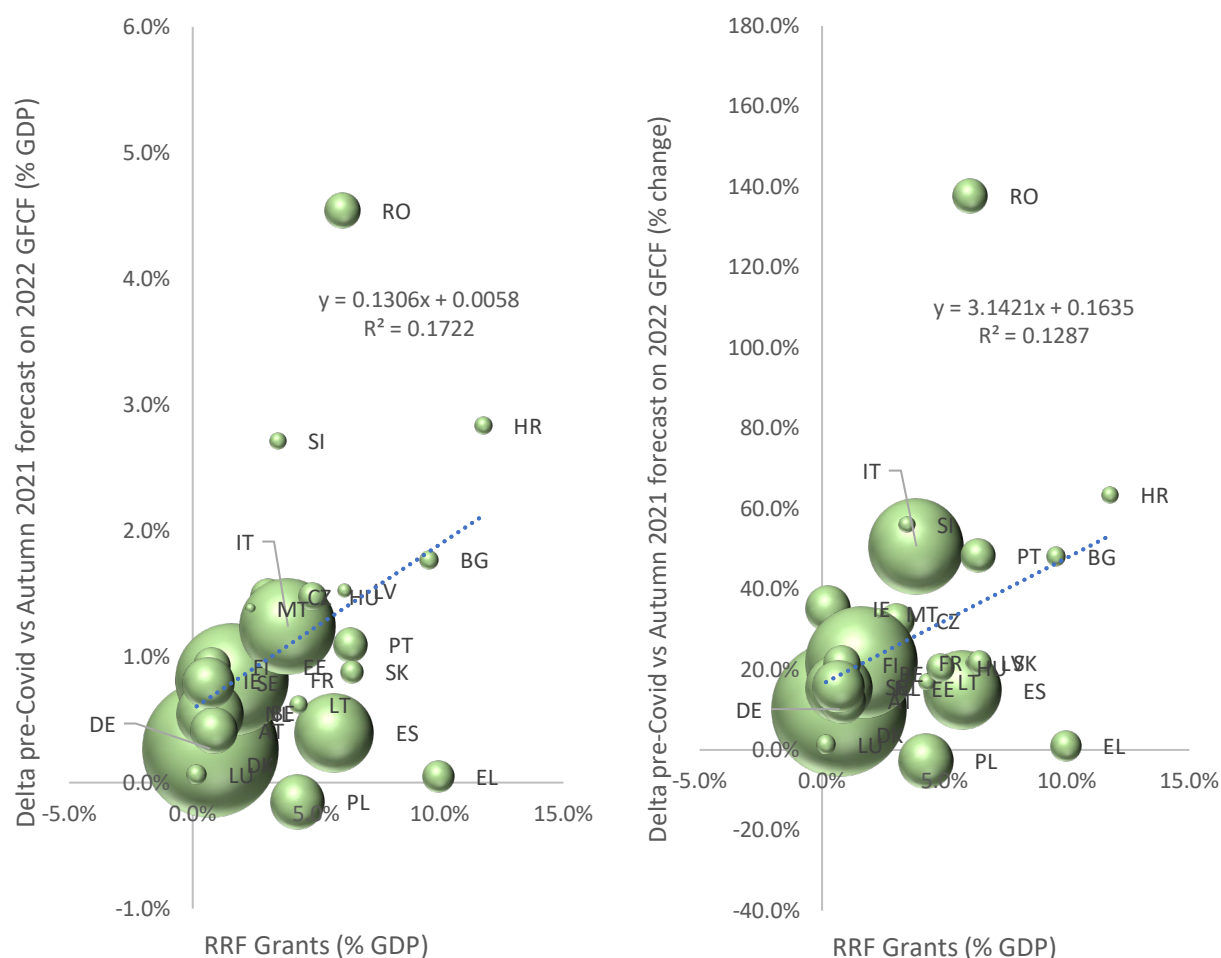
Looking at the increase (relative to pre-pandemic forecast) does not account for different starting levels of national public investments. As the example above shows, the acceleration assumes a different significance based on the initial level of public investments in percentage of GDP of member states³. Different countries receive quite different amounts of funding under the RRF. To implement this approach, we thus checked whether there is a positive correlation between the amount of RRF grants (as a % of GDP) and the acceleration in public investment.

A very simple scatterplot of the acceleration in public investment between the pre-Covid and 2021 Autumn forecasts on GFCF immediately suggests at best a weak correlation between the amounts of grants that will be transferred to member states through the RRF and the actual acceleration in 2022 of the level of public investments. This applies both when we measure the acceleration as percentage of GDP and as percentage change. Some countries receiving the largest share of RRF grants as percentage GDP, such as Italy, Romania, Croatia, Portugal and

³ An additional factor that can affect the acceleration in public investments due to the RRF funds injection is the pre-existing share of EU structural funds as percentage of national gross domestic product. In this respect, we might expect that countries already receiving a large share of EU funds are better prepared to absorb RRF investments.

Bulgaria, will experience the highest acceleration in public investment compared to the pre-Covid forecast. Yet, there are also counter-examples; countries like Greece and Spain, that despite the large RRF transfer, will not significantly accelerate their pre-crisis forecast on public investment spending. As shown in Figure 1, the bilateral association explains only a small share of the overall variability (the R^2 is in both cases around 15%⁴).

Figure 1. RRF grants (% GDP) and acceleration in public investments (% GDP lhs, % change rhs)



Source: Own elaboration, based on AMECO.

To supplement this graphical analysis, we also run simple regressions, using the two measures of the acceleration as the dependent variables and the RRF grants as independent variable. We further added two control variables: GFCF pre-crisis (average 2016-2019) and MFF allocation as percentage of GDP (to account for the fact that the MFF also finances GFCF). We also wanted to weigh observations for their economic importance. Indeed, if one wants to find the impact of RRF transfer using a cross-section equation, one should not give the same importance to the

⁴ The R^2 is further reduced if we include Cyprus that is a clear outlier.

case of a small country (e.g. Malta) as to a large one (e.g. Italy). We therefore run weighted regressions taking the national GDP as weight.

The results of the regressions (both weighted and unweighted) confirm the findings that there is no statistically significant correlation between the acceleration of public investments and the RRF grants. In none of the cases, also considering the control variables, there is a significant correlation between the variables. We show the results from four different specifications, which all yield the same results in the sense that the coefficient on the RRF allocation is not significant (see tables in Annex). This implies that the surprises in public investment are not systematically linked to the amount the countries receive from the RRF as grants.

Micro approach

An assessment of the additionality in the recovery and resilience plans can also be done ‘bottom up’, which also requires a granular approach, i.e., one needs to look at each project to see whether member states’ proposed measures are new or are already part of an ongoing (or planned) project.

According to the RRF Regulation, any measure that did not exist before 1 February 2020 should be eligible. Since the national plans were drafted between February 2021, when the RRF regulation was formally approved, and May 2021, member states could have potentially included projects in their plans already launched or planned in 2020. Therefore, we check whether each investment was already planned before July 2020, when the Council agreement on NGEU was found, or whether it is a continuation/extension of a project already existing before. To do so, a valid source of information are the Stability and National Reform Programmes presented in 2020 as well as the 2020 national budgets presented by the end of 2019. Additional national sources were further used for each of the member states analysed.⁵ For each investment included in the RRF plan, it is indicated whether:

- A. No similar project was found;
- B. No specific overlap with existing projects was found but similar projects exist and fall under the same scope;
- C. It is an expansion or a continuation of a pre-existing project;
- D. It corresponds exactly to an already planned project.

We define an investment as additional only in the case of A and B.

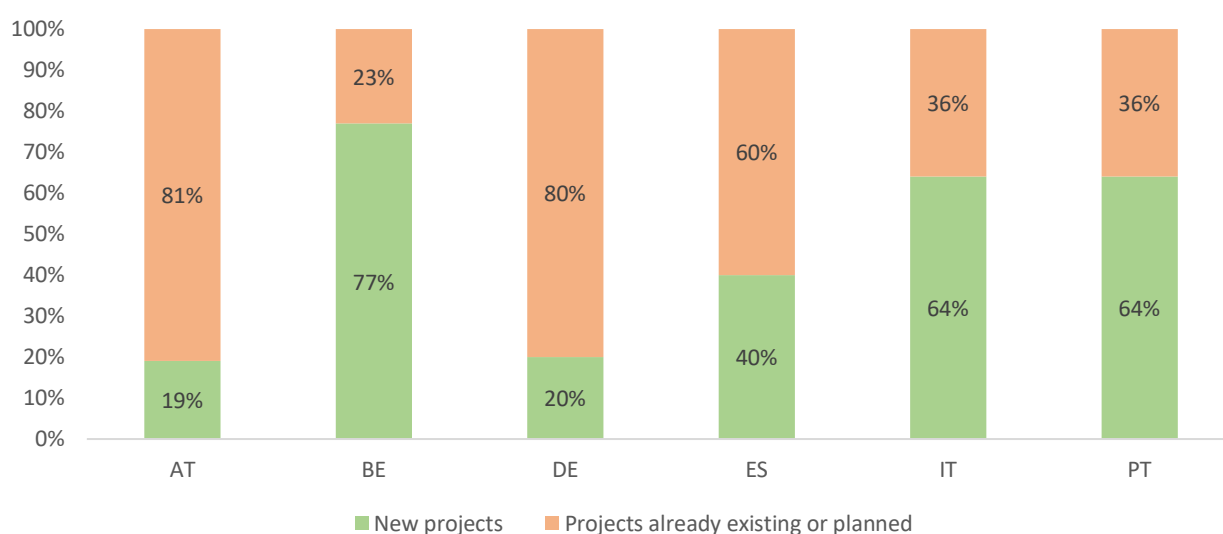
⁵ For Germany, the following sources were consulted: Konjunkturprogramm (June 2020), German Recovery and Resilience Plan (April 2021), Webpage of the responsible ministries and the federal government, Federal gazette, Information sheet of the BMU funding programme „Dekarbonisierung in der Industrie“ (2021), Masterplan Ladeinfrastruktur der Bundesregierung (November 2019), Energieforschungsprogramm (September 2018), Klimaschutzprogramm 2030 (October 2019). For Austria, the following extra source was consulted: Government Program (January 2020). For Italy the following source was consulted: Italiadomani.gov.it

Results of the micro approach

The main results are summarized in Figure 2 below.

What emerges is that countries seem to follow different strategies in using the RRF spending. Some countries like Germany, Austria and Spain allocate the largest share of their grants to finance projects that were either already planned or to extend/continue projects that were already existing. In the latter case, one might argue that the financing of those projects would not have continued if the RRF had not been in place. Yet, considering the structural nature of the investments we consider it as unlikely that member states would not have continued financing them. For instance, Germany will expand the financing of the project-related climate protection research as well as the financial support for electric vehicle purchases, both already regularly financed since respectively 2016 and 2015 and expanded in December 2020. Similarly, Austria will continue to finance – for example - a support scheme for the replacement of oil and gas heating systems. The government announced – already before the RRF – that it intended to continue and expand the program. By contrast, if we look at Italy, Portugal and Belgium we observe that the largest share of the projects included in the RRF are new, which – in principle – might explain the reason why these countries have a larger acceleration in the forecast in public investments for the next year.

Figure 2. Additionality of public investments under the RRF



Source: Own elaboration, based on NRRPs and stability and reform programmes (2020).

Conclusions

The analysis above seems to confirm some of the hypotheses that one could have derived from the literature on the EU budget additionality. From a strictly economic point of view, it is difficult to define additionality in terms of specific projects since money is fungible. After all, more than 90 % of total public sector spending is still financed at the national level and member states allocate public spending according to their national priorities.

Yet four factors might play a role and deserve to be considered.

The first one is timing. Member states had to write their plans in a very short time. Countries which traditionally receive more structural funds – such as Italy and Portugal – might have found themselves more prepared and with some new projects in the ‘EU pipeline’ (projects not approved for spending at the national level) to be included in the new RRF plan, compared to others, which do not benefit from the EU cohesion policy, such as Germany and Austria. Yet, such hypothesis does not look convincing for at least two reasons. The first one is that it does not explain the position of Belgium and Spain. The second, and more important, is that some of the countries benefiting from the structural funds are also those – especially in South Europe – with the lowest absorption capacity of EU funds.

A second factor might be the size of the RRF support as a share of the pre-Covid public investment. Indeed, while such share is very small for Germany (5%) and Austria (5%), it is significant for Italy (27%) and Portugal (61%). Yet, this factor does not explain the position of Belgium (8%), for which the RRF does not represent a significant share of annual public investment, and Spain, for which the opposite is true (45%).

A third factor might be political and is linked to the governance of the national recovery and resilience plans. In this respect, a centralized governance can be associated with a higher capacity of the government to steer the investment projects included in the plan. Such hypothesis seems to explain – at least in part – the difference between the Italian, Portuguese and Spanish plans. Indeed, whereas Portugal and Italy adopted a highly centralized governance model, the Spanish plan decentralised the management and the selection of the plans to the ministries.

Finally, a fourth factor that might explain the decision of member states to use the RRF spending for additional spending are differences in preference for prudent debt levels. The six countries considered here entered the crisis with different levels of debt to GDP. Overall, the package of national measures adopted to deal with Covid-19 have produced a sharp increase in the debt-to-GDP ratio. For instance, in Italy it grew from 134.6% in 2019 to 159.8% in 2021, whilst in Germany only from 60% to 75% in the same period. Germany does not face any fiscal sustainability challenges, whereas the problem remains serious for Italy. It would be a mistake to link public debt ratios and public sector investment. As the left-hand panel of Figure 1 shows, the increase in public sector investment amounts to at most 1.5 to 2 % of GDP. Higher public sector investment over 5 years could thus at most justify an increase in the debt ratio of 7.5 to 10 percentage points of GDP. But the difference between Italy and Germany is now close to 80 percentage points of GDP. Moreover, Italy will receive about 4 % of GDP in RRF grants. A large part of the increase in public sector investment is thus financed by the EU and cannot justify an increase in national debt.

Annex – Regression results

Table 1. Impact of the RRF grants (%GDP) on acceleration in public investments (%GDP) controlled for GFCF 2019 and MFF 14-20 annual grants (non-weighted lhs; weighted rhs)

Non-weighted regression		Weighted regression	
sample: EU		sample: EU	
Acceleration of investments (% GDP)		Acceleration of investments (% GDP)	
RRF (% GDP)	0.0121 (0.180)	RRF (% GDP)	0.100 (0.108)
MFF annual grants (% GDP)	0.434 (0.606)	MFF annual grants (% GDP)	0.0526 (0.379)
GFCF 2019 (% GDP)	0.00253 (0.0028)	GFCF 2019 (% GDP)	0.00163 (0.0019)
Constant	-0.00549 (0.0107)	Constant	-0.000663 (0.0066)
Observations	27	Observations	27
R-squared	0.204	R-squared	0.159
Standard errors in parentheses		Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1		*** p<0.01, ** p<0.05, * p<0.1	

Table 2. Impact of the RRF grants (%GDP) on acceleration in public investments (%change) controlled for GFCF 2019 and MFF 14-20 annual grants (non-weighted lhs; weighted rhs)

Non-weighted regression		Weighted regression	
sample: EU		sample: EU	
Acceleration of investments (% change)		Acceleration of investments (% change)	
RRF (% GDP)	-0.126 (4.433)	RRF (% GDP)	2.864 (3.359)
MFF annual grants (% GDP)	11.82 (14.90)	MFF annual grants (% GDP)	2.768 (11.79)
GFCF 2019 (% GDP)	-0.0106 (0.0690)	GFCF 2019 (% GDP)	-0.0178 (0.0599)
Constant	0.164 (0.263)	Constant	0.197 (0.205)
Observations	27	Observations	27
R-squared	0.120	R-squared	0.140
Standard errors in parentheses		Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1		*** p<0.01, ** p<0.05, * p<0.1	

References

- Corti, F., Núñez Ferrer, J., Ruiz de la Ossa, T., Regazzoni P. (2021), Comparing and assessing recovery and resilience plans, *CEPS Recovery and Resilience Reflection Paper*, No. 5, September. Available [here](#).
- Darvas, Z. et al. (2021), 'European Union countries' recovery and resilience plans', Bruegel datasets, 15 December. Available [here](#).
- Dias, C., Grigaitė, K. and Cunha, I. (2021), *Recovery and Resilience Plans- Thematic overview on cross-border projects* EPRS In-Depth Analysis. Available [here](#).
- McAleavey, P. (1995), European Regional Development Fund Expenditure in the UK: From Additionality to Subtractionality, *European Urban and Regional Studies*, Vol. 2, No. 3, pp. 249-253.
- Scharpf, F.W. (1988), The Joint-Decision Trap: Lessons from German Federalism and European Integration, *Wiley Online Library*, Vol. 66, No. 3, pp. 239-278.
- Šlander, S. and Wostner, P. (2018), 'Additionality of European Cohesion Policy', *European Review*, Vol. 26, No. 4, pp. 721-737.
- Verblane, U. (2016), 'EU Structural Funds in the Baltic Countries – Useful or Harmful?', *Estonian Discussions on Economic Policy*, Vol. 24, No. 2, pp. 120-136.