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Impact of fiscal institutions on public finances in the European Union: Review of evidence in the empirical literature

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Abstract: This paper examines the impact of budgetary institutions on public finances in the European Union on the basis of a critical survey of the relevant theoretical and empirical literature. In general, the authors find that fiscal institutions (namely fiscal rules) have successfully contributed to greater fiscal sustainability, reduced procyclicality of fiscal policies within the EU, and increased national ownership of fiscal rules by strengthening national fiscal frameworks. A fiscal reaction function was one of the widely used methods to determine the principal variables affecting fiscal outcomes. Some authors used cyclically-adjusted fiscal outcomes as the dependent variable representing the discretionary fiscal policy-making whereas others put emphasis on other fiscal outcomes. The samples of countries covered mostly the EU Member States, representing rather homogenous samples in the context of common EU fiscal framework. Institutional aspects used as independent variables differed significantly among authors and some could be added for future research. Based on the literature survey, several recommendations were made for fiscal policy-making.

Keywords: Deficit Bias, European Fiscal Framework, Fiscal Governance, Fiscal Institutions, Fiscal Outcomes, Fiscal Rules, Stability and Growth Pact

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Introduction

In the Economic and Monetary Union (EMU), monetary policy has been conducted at the supranational level by the European Central Bank (ECB) to address the time-inconsistency problem and to ensure price stability in a credible manner (Kydland and Prescott, 1977; Barro and Gordon, 1983; Rogoff, 1985). Fiscal policies, on the other hand, have remained a matter of the national level. The last economic and financial crisis proved that fiscal policies of the EU Member States are a matter of common interest in the EMU. Each country of the European Union (EU), and especially in the euro area, depends on one another in terms of economic growth and inter alia their ability to absorb economic

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shocks. Generally, in currency unions, the consequences of deficit bias can be reinforced through negative spillover effects (Allen and Gale, 2000) and upward pressures on interest rates (Beetsma and Bovenberg, 1998). Furthermore, it is the responsibility of the Member States to ensure proper coordination of fiscal policies as well as the sustainability of public finances (including a sound level of public debt). The fiscal automatic stabilisers to cushion economic shocks should be primarily attributed to the national level. Moreover, the Member States ought to assume an appropriate fiscal stance in order to avoid procyclicality of fiscal policies (European Commission, 2018a).

Overall, responsible fiscal policies should be conducted in full respect of the European fiscal framework. This framework, designed to contain public sector deficits and reduce public sector debts in the EU Member States, is integrated inter alia in the Treaty on the Functioning of the European Union (TFEU) and in the Stability and Growth Pact (SGP). These two make essential parts of the current European fiscal framework. The legislative acts integrated into the "Six-Pack" and the "Two-Pack", and the Treaty on Stability, Coordination and Governance in the EMU (TSCG, often referred to as the Fiscal Compact) have brought several adjustments in the fiscal framework. Its aim is to promote sound public finances and ensure the sustainability of public finances in the Member States. The emphasis is also put on enforcement mechanisms and national ownership of fiscal rules. Although the same fiscal framework is designed for all Member States, the application of fiscal rules and fiscal targets varies across countries (see for instance Beetsma and Larch, 2019; Hallerberg et al., 2009; Majone, 2014; Pisani-Ferry, 2011).

In practice, the level of deficit and debt often exceeded the TFEU reference values, especially after the outbreak of the global financial crisis. While all but three Member States registered excessive deficits in 2010[2], all of them respected the deficit criterion in 2018 (except for Cyprus due to one-off support measures related to the Cyprus Cooperative Bank sale). However, such correction of excessive deficits resulted mainly from favourable macroeconomic conditions, revenue windfalls and lower interest rates rather than from fiscal adjustment efforts. Such development was similar to the evolution of the public debt: whereas the debt-ratios of the EU and euro area increased to almost 90 % of GDP between 2009 and 2014, it started to diminish in 2015 in the context of higher primary balances, economic growth and historically low interest rates[3]. Furthermore, the development of public debt has diverged significantly among the Member States since the last financial crisis. In 2019, about half of the Member States registered debt levels below 60 % of GDP while in some other EU countries debt levels remained around or above 100 % of GDP. Such development in public finances suggests that the application of fiscal rules did not make a material difference in cases where enforcement of fiscal discipline was needed the most. (EC, 2020a)

The Covid-19 pandemic puts the application of the current fiscal framework in an unprecedented context full of uncertainties and puts the policy-makers in an extremely difficult position, regarding the provision of specific and credible fiscal policy orientation. Since March 2020, the general escape clause (EC, 2020b), embedded in the SGP since

[2] At the aggregate EU level, the headline deficit exceeded 6 % of GDP in 2009–2010.

[3] In general, decrease in debt-to-GDP ratio after an economic crisis may be supported with inflation or politically feasible debt restructuring.

2011, has allowed the EU Member States to temporarily reorientate their fiscal policies in the light of tackling the health and economic consequences of the pandemic as the number one priority. As a result of the functioning of automatic stabilisers and the sizeable discretionary fiscal measures introduced to tackle the health crisis and mitigate the economic and social impact of the pandemic, the headline deficit is forecast to increase at EU and euro area level respectively to 8.4 and 8.8 % of GDP. The impact of the pandemic is expected to be much higher than the one of the financial crisis (EC, 2021, 2020c). In the period of 2020–2022, the deficits are expected to remain (well) above 3 % of GDP in more than half of the EU Member States. All of them (except for Bulgaria) are set to break the deficit criterion in 2020. In 2022, a deficit above the reference value is estimated for almost two thirds of the Member States. The debt ratios are definitely set to rise as well due to the covid-crisis in the EU and euro area (to almost 94 % and 102 % of GDP respectively). In the period of 2020–2022, the debt is expected to be lower than 60 % of GDP only in about 10 EU countries, while in the case of seven Member States it should (dramatically) exceed 100 % of GDP. Primary deficit is expected to be the key driver of such increases in debt (EC, 2021).

Despite the above-mentioned forecasts of the deterioration in public finances, the escape clause neither suspends the procedures of the SGP, nor does it mean that fiscal rules will cease to exist after the pandemic. Without pre-empting the size of future fiscal adjustments, the increased public deficits and debts across the Member States will have to be dealt with after the pandemic, thus the significance of institutional aspects of fiscal surveillance is still worth looking into.

The growing academic and professional interest in the fiscal institutions in the EU has been evident for more than three decades. In this paper, fiscal institutions mean different institutional aspects of fiscal surveillance in the EU, namely fiscal rules, budgetary procedures, independent fiscal institutions or medium-term budgetary frameworks, as assumed by EC (2014). There is a substantial amount of research on the fiscal rules and forms of governance in the EU (such as Kopits and Symansky, 1998; Annett, 2006; Afonso and Hauptmeier, 2009; Hallerberg et al., 2004; Beetsma and Larch, 2019; Larch et al., 2020 or EC, 2020d). Previous work related to their impact on the public finances in the EU is also relevant to this paper.

The aim of this paper is to provide an overview of empirical studies mainly on the fiscal rules and forms of governance and their impact on public finances by conducting a critical survey of literature covering a different variety of countries (from 14 to 47) and time periods (from 14 to 48 years). The questions relevant to this article are as follows: What is the among-authors-agreed influence of the fiscal rules and forms of governance on fiscal outcomes in the EU? What could be the recommendations for the policymakers for conducting fiscal policies in the EMU?

The first section provides an overview of the history of the European fiscal framework from its inception in 1997 until the application of the general escape clause in 2020. The second section reviews the rationale for the need of institutional aspects of fiscal surveillance. The third one provides an overview of the theoretical and empirical literature on fiscal rules and fiscal governance and their link to fiscal outcomes. It also discusses methodological approaches to estimating the impact of institutional aspects on fiscal outcomes.

The last section provides recommendations for fiscal policy-making derived from the literature review.

Evolution of the EU framework of fiscal surveillance: a brief overview

The macroeconomic rationale for adopting the EU fiscal rules was that the macroeconomic stability in a single monetary area would be smoothly maintained in the environment of low and stable inflation and sound public finances. While the monetary policy in the euro area has been held within the competence of the ECB as a centralized supranational institution, there was a lack of political agreement on centralizing the fiscal policy.

This is why the commonly agreed EU fiscal rules (known as the Stability and Growth Pact) have been adopted to limit the fiscal policy-making of the EU countries and maintain long-term fiscal sustainability. Such attempts took the form of addressing gross policy errors (i.e. the budgetary deficit exceeding 3 % of GDP or public debt higher than 60 % of GDP which is not sufficiently diminishing towards its reference value). The lack of flexibility (including an absence of an escape clause) and strict orientation on headline deficit took their toll in the early 2000s: larger EU countries (in terms of population, namely Germany and France, supported by Italy) expressed their discontent with such strict framework in November 2003, which eventually led to its first revision in 2005. The lack of compliance occurred contrary to the expectations at the inception of the SGP.

Therefore, the SGP was reoriented from the headline to structural deficit in order to better take into account country-specific characteristics. In 2011, the "Six-Pack" (i.e. five regulations and one directive) was adopted, followed by the "Two-Pack" in 2013 (i.e. two regulations applicable to euro area countries). In sum, these successive reforms have changed the fiscal framework in the following aspects (Beetsma and Larch, 2019): first, the fiscal rules have gained a great deal of flexibility, considering the economic rationale and the need for economic stabilisation, mostly at the expense of fiscal sustainability. Second, the fiscal surveillance eventually turned to a tighter set of surveillance steps (largely embedded in the European Semester), having also led to a complex set of sanctions that have almost never been used in practice[4]. The tightening of surveillance was designed to compensate for the increased flexibility of fiscal rules. Third, the Commission has acquired competences in the fiscal surveillance process, turning fiscal surveillance rounds often into the unilateral and rather political application of fiscal rules. And fourth, the "Six-Pack" and "Two-Pack" reforms (together with the TSCG) led to requirements for national ownership of fiscal surveillance, inter alia through national numerical fiscal rules and independent fiscal councils, which were designed, in general, to provide an independent assessment of fiscal policy-making. One would assume that the current fiscal framework is so

[4] In 2012, part of commitments from the Cohesion Fund was suspended for Hungary.

complicated that only a few would understand the whole set of rules, together with all the exceptions embedded in it[5].

In February 2020, the Commission published the Economic Governance Review (EC, 2020a), assessing the rules embedded in the "Six-Pack" and "Two-Pack." This was supposed to be followed by a consultation process with stakeholders, and an overall assessment of the need for changing the relevant EU secondary legislation. Nevertheless, the outburst of the pandemic, which led to activating the general escape clause (the SGP´s element of flexibility for a case of a severe economic downturn in the EU or the euro area as a whole), led to a postponement of the consultation process.

The above-mentioned escape clause does not mean suspension of procedures under the SGP, and after being deactivated, the fully-fledged application of fiscal rules will be needed in the context of future fiscal consolidation. The significance of institutional aspects is therefore worth looking into, taking into account their rationale explained in the following section.

Rationale for fiscal institutions

The current theoretical and empirical literature focuses on the reasons why fiscal institutions (like fiscal rules and forms of fiscal governance) are needed. In general, fiscal institutions have been designed to contain public sector deficits and reduce public sector debts in the EU Member States. The rationale of fiscal rules has been explained by several authors. As noted by Kopits and Symansky (1998, pp. 22), "The rationale for fiscal policy rules (mainly in the form of various balanced-budget rules borrowing rules, and debt rules) rests primarily on the need for macroeconomic stability, support of other financial policies, long-term sustainability, reduction of negative spillovers, and overall policy credibility." Although most of these objectives could be met with discretionary fiscal measures, well-designed fiscal policy rules may be successful in countering political pressures on fiscal policymaking. These rules should be helpful in correcting the tendency of democratically elected governments to run budget deficits and to accumulate public debts. In other words, the fiscal policy framework should at least limit the governments' built-in bias toward excessive deficit and debt. In addition, fiscal rules should support countercyclical fiscal policies. They should be pursued even in times of economic depressions, however, the question is whether that should also apply to countries in precarious fiscal conditions, i.e. with public debts of 60 % of GDP and government deficits at 3 % of GDP. Such countries would need more time to converge towards the relevant fiscal rules, without loosening the existing ones (Tanzi, 2005).

Kydland and Prescott (1977) claim that discretionary fiscal policy is not appropriate in economic planning. The decision-making of economic agents depends on their expectations regarding future policy, which are unchanged regardless of the political plans chosen. The authors found that active stabilization steps could lead to destabilization of the economy. The inconsistency between discretionary policy steps and economic agents'

[5] The fiscal question: What next for the EU's fiscal rules? In: *The Economist* [online]. 31 October 2020 [Accessed 27 November 2020]. Available from: https://www.economist.com/finance-and-economics/2020/10/31/what-next-for-the-eus-fiscal-rules.

behaviour suggests that fiscal policy-makers should adhere to commonly agreed rules instead of pursuing discretionary policies.

Blinder (1997) deals with the issue of the political nature of the government, specifically in the US. The source of separation between the elected representatives from the US population is the voters' feeling that the governance process has become too political, and that the politicians do not focus much on solving problems. The biggest problem here is the excessive commitment of the government to those with political influence, often at the cost of public interest. However, the author does not see a solution in depoliticizing the government but in the separation of aspects to be dealt with by the government, and those to be left to the technical level. For instance, certain administrative bodies and institutions could be responsible for economic policy-making at the technical level, such as the Federal Reserve (Fed). However, Hardin (1968) points out that some problems cannot be solved at the technical level, especially in the context of strategic games (e.g. the armament of two political powers). In this case, technical solutions could even aggravate the problem.

A large body of theoretical and empirical literature offers further explanation for the rationale of fiscal rules, for example, Hallerberg et al. (2004), Annett (2006), Velasco (1999), Hallerberg and von Hagen (1999). First, the essential idea of the institutional approach to public budgeting is to recognize the common pool problem. The point is that government spending is targeted at a certain group of society even though such spending is financed by all tax-payers. Therefore, only the individuals benefitting from a certain policy programme realize the full benefit of such programme despite the costs being shared by the whole population of a country. Moreover, democratically elected politicians, representing a large variety of voters with diverging interests, have no incentives to constrain the government spending. These situations are typical for modern democratic states, where policymakers are generally tempted to excessive spending for the sake of the electors they represent and those who benefit from the public policy programmes as they do not bear its entire costs. This makes an externality problem in a form of excessive deficit and debt, and delayed stabilisation (Velasco, 1999; Hallerberg et al., 2004; Annett, 2006). Furthermore, as explained by Annett (2006), the general public tends to be less myopic than politicians, especially if the current politicians follow their own interest of being re-elected rather than dealing with the effects of accumulating debt in a long-term horizon. This means that the tendency to loosen fiscal policy may result in a deficit bias. Moreover, voters may not acquire a full understanding of the intertemporal budget constraint (e.g. the fiscal impact of ageing).

In the European environment, the tendencies of excessive spending and running large deficits grow stronger with the number of representatives with autonomous spending decisions, who pursue their individual spending interests. This leads to fragmentation in fiscal policy-making as a result of a coordination failure (Hallerberg et al., 2004). Annett (2006) confirms that, in general, deficit biases may be stronger in a monetary union: since the exchange rate risk (and therefore interest premium risk) is no longer relevant, fiscal discipline is likely to be less stringent. The common pool problem is more profound in a monetary union where failing to follow such discipline could lead to inflationary pressures and increasing interest rates, all of which would get the common monetary policy under pressure.

A wide range of literature shows many other factors strengthening the deficit bias in advanced economies, like Annett (2006), Annett, (2002), Kontopoulos and Perotti (1999), Grilli et al. (1991), de Haan et al. (1999), Roubini and Sachs (1989), or Alesina and Perotti, (1995). These include inter alia coalition governments, short durability of governments, proportional electoral systems, a high number of spending ministers, or electoral uncertainty. The electoral system associated with proportional representation especially is a significant feature leading to fragmented governments as well as the abovementioned common pool problem. This could be exacerbated by fragile budgetary institutions (Annett, 2006).

Fiscal institutions and their impact on public finances in the EU

Fiscal rules and their impact on public finances in the EU

The existing literature deals with the question of overcoming deficit biases and the issue of high public debt, for example by adopting formal fiscal rules in order to constrain the discretionary fiscal policy. Results of numerous studies explain the effect of fiscal rules on fiscal outcomes, including those in the EU countries.

Firstly, the positive effect of fiscal rules on fiscal positions, i.e. on the budget balance and on the debt ratio, may be pointed out. According to EC (2018b), the fiscal framework seems to have contributed to greater sustainability of fiscal positions. Their research involves monitoring the evolution of the EU Member States' average debt ratio from 1985 to 2017, taking into account various factors of debt ratio dynamics (i.e. cyclically-adjusted primary balance, cyclical budget component, snowball effect and stock-flow adjustments). The average debt ratio in the EU grew more slowly than in the US or Japan, mainly due to a more prudent implementation of discretionary fiscal policies. Until 2007, public debt for the EU average increased to around 60 % of GDP (compared to around 65 % of GDP in the US and 185 % of GDP in Japan). In 2017, the debt ratio stabilized at around 83 % of GDP (compared to around 110 % of GDP in the US and 204 % of GDP in Japan). Such differences in debt development were particularly evident after the introduction of the SGP. The key factor contributing to the reduction in the debt ratio was the tightened discretionary fiscal policy, measured with cyclically-adjusted primary balance. Next, EC (2018b) describes debt dynamics at the EU Member States level, while comparing the debt level between 2007 and 2017. Despite the growth period following the Great Recession, debt levels were mostly close to their historic peaks, especially in highly indebted countries like Italy, Spain, France or the United Kingdom. Nonetheless, debt developments and their drivers remained highly country-specific. Apart from that, a comparison of key fiscal outcome variables before and after the introduction of a certain EU fiscal rule was carried out (e.g. comparison of debt reduction dynamics before and after 2011, as debt reduction benchmark was introduced in 2011). EC (2018b) proves that the Member States with large budgetary deficits significantly reduced their deficits after the introduction of the deficit reference value (3 % of GDP), with the exception of the Great Recession. Despite the fact that 24 Member States fell into the Excessive Deficit Procedure (EDP), Spain was the only one to remain in the EDP in 2018. Furthermore, EU Member States also advanced significantly in terms of structural balances towards their medium-term budgetary objectives (MTOs) after having reformed the SGP in 2011. In addition, the evolution of public spending seems to be better controlled through the expenditure benchmark which was also introduced in the same year. All the above-mentioned elements indicate that the European fiscal framework seems to have contributed to building more prudent fiscal policies in the EU Member States, but EC (2018b) carried out a preliminary research, and a more thorough analysis would be needed to establish a causal relationship.

Casselli et al. (2018) present evidence of well-designed fiscal rules constraining excessive deficit bias. Their research is oriented on 33 EU Member States and candidate countries covering the period from 1970 to 2016, and focused on the causal link between the adoption of a 3 % general government deficit ceiling and the level of deficits. In terms of causality, a simple comparison between countries with the above-mentioned reference value and those without it would be insufficient. This is the reason why they constructed a counterfactual sample considering the alternative assumption that the EU Member States had not adopted such fiscal rule. To construct such a sample, they used a treatment effects methodology, giving more weight to observations in the "no-fiscal rule" group with a greater probability of adopting the rule. These steps led to creating a counterfactual sample with qualities similar to the original group with the fiscal rule. They concluded that better designed fiscal rules tend to lead to budget balance. *"Rules seem to affect countries with low and high fiscal balances in opposite directions, suggesting that they exert a "magnet effect""* (Caselli et al., 2018, pp. 28). This "magnet effect" shows a difference between countries that adopted the 3% deficit ceiling and those without such a rule. About 20 % of the original sample was found near the 3 % deficit ceiling in comparison to the counterfactual sample. In addition, 22 out of 28 EU Member States showed that their budgetary position improved due to the deficit rule. The authors come to the conclusion that a higher concentration of the distribution of government deficits has been found in the sample of countries with the rule. In other words, there are few countries with very high deficits and few countries with very high surpluses.

Afonso and Hauptmeier (2009) used a panel data analysis to assess the factors of government's fiscal behaviour for the EU-27 Member States in the period from 1990 to 2005. Their method of panel regressions took the form of fiscal reaction functions, focusing on two dependent variables: primary balance and primary spending. They found out that the EMU and SGP arrangements have a statistically favourable impact on fiscal positions, which could be explained by the Member States' steps to comply with the European fiscal framework. Independent variables covered inter alia EMU and SGP dummies, as well as variables for fiscal rules (i.e. general government fiscal rule, central government fiscal rule, sub-national government fiscal rule and budget balance fiscal rule). On the other hand, the authors have not proved any statistically significant impact of EMU and SGP arrangements on primary spending. They also come to the conclusion that in the case of the debt-to-GDP ratio below 80 %, a stronger overall fiscal rule helps to increase the primary budget balance. They note that apart from fiscal rules, a lower degree of public spending decentralization is another factor that positively contributes to greater responsiveness of primary balances to the debt-to-GDP ratio.

Kopits and Symansky (1998) pointed out the great diversity of fiscal rules across countries: Some rules tended to be useful, some were only complementary to the existing discretionary measures, and some were almost ineffective in terms of the budget deficit and debt ratio. Their research points to the mixed effects of fiscal rules. For example, the convergence of budgetary deficits towards the EU reference value (3 % of GDP) seems to have contributed to a decrease of interest rates, confirming the sensitivity of interest rates to the balanced-budget rules observed in the US. However, these rules were met by a reduction in investment spending, higher taxes or one-off measures rather than structural reforms in public finances. They add that the effect of the deficit-ceiling rule or the balanced-budget rule on the output variance was only slightly higher than in the absence of rules with automatic stabilizers. A similar result was observed when targeting the debt ratio. To draw these conclusions, the authors conducted a set of stochastic simulations for seven advanced economies[6], based on economic shocks derived from historical data (covering the period of 1974 to 1995), to confirm the likely effects of different rules on economic performance.

Annett (2006) used a fiscal reaction function to determine the influence of fiscal rules on fiscal outcomes, using cyclically-adjusted primary balance as the dependent variable, on the sample of all EU Member States (without Luxembourg) between 1980 and 2004. This model includes not only key economic variables related to discretionary fiscal policy (e.g. output gap, lagged debt and growth volatility), but also relevant institutional variables, especially dummies for commitment and delegation approach of fiscal governance (explained below). In order to find out whether fiscal policymaking had changed after the introduction of the fiscal framework, 1992 was considered a dividing point for further regressions related to the development before and after signing the Maastricht Treaty. Annett (2006) concludes that a rule-based framework can effectively limit the politically motivated steps of fiscal policy. There are several factors that contributed to the effectiveness of the SGP, namely the political costs of breaching commonly agreed fiscal rules in the contract-approach states. Member States with greater volatility of economic growth had similar results: they saw some advantage in compliance with the credible supranational framework. Smaller Member States were more accepting of the peer pressure from the other Member States to avoid the reputation costs of non-compliance with commonly agreed rules.

The fiscal reaction function has also been used by other authors (e.g. Gali and Perotti, 2003; Balassone and Francese, 2004; Baldi and Staehr, 2016). Baldi and Staehr (2016) focused on fiscal performance (measured as primary balance) of EU Member States, using quarterly data before and after the outbreak of the global financial crisis (i.e. the period of 2001–2008 and 2009–2014 respectively). The results showed inter alia that fiscal reactions of Member States had become more prudent in times of crisis, despite large deficits and a severe debt accumulation. On the other hand, this research does not provide an explanation as to whether these results have been achieved by respecting fiscal rules.

Furthermore, the impact of fiscal rules on the cyclicality of fiscal policies was examined. According to EC (2018b), compliance with the current fiscal rules has apparently reduced the pro-cyclicality of the EU Member States' fiscal policies. The cyclicality of fiscal policies was estimated using a panel data analysis, which was targeted at EU28 countries for the period from 2000 to 2018. The indicator used for measuring the economic cycle was the output gap. The structural primary balance, which measured the fiscal effort, was used as the dependent variable in the fiscal reaction function. Member States that meet the

[6] These included four European countries (Germany, the United Kingdom, France and Italy). The remaining three countries were the United States, Japan and Canada.

requirements set out in the preventive arm of the SGP (i.e. fiscal adjustment towards the MTO) tend to conduct less pro-cyclical policies. Avoiding high budget deficits apparently also leads to a reduction in procyclicality (Member States with a deficit above 3 % of GDP showed greater pro-cyclicality). In addition, compliance with the reference value of the debt ratio (60% of GDP) and the debt reduction benchmark introduced to the SGP in 2011 also led to lower pro-cyclicality. However, these results differ from one Member State to another.

Gali and Perotti (2003) estimated the consequences of fiscal rules on the cyclical aspects of discretionary fiscal policy for the period from 1980 to 2002 in 14 EU countries and 5 OECD countries outside the EU. The dependent variable was the structural balance as an indicator of discretionary fiscal policy. They demonstrate the positive impact of fiscal rules on counter-cyclical policies in the post-Maastricht period. Balassone and Francese (2004) observed fiscal policiesˈ reactions to cyclical conditions on a sample of 16 OECD countries (i.e. 14 EU Member States plus the USA and Japan) between 1970 and 2000. The dependent variable used was the general government balance. They conclude that the budget balance was reduced during the recession, and did not increase during expansion. In their view, this asymmetry in the fiscal policy response seems to contribute significantly to debt accumulation. The only fiscal variable was the dummy after Maastricht. They have found no evidence that the EU fiscal rules impaired the EU countriesˈ ability to conduct stabilizing fiscal policies.

Larch et al. (2020) investigated the determinants of procyclical fiscal policies, using panel data covering 47 EU and non-EU countries in the period from the early 1970s until 2017. Apart from having confirmed the existence of procyclicality, they also proved that the uncertainty related to output gap estimates does not properly explain pro-cyclical behaviour. Instead, cyclical indicators observable in real time give a more plausible explanation of unfortunate timing in discretionary fiscal stabilisation. Furthermore, they proved the existence of a trade-off between stabilization and fiscal sustainability in a certain pattern: for countries exceeding a certain level of public debt, it is the sustainability objective that is pursued to the detriment of stabilization. In other words, procyclicality is more prominent in high-debt countries, which failed in building fiscal buffers. And last but not least, although the design of the EU fiscal framework is important, it is the compliance with such a framework that matters more. Despite the past reforms of the EU fiscal rules which led to greater consideration of the country-specific cyclical situation, no rule can deliver the objective of stabilising output with discretionary policy measures if not complied with.

EC (2020d) used counterfactuals to estimate the development of the six largest euro area countriesˈ debt-to-GDP ratios in the period from 1999 to 2019, assuming full respect of the preventive arm of the SGP (i.e. respecting MTO/structural fiscal adjustment requirements and expenditure benchmark). They come to the conclusion that the government debt would have declined to around 53 % of GDP in 2007 (i.e. by more than 20 pps. lower compared to the baseline scenario). Following the outbreak of the economic and financial crisis, the debt would have reached approximately 63 % of GDP before falling to around 53 % again in 2019. Both the structural balance and expenditure benchmark led to similar results. EC (2020d) also focused on the impact of economic cycles on fiscal effort (in the form of both structural balance and expenditure benchmark), using a fiscal reaction function. They focused on all 28 EU Member States over the period of 2000 to 2019, and conclude that full compliance with the preventive arm of the SGP would have led to acyclical discretionary fiscal policy in a counterfactual scenario while the EU expenditure rule (expenditure benchmark) seemed more reactive to the economic cycle than the fiscal effort measured with the structural balance.

EC (2018b) highlights a positive and statistically significant impact of national fiscal rules (i.e. fiscal rule index as an explanatory variable, period of 1990–2015) and medium-term budgetary frameworks (i.e. MTBF index as an explanatory variable, period of 2006–2015) on cyclically-adjusted primary balances, which implies that stronger ownership of fiscal rules at national level fosters fiscal discipline in the EU Member States.

Forms of fiscal governance and their impact on public finances

Apart from fiscal rules, a wide range of theoretical and empirical literature explains the influence of fiscal governance on public finance in EMU (Hallerberg et al., 2004; Hallerberg and von Hagen, 1999; Poterba and von Hagen, 1999; Annett, 2006). The authors describe two approaches to overcoming the common pool problem and achieving the necessary level of coordination: the delegation approach and the contract approach (Hallerberg et al., 2004). The former means delegation of significant budget-related competencies to a decision-maker who is less bound to specific interests in public spending than other representatives (typically the minister of finance). The contract approach, on the other hand, means that the coalition parties negotiate the set of key budgetary parameters, and then agree on the final form of the budget. The fiscal targets should be considered binding, the minister of finance should have the role of monitoring and enforcing their implementation. The parliament should check the compliance of the government with these targets, and also correct the governmental budget proposal during the approval process. According to Hallerberg and von Hagen (1999), each of the abovementioned approaches is appropriate for a different type of government: the delegation approach would be suitable for single-party governments or coalition governments with ideologically like-minded members whereas the contract approach would better fit in multi-party coalition with rather wide ideological distances. Apart from these two approaches, which refer only to majority governments, a mixed form of governance exists, which seems to suit most minority governments.

Hallerberg et al. (2004) first take into consideration the electoral systems as well as party constellations of the EU Members States' governments. In the following step, they concentrate on fiscal rules and the structure of budgetary processes in Europe: they focus on the structure of fiscal rules and the budget processes as the institutional correlate of the two alternative approaches in budgetary coordination. And last, they estimate the impact of the fiscal rules and forms of governance on the annual change of the debt-to-GDP ratio in a panel data analysis where the number of EU countries considered was 15 and the period covered was 1985–2001. Their findings confirm the influence of institutional patterns on public finances: the contract approach seems to be less effective for fiscal sustainability than the delegation approach.

Annett (2006), similarly to Hallerberg et al. (2004), explains the abovementioned three approaches (including the mixed approach) to overcoming the deficit bias. Furthermore, using these institutional approaches to achieve a certain level of budgetary coordination points to an increasing significance of tying the policymakers' hands by giving more competencies to independent institutions (i.e. the councils of independent experts, whose job is to ensure the sustainability of public finances). There are several options of competencies that could be delegated to independent fiscal institutions, such as the production of macroeconomic and fiscal projections and preparation of normative assessments of fiscal policies in order to, practically, mark up reputational costs without possessing any kind of formal fiscal policy power (Annett, 2006). Using dummy variables for contract and delegation states, Annett (2006) discovers that the contract approach contributed more to fiscal sustainability (in terms of cyclically-adjusted primary balance) in the post-Maastricht period, while delegation forms proved to be more effective before the Maastricht Treaty.

Independent fiscal councils and their impact on public finances

Independent fiscal councils are institutions whose role is generally to promote sound and sustainable public finances through several functions. These include public assessment of fiscal performance and fiscal planning or evaluation (or provision) of macroeconomic and fiscal forecast (IMF, 2013).

IMF (2013) has proved with applied panel regressions that certain aspects of fiscal councils have a significant positive impact on the primary balance. These elements include legal independence of fiscal councils, monitoring the compliance with fiscal rules, assessment of the provision of macroeconomic (and fiscal) forecasts, and high presence of media. The data used in econometric analysis cover 58 advanced and emerging economies (out of which only about 50 % have established a fiscal council) in the period 1990 to 2011. The elements mentioned above are expressed as dummy variables. However, the sole existence of fiscal councils is apparently insufficient in this context, as also demonstrated by Hagemann (2011). EC (2006), together with Hagemann (2011) point to an apparent positive influence of fiscal councils on budgetary outcomes (namely cyclically-adjusted primary balance, change in gross debt and change in expenditure), having compared OECD countries with fiscal councils to those that have not established any fiscal council. The period covered was 1995 to 2005.

Debrun and Kinda (2014) have applied a panel regression, covering 58 advanced and emerging economies from 1990 to 2011, as performed by IMF (2013). They have applied a fiscal reaction function, using the primary balance as the dependent variable as well, like IMF (2013). They have also come to the same conclusions regarding the abovementioned specific aspects of fiscal councils and their budgetary impact. They were also unable to prove any fiscal impact of the sole existence of fiscal councils.

Discussion on methodology

The previous part shows a broad variety of methodological approaches to estimate the impact of fiscal policy rules and institutional settings on fiscal outcomes. The selection of the cited literature in this part has been based predominantly on the use of the *fiscal reaction function* approach. This method was the one most widely used, which was the case of Gali and Perotti (2003), Balassone and Francese (2004), Annett (2006), Afonso and Hauptmeier (2009), IMF (2013), Debrun and Kinda (2014), Baldi and Staehr (2016), EC (2018b), EC (2020d), and Larch et al. (2020). Approaches among these authors differ significantly, mainly if they used such approach to examine fiscal sustainability or procyclicality of fiscal policies. This has led to another selection criterion: the choice of the dependent variable (i.e. whether a fiscal indicator (net of cyclical component) or an output indicator was used). The selection has also been made on the basis of whether the sample was oriented on the EU Member States. However, in the interest of a comparison, authors using other methods and different samples have been considered.

First, it is the choice of the indicator as a dependent variable that should reflect the discretionary fiscal policy-making in cases where the impact on conducting discretionary fiscal policy is being assessed. In this respect, Gali and Perotti (2003), Annett (2006), EC (2018b), EC (2020d), Larch et al. (2020) use the following indicators net of cyclical component: structural balance, structural primary balance and cyclically-adjusted primary balance. On the contrary, Balassone and Francese (2004) use general government balance which also reflects the cyclical evolution. Afonso and Hauptmeier (2009), IMF (2013), Debrun and Kinda (2014), and Baldi and Staehr (2016) use the primary balance or primary spending, which are net of debt service costs but still reflect the cyclical component. Second, they use a different variety of countries included in their research, ranging from 14 countries by Annett (2006) to 58 by IMF (2013), Debrun and Kinda (2014). The samples of countries covered mostly the EU Member States, representing rather homogenous samples that are expected for easier comparison and analysis since the EU Member States are bound by common rules embedded in the EU fiscal framework. This is not the case for Kopits and Symansky (1998) who performed stochastic simulations using only four European countries plus the US, Canada and Japan in their sample of advanced economies. Furthermore, the time series used in panel data regressions range from 14 to 48 years. And fourth, the institutional factors used as independent variables in fiscal reaction functions differ as well: for example, Afonso and Hauptmeier (2009) use mainly EMU and SGP dummies as institutional variables, Annett (2006) includes delegation and contract approach dummies while Gali and Perotti (2003) use "after Maastricht" dummy. Other dummies could be used considering the last reform of the EU fiscal rules in 2011. Furthermore, the "Two Pack" reform from 2013 may be used as a dummy for the euro area countries.

Fiscal reaction function approaches have been used not only for exploring the effects on the sustainability of public finances (as performed by Annett, 2006; Hallerberg et al., 2004; Baldi and Staehr, 2016), but also the effects on the cyclicality of fiscal policies, while the main independent variable used for measuring economic cycles is the output gap (as performed by EC, 2018b; Gali and Perotti, 2003; EC, 2020d and Larch et al., 2020).

Apart from fiscal reaction functions, other approaches were used to estimate the impact of institutional aspects of fiscal surveillance on fiscal outcomes. Kopits and Symansky (1998) use stochastic simulations of the development of general government debt and balance covering quite a long time period (22 years), but a fairly low number of countries (7) with rather heterogeneous economic and institutional structures. Similarly to Hallerberg et al. (2004), they use budgetary indicators that include cyclical component and may not be optimal for evaluating discretionary fiscal policies. EC (2018b) evaluates the evolution of public debt taking into account inter alia the cyclical budgetary component. They also compare the debt development to the US and Japan, however, other advanced economies could have been included in such comparison. EC (2018b) gives a word of caution that their research is preliminary and that causal analysis would be needed. Casselli et al. (2018) use a causal approach involving a counterfactual sample of countries having not adopted the EU reference deficit value, unlike EC (2018b).

Recommendations for the policymakers in the EU

Taking into consideration the apparent impact of fiscal rules on public finances, some general recommendations could be made for the policymakers in the EU. The full respect of the EU fiscal framework should be ensured, as compliance with the commonly agreed fiscal rules apparently leads to sounder fiscal positions. Nonetheless, in times of crisis, the use of the escape clause and flexibility embedded in the fiscal rules should be considered to cover only the necessary measures during the crisis period. Member States should conduct prudent fiscal policies in order to avoid pro-cyclicality so that necessary fiscal buffers are built up. Apart from that, emphasis on the fiscal frameworks at the national level seems a useful way forward so as to improve the national ownership of fiscal rules. This is closely linked to the role of independent fiscal councils, as they could play an important role in monitoring compliance and explaining to voters the consequences of breaching the commonly agreed fiscal rules.

Nonetheless, as shown in the introduction, the majority of the Member States is expected to exceed the deficit and debt reference values. Therefore, the consolidation towards such targets will not be easy, considering the significant uncertainties stemming from the pandemic and economic development in the near future. A balance will be needed between fiscal consolidation and fiscal support for economic recovery. The aim of fiscal rules is not only their formal compliance, but mainly their contribution to sustainable public finances. The political ownership in pursuing sustainable public finances might be developed in order to gain financial support from the Recovery and Resilience Facility (RRF), which has been in force since February 18, 2021. As stated in Article 19(3)(b) of the Regulation (EU) 2021/241, the Commission will assess the relevance of recovery and resilience plans, taking into account whether such plans are expected to address challenges identified in the country-specific recommendations (CSRs), which include fiscal aspects. According to all but one CSRs from 2020, fiscal policies should aim at restoring prudent medium-term fiscal positions and ensuring debt sustainability when economic conditions allow[7]. As shown in the literature review, the conduct of counter-cyclical fiscal policy should go hand in hand with building fiscal buffers, without a premature withdrawal of supportive fiscal measures, if the policy-makers aim for successful funding from the RRF.

Conclusion

In spite of the fact that the existing literature reveals mixed effects of fiscal institutions (specifically fiscal rules and fiscal governance) on public finances, there is a certain consensus in the past research. The European fiscal framework, together with the SGP, has apparently a positive impact on the government deficits as well as on public debt in the EU. The European fiscal framework has an apparently positive effect on fiscal sustainability in the EU, reduced pro-cyclicality of the EU Member States and strengthened fiscal frameworks at the national level. The authors, in general, have proved the statistically favourable impact of fiscal rules on fiscal positions of the EU Member States and, inter alia, the convergence towards the reference value of government deficit (3 % of GDP).

[7] 2020 Country Specific Recommendations: https://ec.europa.eu/info/publications/2020-european-semester-country-specific-recommendations-commission-recommendations_en

The rules have also helped to contain the public debt at a reasonable level. A fiscal reaction function is one of the widely used methods to determine the principal variables affecting fiscal outcomes, even though some authors use cyclically-adjusted fiscal outcomes (e.g. primary cyclically-adjusted balance) as the dependent variable whereas others put emphasis on other fiscal outcomes (like the change of the debt-to-GDP ratio). The authors use a different variety of countries (from 14 to 47 countries) and time periods (from 14 to 48 years) in their research. The samples of countries covered mostly the EU Member States, representing rather homogenous samples that are expected for easier comparison and analysis since the EU Member States are bound by common rules embedded in the EU fiscal framework. Other authors used a sample of countries with rather heterogeneous economic and institutional structures. Institutional aspects used as independent variables differ significantly among authors and some could be added for future research, like dummy variables of “Two Pack” for the euro-area countries. When it comes to the forms of fiscal governance, it has been proved that states with a commitment institutional approach tend to effectively limit politically-motivated steps in policymaking. The delegation approach was effective especially before the Maastricht period.

The following recommendations could be taken into account by the EU Member States: (i) full respect of the commonly agreed fiscal framework, (ii) rebuilding fiscal buffers in the context of preparation for the future economic downturn, (iii) avoiding procyclical fiscal policies, (iv) emphasis on the national ownership of fiscal rules. Nonetheless, in the context of crises (such as the Covid-19 crisis), escape clauses and flexibility embedded in the fiscal rules need to be considered. Taking into account the expected increase in headline deficits and public debt ratios across the Member States in 2020–2022, the right balance will have to be sought between the need for fiscal consolidation and fiscal support for economic recovery. After all, the aim of fiscal surveillance requirements (including the reference values for deficit and debt) should not be solely their formal compliance, but mainly prudent fiscal policy leading to building fiscal buffers in good economic times. In this respect, due consistency of recovery and resilience plans with fiscal requirements (implicitly stemming from the RRF regulation) may strengthen political ownership for successful funding from the Recovery and Resilience Facility.

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