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Tero, Kuusi; Päivi, Puonti

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Keep it simple, not stupid: How to save the EU fiscal framework?

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Keep It Simple, Not Stupid

HOW TO SAVE THE EU FISCAL FRAMEWORK?



Tero Kuusi

ETLA Economic Research tero.kuusi@etla.fi

Päivi Puonti

ETLA Economic Research paivi.puonti@etla.fi

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Abstract

In this paper, we describe key problems of the current EU's fiscal framework and offer constructive options for its reform. A comprehensive reassessment of the rules is necessary, as the development of the rules has reached an impasse for both political and technical reasons.

In our view, Europe needs fiscal rules to ensure the sustainability of public finances. In order to reconcile the freedom and responsibility of member states' fiscal policies, a balance must be struck in which the rules are simple enough to facilitate monitoring of compliance yet effective enough to mean that the need for cross-country bail-out measures is sufficiently rare.

Our conclusion is that the new rules should emphasise the long-term debt sustainability target more clearly, while at the same time making its monitoring more effective through better short-term indicators, in particular the expenditure benchmark. We provide a proposal for a practical implementation option which is largely consistent with the current rules. At the same time, the expenditure benchmark should be reformed in order to further its countercyclical impact on fiscal policy, and it should replace the structural balance as the operational indicator of fiscal policy stance.

Responsibility for economic policy decisions and their consequences should be fully restored to the Member States and the role of national supervisory bodies should be strengthened. Cross-country bail-out measures in times of crisis should be accompanied by strict conditionality that, in good times, the fiscal policy must be in line with the reformed EU framework.

Tiivistelmä

Keep It Simple, Not Stupid – Kuinka pelastaa EU:n finanssipoliittiset säännöt?

Esittelemme tässä raportissa nykyisten EU-sääntöjen ongelmia sekä tarjoamme rakentavia vaihtoehtoja sääntöjen uudistamiseksi. Niiden kokonaisvaltainen uudelleenarviointi on tarpeen, sillä sääntöjen kehitystyö on sekä poliittisista että teknisistä syistä ajautunut umpikujaan.

Jäsenmaiden finanssipolitiikan vapauden ja vastuun yhteensovittamiseksi on löydettävä tasapaino, jossa säännöt ovat riittävän yksinkertaisia, jotta niiden noudattamista voidaan helposti seurata, ja niiden valvonta on riittävän tehokasta, jotta yhteisvastuuseen päädyttäisiin riittävän harvoin.

Ehdotamme, että uusissa säännöissä nostettaisiin pitkän aikavälin velkakestävyystavoite selkeämmin esiin ja toteutettaisiin sen valvonta tehokkaammilla lyhyen aikavälin mittareilla, erityisesti menosäännöllä. Toteutustapa sisältyy pitkälti jo nykyisiin sääntöihin. Samalla menosääntöä tulisi muokata entistä vastasylkisemmäksi ja korvata rakenteellinen alijäämä finanssipolitiikan operatiivisena mittarina.

Vastuu talouspoliittisista päätöksistä ja niiden seurauksista tulisi palauttaa täysimääräisesti jäsenmaille ja kansallisten valvojien asemaa vahvistaa. Yhteisvastuuseen kriisien aikana pitäisi liittää tiukka ehdollisuus siitä, että nousukausilla finanssipolitiikan on oltava uudistetun sääntökehikon mukaista.

Ph.D. (Econ.) **Tero Kuusi** is a Research Director at Etla Economic Research.

Ph.D. (Econ.) **Päivi Puonti** is a Researcher at Etla Economic Research.

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Avainsanat: Finanssipolitiikka, EU, Finanssipolitiikan säännöt, Julkinen velka, Finanssipolitiikan viritys

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1 Introduction

The creation of effective common fiscal rules in a Europe comprised of sovereign nation states has proved to be a difficult task. The experience of recent decades shows that there are significant differences between European countries in terms of both their preferred fiscal policy and also the policy they implement in practice. Differences in economic conditions and structures and also in political preferences are all reflected in the large range of budgetary positions seen across the EU (Figure 1). Although efforts have been made for many years to guide the fiscal policy of Member States through common fiscal rules, public indebtedness within the EU has not, on average, fallen during economic upturns, nor have sufficient economic buffers been created for downturns.1 It is therefore justified to say that the current rules have failed in their goal of steering fiscal policy.

In this paper, we describe the key problems of the current EU fiscal framework and offer constructive alternatives for its reform. A comprehensive reassessment of the rules is necessary, as their development has reached an impasse

for both political and technical reasons. This situation is well summed-up in the words of Blanchard et al. (2021):

'It is an illusion to think that EU fiscal rules can be simple. But it is also an illusion to think that they can ever be complex enough to accommodate most relevant contingencies.'

Up to now, reform of the rules has mostly led to increased complexity. These reforms have produced a situation where the current EU fiscal framework is based on multiple levels of legislation. Its diverse quantitative objectives are not mutually compatible, and the Commission has acquired increased discretionary powers in relation to interpretation of and compliance with the rules. Rules on deficit and debt, which are easily understood by the general public, have in practice been replaced by the hard-to-understand and ever-changing structural balance objective. The rules have become too complex to be effective in substantially steering the policy process. There is therefore a clear need to simplify the rules.

At the same time, the implementation of a significantly simpler rules framework that can nevertheless take ac-

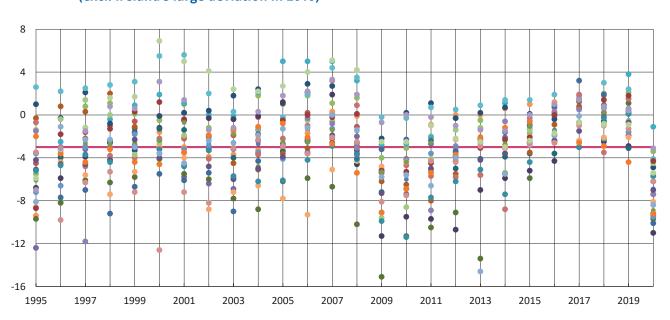


Figure 1 Budgetary positions of EU countries 1995–2020, % of GDP (excl. Ireland's large deviation in 2010)

The dots depict the budgetary positions of EU countries in different years. The **red line** marks the 3% deficit level contained in the rules. **Source:** AMECO database.

count of country-specific characteristics and changing economic conditions has also proved to be very challenging. Instead of simplifying the rules, the solution has been to increase the use of discretion in applying the current complex rules. The increased discretionary powers of the Commission, and the resulting decrease in the transparency of the framework, call into question the legitimacy of the rules as a whole. Decisions on public revenues and expenditures are at the heart of fiscal policy, and the political responsibility for these belongs to the elected governments and parliaments of EU countries. A supranational body such as the European Commission or European Council can give recommendations and guidance to Member States, but is not responsible for their consequences (De Grauwe, 2021).

In the current impasse, it would seem that the only alternative to quantitative rules is the use of general fiscal policy guidelines or verbal 'standards' that would relate to assessment of countries' debt sustainability, with the interpretation of these being left to national-level independent fiscal institutions (IFIs). (Debrun et al., 2019; Blanchard et al., 2021; De Grauwe, 2021). Underlying all of this seems to be ultimately the recognition that different countries should be able to pursue different fiscal policies and that there are perhaps no rules that are suitable for all.

The increase in discretionary powers is a problematic development, however, if it leads to the eurozone countries being effectively freed from any need to follow the fiscal rules. These rules, after all, serve important functions. They seek to limit the tendency of governments to run deficits and to steer them towards effective counter-cyclical measures and sustainable long-term fiscal policy (von Hagen, 2002; Fatás & Mihov, 2003; Beetsma & Larch, 2019). Free fiscal policy has a strong tendency to place more emphasis on short-term, domestic objectives than on longer-term, multi-country considerations (Kydland & Prescott, 1977; Debrun et al., 2018). Within the monetary union in particular, there are good reasons for having rules that guide nations towards responsible fiscal policy (Eichengreen & Wyplosz, 1998). At worst, a debt crisis caused by over-indebtedness can spread via financial markets to the other eurozone countries, causing negative external effects and even systemic shocks. The over-indebtedness of a Member State is also a risk to the independence of the European Central Bank (ECB), as the need to avoid a financial crisis may make it impossible for the ECB to refrain from going against its mandate and taking action to rescue the over-indebted state (Eichengreen & Wyplosz, 1998; Beetsma & Larch, 2019).

1.1 Reformed rules are needed to tackle rising public debt

We believe that Europe needs fiscal rules in order to stabilise rising levels of public debt. In order to reconcile the freedom and responsibility of member states in the realm of fiscal policy, a balance must be struck in which the rules are simple enough to make it possible and desirable to use them for steering such policy. This requires that compliance with them can be easily monitored and that the rules are effective enough that the need for cross-country bail-out measures is sufficiently rare.

At the same time, responsibility for economic policy decisions and their consequences should be fully restored to the Member States, and the role of national supervisory bodies should be strengthened. If Member States will not hand over economic policy powers to the EU, not even sanctions are a credible means of forcing sovereign states to act differently. As long as there is no desire to transfer significant powers to the EU or to other Member States, the starting point should be that each country is responsible for its economic policy, the measures it takes and the resulting consequences. Cross-country bail-out measures in times of crisis should nevertheless be tied to strict political and legislative requirements that the country's fiscal policy was in line with the rules when economic conditions were better. At the same time, the steering effect of market discipline must be restored, even though guidance of fiscal policy cannot be left to this alone.

The question of which fiscal policy indicators and rules should be used to guide fiscal policy is ultimately an empirical matter. What needs to be found are the indicators that most effectively provide the needed adjustment during upturns and the needed stimulus during downturns, thus enabling fiscal policies to remain both sustainable and counter-cyclical. We consider in the following section, in light of the available research data, how to improve EU fiscal rules. One of the structures proposed could broadly function within the EU fiscal framework already in place, and thus would not require any significant regulatory reforms.

Our central claim is that fiscal policy requires a credible medium-term operational objective which is pursued with determination and which, when achieved, can ensure a sustainable debt ratio in each member state. The lack of consistency within the current rules makes it difficult to achieve this objective and brings a need for greater clarity. For this purpose, assessment must be made of which indicators have proved effective and which have not. The important thing is to focus on effective indicators – and evidence of their success in guiding fiscal policy can also play a key role in improving the rules' credibility and levels of compliance.

2 Problems inherent in current EU fiscal rules

We next provide an assessment of the main problems encountered within the current fiscal rules. As an overall observation, it can be said that the current EU fiscal framework is a complex collection of overlapping rules in which certain components are also ineffective at achieving their purpose.

2.1 The current rules are complex

In order to be able to take any position on the functioning of the current EU rules, it is first necessary to provide an overview of these rules. In Box 1, we have compiled a summary of the key EU fiscal rules. On their own, however, these descriptions give an incomplete understanding of the practical application of these fiscal tools, and thus Figure 2 demonstrates the operation of these central rules as a whole by using the example of overturning a trend of rising public indebtedness. We will return to this example in our proposal for simplifying the rules.

The key problem with the current fiscal rules is that it is very difficult to deduce from them exactly how the required adjustment for a particular country should be determined. The consolidation programme illustrated in Figure 2 starts from a situation in which public finances are being measured using simultaneously several indicators such as the debt rule, the nominal deficit rule, the structural deficit and changes to this, and the expenditure benchmark.

Let us discuss the elements more closely. At the core of the current rules is the correction of the structural balance (the black lines in the figure), which is carried out

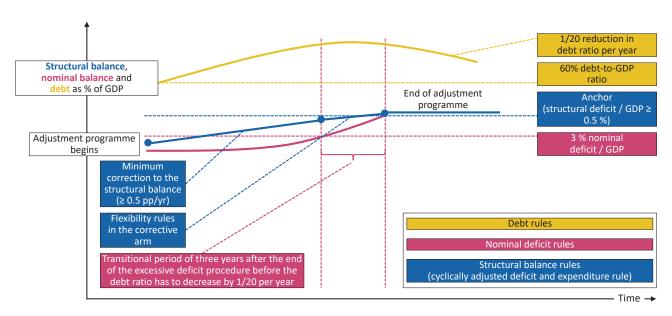


Figure 2 Fiscal adjustment within the current fiscal framework

The yellow curve depicts the development of the debt ratio during the adjustment period, while the blue curve shows the structural balance and the red curve the nominal budgetary position. During the adjustment period, public finances are guided by the rules depicted with the dotted lines. Source: Kuusi (2017b).

gradually until the medium-term objective (MTO) is reached.³ A certain minimum amount of correction is required, and this minimum amount is defined separately based on the rules of the corrective and preventive arms. The minimum correction set in the Stability and Growth Pact is 0.5% percentage points per year. The preventive arm details the different economic situations under which the required correction may vary. In the graph, the struc-

tural balance moves in line with the programme towards the medium-term objective.

Compliance with the preventive arm is also assessed by means of the expenditure benchmark⁴, which compares the increase in general government expenditures with the expenditure limit set for it. The expenditure benchmark requires that any expenditure increases are fund-

Box 1 Current EU fiscal rules

The main EU fiscal rules currently in force relate to the nominal balance, the structural balance and the debt-to-GDP ratio. We start with an overview of the whole framework of EU rules concerning central government finances. This summary is based directly on the description of the rules provided by the National Audit Office of Finland.^a

The key fiscal rules for the **corrective arm** of the Stability and Growth Pact are the 3% limit on the government deficit and 60% limit on the debt-to-GDP ratio, as set out in the Treaties. If this ratio exceeds 60%, it must be reduced at an annual rate equivalent to 1/20 of the excess. This provision becomes binding 3 years after the country is no longer subject to the corrective arm.

At the heart of the **preventive arm** of the Stability and Growth Pact is the medium-term objective (MTO), which is specific to each Member State and is expressed as a target level for the structural balance. Under the Stability and Growth Pact, the country-specific MTO is set at three-yearly intervals at a level that can ensure a safety margin with respect to the 3% GDP deficit reference value. The MTOs differ from one Member State to another, depending on their economic circumstances.

The achievement of the MTO is examined on the basis of two criteria. The first step is to assess whether the desired structural balance has been achieved or whether the Member State has made the required progress towards the objective. The structural balance describes the budgetary position (the difference between revenues and expenditures as a proportion of GDP) in a way that removes the effects of cyclical fluctuations and one-off temporary measures. The structural balance thus describes the government surplus or deficit which cannot be explained by cyclical fluctuations and one-off items of revenue or expenditure. In principle, the structural balance is better suited than the nominal balance for guiding counter-cyclical fiscal policies. True to its name, adjustment of the structural balance requires changes in economic structures.

In assessing compliance with the second criterion, the expenditure benchmark, the rate of growth of government expenditures is examined in relation to the constraint imposed on it. If the medium-term objective for the structural balance is achieved, expenditure may increase in line with the ten-year average of potential output growth. Potential output describes the GDP trend: the long-term growth path of the economy, from which the impact of cyclical fluctuations have been removed. If the MTO has not been reached, the permitted rate of expenditure growth is set at a level that supports this goal. Expenditures that cannot be influenced by fiscal policy are not restricted, however, based on calculations of the expenditure benchmark. The growth constraint also does not apply to investment expenditure or expenditure financed by an equivalent increase in revenue.

https://www.vtv.fi/en/good-governance-articles/fiscal-policy-rules-in-the-economic-and-monetary-union/. The European Commission's principles for interpreting compliance with the rules of the Stability and Growth Pact can be found in its publication 'Vade Mecum on the Stability and Growth Pact'. It is important to note that the observation of reference values involves many finer details that are not covered in this report. These details relate to matters such as the statistics and projections used to calculate the reference values and the overall assessment made in situations where the reference values are exceeded. All these considerations mean that the assessment of compliance with the criteria is not always an unambiguous process.

Box 2

How is the expenditure benchmark calculated?

In the following section, we work through the main features of the expenditure benchmark used within the EU and highlight some of the related problems. The use of the expenditure benchmark involves both a method for measuring public expenditure and the setting of a limit for such expenditure. The following description is based on the work of Kuusi (2015).

Different items that are considered cyclical or otherwise excluded from the rule are removed from the total public expenditure

$$E_{+} = G_{+} - INT_{+} - EU_{+} - (I_{+} - I_{+}^{AVG}) - UC_{+} - OO_{+}$$

where E_t is the modified public expenditure aggregate, G_t is public expenditure, INT_t is interest expenditure, EU_t is government expenditure on EU programmes fully matched by EU funds revenue, $I_t - I_t^{AVG}$ is the deviation of government investment expenditure from its average level and UC_t is the cyclical element of unemployment benefit expenditure. The latter is estimated with the output gap method based on the estimated cyclical unemployment and average individual unemployment expenditures. In addition, one-off items of expenditure are also removed, OO_t .

Even in its current form, the expenditure rule facilitates business cycle stabilisation and public investments. Its structure gives a great deal of flexibility for permitting measures such as important growth investments and green investments regardless of the overall condition of public finances. Moving forward, assessment must be made in any case of which indicator components should be removed and how the components are calculated. For example, simpler calculation methods could be used for calculating unemployment expenditure, such as the direct removal of non-discretionary unemployment expenditures from total expenditure or using deviations from expenditure averages, such as in the case of investments (European Commission, 2013; Carnot & de Castro, 2015). The expenditure benchmark also requires the measurement of discretionary measures, which is difficult in practice, but on the other hand leaves room for bottom-up, empirical perspectives on the fiscal policy.

In any case, the rate of change of the modified expenditure aggregate is an essential indicator for fiscal policy. The rate of change of the expenditure aggregate is calculated taking into account the change in discretionary revenues N_t^R (and certain expenditures funded by earmarked revenues). The relative change in expenditure is:

$$\textit{rate of change}_{t} = \frac{E_{t} - E_{t-1} - N_{t}^{R}}{E_{t-1}}$$

In addition, the expenditure growth rate is deflated, meaning that the impact of inflation is removed. Adjusting the revenues in the rate of change makes the rule symmetrical with regard to metrics of revenues and expenditures.

Finally, the change in expenditure is compared to an assessment of the economy's potential growth. The potential growth is based on the change in the medium-term output of the national economy. When expenditure growth is at the same level as production growth, there is no tendency in the economy within the medium-term either to increase or reduce public demand as a proportion of GDP.

In the Commission's calculation method, growth rates are given as an average based on observations of potential GDP growth rates for the previous five years and growth projections for the following four years. This averaging method significantly removes cyclical fluctuations from potential output estimates and makes them much less sensitive to statistical updates. It would be worth giving consideration, however, to the use of real GDP growth in the calculation instead of potential output. This would be an observable quantity that does not involve a complex business cycle filter, and it could be assumed that the use of long-term real GDP growth projections instead of potential output projections would not significantly change the way the indicator operates.

Once the modified expenditure aggregate has been calculated, its real growth can be compared to the potential growth of the national economy. For example, in order to reduce the aggregate-based expenditure-to-GDP ratio by 0.5%, the growth rate of the expenditure aggregate must remain below the following value $0.5 * \frac{1}{E_t/Y_t}$, where E_t / Y_t is the nominal expenditure variable given as a proportion of GDP. By comparing expenditure growth and GDP growth, the expenditure benchmark indicator can be used to measure both the change in the structural balance as well as the cyclically adjusted structural balance.

The expenditure benchmark alone does not determine the target level for fiscal policy, but instead describes changes in fiscal policy. It is therefore more suited to function as an operational medium-term objective which is tailored to fit with the longer-term objective.

ed from a corresponding increase in revenues. Both the expenditure benchmark and the structural balance can be used to measure changes in the budgetary position that do not result from cyclical conditions. The measurement method based on cyclical correction is described in more detail in the appendix to this article, while the expenditure benchmark is examined more closely in Box 2. The details of these two objectives are also examined in more detail later on.

In addition to achieving improvements in the budgetary position, the adjustment needs to be such that the debt target can be achieved in a timely manner and, at the same time, attention is paid to ensuring that the nominal budgetary position does not exceed the reference value specified in the rules.

All in all, many of the key elements of the rules overlap in complex ways, and understanding their interrelationships ultimately requires the use of numerical simulation models. as for example Kuusi (2017a) shows. In many respects, the minimum objectives calculated from the rules have differed from the actual economic policy in a non-trivial way. For example, fiscal policy corrections at the beginning of the European debt crisis in the 2010s were larger than required by the rules, while at a later stage, they were smaller than required.

2.2 The current rules are not mutually compatible

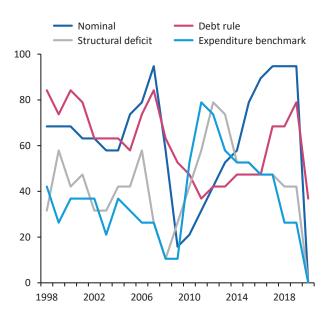
Complex rules are not necessarily a problem in and of themselves, provided that they function consistently as a support for achieving good fiscal policy. There is good reason, however, to question the consistency of the current EU rules.

An overall picture of the functioning of these rules is provided by Larch and Santacroce (2020), who study rule compliance in EU countries for the period 1998–2019. Using ex-post data from their database, Figure 3 shows the percentage of EU countries that complied with each fiscal rule in any particular year. This graph contains a lot of interesting information that can help us assess the functioning of the current rules. Firstly, it is clear that the rules are often breached, thus supporting our earlier statement that the fiscal framework has not functioned

effectively as a whole.⁵ At the same time, the graph also makes clear that certain rules would have demanded tougher policy than others. For example, the financial crisis that began in 2008 and the current pandemic have led more often to situations that would be in breach of the structural deficit rule than the nominal deficit rule and debt rule. If the rules had in general been complied with, current data suggests that compliance with the structural balance rule would have led to stricter policy during economic upturns. During downturns, on the other hand, the structural indicators would have allowed for more expansionary policy – if they had been believed.

The lack of compliance that can be seen in this ex-post assessment is partly due to the fact that the indicators may lead to different fiscal policy when used for real-time evaluation. This raises questions about the usefulness of the indicators for guiding fiscal policy in practice. The reasons for this are both technical and political. For example, the measurement of the structural deficit at the key

Figure 3 Percentage of eurozone countries with fiscal policies that complied with EU fiscal rules in different years, %



Notes: The implementation of fiscal policy rules was assessed on the basis of ex-post information on the economy, such as the cyclical conditions. Real-time data may have deviated from this and thus guided governments towards different fiscal policies. Furthermore, not all discretionary measures and finer details of the rules were taken into account, so the overall picture of compliance levels is only indicative. More detailed definitions of rule compliance can be found in Larch & Santacroce (2020).

transition points in the business cycle – meaning the very points when significant fiscal policy changes should be made – has proved to be very difficult, and so the ex-post data presents a distorted picture of indicator usage. At the same time, the numerous technical assumptions required for the indicators makes their use politically difficult, as it is hard for politicians to explain their fiscal policy to their supporters if its objectives are not understandable.

Only by considering the technical and operational characteristics of the indicators as a whole is it possible to form an understanding of both the contradictions within the current framework and the rules that would best govern fiscal policy. It is clear to see that very contradictory perspectives are not likely to improve the credibility of the framework as a whole, and that it would be wise to select for the new framework only the rules which function best. We therefore turn in the following section to examine the rules in more detail.

2.3 The old deficit and debt rules are weak and contradictory

Under the current conditions of slow economic growth and low inflation, the deficit and debt limits set in the Maastricht Treaty are no longer consistent. This is not because many member countries' debt ratio significantly exceeds the 60% limit, but rather because economic growth has slowed down.

At the time of the Maastricht Treaty, the EU's average nominal economic growth was 5%, so a deficit of less than 3% was sufficient to stabilise the debt ratio at 60%. The debt criterion was therefore irrelevant in practice: compliance with the deficit rule was sufficient to comply with the Stability and Growth Pact (Larch & Santacroce, 2020). Between 2010 and 2019, economic growth in EU countries averaged only 2.7%. In the current context of low economic growth and inflation, a deficit of 3% stabilises the debt at a much higher level of around 100% (Kamps & Leiner-Killinger, 2019). The slowdown in average nominal economic growth was also the reason why the debt criterion was supplemented with the debt reduction target: in order to keep debt ratios on a downward trajectory (Larch & Santacroce, 2020).

Figure 3 shows that countries have adhered to the nominal deficit rule, particularly during economic upturns, when economic growth automatically improves the balance of public finances. This means that compliance with the nominal deficit rule does not require a tightening of

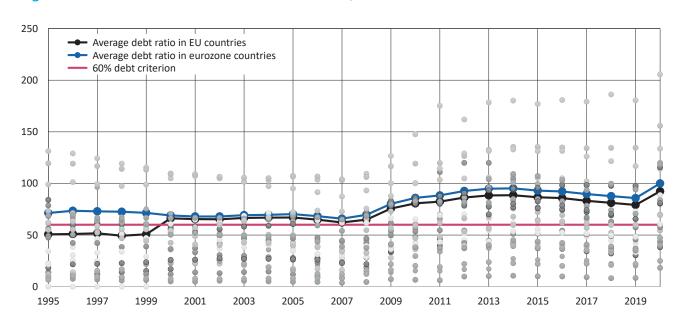


Figure 4 Debt ratios in the EU countries 1995–2020, % of GDP

The dots depict the debt-to-GDP ratio of EU countries in different years.

Source: AMECO database.

fiscal policy during upturns. On the other hand, compliance with the nominal deficit criterion during downturns would have required pro-cyclical fiscal tightening, which, in practice, EU countries have not carried out. Indeed, it was in order to reduce the pro-cyclical nature of practical fiscal policy and the deficit rule that the shift was made towards consideration of the structural balance (Larch & Santacroce, 2020).

Countries have not been subjected to the excessive deficit procedure (EDP) in particularly large numbers, not even for breach of the debt criterion after 2013–2016. While debt ratios have declined in many countries, high levels of indebtedness can be seen particularly in countries with high debt ratios, as shown in Figure 4. The average debt ratio of EU countries (black line) was only below 60% (red line) from 1995 to 1999, while the average for the euro countries (blue line) has never been below 60%. On average, therefore, euro countries are more indebted than other EU countries, and average debt ratios have been making rather slow progress towards the 60% mark.

The reasons behind this are the many forms of flexibility in the rules and the Commission's discretionary powers in the interpretation of the debt criterion. In the wake of the financial crisis, the flexibility of the rules was increased through the introduction of the Six Pack and Two Pack regulations. The Six Pack reform, introduced in 2011, changed the 60% debt criterion to a requirement to reduce the difference between the debt-to-GDP ratio and the 60% threshold at an average rate of one-twentieth per year over a three-year period. Within the preventive arm, flexibility was enhanced by the addition of the investment and restructuring clauses, which have also been utilised by Finland⁶.

In practice, fulfilment of the 3% GDP deficit criterion and compliance with the preventive arm of the Stability and Growth Pact have been sufficient for countries to avoid facing an excessive deficit procedure. Particularly in the case of highly indebted countries, the need for adjustment is so great that, in effect, the Commission deems the debt ratio to be fulfilled if the country simply fulfils the criterion of the less demanding preventive arm of the Stability and Growth Pact, i.e. the adjustment of its structural balance as required by the preventive arm. Indeed, the Commission has not in practice proposed to the Council

the opening of an excessive deficit procedure – even in cases where the country is in breach of the debt criterion – provided that the country does no more than simply make plans to comply with the preventive arm (Kamps & Leiner-Killinger, 2019).

2.4 The structural deficit target has not guided the fiscal policies of EU countries

Because the above-mentioned discretionary decisions have meant that countries have not been subject to the EDP, they are bound in practice only by the structural deficit rule of the preventive arm. According to this rule, a country that has achieved its country-specific structural balance objective should remain at this level. If the objective has not been achieved, the country must make progress towards it by adjusting its structural balance at a pace that depends on both the stage of the business cycle and the country's level of debt.

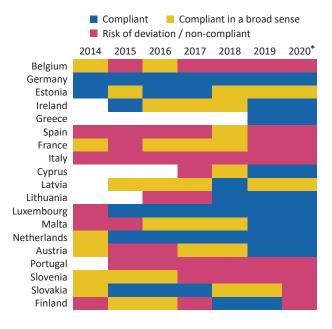
In principle, compliance with the structural deficit criterion would have a strong impact on debt ratios. While compliance with the nominal deficit criterion under current growth conditions would stabilise the debt ratio at around 100%, continually maintaining the structural balance would stabilise the debt ratio at well below 60% of GDP and, in the long term, bring it close to zero.

In practice, however, the adjustment required under the preventive arm has been less demanding than the requirement imposed by the debt criterion. Appendix figure 1 shows that there were major differences between EU countries in their compliance with the preventive arm of the Stability and Growth Pact in the years preceding the pandemic. In both high-debt countries (Spain, France, Portugal, Italy) and in Finland, the adjustment has remained below that required by the rules, even during periods of good economic growth (appendix figure 2). Between 2015 and 2019, the EU economy grew by an average of 3.5%. When a country has made less of an adjustment than what is required by the rules, its public finances have not strengthened enough to result in an overall reduction of the debt ratio. Conversely, in countries where debt ratios have fallen or remained very low (Denmark, Germany, Luxembourg, the Netherlands, Sweden), structural adjustment has far exceeded the requirements of the EU fiscal rules.

It can rightly be said, therefore, that the structural balance has not anchored its position in fiscal policy in the same way as, for example, national spending limits procedures. One of the reasons for this is the lack of confidence in an ever-changing indicator, the value of which is ultimately determined by the Commission itself. As a result, the concept of structural balance is beyond the reach of policy makers. This is reflected in the fact that Member States do not always even make advance plans for fiscal policy that would meet the criteria of the Stability and Growth Pact.

Figure 5 on the previous page shows that, year after year, some euro countries submit to the Commission a budget (a draft budgetary plan covering the entire public sector) that does not comply with the EU structural balance rules. This is particularly the case for heavily indebted countries, but is also true for Finland. It is not, therefore, merely a question of imprecise ex-ante assessments of the size of the structural balance due to lack of precision in the business cycle forecast – which then in retrospect turns out to have led to inadequate fiscal policy.

Figure 5 Many euro countries, year after year, submit a draft budgetary plan to the commission that is not in line with the preventive arm of the Stability and Growth Pact



Member States' draft budgetary plans for 2020 prior to Covid-19 pandemic.

Sources: Kamps & Leiner-Killinger (2019) and the Member States' draft budgetary plans for the years in question.

Instead, it would seem that the structural balance objective does not guide the fiscal policies of many countries even in principle.

2.5 The expenditure benchmark is superior to the structural balance and should receive greater emphasis

A main reason for the deterioration in the credibility of the structural balance is its problematic link with assessments of cyclical conditions. The method agreed between the Member States and the European Commission for assessing the output gap, a measure that describes cyclical conditions, has proved to be very unreliable. During both upturns and downturns, changes in output often appear to be permanent even where they are in fact only cyclical fluctuations.

The findings from the financial crisis that began in 2008 are illustrative. For example, we can consider for 2006, during the economic upturn, how perspectives on the impact of the business cycle on public finances have varied at different points in time. According to the assessment made by the EU Commission for the period 2005-2007, the business cycle had had little positive impact on public finances. At that time, the cyclically adjusted deficit would not have indicated the underlying weakness of public finances and the rules would not have required a correction of them. It was only in 2009, after the bubble had already burst, that it became clear that public finances were indeed only temporarily strengthened by the economic upturn. To address this, the Six Pack reform introduced the expenditure benchmark alongside the structural balance (Larch & Santacroce, 2020).

In a similar way, the impact of the 2013 downturn was also underestimated. Figure 6 shows that the impact of the business cycle was estimated to be about 0.5 percentage points lower in that year than later calculations showed to be the case. The economy was therefore estimated to be in a new period of slow growth, although in reality it was at the bottom of the downturn. This, in turn, led to a tighter interpretation of the rules than the cyclical situation would have required.

The implementation of fiscal decisions is by nature a slow process. In order to be able to make quick and time-

ly decisions in relation to the business cycle, it is of paramount importance that the current stage of the business cycle is determined using the most reliable method. The national-level independent fiscal institutions (IFIs, which in Finland is the NAOF) have developed and implemented their own methods, as these are more accurate than the common European method and more able to identify changing economic conditions. These methods can be used to improve the timing of tighter fiscal policy during upturns.

As an alternative to the structural balance, the expenditure benchmark and its different variants is a conceptually simpler option that can be controlled by decision-makers. With regard to the Finnish recession of 1990, Kuusi (2015, 2017b) has used the real data to deduce that, of the new fiscal policy indicators, the expenditure benchmark would have led to cyclically optimal fiscal policy more often than the structural deficit: fiscal policy would have been tighter in the upturn and looser in the downturn. The data of Larch and Santacroce (2020) suggests that the steering effect of the expenditure benchmark would also have been in the same direction in the case of the European debt crisis, although their analysis does

not yield a real-time perspective on how the indicators would have functioned.

The ability of the expenditure benchmark to steer counter-cyclical fiscal policies is based on its ability to take account of the impact of the business cycle on public finances more effectively than the structural balance. This means that a strong tightening of expenditure during a downturn may not be necessary and the automatic stabilisers in the economy may operate more freely. Furthermore, as the economy recovers and cyclical conditions improve, use of the expenditure benchmark may reduce the possibility of pro-cyclical increases in expenditure during the economic upturn.⁸

3 Towards new EU rules

In the light of the discussion above, there is a need both to simplify the rules and to replace badly functioning indicators with better ones. The long-term debt objective should be more strongly emphasised, while at the same time compliance with and monitoring of this ob-

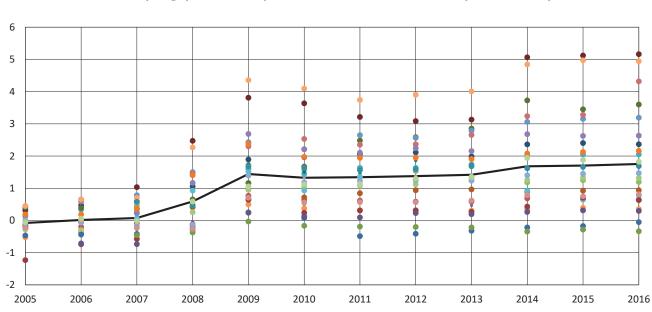


Figure 6 Perceptions of the impact of the business cycle on public finances in 2006, based on an assessment of the output gap at various points in time (1995–2020), % of potential output level

The dots depict the cyclical component of the budgetary positions of EU countries in the Ameco database in the European Commission's autumn forecast in different years. The **black line** represents the average of the estimates for different years.

Source: www.Firstrun.eu.

jective should be strengthened through the use of more effective short-term indicators. Better formulated rules could allow for more effective monitoring, especially during economic upturns, and at the same time bring greater clarity on the objectives of the rules framework as a whole.

Instead of including a wide range of rule components, the focus should be on the long-term debt sustainability objective, with support from the expenditure benchmark as an operational tool for fiscal policy. Given that the expenditure benchmark measures changes in the tuning of fiscal policy, its status could be linked to simple observations of the business cycle and the state of public finances. A similar structure has already to a large extent been built into the existing rules, and the reforms could focus on simplifying the current system and reducing the number of other rule structures.

At its simplest, the expenditure benchmark could have three possible statuses: When an economic crisis is in its acute phase, the expenditure benchmark is disabled (1). Once the acute phase is over, assessment is made of whether public finances require adjustment. If such adjustment is needed, the calculations are made to determine the annual correction required for the expenditure benchmark (2) along with the corresponding maximum

level of expenditure growth permitted until the public finances no longer require adjustment. If there is no need for adjustment, a calculation is made of the maximum level of expenditure growth that would maintain the budgetary position – as measured by the expenditure benchmark – at its current level (3).

These three possible statuses cover the core tasks of fiscal policy: allowing stimulus in a crisis, adjustment when it is needed and the economy is not in a crisis, and a normal situation in which the fiscal position is debt-sustainable at the medium-term level, as defined by the debt-sustainability anchor.

The rules outlined above are significantly simpler than the current framework of rules shown in the example in Figure 2. We can use Figure 7 to illustrate how this simpler indicator would function in a corresponding situation where increasing indebtness needs to be halted and reversed. In this example, we assume that economic conditions are returning to normal at the start of the programme, after which the adjustment process begins. The adjustment process gradually improves the budgetary position until the medium-term objective is reached.

In order to function effectively, the expenditure benchmark needs to be supported above all by data and knowl-

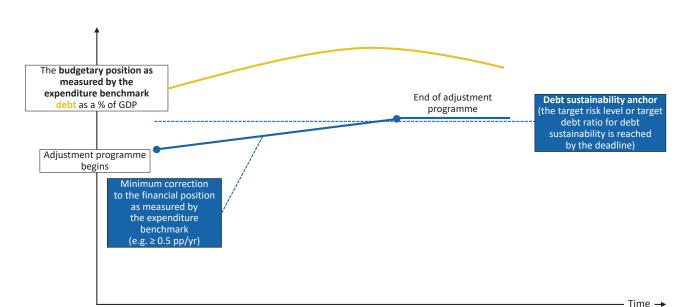


Figure7 The debt sustainability anchor and supporting expenditure benchmark

edge that can help determine both when adjustment should start and when the adjustment target has been reached. To identify these different stages, it would seem natural to utilise independent, national fiscal policy assessment.

In order to identify the acute phase of the crisis, use could be made of various business cycle indicators as well as, for example, measurement of when positive economic growth has clearly resumed. New promising tool for this purpose are available, for example, the cyclical composite indicator used by the National Audit Office of Finland.

It is also of paramount importance that the adjustment process ends at the right time. In our view, there are several options for effectively implementing this.

The first option is to continue to use the 0.5 percentage point structural deficit level contained in the current rules, with other medium-term level criteria serving as reference values¹⁰. The fiscal correction process based on the expenditure benchmark would continue until this level is reached. Although implementing cyclical corrections is generally challenging, it is a somewhat simpler task to see whether there has been any deviation from the medium-term anchor.

The second option would be to link the medium-term objective directly to the debt level. For example, Beetsma et al. (2018) propose that the objective of adjustment based on the expenditure benchmark should be to directly achieve a debt ratio of 60%. In their proposal, the expenditure benchmark would steer public finances so that the debt-to-GDP ratio would reach 60% of GDP at a point 15 years after the start of the adjustment, based on certain assumptions about economic conditions during the adjustment process.

Determining the debt-based anchor would not require identification of a structural deficit – a task that has proved to be rather difficult. The required correction can be calculated directly from the debt target. The key problem with this approach, on the other hand, is that the 60% rule for the debt ratio is a rather arbitrary objective, and for many countries it is currently a rather remote one as well. If deficits are high at the beginning of the adjustment process, such as in the adjustment programmes shown in Figures 2 and 7, the debt-to-GDP ra-

tio continues to grow for a considerable length of time, only peaking once the budgetary position is close to the medium-term anchor. This initial increase in the debt ratio could undermine the credibility of the programme if the aim is precisely to reduce debt.

One way to find a compromise between the immediate (deficit) and the long-term (debt ratio) objectives could be to determine the adjustment in the short-term using minimum deficit correction targets, such as an improvement of 0.5% per year. This consolidation would continue until it reaches an anchor point that stabilises the budget position at a level that can return the debt ratio to an acceptable risk level at a fast enough pace. ¹¹ This approach could be both effective in the short term and well-founded in the long term.

Whichever option is used, the essential task is to set the medium-term objective so that it is sufficient for debt sustainability. Lessons could be drawn from the current criteria for determining the medium-term objective, which take into account, for example, the fiscal sustainability pressures associated with the ageing population. Determination of the long-term anchor, on the other hand, could make use of tools such as public debt stress tests. It is also worth noting in this regard that the medium-term objective is already determined at the country level, so there is already a great deal of experience with its use.

4 Conclusions

In this article, we have considered the current EU fiscal rules and particularly the question of how they could be simplified and made more efficient.

The experience of recent decades shows that there are significant differences between European countries in terms of both their preferred fiscal policy and the policy they implement in practice. Because the economic impact of the pandemic has varied from country to country, the pace of economic recovery will also vary. The economies of the Member States were growing at very different rates even before the pandemic, so in the absence of any major structural changes it should be expected that this will continue to be the case. Both the pace of adjust-

ment and reductions in the debt ratio, therefore, must continue to take into account the specific characteristics of each national economy.

However, as the situation develops, Europe will continue to need fiscal rules. Increases in public indebtedness need to be halted in order to prepare countries for the ECB's termination of government bond purchases. In order to reconcile the freedom and responsibility of member states' fiscal policies, a balance must be struck in which the rules are simple enough to facilitate monitoring of compliance yet effective enough to make sure that the need for cross-country bail-out measures is sufficiently rare. The current EU fiscal framework is a complex collection of overlapping rules. The ultimate objectives of fiscal policy, namely debt sustainability and business cycle stabilisation, are poorly aligned with the operational debt and deficit targets set by the rules.

Our conclusion is that the new rules should emphasise the long-term debt sustainability target more clearly, while at the same time making its monitoring more effective through better short-term indicators, in particular the expenditure benchmark. At the same time, the expenditure benchmark should be reformed in order to further its countercyclical impact on fiscal policy, and it should replace the structural balance as the operational objective for fiscal policy. Even in its current form, the expenditure rule facilitates business cycle stabilisation and public investments. Its structure offers a great deal of flexibility for permitting measures such as important growth investments and green investments regardless of the overall condition of public finances. Moving forward, assessment must be made in any case of which indicator components should be removed, how the components are calculated, and how the effectiveness of investments is monitored.

The complexity of the rules has led to increased discretion in their interpretation and implementation. The expenditure benchmark also contains elements that require the use of discretion. We believe that there are grounds for discretionary fiscal policy, but the question of who exercises this discretionary power has important consequences for the ownership of the rules and thus for compliance with them. In order to strengthen national ownership of the rules, we propose that the discretionary powers of the European Commission be transferred to national governments and national supervisory bodies.

Although there is no unambiguous scientific justification for either the numerical debt and deficit limits or the adjustment requirements, one must commit to some measurable objective. Country-specific discretion is easier to accept if third parties are able to easily monitor the country's progress toward the ultimate goal. In addition, this could contribute to the restoration of market discipline in Europe.

Better formulated rules could allow for more effective monitoring of fiscal policy, especially during economic upturns, while at the same time bringing greater clarity regarding the objectives of the rules framework as a whole. At the same time, responsibility for economic policy decisions and their consequences should be fully restored to the Member States, and the role of national supervisory bodies should be strengthened. Cross-country bail-out measures in times of crisis should be accompanied by strict conditionality that, in good times, the fiscal policy must be in line with the reformed EU framework.

Appendices

Appendix 1: Calculation of the structural balance using the output gap method

In the European Commission's calculation method, the structural balance is calculated on the basis of estimates of the historical sensitivity of tax revenue and public expenditure to fluctuations in the output gap. It is estimated as the difference between the actual budgetary position and the cyclical component, given as a proportion of GDP:

$$RRA_t = \frac{R_t - G_t}{Y_t} - \epsilon * OG_t - OO_t,$$

where R_t is public sector revenues, G_t is public sector expenditures, Y_t is nominal GDP in year t, and ϵ is the budgetary semi-elasticity divided by the output gap (OG_t). The cyclical component is the product of the output gap (OG_t) and the budgetary semi-elasticity ϵ . In the method used by the Commission, the output gap is estimated as a proportion of the output potential of the economy as a whole, and the semi-elasticity ϵ is assumed to be constant. In addition, the budgetary balance is adjusted for the impact of various one-off items of revenue and expenditure as a proportion of GDP (OO_t). Mourre et al. (2013) examines in more detail the method of calculating the semi-elasticity ϵ .

Most international economic institutions (OECD, IMF, European Commission) currently use the production function approach to calculate potential output, which allows for the best possible use of the available research on production technology and the behaviour of various factors of production during the business cycle when assessing an economy's cyclical conditions. The idea is to compile a theory-based overall view of the productive capacity of the economy (potential production function) based on observations of the state of the various components.

In the European Commission's methodology (see Havik et al., 2014), the production function can be expressed in the form

$$Y_t = (U_{Lt}L_tE_{Lt})^{\alpha}(U_{Kt}K_tE_{Kt})^{1-\alpha} = TFP_tK_t^{\alpha}L_t^{1-\alpha},$$

where Y_t is total output, L_t is labour, and K_t is physical capital stock. The use of factors of production is adjusted for the degree of capacity utilisation (U_{Lt}, U_{Kt}) and the level of efficiency (E_{Lt}, E_{Kt}) . The parameter 'a' measures the share of capital in all inputs. The labour component is measured by the total hours worked, and capital is measured as total accumulated capital investments disaggregated into housing and non-housing components. The Cobb-Douglas production function continues to allow for the separate examination of total factor productivity as the weighted product of the level of efficiency and the degree of capacity utilisation

$$TFP_t = (U_{Lt}E_{Lt})^{\alpha}(U_{Kt}E_{Kt})^{1-\alpha}.$$

The output gap can be broken down into different components. Once one knows the magnitude of the components of the production function at the potential level, the percentage deviation from the potential can be approximated as the difference between the logarithms of the different components

$$\begin{aligned} OG_t &= LN(Y_t) - LN(Y_t^{pot}) = \\ LN(TFP_t) - LN(TFP_t^{pot}) + (1 - \alpha)(LN(L_t) - LN(L_t^{pot})). \end{aligned}$$

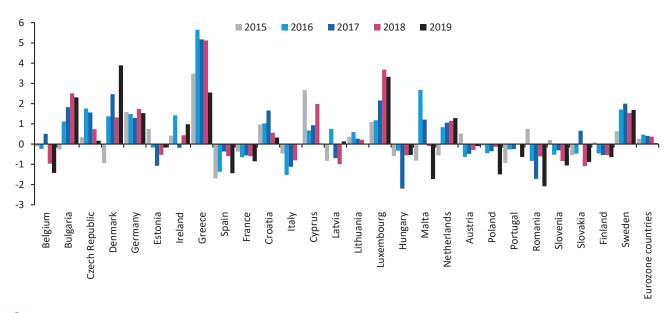
In the calculation of the output gap, the capital stock is not cyclically adjusted, but rather the efficiency of capital utilisation is assessed as part of total factor productivity. Potential labour also breaks down into several components

$$L_t^{pot} = POP_t^W PART_t^{pot} (1 - NAWRU_t) H_t^{pot}.$$

Potential labour corresponds to the potential workforce adjusted to the level of the non-accelerating wage rate of unemployment $(NAWRU_t)$. The potential workforce is the product of the working-age population POP_t^w , the average participation rate $PART_t^{pot}$ and the hours worked per person H_t^{pot} .

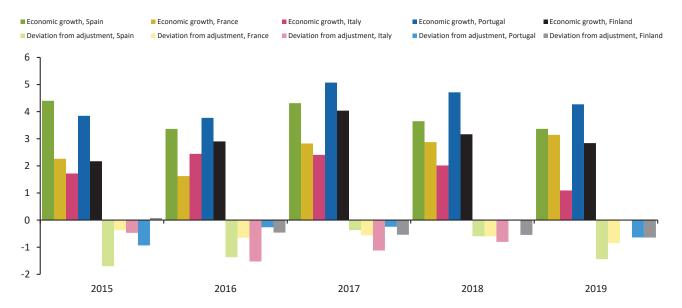
Appendix 2: Appendix figures

Appendix figure 1 Change in the structural balance in relation to the requirements of the Stability and Growth Pact for EU countries from 2015 to 2019, when average economic growth was 3.5% for EU countries and 3.3% for eurozone countries



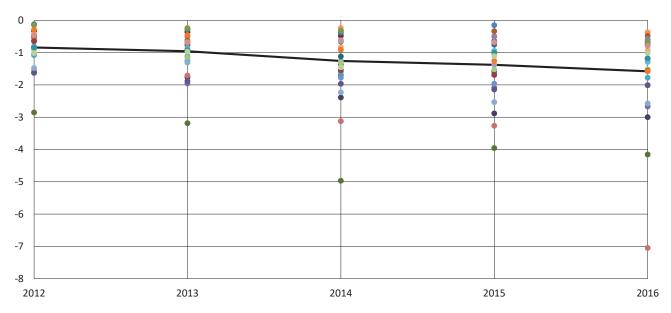
Source: Eurostat, EFB Secretariat Database.

Appendix figure 2 Economic growth (%) and deviation from structural adjustment objective (pp)
Spain, France, Italy, Portugal and Finland 2015–2019



Source: Eurostat, EFB Secretariat Database.

Appendix figure 3 Perceptions of the impact of the business cycle on public finances in 2013, based on an assessment of the output gap at various points in time (1995–2020), % of potential output level



The dots depict the cyclical component of the budgetary positions of EU countries in the Ameco database in the European Commission's autumn forecast in different years. The **black line** represents the average of the estimates for different years.

Source: www.Firstrun.eu.

Endnotes

- Particularly in countries with high debt ratios, indebtedness is linked to non-compliance with fiscal policy rules (Larch & Santacroce, 2020).
- The various fiscal policy indicators have been designed in such a way that their development in relation to one another corresponds to the definitions of the indicators: the nominal deficit effects the reduction of the debt ratio and the structural deficit is defined as the nominal deficit corrected for cyclical conditions and one-off expenditures (see Kuusi, 2017a).
- The medium-term anchor for fiscal policy is defined using the structural balance, as the nominal balance may give an excessively positive picture of the fiscal situation. This is particularly the case during economic upturns, during which the economy accelerates and causes a temporary increase in public revenues.
- 4 The expenditure benchmark was introduced alongside the structural balance in the 2011 reform.
- 5 Eyraud et al. (2017) and Gaspar and Amoglobeli (2019) also concluded in their studies that non-compliance with EU fiscal rules is more the norm than the exception.
- 6 See, for example, https://www.consilium.europa.eu/en/policies/ stability-growth-pact-flexibility/
- https://www.vtv.fi/en/audit-and-evaluation/fiscal-policy-evaluation/business-cycle-heatmap/
- The option of changing the indicator is not without its problems, however, as the Fiscal Compact introduced the objective of a structural balance into national legislation, and for some countries even into their constitution. The expenditure benchmark also requires the measurement of discretionary measures, which is difficult in practice. Both the structural balance and the expenditure benchmark require an estimate of the (unobservable) potential output or output gap in each country. However, the expenditure rule and derived bottom-up indicator used in the corrective arm are much less dependent on individual output gap estimates.
- The basic rule could be a correction of half a percentage point per year, which is the minimum target currently set in the Stability and Growth Pact.
- The medium-term objective is set in the Stability and Growth Pact at 0.5% of potential output. In addition, the current rules guide the target level by means of a calculation chart proposed by the Commission and updated every three years. It seems reasonable to continue to make use of these aspects of the current framework.
- In line with the proposal of Beetsman et al. (2018) and the current rules, the correction target could be reviewed, for example, once every 3 years.

Literature

Beetsma, R. & Larch, M. (2019). EU fiscal rules: Further reform or better implementation?. ifo DICE Report, 17(02), p. 7–11.

Beetsma, R., Thygesen, N., Cugnasca, A., Orseau, E., Eliofotou, P. & Santacroce, S. (2018). Reforming the EU fiscal framework: A proposal by the European Fiscal Board. VoxEU.org, October 26.

Belu Manescu, C. & Bova, E. (2020). National expenditure rules in the EU: an analysis of effectiveness and compliance, Discussion Paper 124, European Commission.

Blanchard, O., Leandro, A. & Zettelmeyer, J. (2021). Redesigning EU fiscal rules: From rules to standards. *Economic Policy*.

Carnot, N. & de Castro, F. (2015) The Discretionary Fiscal Effort: An Assessment of Fiscal Policy and its Output Effect, *European Economy Economic Papers* 543.

De Grauwe, P. (2021) *Euro area fiscal policies and capacity in post-pandemic times.* In-depth analysis requested by the ECON committee. European Parliament.

Debrun, X., Eyraud, L., Hodge, A., Lledo, V. & Pattillo, C. (2018). 'Second-generation' fiscal rules: From stupid to too smart. VoxEU blogi.

Debrun, X., Ostry, J. D., Willems, T. & Wyplosz, C. (2019). *Public debt sustainability*. CEPR Discussion Paper No. DP14010.

Eichengreen, B. & Wyplosz, C. (1998). The Stability Pact: more than a minor nuisance? *Economic policy*, 13(26), p. 66–113.

European Commission (2013) Report on Public Finances in EMU 2013, *European Economy* 4|2013.

Eyraud, L., Gaspar, V. & Poghosyan, M. T. (2017). *Fiscal politics in the Euro area*. International Monetary Fund.

Fatás, **A. & Mihov**, **I.** (2003). The case for restricting fiscal policy discretion. *The Quarterly Journal of Economics*, 118(4), p. 1419–1447.

Gaspar V. & Amaglobeli, D. (2019). Fiscal Rules, SU-ERF Policy Note Issue 60.

Havik, K., McMorrow, K., Orlandi, F., Planas, C., Raciborski, R., Roeger, W., Rossi, A., Thum-Thysen, A. & Vandermeulen, V. (2014). The Production Function Methodology for Calculating Potential Growth Rates ja Output Gaps, European Economy Economic Papers 535.

Kamps, C. & Leiner-Killinger, N. (2019). Taking stock of the functioning of the EU fiscal rules and options for reform. ECB Occasional Paper, (231).

Kuusi, T. (2015). Rakenteellisen rahoitusaseman mittaamisen vaihtoehtoja (Alternatives for Measuring Structural Budgetary Position). *Kansantaloudellinen aikakauskirja*, Vol. 111:4, p. 512–527.

Kuusi, T. (2017a). Finding the Bottom Line: A Quantitative Model of the EU's Fiscal Rules and their Compliance. Firstrun working paper.

Kuusi, **T**. (2017b). Does the structural budget balance guide fiscal policy pro-cyclically? Evidence from the Finnish Great Depression of the 1990s. *The National Institute Economic Review*, No. 239.

Kydland, F. & Prescott, E. (1977), Rules Rather Than Discretion: The Inconsistency of Optimal Plans, *Journal of Political Economy* 85(3), p. 473–491.

Larch, M., Orseau, E. & Van Der Wielen, W. (2021). Do EU fiscal rules support or hinder counter-cyclical fiscal policy?. *Journal of International Money and Finance*, 112, 102328.

Larch, M. & Santacroce, S. (2020). Numerical compliance with EU fiscal rules: The compliance database of the Secretariat of the European Fiscal Board, May 2020.

Mourre, G., Isbasoiu, G.-M., Paternoster, D. & Salto, M. (2013). The cyclically-adjusted budget balance used in the EU fiscal framework: an update, European Economy Economic Papers 478.

Planas, C. & Rossi, A. (2004). Can Inflation Data Improve Real-Time Reliability of the Output Gap?, Journal of Applied Econometrics, 19(1).

Planas, C. & Rossi, A. (2014). Program GAP: Technical Description and User-manual, version 4.3, Joint Research Centre Technical Reports, European Commission.

Von Hagen, J. (2002). Fiscal Rules, Fiscal Institutions and Fiscal Performance. *The Economic and Social Review*, 33(3), p. 263–284.





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Tel. +358 (09) 609 900 www.etla.fi firstname.lastname@etla.fi

> Arkadiankatu 23 B FIN-00100 Helsinki