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Reforming EU Fiscal Governance: A Golden Rule for Public Investment?*

EUROPE'S NEED FOR HIGHER INVESTMENT

Public budgets in EU member states have been under significant pressure in the past several years. Figure 1 shows that a number of countries did not manage to consolidate their public finances to comply with the EU's Stability and Growth Pact (SGP) in the aftermath of the Great Recession and the ensuing European debt crisis. In addition, the Covid-19 pandemic as well as the energy and inflation crises following the Russian invasion of Ukraine have led to swelling public expenditure to mitigate the economic shocks. Public debt increased in the EU on average, with particularly strong surges in certain member states (Figure 1). While high public-debt levels call for fiscal consolidation and compliance with fiscal rules, the need for higher public spending will increase even further in the coming years. Among others, the end of the EU's peace dividend calls for larger defense spending in Europe (Dorn et al. 2023). Demographic change and ageing societies will also lead to higher (public) expenditure levels and will put a strain on the EU's productivity and economic growth. At the same time, member states face structural challenges in transforming their economies towards green, digital, and more socially resilient economies. Above all, the decarbonization effort, i.e., the reduction of greenhouse gas emissions to tackle climate change and to mitigate the consequences of global warming, requires massive resources, especially in the form of investment.

* Our policy article is based primarily on the results and discussion of our research paper Blesse et al. (2023a), and of a policy report prepared at the request of the ECON Committee of the European Parliament (Blesse et al. (2023b). The opinions expressed in this document are the sole responsibility of the authors and do not necessarily represent the official position of the European Parliament.

KEY MESSAGES

- The need for larger public investment in Europe drew attention to its role in the EU fiscal governance. The current reform proposal of the European Commission aims to incentivize higher public investment by softening deficit rules, likely at the cost of incurring higher deficits
- If fiscal rules are too rigid, they can deter public investment. Flexible rules can increase public investment, but depending on how they are designed, this can lead to higher levels of public debt
- We propose a modified golden rule that enhances public investment while maintaining fiscal sustainability: debt-financed spending should be limited to net investment, while debt-financed investment is capped by a deficit rule. Other primary expenditures (excluding net investment) need to be balanced
- Investment categories relevant to the golden rule must be narrowly and clearly defined to avoid creative accounting tricks. The narrow definition of investments should be limited to investment spending that produces new capital stock and may stimulate sustainable economic growth.

The Next Generation EU (NGEU) recovery plan, with its large investment package, is a recent example how the EU aims to foster its structural transformation. The European Commission also launched the "Fit for 55" program in 2021, which aims to reduce greenhouse gas emissions by 2030 by 55 percent compared to 1990. For the EU to meet this goal, estimates for the necessary public and private investments point



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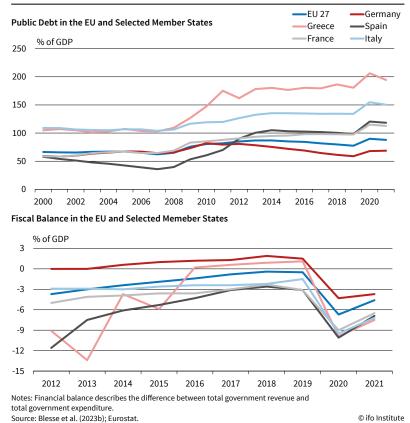
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Figure 1
Public Debt and Fiscal Balance in the EU and Selected Member States



to an increase of roughly 57 percent in the period between 2021 to 2030 compared to the decade 2011 to 2020 (Benassy-Quéré 2022; European Commission 2021). The need for public investment is estimated to grow in the EU by an additional 0.6 percent of GDP per year (Darvas and Wolff 2022). Against this background, it seems odd at first sight that the general escape clause of the EU fiscal rules will be deactivated at the end of 2023, such that member states must again comply with the SGP rules, which limit their fiscal space in the short run. Some politicians believe this will hamper public investment and call for a reform of the EU economic governance to soften the rules. By contrast, others may argue that compliance with fiscal rules needs to be enforced more strictly in order to enable both public investments and fiscal sustainability in the long run.

The European Commission has launched a debate on the reform of the EU economic governance framework that has recently led to a first legislative proposal (European Commission 2023). An important element in the debate and reform process is the role of public investment. In this policy report we provide some guidance whether and how a special treatment for public investment should be made included in a reform of the EU's fiscal governance framework. We discuss the definition of public investment and provide some descriptive evidence on the relationship of public investment and fiscal space among EU member states. We also summarize key findings from the em-

pirical literature on the effect of fiscal rules on public investment and discuss the recent reform proposals of the European Commission regarding the trade-off between public investment and a healthy fiscal balance. Finally, we present some policy conclusions and reform proposals on how a new governance architecture ought to be designed to deliver larger public investment without harming fiscal sustainability.

DEFINITION OF PUBLIC INVESTMENT

What is public investment? In a narrow sense, it is the expenditure on gross fixed capital formation (GFCF) by the general government, as defined in most systems of national accounts (such as the European one). This includes, amongst others, expenditure on buildings, machinery, intellectual property, military weapon systems and software or databases. Furthermore, one might also consider investment grants and other capital transfers to households and firms, such as for building energy-efficient housing, because society may benefit from their positive returns, for instance through reduced greenhouse gas emissions. However, empirical studies that study the effect of fiscal rules on public investment (see below) use different definitions. Some argue that spending on education or health more broadly can also be considered as an investment if it enhances human capital in the form of increased knowledge or longer maintenance of the labor force. Because of various usages of the term investment, it is important to clearly define what counts as a public investment in a reform model of the EU economic governance framework. This is intended to reduce the risk of EU member states circumventing the rules through creative accounting, such as for example by reinterpreting social or transfer payments as public investment.

FISCAL CAPACITIES AND PUBLIC INVESTMENT IN EUROPE

The need for higher public investment in Europe can be financed either from new government revenues, more efficiency in public goods provision, by cuts in future consumption spending, or via the issuance of new debt. Figure 1 shows that there is much heterogeneity among public debt levels and trends in the EU. The fiscal capacity for public investment might thus differ among EU member states, albeit subject to the same (supranational) fiscal rule framework of the European Stability and Growth Pact.

Figure 2 shows trends before and after the Great Financial Crisis in net public investment (*gross fixed capital formation [GFCF], minus depreciation*) for three debt groups of countries in the EU.¹ Net investment

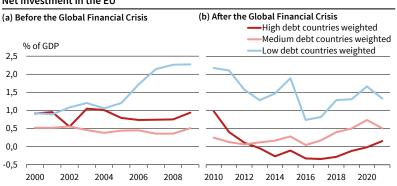
¹ The composition of groups before and after the financial crisis may differ. The countries are categorized by their average public debt in the periods 2000-2009 and 2010-2021, respectively. Some countries, for example, are considered as medium-debt in the first period but belong to another debt group in the latter period.

as a share of GDP was higher on average in the EU before the financial crisis than afterwards. The figures show that countries with low public debt levels (below 60 percent of GDP) exhibited higher levels of net investment in both periods. Low-debt countries include, among others, the Netherlands, Sweden, Denmark, Luxembourg, and several Eastern European EU member states (Blesse et al. 2023b). On average, these countries increased their net fixed capital formation by around 1.5 percent of GDP each year (in both periods). A different picture arises within the medium- and high-debt countries. Among medium-debt countries (public debt between 60-90 percent of GDP), which include Germany and Austria, net investment was still positive over the years, but at a low level, of between zero and 0.5 percent of their economic output in new fixed capital formation. In other words, public investment in these countries was just enough to compensate for depreciation. While net investment remained positive throughout the period for medium-debt countries, high-debt countries (public debt above 90 percent of GDP) faced a sharp decline after the Great Financial Crisis, which until recently resulted even in negative net investment levels. On average, public investment in high-debt countries was not even sufficient to offset the annual capital depreciation in the years 2013 to 2019. In the last decade, this group of countries included Italy, Spain, Portugal, Greece, and Cyprus. Belgium and France, however, continued having positive (albeit low) net investment although they part of the highly indebted group over the last decade.

Based on this descriptive evidence, it may be conceivable that lower fiscal space may indeed systematically hamper public investment. Specifically, highly indebted countries are forced to consolidate their public finances because of existing fiscal rules and might be therefore tempted to cut (discretionary) public investments. On the other hand, one may argue that fiscal consolidation and debt discipline among less indebted countries exert a positive impact on the level of public investment. Compliance with fiscal rules and fiscal consolidation could create the necessary financial capacities to invest in the medium term. First, persistent debt accumulation and the violation of existing deficit rules of the SGP are typically associated with higher government refinancing costs when borrowing money from the capital markets (Davoodi et al. 2022; Diaz Kalan et al. 2018). Second, non-compliance with fiscal rules and higher public debt could limit the fiscal capacity needed during economic shocks to apply stabilizing counter-cyclical fiscal policy (Larch et al. 2023; Kriwoluzky et al. 2020). Holding public debt at low or "sustainable" levels thus seems desirable to be able to cope with unexpected challenges and to meet the need for higher public investment in the medium term.

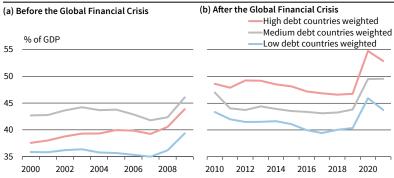
Figure 3b, moreover, shows that primary spending (as percent of GDP) has been higher among highly

Net Investment in the EU



Notes: The country groups are categorised by their average public debt in the respective time period. Low debt = under 60 % of GDP, medium debt = between 60 % and 90 % of GDP, high debt = over 90 % of GDP. Source: Blesse et al. (2023b); Eurostat.

Primary Expenditure in the EU (excl. Public Investment)



Notes: The country groups are categorised by their average public debt in the respective time period. Low debt = under 60 % of GDP, medium debt = between 60 % and 90 % of GDP, high debt = over 90 % of GDP. Source: Blesse et al. (2023b); Eurostat.

indebted countries than in the medium- and low-debt country groups in the years 2010-2019, if public investment is excluded. The higher the debt level, the higher the average primary spending on non-investment expenditure and the lower the average investment (recall Figure 2 above). As Figure 3 suggests, governments in high-debt countries are more likely cut public investment than (current) consumption spending to comply with fiscal constraints. That is, high-debt countries decrease net investments while sticking to a higher share of current consumption spending in other categories.²

EVIDENCE ON THE EFFECT OF FISCAL RULES

A reform of the EU fiscal governance architecture needs to address both the incentivizing of public investment and the achievement of fiscal sustainability among its member states. Addressing the latter, a recent meta-study by Heinemann et al. (2018) finds that fiscal rules are indeed effective in disciplining public finances, based on a systematic review of

² Some argue that low public investment is simply due to discretionary political decision-making and a social dominance over investment spending in some countries (see, among others, Schuknecht and Zemanek 2021). Social spending is less easy to reduce, especially in economically difficult times, partly because it is often offset by statutory entitlements of the electorate.

30 evaluations of numerical fiscal rules.³ While aiming for stronger enforcement of, and compliance with, the SGP rules could help to achieve fiscal sustainability, the need for investments to tackle global challenges calls for a fiscal framework that does not undermine public investment. How EU fiscal rules can be reformed to achieve higher public investment without harming fiscal sustainability should be based on a sound understanding of fiscal rules and their impact on public investment. In a recent study for the European Parliament, as well as in a follow-up academic study, we systematically reviewed the empirical literature on the effect of fiscal rules on public investment (Blesse et al. 2023a and 2023b). The review is based on 20 empirical ex-post evaluations⁴ of numerical rules regarding their effect on public investments or related sub-components (Blesse et al. 2023a).⁵ Nine studies focus at the national level of several countries, while eleven use case studies at the subnational level.

Overall, the review does not show that fiscal constraints—such as the fiscal rules embedded in the SGP—have a general impact on public investment. Most of the reviewed studies (ten) do not report any statistically significant effect of fiscal rules on overall public investment. This is remarkable, given that intuition would suggest that public investment should be more prone to fiscal consolidation, given their larger degree of freedom in budgetary decision-making when compared to operating or consumptive expenditures. The observation of statistically non-significant effects of fiscal rules on public investment is not limited to specific types of rules, as it can be found for expenditure rules (Carreri and Martinez 2021; Gregori 2018; Dahan and Strawczynski 2013; Vinturis 2022), balanced budget rules (Grembi et al. 2016; Alpino et al. 2022; Salvi et al. 2020; Venturini 2020; Dahan and Strawczynski 2013; Vinturis 2022), or debt rules (Vinturis 2022). A minority of studies find significance for either positive (2 studies) or negative (4 studies) effects of fiscal rules on overall public investment (Blesse et al. 2023a).6 The significance and direction of the effects seem to depend on how the fiscal rules are designed. For example, the two studies cited in this review that reported a significant rise in public investment are based on flexible fiscal rules (Burret and Feld 2018; Gregori 2018).

In general, fiscal rules can be categorized into flexible rules and rigid rules (Ardanaz et al. 2021). Rigid rules do not allow for exceptions. If the rules are too rigid, they do not allow policymakers to cushion the economy in a crisis. This may well undermine public investment. Evidence shows that numerical fiscal rules can limit both overall spending and public investment if the adopted rules are rigid (Daniele and Giommoni 2021; Venturini 2020; Jürgens 2022; de Biase and Dougherty 2022). In contrast, flexible rules are positively associated with public investment (Ardanaz et al. 2021; Dahan and Strawczynski 2013; Vinturis 2022). The European Commission (2017, 153-154) also states that public debt levels are less constraining for public investment in countries where fiscal rules are weaker, especially in the long run. Flexible rules, for example, may allow cyclical adjustments to the rule's numerical fiscal targets, and well-defined escape clauses may allow higher deficits during an economic crisis to avoid procyclicality.

Flexible rules may also include investment-friendly rules (investment clauses) with a differential treatment of investment expenditures or investment provisions, for example by the exclusion of public investment from the fiscal constraints. The so-called golden rule also belongs to this family of investment-friendly rules. Golden rules for public investment typically allow for new borrowing for investment spending, which creates new public capital while restricting operating expenditure to zero deficits, e.g., wages for civil servants. Evidence shows that overall public investment and the share of investment visá-vis consumptive expenditures increase if public investment is excluded from relevant threshold values from supranational fiscal frameworks (Vinturis 2022). However, only a few evaluations of investment clauses can be used to review whether higher capital spending comes at the cost of lower operational spending or higher levels of public debt (Blesse et al. 2023a and 2023b). Cross-country evidence at the national level shows some heterogeneity of investment-friendly rules across countries: there is some evidence for a positive relationship between fiscal rules and fiscal sustainability as well as investment-friendly clauses and public investment in emerging and developing economies (Ardanaz et al. 2021). However, other studies investigating the effects in advanced economies find no significant effect of investment-friendly rules on public investment on average (Delgado-Téllez et al. 2022; Dahan and Strawczynski 2013).

A few studies examine the effect of the introduction or the presence of investment clauses at the subnational level. Findings at the local level can inform the debate on the design of golden rules at the na-

This is especially the case for primary deficits, but less so for debt, revenues, or expenditures. Unlike the heterogeneity regarding different budgetary outcomes, the fiscal rule types (debt, deficit, revenue, or expenditure) do not seem to matter for the statistical significance of the fiscal rule effects.

⁴ Four studies report results only for sub-components of public investment but not for overall public investment.

Importantly, the review considers effects of fiscal rule presence (i.e., the introduction or the abolishment of fiscal rules or the respective changes in fiscal rule components), but explicitly does not cover the empirical estimates of compliance with fiscal rules. Moreover, the review does not reflect whether different fiscal rules (and their features, such their rigidity, escape clauses, or their cyclical adjustment and so forth) provide enough fiscal room for investment. Most of the studies underlying this literature review focus on public investment as government spending on gross (fixed) capital formation at the national level or capital expenditure at the subnational level, i.e., public investment in the narrow sense. In addition, findings on specific government expenditures that are regularly used in the debate as public investment in the broader sense (e.g., health or education spending) are also considered in the review, but not discussed in this policy report.

⁶ At the national level, 7 studies report non-significance, while 3 studies also find significant negative relationships (Blesse et al. 2023a).

tional level, notwithstanding obvious concerns about the generalizability of the effects of fiscal institutions at the local level to the national one. Overall, the evidence from the subnational level also suggests that flexible rules and especially investment-friendly rules increase public investment (Burret and Feld 2018; Gregori 2018; Daniele and Giommoni 2021; Carreri and Martínez 2021). Gregori (2018), for example, shows at the Italian municipality level that investment-clauses allowing for more capital spending (within a cap on overall spending) increase public investment at the cost of both consumption spending and higher public deficits. Another study shows that the introduction of a golden rule for public investment in combination with a cap on current expenditures is effective in decreasing the likelihood of running overall and operational deficits, without affecting local public goods provision (Carreri and Martínez 2021). Finally, Burret and Feld (2018) show for Swiss cantons that public investment rises if it is not restricted by the requirements of the balanced budget rule, while the introduction of balanced budget rules reduces public deficits. However, the authors argue in favor of more comprehensive rules, covering current accounts and capital budgets, to avoid creative accounting. Overall, evidence suggests that introducing more flexibility in fiscal rules, like a golden rule for investment, may well increase public investment. However, depending on how exactly the flexible rules are designed, incentivizing higher public investment may come at the cost of other spending or at the cost of higher public debt.

PUBLIC INVESTMENT IN THE EUROPEAN COMMISSION'S REFORM PLANS

The European Commission released in November 2022 an orientation document for the reform of the EU economic governance framework to strengthen enforcement of debt sustainability and to enhance investment (European Commission 2022), which eventually resulted in a legislative proposal in April 2023 (European Commission 2023). Overall, the reform elements would give more scope to higher public investment, but likely at the cost of higher public debt and less transparency (Blesse et al. 2023b).

Key elements of the reform are country-specific fiscal adjustment paths to account for country-specific differences in debt sustainability, while keeping to the SGP's numerical deficit and debt rules. However, the numerical rules are no longer suggested as hard thresholds, but rather as reference points to be targeted by all member states in the medium term. The legislative proposal of the European Commission (2023) also includes an expenditure rule for the country-specific adjustment period. During the fiscal-structural plan, the growth of cyclically adjusted primary expenditure shall not exceed the growth of medium-term output, on average. According to the current reform plans, the country-specific four-year fiscal ad-

justment path towards the 60 percent debt threshold could be extended by up to three more years if the expenditures ("national medium-term fiscal-structural plans") are underpinned by commitments towards reforms and investment aligned with European Commission priorities. During the extended consolidation periods, EU member states would have an incentive to undertake higher public investment at the cost of deficits rising above the 3 percent threshold.

However, the member states' fiscal adjustment paths need to be consistent with ensuring that debt is steered along or kept on a downward path by the end of the adjustment period at the latest, or that it remains at prudent levels with a deficit staying below 3 percent of GDP over the medium term. That way, the member states would have more time and leeway in their fiscal adjustment trajectory to better integrate (investment) priorities in their budgets. This framework would give member states more scope to exceed the deficit thresholds, providing incentives to use this leeway for higher public investment at the expense of higher deficits during the extended period.

But the reform plan provides lower incentives for national governments to change their spending behavior and to shift expenditures to structural reforms and long-term public investment in their national budgets during their legislative period. While the debt-financed public investment that goes above the 3 percent deficit threshold are defined as having to be aligned with EU priorities without leading to investment cuts elsewhere over the planning period, the modification may also lead to higher deficits in other primary expenditure than investment. National governments could still use the margins for more deficits in spending other than investment (up to the 3 percent deficit threshold). While the European Commission argues that these deficit-financed investment should not lead to investment cuts in the national budgets elsewhere over the planning period, the assessment of national Recovery and Resilience Plans (RRPs) has shown that it is not easy to detect budgetary shifts and additional investment beyond priorities of national plans afterwards (Corti et al. 2022). It is not easy to detect which investments would have been made without the softening of the deficit limit, and which are only made possible by the deficit clause for public investment. Moreover, using the new element of the clause to exceed the 3 percent deficit threshold for a longer period would give the European Commission the power to set EU investment priorities and to influence public investment in national budget plans that work towards meeting EU priorities. Most critical, softening fiscal rules within the SGP and transferring more power to the European Commission to influence national investment priorities have been devised so that they will not require adjustments to the treaty's legal framework.

The European Commission and the member states would receive much discretionary power to

assess and negotiate national budgets and consolidation paths. In the end, the assessment of the budget plans and consolidation paths seems quite complex and less transparent. Multilateral adjustment paths may account for country-specific characteristics, but this is not likely to make the fiscal framework more transparent and effective. To be more effective, the adjustment plans' assessment and surveillance should be conducted by an independent fiscal board rather than the European Commission (for instance, by giving the European Fiscal Board more power and independence). To sum up, the recent reform plans of the European Commission (2022 and 2023) would soften the fiscal rules within the EU economic governance framework, and would give more scope for higher debt-financed public investment, but likely at the cost of fiscal sustainability.

POLICY CONCLUSION: PROPOSAL FOR A TARGETED GOLDEN RULE FOR PUBLIC INVESTMENT

Despite the need for large strategic investments, EU member states have shown relatively low net public investment as a share of GDP in the past decade. Among countries with medium or high public debt ratios, net investment was close to or even below zero. To address the need for higher public investment, the European Commission has put forward plans for a reform of the EU economic governance framework (European Commission 2022 and 2023) that would soften the fiscal rules to give more scope for higher debt-financed public investment, but likely at the cost of fiscal sustainability. This trade-off is in line with findings of our literature review on the effect of fiscal rules on public investment, which suggest that overly rigid rules may well hamper public investment, while flexible rules or investment-friendly rules seem to boost public investment at the cost of higher public deficits. However, a reform of the EU economic governance framework must address both the challenges of large and strategic investment to promote the transition towards a digital and green, climate-friendly societies and economies on the one hand and ensuring fiscal sustainability on the other. Only by complying with fiscal sustainability, the overarching societal goals of climate change mitigation, digitalization, and sustainable and inclusive growth can be achieved. How can a new EU governance architecture be designed to avoid such a trade-off and to incentivize higher public investment vis-á-vis other (consumption-related) public expenditures while keeping to the target of healthy fiscal balances and limiting public debt as a share of GDP?

In a policy report for the EU Parliament, we proposed a modified targeted golden rule to achieve higher public investment while ensuring healthy fiscal balances (Blesse et al. 2023b). The design of such a simple and modified golden rule for public investment in the EU fiscal framework would guarantee high

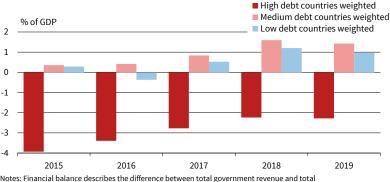
transparency, high predictability, and low complexity, which are important factors to increase compliance among member states (Reuter 2020). Our approach includes two pillars:

- 1. Limiting debt-financed spending to net investments: Under a targeted golden rule, new net investments which change the stock of public debt are to be mirrored by the creation of new productive public capital (Blanchard and Giavazzi 2004; Bassetto and Lepetyuk 2007). Allowing deficit spending for gross investment instead could be counterproductive, as it likely promotes overspending and may hamper fiscal sustainability. In this reform proposal, other expenditure (except net investments) must be balanced and financed through current revenues. Current (primary) spending needs to be balanced (excluding net investments), for example by applying a balanced budget rule. As the literature review has shown, excessively rigid rules may hamper public investment (Blesse et al. 2023a and 2023b). We therefore suggest implementing structural and cyclically adjusted budget rules and an escape clause allowing flexibility regarding debt-financed spending during an economic crisis. To account for different (current) fiscal spaces at the time of introduction because of member states' varying interest burdens and yield spreads, a balanced-budget rule could be limited to primary balances (excluding the interest burden from current accounts) excluding net investment. The idea is that allowing productive investment (as an exception) financed by issuing public debt goes hand in hand with a balanced budget for current spending, higher incentives for public investment, and potentially self-financing of public debt in the long run.
- Debt-financed investment limited by a deficit rule: In a second pillar, the investment-friendly golden rule should be equipped with clauses that cap net investment at a limit set by a deficit rule. The rule sets the threshold for allowing debt-financed investment as a share of GDP (Mintz and Smart 2006). This is thus expected to increase incentives for an efficient use of public capital and to avoid excessive deficit spending. Sticking to the EU's simple numerical deficit and debt rules would limit deficit-financed net investment to the rule's deficit threshold and avoid excessive deficit spending. This is in line with the findings of the literature review on the effect of excessively flexible rules as well those of experts arguing that comprehensive golden rules for public investment may harm fiscal sustainability if debt-financed public investment is not limited and revenue growth is lagging (Blesse et al. 2023b; de Biase and Dougherty 2022; Bassetto 2006). The optimal numerical target for the deficit spending

limit (deficit rule) and debt-financed investment depends on how the needs for additional investment for the structural transformation are assessed. For example, net investment ratios could be either accounted on an annual basis or averaged over several years.7 Moreover, the targeted threshold also depends on the definition of net investment. It is recommended to clearly and narrowly define the public investment categories that can be classified as public investment and thus eligible to be financed by debt. The narrow definition of investment should be limited to investment spending that produces new capital stock and may stimulate sustainable economic growth. This reduces the risk of creative accounting labelling other (e.g., social) expenditures as investments.

The expected impact of the modified golden rule on the public finances of EU member states would be that limited debt-financed public investment is allowed while keeping other spending categories balanced. Politicians may well use the deficit rule's numerical threshold a as reference point for how far their leeway extends to finance public investment by debt in the future, as this debt-financed spending cannot be used for other expenditures. Assuming a budget deficit rule of 3 percent of GDP subject to the SGP limit, this could give rise to higher debt-financed public investment of 1.5-3.0 percent of GDP in low- and medium-debt EU member states, and by up to 3.0 percent of GDP for highly indebted countries compared to the average share of net investment over the period 2010-2021 (see Figure 2). Public investment could even be higher than this deficit threshold if politicians use further revenues for financing such investment at the cost of other expenditures or by raising revenue through taxation. Moreover, Figure 4 shows that the low- and medium-debt EU countries already complied, on average, with the proposed balanced budget condition for primary expenditure between 2015-2019. Highly indebted countries, by contrast, would need to balance their primary current budgets by increasing their revenues, reducing their relatively high levels of primary expenditure (Figure 3), or by shifting other current expenses towards higher public investment. Highly indebted countries have higher primary expenditure as

Fiscal Balance (Expenditure excl. Net Investment)



Notes: Financial balance describes the difference between total government revenue and total

government expenditure without net investments. Source: Blesse et al. (2023b); Eurostat.

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a share of GDP than low- and medium-debt countries in the EU. The incentive to use the modified golden rule's allowance for debt-financed investment may, however, foster highly indebted countries to implement structural reforms.

Spending decisions are ultimately at the discretion of policymakers. They can decide which priorities they want to set in their spending policy within their fiscal leeway. However, adjusting the EU fiscal framework by including the modified golden rule for public investment with the two pillars may well increase incentives and fiscal leeway for larger public investment to foster the EU's green and digital transitions (as intended by the European Commission), while ensuring fiscal sustainability through sticking to deficit and debt rules. Countries would have an incentive to change the composition of their spending, by shifting a share of it towards sustained public investment, while keeping overall spending unchanged, ensuring fiscal sustainability in the process.

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Implementing a golden rule for net investment could be complex. In the EU, a standardized statistical system for the valuation of the capital stock and its depreciation would be required. This is already done for the compilation of financial statistics among EU member states. These methods can be continued for reporting net investment across member states. However, some may favor a regular valuation of the individual capital stocks and depreciations across assets and countries to report the real economic value and costs To ensure transparency and comparability across countries, all countries would then need to implement an accrual-based public sector financial accounting system based on harmonized European accounting standards (as set forth by the European Public Sector Accounting Standards, EPSAS). However, implementing an accrual-based accounting system in the public sector and a harmonized system like EPSAS may entail high additional implementation and administration costs and possibly lead to lower public investment (see Dorn et al. 2021).

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