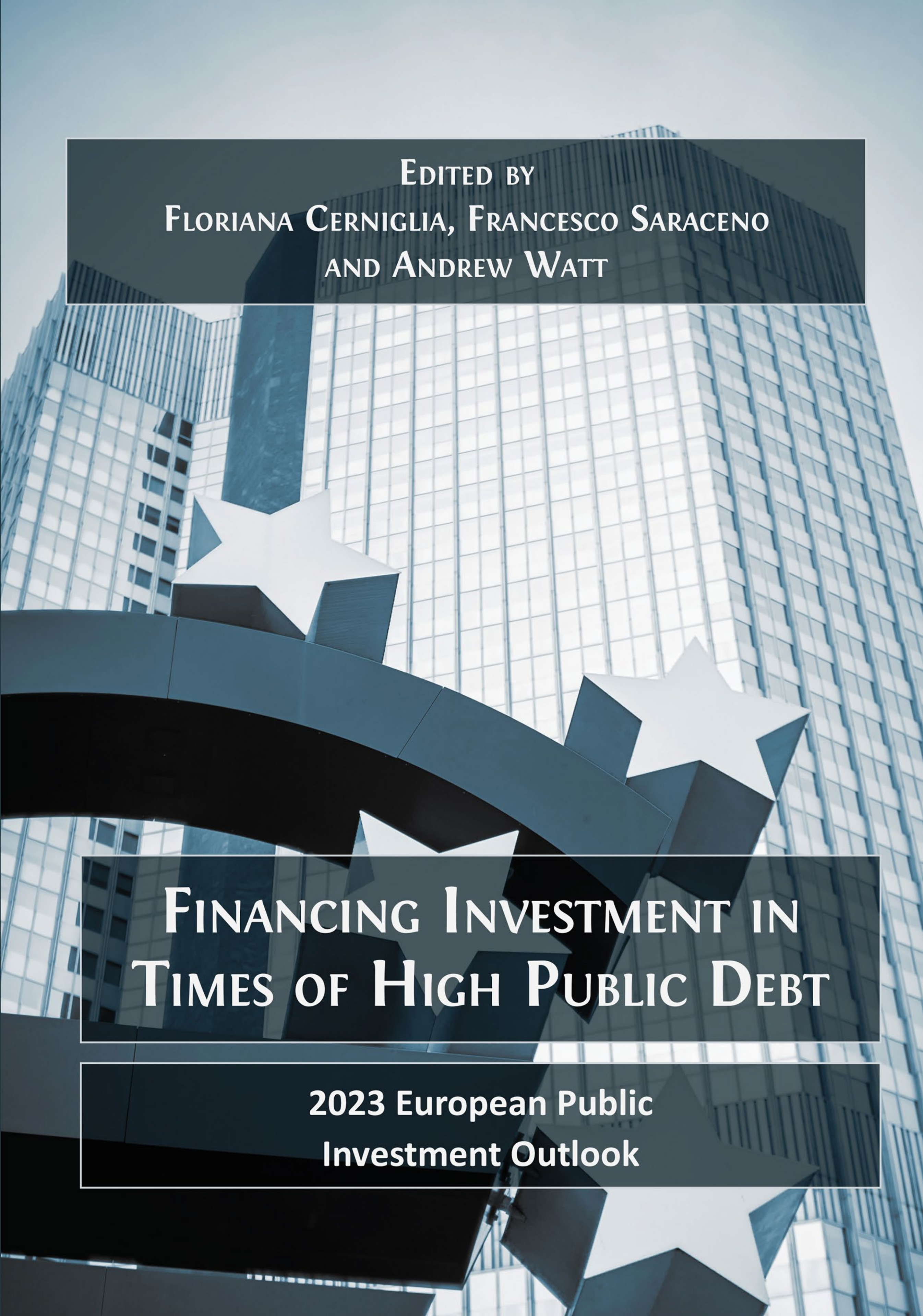

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8. Making Green Public Investments a Reality in the EU Fiscal Framework and the EU Budget

Atanas Pekanov and Margit Schratzenstaller

Additional green public investment at the Member-State level will be needed to address the climate emergency as a central priority in the EU. This chapter discusses two paths to enable increased green public investments in the EU: through possible amendments to the current EU fiscal framework or through funding from the EU budget. The Commission's proposal from November 2022 regarding orientations for a reform of the EU-governance framework widens the leeway for debt-financed public investment. However, existing green public investment needs are not considered sufficiently. Therefore, we discuss several options to enable the flexibility of national budgets to ensure a level of green public investment which—together with private resources—is sufficient to close the existing green investment gaps. In addition, the use of the lever the EU budget theoretically offers to contribute to green public investment in the EU needs to be intensified. At about 1% of EU GNI (1.7% of EU GNI including NGEU) the overall volume of the EU budget is limited. The more important are steps to strengthen spending in policies that create EU value added, inter alia green public investment.

8.1 Introduction

The European Green Deal (EGD), the EU's 'new growth strategy' that was adopted in 2019 with the aim of making the EU climate neutral by 2050, requires massive investment in the decarbonisation of the economies of the EU.[1] Geopolitical developments with the Russian invasion in Ukraine highlight the need to speed up the clean-energy transition and the strengthening of Europe's energy independence. The 'Fit for 55' Package launched by the European Commission in mid-2021 aims at

1 We are indebted to Cornelia Schobert for careful research assistance.

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realising the ramped-up ambition in the EU's climate targets. These important goals will require significant public investment in the coming years.

Public investment encompasses investment in projects associated with long-term positive externalities so that the long-term social rate of return of such investment exceeds the private rate of return. In the case of green public investments (GPI), these positive externalities result from the reduction of environmental damage and of energy dependence and benefit society as a whole. Certain investment projects display specific characteristics which may make them unattractive to private investors. Infrastructure networks, which represent a considerable share of green investment have various properties that particularly deter private investors. These include indivisibilities over long lifespans, high fixed and sunk costs, and asset specifics—a range that implies high risks and thus impairs the ability and/or willingness of private investors to undertake them. Natural monopoly situations, which are relevant for many infrastructural networks, may also require public involvement. Specifically related to the issue at hand is that the green transition requires the development and implementation of innovative, often risky and untested, green technologies. In addition, in face of rising interest rates, which decrease the profitability of such investments by increasing the cost of financing them, private investors may be reluctant to undertake such investments (Bertram et al. 2022). Overall, therefore, the state has an important role to play in the green transition through co-financing, private-public partnerships, and state guarantees, but also through public investment (European Investment Bank 2021; Delgado-Téllez et al. 2022). A certain share of the necessary green investment, therefore, will need to be redirected from Member States' budgets to complement private investment or will need to be funded under the common EU budget.

Analogously to public investment in general, an argument can be made for at least partially financing GPI, which creates long-term benefits for future generations, by public debt, instead of solely relying on tax increases or shifts within the expenditure structure. These long-term benefits include the positive environmental externalities but may also consist of long-term productivity-enhancing effects that have been observed in relation to certain public-investment projects (Fournier 2016; European Fiscal Board 2019). According to the 'pay-as-you-use' principle (Musgrave 1939), debt service for debt-financed public investment with long-term benefits accruing to the next generation(s) can be seen as an option to make them contribute adequately to the provision of such public investment. From this perspective, debt financing of public investment provides for a fair intergenerational distribution (Yakita 1994; Balassone and Franco 2000), reducing incentives for de- or under-investment today which would harm future generations (Bertram et al. 2022). Green investment—like investment in general—adds to the stock of assets, warranting deficit financing (Corti et al. 2022).

Projections of the 'green investment gap', that is, the additional spending that needs to be undertaken to meet the 2030 climate targets, have been adapted several times during the last years due to rising climate ambitions. In 2019, prior to the increase of the

2030 emission reduction target from 40% to 55% compared to 1990 levels through the EGD, the European Commission (2019) estimated the green investment gap at €260bn per year. To achieve the EGD objectives, the European Commission (2021) doubled its estimate for the green investment gap and indicates additional necessary investments for the current decade of €520bn per year (3.7% of 2019 GDP) compared to the previous decade. Hereby, an annual amount of €390bn is required to decarbonise the economy and, particularly, the energy sector; another €130bn per year needs to be invested to achieve other environmental objectives. The sheer size of this green investment gap implies that a significant part of the funding for the increased investment will have to come from the EU level and from EU Member States in addition to private investors (Claeys and Tagliapietra 2020; European Commission 2022a).

This chapter discusses two paths to enable increased green public investments—through possible amendments to the current EU fiscal framework or through funding from the EU budget.[2]

8.2 Fiscal Framework

National budgetary decisions in EU Member States (MS) are managed under a common European fiscal framework known as the Stability and Growth Pact (SGP), and a coordination mechanism known as the European Semester. The SGP has been revised multiple times since its establishment in 1997 to address some of its previous shortcomings.[3] The rules have often been criticised as being too pro-cyclical, that is, not restricting debt enough in bad times, and not providing enough fiscal space in good times (see, for example, Bénassy-Quéré et al. 2018, or Ubide 2019). The various amendments introduced over time have made the European fiscal framework better suited to steering macroeconomic policy, but they also rendered the fiscal rules overly complex and non-transparent (Friis et al. 2022).

The SGP has, however, also been criticised for its lack of flexibility to enable public investments via higher deficits when they were most needed from a macroeconomic standpoint. In reaction, the European Commission published a Communication (2015) on the use of flexibility clauses and their interpretation, focusing on a more flexible application of the SGP rules by taking into account exceptional circumstances, structural reforms and other relevant factors, as well as investments. The investment clause in the SGP is a way to enable more investment, especially in times of economic downturn. The Communication enabled a reinterpretation of the existing fiscal rules, without the need to explicitly change them or take legislative action. In the current version, for the investment clause to be invoked, however, a strict set of conditions

2 The part of this chapter that relates to fiscal rules is a summary version of a longer study prepared for the European Parliament (Pekanov and Schratzenstaller 2023).

3 See Pekanov and Schratzenstaller (2020) for an overview of major changes to the EU fiscal framework.

needs to be met.[4] Although the investment exemption clause has been assessed as a positive change to the SGP, the strict conditions have made it very difficult to be invoked and so far, only two countries (Italy and Finland) have made use of it.

Partly because of the pro-cyclical character of fiscal rules, public investment has suffered in the aftermath of the GFC and has markedly declined as a share of current primary expenditures in many Member States—especially those which are more indebted (Figure 8.1 and Figure 8.2). The period of fiscal consolidation has contributed to this general weakness of public investment (Storm and Naastepad 2016; Darvas and Wolff 2021). Public investment often experiences considerable reductions during downturns, as it is easier to reduce without significant political costs in comparison to current expenditures, government transfers, or other programmes. Particularly in aging societies, public support for preserving current expenditures may be higher than for future-oriented investment (Darvas and Wolff 2021).

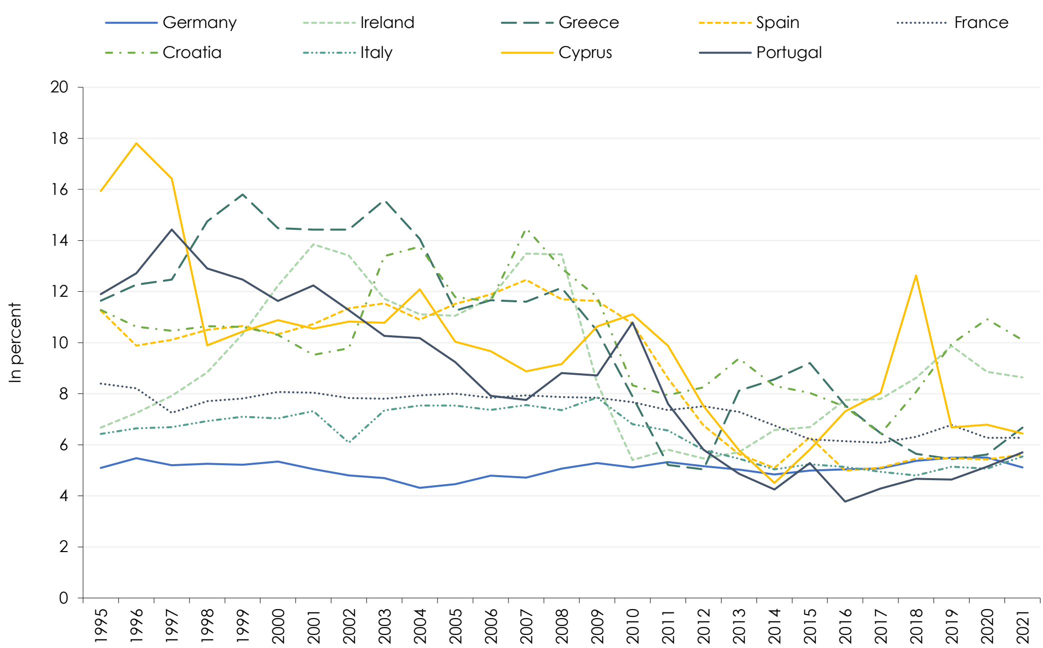

Fig. 8.1 Gross Fixed Capital Formation as a Share of Primary Expenditure in Selected Member States.

Note: Primary expenditure = Total general government expenditures minus property income.

Source: Eurostat.

4 These conditions can be found at https://ec.europa.eu/commission/presscorner/detail/en/MEMO_15_3221

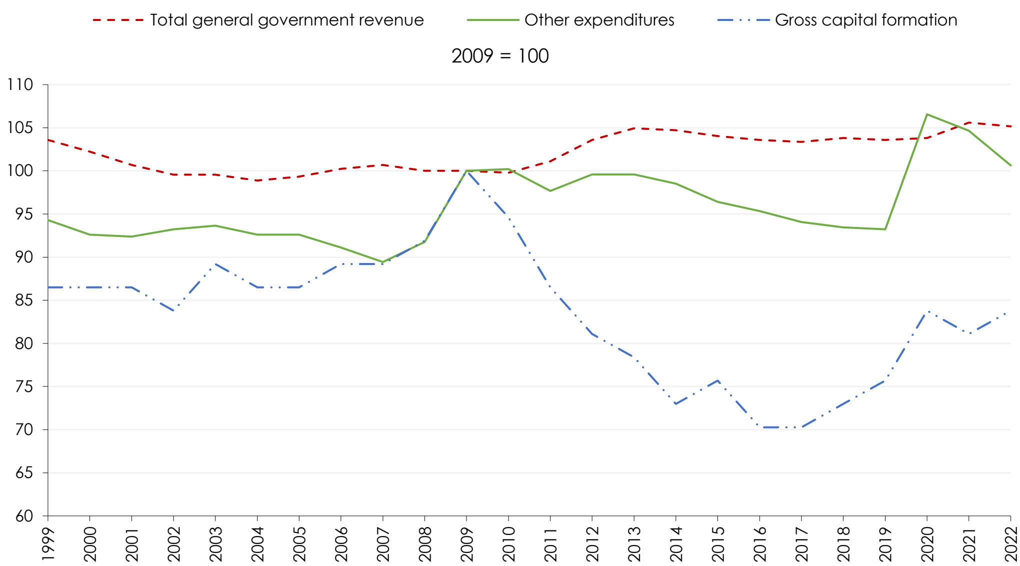

Fig. 8.2 Euro Area General Government Revenue, Investment, and Other Expenditures, in % of GDP.
Source: Eurostat. Other expenditures = Total general government expenditure minus gross capital formation.

8.3 Options to Support GPI in the EU Fiscal Framework

In light of the substantial resources required to finance the necessary green transition discussed above, additional public investments by Member States (MS) or within the EU budget will need to be mobilised throughout the next decade. The current fiscal framework of the EU does not provide enough flexibility for MS to react adequately to these challenges by increasing debt-financed green public investment (GPI). Thus, amendments within the fiscal framework may be necessary.

On 9 November 2022, the Commission (2022b) issued a 'Communication on orientations for a reform of the EU economic governance framework'. It focuses on three main pillars. First, the Commission suggests an expenditure rule: net primary expenditures (that is, total expenditures excluding interest and unemployment payments as well as additional expenditure covered by tax increases) shall serve as the only indicator to gauge compliance with the debt and deficit criteria. The expenditure path shall be determined by the Commission based on a debt-sustainability analysis. The second pillar relates to the national medium-term fiscal-structural plans to be submitted by Member States, detailing the measures to comply with the expenditure path. Thirdly, the Communication states that the 60% of GDP debt criterion shall remain. While it does not give concrete time frames about when this level must be achieved, it does assert, as an indicative objective, that the 3% of GDP deficit criterion shall be monitored and sanctioned more strictly in the future.

Altogether, the proposal adds a substantial element of country-specific flexibility and reinforces the long-term orientation of the EU fiscal framework, while at the same time reducing its complexity. The Commission's communication proposes differentiated adjustment speeds for different MS, according to their debt levels, to give more credibility to the imposition of medium-term targets, which might otherwise seem unrealistic. Moreover, debt-financed public investment can be considered explicitly, albeit not in the form of a golden rule which would exempt public investment permanently from deficit and debt statistics: rather, the time period allowed to return to a path of decreasing debt ratios can be prolonged from four to seven years if MS submit national medium-term fiscal-structural plans including public investment endorsed by the Commission and adopted by the Council. While the Commission Communication explicitly mentions that national medium-term fiscal structural plans (which can include investment proposals) should, in particular, 'address common EU priorities, including the National Energy and Climate Plans (aligned with the targets of the EU Climate Law…', GPI is not accounted for separately in the Commission's proposal. More generally, the evaluation of national medium-term fiscal-structural plans can be subjective or can lead to political negotiations, thus politicising the process and making it more complicated for the Commission to reach an agreement with individual MS and, in turn, potentially slowing down the implementation of necessary GPI.

Against this background, we discuss below four approaches for a reform of the fiscal rules better accommodating for the existing GPI requirements:

- A GPI-exemption clause complementing the current SGP flexibility clauses would be relatively easy to implement and not require Treaty changes. It would, however, further complicate an already complex set of fiscal rules and would not ensure that MS indeed invest the necessary amount towards greening their economies.
- With a golden rule for GPI the respective deficit accrued would not be counted towards deficit and debt statistics relevant for EU fiscal rules. While this would also complicate the fiscal framework further, a 'green golden rule' would incentivise governments to transform as much as possible from their spending towards GPI.
- A third approach would be for the European Commission to estimate and the Council to recommend country-specific benchmark shares of government expenditures in each country to be dedicated to GPI.
- An EU Climate Fund (CF) financed by common EU debt could offer MS loans to MS at favourable interest rates to finance GPI.

8.3.1 GPI Exemption Clause in the SGP

A straightforward approach would be to add a GPI definition to the existing investment-exemption clause of the SGP to enable short-run deviations from deficit targets and Medium-Term Objectives (MTO). It would help to frontload GPI, especially if the temporary exemption was extended over a longer time period. The clause can be applied to MS that can present verifiable plans for GPI reforms under consideration, with sufficient proof of their long-term benefits in terms of environmental sustainability, economic growth, and productivity. This would need to be accompanied by a set of specific deadlines and ways to control their implementation. The plans would require clear evidence that the investment in question will help improve environmental sustainability. This evidence could rest on the EU taxonomy for sustainable activities. The exemption could be granted after a thorough process of proving that the investments in question would indeed contribute to climate neutrality and/or further environmental goals, in a way similar to proving that investments will have a 'positive, direct and verifiable long-term effect on growth and on the sustainability of public finance' in the existing investment clause. The legal implementation would include changing or using a new Communication and then embedding the changes in the Code of Conduct of the SGP.

Pros:

- The GPI-exemption clause would be easy to implement even in the current EU fiscal framework if there is a clear definition of which public investment is to be counted as green. It will help to frontload GPI, especially if the temporary exemption can be extended over a longer period of time.
- It would not require a legal change but only an amendment within the flexibility clause of the SGP to include GPI as a separately defined condition for activating it. The process, conditions, recommendations, and the coordination can be embedded easily into the European Semester.

Cons/Potential Problems:

- If the envisaged GPI is only eligible after a thorough review of the project in question, this might imply that most investment is realised slowly, and projects would be implemented with a significant time lag.
- The GPI-exemption clause would not necessarily incentivise national governments to undertake the investment necessary to close their green investment gaps; it would only enable it.
- It would add further to the complexity and uncertainty of the fiscal rules. The three existing escape clauses of the SGP have introduced opacity.

- Exemption clauses are short-term in nature, applying under exceptional circumstances and for selected projects; they, therefore, are of limited use considering the longer-term substantial GPI needs, which will be the normal state in the foreseeable future (Bénassy-Quéré 2022).
- A GPI-exemption clause similar to the current clause would be insufficient in size, as it allows only a maximum deviation of 0.5% of GDP initially, which is to be corrected in the following four years.

8.3.2 Introduction of a 'Green Investment Golden Rule'

A second option would be to embed a green investment golden rule in the current fiscal framework. A golden rule for investment has been discussed and proposed as a way to improve the European fiscal rules framework for a long time.[10] A classical golden investment rule is based on a classification of government spending into two types—current expenditure versus capital expenditure (that is, public investment). The golden investment rule would allow deficit-financed public investment to not be counted for deficit and debt statistics, while current expenditures need to be balanced or fulfil some maximum deficit target (for example, the existing one of 3%). A more targeted golden rule could focus on GPI only. Such a green golden rule would be even more effective in mobilising resources for the green transition by having a strong incentivising effect for governments to transform as much of their public investment as possible into GPI. A green golden rule would also allow MS to not count their additional co-financing on EU projects (above their national commitment) to their deficit statistics, thus incentivising them to undertake additional investment in in such green projects.

Pros:

- A green golden rule will be effective to incentivise Member States to transform and mobilise large parts of their expenditures towards GPI.
- A green golden rule is a permanent provision enabling the implementation of longer-term GPI strategies most MS will need in the current decade and beyond.
- It will also protect GPI during cyclical downturns when public investments are easier to reduce or postpone to a later period. This should ensure that long-term investments to fight climate change will not suffer from fiscal tightening.

Cons/Potential Problems:

- A green golden rule may require significant legal changes towards the Fiscal Compact and the expenditure benchmark.
- It would increase the complexity and administrative burden.
- It could create inefficient shifts away from green expenditure which has an investment character but is not counted as green investment (for example,

green qualifications) towards GPI which is eligible but possibly less efficient (Bénassy-Quéré 2022).

Compared to the Commission's proposal, a green golden rule would specifically focus on GPI and not on public investment in general, so that its scope would on the one hand be narrower. On the other hand, a green golden rule would create larger leeway for GPI, as the 3% of GDP deficit limit would be disregarded, as well as the impact of GPI on the debt ratio. The green golden rule would be a permanent provision, thus accommodating for the existing long-term GPI needs.

8.3.3 A Benchmark for GPI as a Share of Government Expenditures

The third approach would be for the European Commission to recommend a benchmark for each MS as a share of government expenditures that should be committed towards GPI (for example, a certain percentage of overall government public investment/expenditure). This benchmark share would be based on an estimated country-specific green investment gap. The share would therefore not have to be uniform across MS: Some MS perform better in terms of environmental sustainability already; furthermore, the green (public) investment gap differs between MS (Delgado-Téllez et al. 2022). If calculated in relation to government expenditures, which vary considerably between MS in terms of GDP, the shares in such an approach would not constitute an excessive breach in MS fiscal-policy sovereignty, as each would not prescribe the size of government spending but, rather, only direct a part of its composition. The difference between this and the previous two options is that the European Commission would pro-actively recommend to MS (in a top-down approach) that a certain share of their expenditures should be in the form of GPI.

The progress of MS could then be operationalised following the precedent of the Six-pack reform by introducing a definition of a necessary speed at which MS should close their GPI gaps. The Commission would evaluate whether this happens at a 'satisfactory pace'. The efficiency of such proactive guidance by the European Commission on how much MS should spend on greening their economy will depend on the implementation process. However, the history of fiscal rules and monitoring of recommended reforms in the EU brings a mixed picture of how effective the compliance by Member States can be. Although sanctions can be applied by the Council if there are breaches to the SGP and the Macro-Economic Imbalance Procedure (MIP), they were never applied in practice and the existing enforcement regime has been weak.

Pros:

- Legally a benchmark share for GPI would be easy to introduce within the European Semester, by enriching it with GPI goals and adequate indicators.[5]

5 Similarly, the EU Greening Initiative has made first attempts at reaching such goals without the need to change other EU legislature, including the SGP. See: https://ec.europa.eu/environment/integration/green_semester/about_en.htm

Cons/Potential Problems:

- Achieving the goal of mobilising significant GPI in MS will be very much dependent on the implementation of the GPI-benchmark share. If it is implemented as a soft law with the European Commission only issuing recommendations to MS about the share of GPI they should invest in, it runs the risk of being ineffective, similar to the Country Specific Recommendations (CSR).

A GPI-benchmark share could rather easily be integrated in the Commission proposal of a net-expenditure path, by excluding GPI spending from net expenditures. Alternatively, the medium-term fiscal-structural plans submitted by MS could foresee a pre-determined share of GPI in their public investment—similar to the mechanism behind the implementation of the national Recovery and Resilience Plans (NRRP)—requiring a minimum share of green spending financed through the Recovery and Resilience Facility (RRF) of 37%.

8.3.4 An EU Climate Fund

In the State of the Union address in September 2022, Commission President Ursula von der Leyen proposed an EU Sovereignty Fund (SF). One option for the financing of such an EU SF—following the example of the EU Recovery and Resilience Fund (RRF)—would be to take up debt on capital markets, making use of the EU's credit rating which grants low interest rates for common EU debt. MS could then apply for loans at these favourable interest rates to finance GPI. Those MS facing relatively high interest rates for public debt would be given the opportunity to debt finance strategically important green infrastructure projects at favourable interest rates. An option with a more limited scope focused on GPI would be to establish an EU Climate Fund (CF), which would fund specific investment projects targeting the green transition and climate change. Such an EU CF would have the advantage vis-à-vis an EU SF to provide incentives for MS to direct their investment activities toward GPI.

The granting of EU CF loans could be based on a combined bottom-up/top-down approach. MS could either apply for loans based on national strategic GPI plans. Alternatively, the Commission could identify strategic green infrastructure projects and actively approach the affected MS with strategic GPI proposals, including also a funding proposal. The Commission proposals could focus on cross-border GPI projects which would be neglected in a bottom-up approach, as experiences with the RRF show. The handling of CF loans, including the drafting of proposals, their assessment, approval, and monitoring, could build upon RRF experiences and the institutional and procedural provisions established to implement national recovery and resilience plans. Similar to the RRF, the assessment of MS GPI plans could be based on the EU Taxonomy; in addition, they could be screened by an independent European Fiscal Agency (Garicano 2022). CF loans could also top up specific industrial projects in the area of green investment supported through Important Projects of Common European Interest (IPCEI) funding, as proposed by Commissioner Thierry Breton in the context of an EU SF (European Commission 2022c).

Of course, CF and RRF investment plans should be coordinated. An EU CF could then act as a permanent successor institution of the temporary RRF, which will phase out in 2026. The CF would not constitute a reform of the existing fiscal rules framework. Depending on its scope and volume, it could either complement or substitute a reform of fiscal rules aiming to further GPI based on one of the three reform options sketched above.

Pros:

- An EU CF would alleviate the burden of interest payments associated with additional public debt to finance GPI particularly for those MS facing relatively high interest rates.
- It could be used to finance strategically important cross-border GPI projects, particularly in the areas of railway and energy-supply infrastructure, which are underfunded based on purely national decision-making and budgets.
- It could make use of already-existing EU and national RRF implementation structures.
- It would avoid making EU fiscal rules even more complex (Bénassy-Quéré 2022).
- An EU CF could help to mitigate a subsidy race within the EU by coordinating MS GPI policies to some extent.

Cons/Potential Problems:

- An EU CF would be rather unattractive for those MS enjoying favourable interest rates for their national debt. To avoid dealing with administratively burdensome application, implementation, and monitoring procedures accompanied by the Commission and the Council, they may prefer to directly incur debt on capital markets for their GPI projects.

Although the recent Commission proposal explicitly aims to increase the leeway for public investment, the CF could act as a complement to further widen the space for national GPI. It would account for the fact that the investment gap is probably biggest regarding green investment, although this is not explicitly acknowledged and considered in the Commission's proposal.

Table 8.1 summarises the four options to further GPI in the EU fiscal framework and evaluates them based on several criteria.

Table 8.1 Summary Evaluation of Options for Amending the Current Fiscal Framework to Better Accommodate for GPI

Proposal	Ensures the Necessary Investment	Complexity and Administrative Burden	Legal/Institutional Changes Needed	Further Comments
Options for a GPI-Friendly Fiscal-Rules Framework				
Golden Rule for GPI	Incentivises MS to make the maximum amount of GPI possible Allows longer-term and more substantial deviation from deficit targets	Significant increase in complexity and administrative burden	Changes to the Fiscal Compact/Six-pack Reform	Would create larger leeway for GPI than the Commission proposal Could be integrated in the Commission proposal
Exemption Clause for GPI	Enables but does not ensure Member States will make sufficient GPI Allows only limited temporary deviation from deficit targets	Medium increase in complexity and administrative burden	New Communication on the flexibility clause and amendment to the Code of Conduct of the SGP	Would create considerably lower leeway for GPI than the Commission proposal

Proposal	Ensures the Necessary Investment	Complexity and Administrative Burden	Legal/Institutional Changes Needed	Further Comments
(Binding) Share of GPI as a Percentage of Current Expenditure	Incentivises GPI but risks non-compliance	Medium increase in complexity and administrative burden	Changes to the European Semester	Low political feasibility (if binding) or low compliance (if only with a recommendatory character) Could be easily integrated in the expenditure path proposed by the Commission to increase leeway for GPI; alternatively, binding GPI shares in public investment proposed in national fiscal-structural plans could be foreseen
EU Climate Fund	Incentivises particularly MS facing high interest rates to make debt-financed GPI Incentivises cross-border GPI	Neutral with regard to the EU fiscal framework	New legal proposal also based on amendment of ORD New Communication on counting CF GPI towards fiscal rules Changes to the European Semester	Incentives differ across MS depending on country-specific interest rates for public debt Could act as a complement to the EU proposal to particularly support (cross-border) GPI

Source: Authors' elaboration

8.4 Green Public Investment in the EU Budget

The EU budget plays a pivotal role in the EU's green-investment strategy. As the first of the various measures included in the European Green Deal, the European Commission launched the investment pillar in January 2020: The European Green Deal Investment Plan aims to make available and leverage the necessary funding for the green transition during the ten-year-period 2021 to 2030 in the public and private sectors.[6] At least €1 trillion of sustainable investment should be mobilised through the Multi-Annual Financial Framework (MFF) and by leveraging additional public and private financing. Hereby, about €500bn should stem directly from the EU budget (assuming a sustained level of ambition regarding climate spending for the years post-MFF 2021–2027). These figures rest on an initially envisaged climate mainstreaming goal of 25% for the MFF, according to which 25% of MFF 2021–2027 expenditures (up from 20% during the MFF 2014–2020) should contribute to climate goals.

Additionally, in 2020, the temporary COVID-19 recovery plan Next Generation EU (NGEU) was agreed with an overall volume of €750bn[7] (€390bn in grants and €360bn in loans for Member States), with the Recovery and Resilience Facility (RRF) as its most important instrument amounting to a volume of €672.5bn (€312.5bn in grants and €360bn in loans). Thus, in the current decade, the contribution from the EU budget to green-investment needs in the EU rests on two pillars: the MFF 2021–2027 (and its post–2027 successor) and NGEU.

In light of the COVID-19 crisis, the climate-mainstreaming goal was increased to 30% for the overall EU budget, amounting to a volume of up to €1,824.5bn, that is, the MFF 2021–2027 which comprises total spending of €1,074bn and NGEU with a total volume of €750bn. Overall, this would imply climate-related spending of at least 30% of an overall volume of €1,824.5bn, that is, about €550bn.

However, there is reason to assume that the lever the EU budget offers to reinforce green investment in the EU is used insufficiently on the one hand and that its potential is overstated on the other hand.

First of all, the climate-mainstreaming goal does not distinguish between different types of expenditure and, therefore, also includes spending that—strictly speaking—cannot be categorised as public investment. One example is the direct payments to farmers within the common agricultural policy (CAP) that are counted against the climate target if they provide incentives for climate- and environment-friendly farming practices. Interpreting the total of climate-related spending as green investment, therefore, considerably exaggerates the respective contribution of the EU budget.

Related is the problem that, despite some improvements in the climate-spending tracking methodology, it can be assumed that there is still a considerable share of spending marked as climate-relevant but which can be doubted (Levarlet et al. 2022).

6 See D'Alfonso (2020) for an overview.

7 All figures in 2018 prices.

This can be illustrated using, again, the example of the Common Agricultural Policy (CAP). The climate-related performance of the CAP has been strongly criticised by the European Court of Auditors (2021) for the MFF 2014–2020 as it contributed little to a reduction of agricultural emissions. Another example is cohesion policy, the climate contribution of which in such key areas as rail infrastructure or electricity is also overstated (European Court of Auditors 2022). Further, for the current MFF, the tracking methodology is still too focused on an input-oriented *ex ante* assessment, while *ex post* evaluations and results, and particularly the specific contribution of interventions to the EU climate targets, are not given sufficient attention (European Court of Auditors 2022).

An improvement compared to the preceding MFF 2014–2020 is the implementation of the Do No Significant Harm (DNSH) principle in the EU budget, which precludes spending with a significant negative impact on the environment. Nevertheless, several exceptions to the DNSH principle can be found in the EU budget. For example, the RRF regulation prohibits investments in nuclear energy but not in natural gas. These do not count against the climate-mainstreaming goal, but they are eligible for financing under the RRF (Levarlet et al. 2022). Another example is the CAP regulations that do not explicitly mention the DNSH principle. They include several provisions precluding environmentally harmful spending, but these are rather vague.

The funding available via the RRF is an important element of the contribution of the EU budget to the required green investment in the EU during the next few years. However, it must be acknowledged that its full potential might not be used. While the foreseen grants to Member States have been allocated completely, this is not the case for the available loans. Under the first national Recovery and Resilience Plans (NRRPs), about 43% of available loans have been allocated to seven Member States. Under the revised NRRPs, another 33% of available loans have been requested by ten Member States under the REPowerEU chapter but have not yet been granted (European Commission 2023a). Were these loan requests assessed positively by the Commission and approved by the Council, close to 76% of available loans would be disbursed. One shortcoming of the RRF is that the funded projects are almost exclusively domestic projects, while cross-border projects with a real European added value based on EU spill-over effects do not play a role (Andersen 2021). Moreover, the RRF is a temporary instrument limited to the period 2021 to 2026. After its termination, green investment through the EU budget will fall back to the much lower MFF level. In addition, there is some degree of uncertainty regarding the level of ambition regarding green investment in the post–2027 MFF.

Against this background, several conclusions can be drawn regarding needs and directions for reforms to make the EU budget future-proof in the sense that it delivers a significant contribution towards a sustainable Europe. Some of these reforms could already be initiated within the upcoming MFF mid-term review.

First of all, the green-investment component of the EU budget needs to be strengthened. This requires a shift of expenditures towards green investment with a real EU added value which would not have been carried out by national governments.

Such green investment projects (could) play a particularly strong role in research and innovation programmes; in the Connecting Europe Facility (CEF), which invests in interconnected trans-European networks in the fields of transport, energy, and digital services; and in cohesion policy. Funding for research and investment as well as the CEF, which at 7.1%[8] (up from 6% in the 2014–2020 MFF) and 1.7% (up from 1.6% in the 2014–2020 MFF), respectively, currently makes up a rather modest share of overall MFF spending during the 2021–2027 period; this should be reinforced. Cohesion funds, which reach almost 31% of overall MFF expenditures, should be restructured towards green cross-border investment projects. The proposals made by the Commission in its midterm review of the MFF published in June 2023, however, do not put a specific focus on reinforcing green investment (European Commission 2023b).

Moreover, the climate-mainstreaming target, that is, the envisaged share of climate-related spending in overall spending, needs to be aligned to the EU's climate targets. At the same time, the quality of climate-related spending needs to be ensured and improved. For this purpose, the current climate-accounting methodology should be developed further. Additional steps are also required to strengthen the performance framework for the EU budget, to complement the still-dominant input-oriented perspective with a result-oriented perspective. Not least, the DNSH principle needs to be implemented more strictly, based on clear and transparent criteria and without exceptions.

8.5 Conclusions

Additional green public investment at the Member-State level, at least partially debt-financed, will be needed to address the climate emergency as a central priority in the EU beyond the current policy cycle. The overall budgetary and fiscal EU framework needs to ensure these goals of higher green public investments are achieved. The Commission's proposal from November 2022 regarding orientations for a reform of the EU-governance framework widens the leeway for debt-financed public investment. However, existing green public investment needs are not considered sufficiently. Therefore, options (2), (3), or (4) discussed above should be followed through to enable the flexibility of national budgets to ensure a level of green public investment which—together with private resources—is sufficient to close the existing green-investment gaps.

In addition, the use of the lever the EU budget theoretically offers to contribute to green public investment in the EU needs to be intensified. At about 1% of EU GNI (1.7% of EU GNI including NGEU), the overall volume of the EU budget is limited. Steps must be taken to strengthen spending in policies that create EU value added, inter alia green public investment.

Any reform of EU fiscal rules accommodating GPI as well as reforms within the EU budget should be embedded in a broader mix of measures supporting the green

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transition in general and green private investment in particular. Here, carbon pricing, environmental taxation in general (including the repeal of the substantial fossil-fuel subsidies, which would increase fiscal space for GPI in MS), and environmental regulations are of particular importance; so, too, are long-term policy commitments providing investment security (Lenaerts et al. 2022). In any case, the upcoming reform of the EU fiscal framework as well as the upcoming MFF mid-term review and the post–2027 MFF need to account for the massive GPI needs confronting all EU MS, and they need to be better coordinated with the current initiatives to realise the EGD.

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