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Taking stock of the functioning of the EU fiscal rules and options for reform



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Abstract

This paper reviews developments in fiscal rules in the European Union (EU) from the entering into force of the Treaty on European Union (the "Maastricht Treaty"), which laid the foundations for the euro, until today. It seems safe to say that fiscal positions in the EU and the euro area are now more favourable than they would have been in the absence of the Maastricht Treaty and the Stability and Growth Pact (SGP). However, the aggregate picture masks significant cross-country heterogeneity, with less progress where it would be needed most. Furthermore, the design of the rules has not always followed economic logic and has often been the product of political constraints, giving rise to some flaws in the framework from the outset. Repeated attempts to adjust the fiscal framework to a multitude of circumstances over the past 25 years have made it overly complex and incoherent. The paper concludes that, in its current shape, the SGP is an insufficient disciplining device in economic good times, with the consequence that there are no fiscal buffers, particularly in high-debt countries, to support growth in economic troughs. This, together with the absence of a central fiscal stabilisation instrument, puts the burden of stabilisation mostly on the single monetary policy. The paper also reviews reform options on how to render the fiscal framework more effective in bringing about sounder public finances and avoiding the procyclicality observed over the past two decades.

Keywords: Economic and Monetary Union (EMU), fiscal rules, Stability and Growth Pact (SGP)

JEL codes: H11, H50, H6

1 Introduction

It seems safe to say that fiscal positions in the European Union (EU) and the euro area are now more favourable than they would have been in the absence of the Treaty on European Union (the "Maastricht Treaty") and the Stability and Growth Pact (SGP). The euro area headline deficit fell from its peak of 6.3% of GDP in 2009 to 0.9% of GDP in 2017, and the euro area government debt-to-GDP ratio has been gradually declining from its peak in 2014. These developments are much more favourable than in the United States or Japan, for example. Moreover, around half of the euro area countries – an unprecedentedly large number – have already achieved seemingly sound fiscal positions, as captured by their medium-term objective (MTO).

Nevertheless, the aggregate picture masks significant cross-country heterogeneity, with less progress where it would be needed most. While around half of the euro area countries have met their MTOs, notably those with high levels of debt still have a long way to go to achieve sound underlying positions. Furthermore, there is large divergence in government debt ratios across countries, giving rise to tensions for various well-known reasons. Reducing vulnerabilities to shocks and achieving convergence in fiscal positions across countries and towards sound levels is a major challenge in ensuring the resilience of the euro area.

Beyond this, having been designed to coordinate fiscal policies at the national level, the SGP is not an instrument for steering the aggregate fiscal stance in the euro area as a complement to the single monetary policy (see ECB 2016a, Kamps et al., 2017). Reluctance to deliver notable structural adjustment in a favourable macroeconomic environment and lacklustre enforcement of the rules show that the SGP, in its current shape, is not a disciplining device that guides public finances over the cycle such that growth can be supported in economic troughs. Importantly, the SGP is inherently asymmetric. Countries need to correct shortfalls in structural efforts, but they are not obliged to make use of the fiscal space that accumulates once they have reached their MTO. The absence of a fiscal stabilisation instrument puts the burden of stabilisation mostly on the single monetary policy.

Despite all criticism regarding the functioning of the SGP, any move towards more fiscal integration to deepen Economic and Monetary Union (EMU) will, realistically, need to build on its strengths and correct its main shortcomings. To this end, the following analysis has two objectives. First, to review to what extent the fiscal variables and rules at the heart of the SGP have worked – and if not, why this has been the case. Second, to derive from this review options for reform.

In the light of this, the paper is structured as follows. Chapter 2 looks at the history of the fiscal rules within EMU and how they have developed from the entering into force of the Treaty on European Union (the "Maastricht Treaty"), which laid the foundations for the single currency, until today. First, it shows that the design of these rules has not always followed economic logic, but has often been the product of political constraints, giving rise to some flaws in the framework from the outset. It then shows that the repeated attempts to adjust the EU's fiscal framework to a multitude of circumstances

over the last 25 years have made it overly complex and incoherent. This is highlighted further in Chapter 3, which reviews how the euro area countries have complied with the EU's major fiscal rules and points up the problems that have emerged in enforcing these rules. Building on those findings, Chapter 4 discusses how the fiscal framework can be made more coherent again. This includes an analysis of which fiscal variables could act as appropriate fiscal targets. The options for reform range from "easier-to-fix" amendments of the current framework to proposals that would require Treaty change.¹ Throughout the paper, particular attention is paid to the EMU perspective. Chapter 5 presents a thought experiment on how to embed a central euro area fiscal capacity into the fiscal framework over the medium- to long-term. Chapter 6 concludes the paper.

For other broad discussions on the functioning of the SGP and related reform proposals, see, for example, Eyraud and Wu (2015), Wieser (2018), Deroose et al. (2018) and Benassy et al. (2018).

2 The history of the EU's fiscal framework

2.1 Fiscal rules in the Maastricht Treaty

On 7 February 1992 the Treaty on European Union was signed in Maastricht to enter into force on 1 November 1993 after a long ratification process. It laid the foundations for the single currency, while maintaining national responsibilities for other economic policies. At the same time, under Article 121 of the Treaty, these national economic policies were to be considered as a matter of common concern.

In the original Maastricht set-up of EMU, the single monetary policy is complemented by decentralised fiscal policies that are governed by fiscal rules and kept in rein by a credible no-bail out clause² as a final deterrent to fiscal indiscipline. This is supposed to accommodate for the fact that fiscal policies can have a significant impact on growth and inflation, thereby affecting the single monetary policy. Fiscal indiscipline could raise aggregate demand and inflation such that it implies short-term interest rates to be at a higher level than would otherwise be the case. In particular, fiscal imbalances can also negatively affect confidence in the ability of the monetary policy to achieve price stability. While the founders of the single currency were therefore eager to avoid such fiscal imbalances materialising, the Maastricht Treaty itself is not specific on the definition of fiscal imbalances and the targets for fiscal policy. Article 126(1) of the Treaty on the Functioning of the European Union (TFEU) merely states that "Member States shall avoid excessive government deficits" and Article 127(2) of the TFEU requests that "with a view to identifying gross errors", compliance with budgetary discipline shall be based on two criteria, i.e. government deficit and debt vis-à-vis "a reference value".

Precise numbers on the deficit and debt reference values are entailed in Protocol (No 12) on the excessive deficit procedure, which defines the reference values for government deficit and debt as 3% and 60% of GDP respectively. It is obviously difficult to give a precise number for what should be considered an "appropriate" government budgetary balance or an "excessive" government deficit over the medium term. Reportedly, the 3% of GDP deficit reference value that was later to become a cornerstone of the EU fiscal framework was not derived from in-depth economic analysis but was born from political considerations in France in the early 1980s.³ President François Mitterrand was looking "for an easy rule, that sound[ed] as coming from an economist, and [could] be opposed to the ministers that walk[ed] into his office asking for money." According to a person involved in the preparations at that time, they "came up with this number in less than an hour [...] without any theoretical reflection". They were looking for "something simple", with a 1% of GDP government budget

² See Article 125(1) of the TFEU "The Union shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project. A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project."

³ See The story of the 3% deficit limit and The secret of 3% finally revealed.

deficit being "too difficult to achieve", 2% of GDP putting them "under too much pressure" and 3% of GDP being "a good number" that finally made its way into French fiscal policymaking. When the Delors Report⁴ was released in April 1989, it recommended to "[...] impose effective upper limits on budget deficits", but without giving precise numbers.

At the time the Treaty's government debt reference value was agreed, a level of 60% of GDP did not seem overly ambitious when compared to the average debt ratio in the EU at that time. In fact, in 1989, the year in which the Delors Report was released, the aggregate EU debt-to-GDP ratio stood at around 50% of GDP. While Italy's and the Netherlands' debt-to-GDP ratios stood close to 90% and 75% of GDP respectively, at that time they were lower in West Germany (about 40% of GDP) and in France (around 35% of GDP).

The documentation underlying the Treaty did not create a link between the 60% debt reference value and the 3% deficit reference value. Later on, it was observed that, only under the assumption of nominal GDP growth at 5%, a deficit of 3% of GDP would imply that government debt converges to 60% of GDP in the long run (see Chapter 3). As we will see, such a growth rate has rarely occurred since these fiscal reference values entered into force more than 25 years ago.

2.2 From the Maastricht Treaty to the Stability and Growth Pact

In July 1998 and in time for Stage Three of EMU, the SGP entered into force, based "on the objective of sound government finances as a means of strengthening the conditions for price stability and for strong sustainable growth conducive to employment creation". It consists of two regulations: (i) the so-called SGP preventive arm, Council Regulation (EC) No 1466/97⁵, aims to ensure sound budgetary policies over the medium term and thus to shield governments from posting excessive deficits; and (ii) the so-called SGP corrective arm, Council Regulation (EC) 1467/97⁶ in turn details the excessive deficit procedure (EDP) enshrined in Article 126 of the TFEU. To this end, the June 1997 European Council of Amsterdam agreed that EU Member States "commit themselves to respect the medium-term budgetary objective of positions close to balance or in surplus", which would "allow [...] to deal with normal cyclical fluctuations while keeping the government deficit within the reference value of 3% of GDP." ⁷

⁴ The "Committee for the Study of Economic and Monetary Union" was chaired by the then president of the European Commission Jacques Delors and comprised the twelve European Community central bank governors. Major elements of their report became part of the subsequent Maastricht Treaty and thus the basis of the current EMU. For details, see Delors Committee (1989) and Enderlein and Rubio (2014).

⁵ Council Regulation (EC) No 1466/97 of 7 July 1997 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies (OJ L 209, 2.8.1997, p. 1).

⁶ Council Regulation (EC) No 1467/97 of 7 July 1997 on speeding up and clarifying the implementation of the excessive deficit procedure (OJ L 209, 2.8.1977, p. 6).

⁷ See Resolution of the European Council on the Stability and Growth Pact Amsterdam, 17 June 1997.

The MTO was not further specified until the reform of the SGP in 2005 introduced the technical concept of the structural balance such that both the MTO and progress towards it were defined in structural terms. The structural balance nets out the impact of the business cycle as well as temporary and one-off measures from the headline budget balance. This followed criticism that reliance on the nominal headline deficit had been procyclical during the preceding economic downturn. At the same time, up until today, the introduction of the structural balance has led to continuous debate on how to best measure the exact impact of the cycle on the budgetary position.

2.3 Recent reforms to the EU fiscal governance framework

Although the SGP introduced a much more ambitious target of close to balance or in surplus over the medium term, Chapter 3 shows that the 3% of GDP deficit reference value has been acting as a reference for national fiscal policies in a number of countries nonetheless. This could be related to a lack of understanding of the hierarchy within the complex set of fiscal rules or to a lack of ownership of the MTO. In fact, since the crisis, the manifold reforms to the fiscal framework intended to strengthen the role of the MTO and the structural balance as the main indicator for rules compliance. At the same time, however, these multiple amendments have added sizeable complexity⁸ and even incoherence between the different fiscal rules.

In 2011, at a time when financial markets were seen to need reassurance that sound public finances could be restored, the governance framework was strengthened with the so-called six-pack regulations. As a major lesson from pre-crisis times, the amendments to the fiscal rules were meant to ensure that good economic times are used to build up buffers such that fiscal policies can act in a sufficiently countercyclical manner during crises. The reforms included, inter alia, the strengthening of the SGP's preventive arm by way of (i) the introduction of a significant deviation procedure aimed at correcting insufficient structural efforts towards the MTO, and (ii) an expenditure rule to avoid that revenue windfalls arising during boom times fuel excessive government spending (as observed during the pre-crisis period). It also entailed the introduction of a debt rule, which sets out the pace at which high government debt needs to be reduced to the 60% of GDP debt reference value. This followed the observation that fiscal surveillance ahead of the crisis had paid insufficient attention to debt developments.

In 2013 the fiscal compact entered into force. It was meant to increase national ownership of the stricter rules by enshrining the MTO of a structural position of close to balance or in surplus in national primary law.⁹

⁸ See for this argument also Deroose et al. (2018).

The fiscal compact establishes a floor for the MTO of -0.5% of GDP for countries with debt above 60% of GDP and of -1% of GDP for countries with debt significantly below 60% of GDP: "[...] the budgetary position of the general government of a Contracting Party shall be balanced or in surplus; [this] shall be deemed to be respected if the annual structural balance of the general government is at its country-specific medium-term objective, as defined in the revised Stability and Growth Pact, with a lower limit of a structural deficit of 0.5% of the gross domestic product at market prices. [...] Where the ratio of government debt to gross domestic product at market prices is significantly below 60% and where risks in terms of long-term sustainability of public finances are low, the lower limit of the medium-term objective [...] can reach a structural deficit of at most 1.0% of the gross domestic product at market prices."

In 2015, after years of fiscal adjustment in a low growth environment and amid growing consolidation fatigue, some of the flexibility entailed in the SGP's preventive arm was clarified. Importantly, a matrix of structural effort requirements was introduced to apply for countries that have not achieved their MTOs. This matrix granulates the structural adjustment needs towards sound positions according to the size of the country's output gap as well as its debt level. Beyond this, the implementation of the SGP's preventive arm now entails the possibility of lower structural adjustment requirements in exchange for structural reforms or additional public investment (for a discussion, see ECB, 2015).

For 2018, the European Commission introduced a so-called "margin of discretion" that would further lower structural adjustment requirements under the preventive arm below what the above-mentioned matrix would imply (see European Commission, 2017a). For 2019, the ECOFIN Council endorsed Commission recommendations that for some countries lower the structural adjustment requirements below the matrix requirements (see ECB, 2018). Both deviations from the matrix requirements reflected reasoning that the output gaps underlying the specification of the structural adjustment requirements were understating the weakness of countries' macroeconomic situations.

The several amendments to the rules, which were introduced to correct their perceived weaknesses, have made the EU's fiscal framework increasingly complicated over the years. A revolving pattern behind many of the adjustments is the attempt to better correct for the impact of the cycle on budgetary positions in the determination of the structural balance, which is not directly observable. This may have contributed to the observation that there is still no full ownership of the structural balance as the main indicator of compliance up until today, while the 3% of GDP deficit reference value seems accepted and wrongly understood as a major fiscal target by the broader public. Against this background, the following chapter looks in more detail at the lack of effectiveness of the different rules and the underlying reasons.

The current rules-based fiscal governance framework: what worked and what did not?

There is plenty of literature on the functioning of fiscal rules, including assessments of the functioning of the specific features of the EU's fiscal framework.¹⁰ In what follows, we will review the functioning of the EU's fiscal framework from the perspective of the euro area and its special requirements. To this end, the subsequent analysis focuses on the period 1998-2017. It also covers, where feasible, the 19 countries that are currently members of the euro area.

3.1 The 3% of GDP deficit reference value

For a number of countries, the 3% of GDP deficit reference value appears to have acted as a guidepost for fiscal policies since the SGP took effect in 1998. The nominal deficit reference value is a transparent fiscal variable that is well-anchored in public communication and can be monitored rather easily by financial markets and the general public. Over the two decades from the inception of the SGP, i.e. between 1998 and 2017, the euro area deficit-to-GDP ratio averaged below the reference value at 2.6% (see Table 1). It was actually below the reference value in 15 of these 20 years. Consequently, the euro area average budget deficit more than halved during the EMU period compared to the pre-EMU period 1980-1997 in an environment of far lower average nominal GDP growth. By comparison, in both the United States and Japan a slowdown in nominal GDP growth was accompanied by a rise in the average budget deficits over these time periods.

Table 1

3

Budget balance performance vis-à-vis the 3% of GDP reference value (1980-2017)

	198	80-1997	1998-2017				
	Budget balance (average)	nominal GDP growth (average)	Budget balance (average)	nominal GDP growth (average)	Number of years with budget balance at/outperfoming the 3% deficit reference value		
Euro area	-7.1	7.4	-2.6	3.1	15		
EU*	-		-3.0	3.2	11		
US	-4.4	6.6	-5.2	4.2	5		
Japan	-2.3	4.6	-6.3	0.1	2		

Sources: AMECO database (spring 2018 vintage), Area Wide Model database – December 2018 version (Fagan et al., 2001), Euro Area Fiscal Database – December 2018 version (Paredes et al., 2009) and own calculations. Note: * Starting in 2001.

The phenomenon of government deficits below the 3% of GDP reference value is widespread across the euro area countries in normal times (see Table 2). In 1998 five

⁰ For a more recent review and assessment of EU fiscal rules, see e.g. European Commission (2019) and Eyraud et al. (2018).

euro area countries had posted deficits above the reference value; in the favourable pre-crisis times in 2007 it was one country (Greece), while thereafter, in 2017 it was again one country that recorded deficits above this threshold (Spain). These budgetary developments imply a marked correction of excessive deficits when compared to 2009, when a large number of 16 euro area countries posted deficits often far above the reference value at the peak of the sovereign debt crisis.

Table 2

Number of countries with government deficits above the deficit reference value

	1998	2007	2017	memo: 2009
Euro area	5	1	1	16
EU	9	2	1	23

Sources: AMECO database (spring 2018 vintage) and own calculations.

Unlike in the euro area, the budgetary outcomes over the past two decades do not compare favourably with the 3% of GDP reference value in the United States and Japan. Here, average budget deficits amounted to 5.2% and 6.3% of GDP, with deficits below 3% of GDP in only five years and two years respectively (see Chart 1). The observation that budget deficits in the United States and Japan remained at levels far above those recorded on average in the euro area may be taken as a first indication that the EU's budget deficit rule "has worked" to contain budgetary imbalances.

Chart 1

Headline balances in the euro area, the United States and Japan: 1998-2017



Sources: AMECO database (spring 2018 vintage) and own calculations. Note: The horizontal grey line refers to the 3% of GDP deficit reference value.

Interestingly, the developments in the euro area headline balance have been accompanied by some convergence across countries. As shown in Chart 2, when looking at the period spanning the years 1998 to 2017, notably in the first decade after the SGP entered into force, but also in 2014-15, there was some clustering of headline balances around the 3% of GDP deficit reference value. At the same time, convergence in headline budget balances increased towards the mid-2000s. After

years of high divergence in budgetary positions during the sovereign debt crisis, the dispersion was rather small in 2017.

Chart 2

Dispersion of government budget balances in the euro area: 1998-2017



Sources: AMECO database (spring 2018 vintage) and own calculations. Notes: The shaded grey area in the vicinity of the 3% of GDP deficit reference value encloses the values between -3.5% and -2.5% of GDP. The chart excludes the very large negative outlier Ireland in 2010.

While the 3% of GDP deficit reference value indeed appears to have been a "reference" for many euro area countries' fiscal policies, it tends to be acting more like a target in some of them. For example, over the 20 years between 1998 and 2017, irrespective of its high debt, Italy's headline deficit averaged at 3.1% of GDP; equivalently, France's deficit-to-GDP ratio averaged at 3.5% of GDP over the same period. In both countries, the government deficit hovered around the reference value even in the economic good times ahead of the crisis (see Chart 3), which implies that cyclical improvements in the budget balance were eaten up by discretionary fiscal loosening. In the case of Portugal, the government deficit-to-GDP ratio has remained consistently above and in some years close to the reference value ahead of the crisis. In this context, it should be noted that, after the peak of the crisis, several countries in EDP followed so-called "nominal strategies", including countries such as France, Portugal and Spain. These strategies allow countries to only comply with their annual nominal headline deficit targets in view of reaching the 3% of GDP deficit reference value by the EDP deadline - irrespective of whether they comply with the required structural efforts under the EDP recommendation. For most of the euro area countries that recorded excessive government deficits in recent years in the context of a recovering economy, this strategy implied that they grew out of their large budget deficits in the absence of a sufficient improvement in the underlying budgetary position. By allowing for such nominal strategies, the EU's fiscal framework thus inherently favours the 3% of GDP deficit reference value over the fiscal compact's MTO under the SGP's preventive arm, which would call for stronger progress towards achieving sound underlying budgetary positions (see also Section 3.2).





Sources: AMECO database (spring 2018 vintage) and own calculations. Note: The horizontal grey line refers to the 3% of GDP deficit reference value.

Within a macroeconomic environment characterised by much lower growth and inflation than that prevailing when the Maastricht Treaty was signed, targeting a 3% of GDP deficit does not ensure stabilisation of the debt ratio at 60% of GDP. Looking at the period between 1998 and 2017, nominal GDP growth in the euro area averaged

about 3% (which compares with Maastricht's 5% assumption under which a 3% of GDP deficit stabilises government debt at 60% (see Chart 4)). Within such a low growth environment, the Maastricht deficit reference value stabilises debt only at about 100% of GDP.

Consequently, the Maastricht deficit reference value has lost consistency with the 60% debt reference value. To ensure that the debt-to-GDP ratio converges to this widely accepted level in the long term, the deficit reference value would need to be lowered to 1¾% of GDP if nominal growth equalled 3% – the rate experienced over 1998-2017. Correcting for the years of the Great Recession, nominal growth averaged about 3½% in the euro area; such growth rate would be consistent with a deficit target of 2% of GDP.

Chart 4



Deficit-to-GDP ratios and nominal GDP growth rates stabilising debt at the 60% of GDP reference value

Sources: Own calculations.

Moreover, the 3% of GDP deficit reference value is also not coherent with an MTO of a close to balance budget as these two guideposts for fiscal balances imply convergence to very different government debt ratios in the long term. Obviously, if a government were to record a close to balance budget over an indefinite time horizon, as foreseen by the fiscal compact's MTO, government debt would stabilise at very low levels. In the extreme case, if a government were to record a balanced budget over an indefinite time horizon, the government debt ratio would converge to zero. In the same vein, if with nominal growth at 3% a government were to record a budget deficit of 1.0% of GDP, over an indefinite time horizon, government debt would converge to a level of around 30% of GDP.

3.2 The medium-term budgetary objective and the change in the structural balance as a means to assess progress towards it

In 2005 the European Council endorsed a report with proposals for "strengthening and clarifying the implementation of the SGP" while confirming the relevance of the deficit and debt reference values.¹¹ In its view, "the two nominal anchors of the Pact [had] proven their value and continue[d] to be the centrepiece of multilateral surveillance." At the same time, the European Council stressed the need for "an enriched common framework with a stronger emphasis on the economic rationale of its rules [which] would allow to better cater for differences in economic situations across the EU". To this end, country-specific MTOs were proposed that were to be defined in structural terms, i.e. cyclically adjusted and net of temporary and one off measures. Furthermore, in order to reach their MTO, Member States of the euro zone were foreseen to "pursue an annual adjustment in cyclically adjusted terms, net of one-offs and other temporary measures of 0.5% of GDP as a benchmark"; to this end, "their adjustment effort should be higher in good times [while] it could be more limited in bad times." It was clarified that "good times" should be identified as periods where output exceeds its potential level, taking into account tax elasticities".

Overall, it seems that the structural balance has built up limited ownership as a variable for fiscal surveillance up until today. Defined as structural balance = nominal headline balance – ε^*OG – one-offs, where ε = semi-elasticity of the nominal balance w.r.t. the output gap (OG), the structural balance is subject to a number of shortcomings. Among others, the elasticity ε , contrary to assumptions, is not constant over the cycle. Instead, experience shows that there are significant windfall revenues in booms and shortfalls in downturns. Moreover, estimates of the (unobservable) output gap, which are based on a methodology commonly agreed between the European Commission and EU Member States, have proven to be relatively unreliable, despite continuous methodological amendments. They are often strongly revised ex post and tend to be procyclical. As shown in Chart 5, between 2004 and 2017, the euro area aggregate output gap was more favourable than initially forecast in nine of the 14 years under consideration. These deficiencies contributed to the well-known insufficient improvement in budgetary positions ahead of the crisis. At that time, structural efforts in the euro area proved too low compared to what was identified ex post to have been better economic times than thought in real time.¹²

¹¹ For details, see the presidency conclusions of 2005.

¹² See also Kamps et al., 2014 and Kamps et al., 2017.



Euro area output gap: real time, ex post and revisions

Despite its inherent problems, reliance on the structural balance and thus the unobservable output gap increased further in 2015 with the introduction of the so-called "preventive arm matrix" under the SGP. This matrix granulates structural effort requirements according to the size of the unobservable output gap, which depicts so-called exceptionally bad (gap below -4%), very bad (gap between -4% and -3%), bad (gap between -3% and -1.5%), normal (gap between -1.5% and +1.5%) and good times (gap larger than +1.5%) respectively.¹³ At the same time, no granulation is made in terms of the level of debt, i.e. countries with government debt at either 61% or 131% of GDP are treated the same. In a recent review, the European Commission assessed that the matrix works to avoid procyclical fiscal policies, under the assumption it is being applied fully, thus abstracting from how the Commission and the ECOFIN Council actually implemented the SGP's preventive arm.¹⁴

Over recent years compliance with the SGP's structural effort requirements appears at first glance satisfactory on aggregate. In fact, euro area countries had to deliver an annual average aggregate structural effort of 0.5% of GDP over the period 2011-17 (see Chart 6). While this is just marginally more than what euro area countries achieved when looking at the ex post change in the structural balance, the result hides two things: (i) during the crisis years 2012-13 euro area countries overall actually achieved a markedly larger structural effort than prescribed by the SGP (i.e. on average about 1% of GDP per year versus 0.75% of GDP), which may be seen in the light of the sizeable financial market pressures and uncertainty at the time; and (ii) by contrast, over the period 2015-17, the average structural effort was below that foreseen by the SGP (0.1% versus 0.2% of GDP).

Sources: AMECO database (various vintages) and own calculations.

¹³ Interestingly, unlike the EU Council clarifications of 2005, good times are not defined as periods "where output exceeds its potential level" but rather as times with a positive output gap larger than 1.5%.

¹⁴ See Communication from the Commission on the review of the flexibility under the Stability and Growth Pact COM 2018 (335) as well as the corresponding Annex.





At the same time, the structural effort that the euro area delivered on average in recent years hides the fact that compliance with structural effort requirements is subject to significant heterogeneity at Member State level. As Chart 7 indicates, gaps between the structural effort requirements under the SGP and what countries actually delivered are particularly large in some countries under the preventive arm. This was despite the fact that the granting of flexibility had markedly reduced the structural effort requirements also accumulated over time as the European Commission and the ECOFIN Council, in line with the significant deviation procedure under the SGP's preventive arm as established with the six-pack regulations in 2011, granted countries deviations from the need to deliver the needed efforts 1:1. In fact, as long as the deviation from the structural effort requirements remains below 0.5% of GDP over one year or 0.25% of GDP on average over two years, the significant deviations procedure will not be stepped up, giving rise to a considerable slowing down in the progress towards the MTO (see also European Court of Auditors, 2018).

It is frequently argued that the resistance among some Member States to delivering the structural effort requirements relates to dissatisfaction with the structural balance as a fiscal indicator of measuring the post-crisis slack in the economies. Beyond this, some countries' scepticism may relate to the structural balance indicator being gauged by the European Commission and thus not being fully under governments' control.

Sources: AMECO database (spring 2018 vintage), Council recommendations under the SGP and own calculations.



Compliance with the SGP's structural effort requirements 2012-13 and 2015-17: euro area countries

Sources: AMECO database (spring 2018 vintage), Council recommendations under the SGP and own calculations.

Consequently, as shown in Table 3, in a number of countries structural balances are still very distant from sound medium term budgetary positions following frequent non-compliance with their structural effort requirements in recent years. This includes notably some countries with high levels of government debt (i.e. France, Italy, Portugal and Spain). These are countries that – as we have seen above – appear to have taken the 3% of GDP deficit reference value rather as a target of their fiscal policies over the past two decades. By contrast, as Table 3 shows, there is an increasing number of countries that have reached their MTO after the crisis.

Table 3

Distance to country-specific MTOs 2011-18

	2011	2012	2013	2014	2015	2016	2017	2018
Belgium	-4.5	-4.0	-3.8	-3.7	-3.0	-2.1	-1.3	-1.4
Germany	-0.6	0.4	0.8	1.6	1.6	1.6	2.0	1.7
Estonia	0.1	0.0	-0.6	0.0	0.0	-0.4	-0.7	-0.8
Ireland	-7.6	-6.0	-3.9	-3.6	-1.5	-0.3	0.4	-0.1
Spain	-6.3	-3.1	-1.7	-1.5	-2.4	-3.3	-3.0	-3.3
France	-5.0	-4.3	-3.4	-3.0	-2.3	-2.2	-1.7	-1.7
Italy	-3.3	-1.3	-0.7	-0.8	-0.6	-1.4	-1.7	-1.7
Cyprus	-4.9	-3.9	-0.7	3.3	1.7	1.2	1.4	0.8
Latvia	-1.1	0.1	-0.4	-0.1	-0.5	0.7	-0.2	-0.9
Lithuania	-3.8	-2.8	-0.9	-0.4	0.3	0.7	0.4	0.3
Luxembourg	1.1	2.1	2.3	1.4	1.1	2.3	2.3	1.3
Malta	-1.9	-2.7	-1.7	-2.6	-2.5	0.5	3.5	0.6
Netherlands	-2.9	-1.5	-0.2	0.1	-0.4	1.3	1.0	0.4
Austria	-2.6	-1.9	-1.3	-0.3	0.4	-0.4	-0.1	-0.3
Portugal	-6.2	-3.1	-2.6	-1.3	-1.8	-2.2	-1.4	-1.4
Slovenia	-4.5	-1.6	-1.2	-2.1	-1.3	-1.1	-0.9	-1.4
Slovakia	-4.2	-3.6	-1.1	-1.6	-1.7	-1.5	-0.5	-0.7
Finland	-1.3	-1.6	-0.6	-1.0	-0.4	-0.2	0.4	-0.3

Sources: AMECO database (spring 2018 vintage) and own calculations.

Notes: The numbers in the table refer to the distance of the structural balance from the country-specific MTO. Cells highlighted in green (red) refer to countries that have (not) achieved their MTO. The grouping reflects the fact that according to the European Commission's Vade Mecum (2017b), countries that are in the vicinity of their MTOs, as measured by a distance of up to 0.2 percentage points, are also assessed as being at the MTO.

At the same time, it appears that, once reached, the MTO serves as an anchor for public finances - countries at least appear to be trying to avoid deviating from it going forward. As the table shows, when looking at the years 2011 to 2017, Luxembourg has been consistently at its MTO. Germany reached its MTO in 2012 and has maintained it ever since, Cyprus followed in 2014, Lithuania in 2015 and the Netherlands in 2016. While reaching the MTO might be blurred by revenue windfalls that overestimate the soundness of the underlying fiscal position in good economic times, the prudent stance on fiscal policies in these countries is reflected in public communication. For example, in Germany, "the black zero" has become firmly established as the target of the government's fiscal policies.¹⁵ It can thus be argued that de facto two fiscal targets are followed in the euro area that are not mutually consistent - one leading to contained levels of debt over the medium to long term, the other to debt ratios solidifying at high levels. Though more indirectly, this can also be seen from countries' budgetary plan ambitions. Since autumn 2013, as part of the two-pack regulations, euro area countries have to submit draft budgetary plans for the subsequent year to the European Commission and the Eurogroup. As Table 4 shows, there is one group of countries that has been assessed to plan for sound budgetary policies for most of the years since this exercise was established. This group includes Germany,

¹⁵ Strictly speaking, the "black zero" is not consistent with the MTO as the former refers to the headline balance whereas the latter refers to the structural balance. This is another example of the more general finding that governments still prefer to communicate in terms of headline balances, which are easier to understand for the general public. At the same time, targets set in headline balances give rise to the well-known procyclicality concerns.

Luxembourg, the Netherlands – countries that have reached and maintained their MTO in recent years – and Slovakia. Another group includes countries that have not once delivered a draft budgetary plan in full compliance with the SGP. This group covers, inter alia, all countries with high levels of debt, including notably Belgium, France, Italy, Spain and Portugal, but also Cyprus.

Table 4

Assessments under the review of draft budgetary plans 2014-18



Source: Draft Budgetary Plans for the individual years.

Notes: The table reflects the opinions of the European Commission on the draft budgetary plans as delivered in autumn of year t-1 for year t (e.g. the entry for "2014" gives the Commission's opinion in November 2013 on the Draft Budgetary Plan for 2014). Green (orange) bars relate to countries whose draft budgetary plan for 2019 is considered by the European Commission to be (broadly) compliant with the SGP. Red bars relate to countries whose draft budgetary plan for 2019 is considered by the European Commission to be at risk of non-compliance with the SGP. White cells denote years in which the respective country did not need to deliver a draft budgetary plan given it was under a financial assistance programme.

3.3 The 60% of GDP debt reference value and the debt rule

So far, the 60% of GDP debt-reference value has hardly affected the conduct of fiscal policies, also as the debt rule is de facto not being applied for countries with high debt. To start with an inspection of past data, in no single year between 1998 and 2017 has the aggregate euro area general government debt ratio been below the 60% reference value (though this was the case in three years for the EU (see Table 5). Over the same period, as a toll of the crisis, the number of countries with debt ratios above this level has risen from 8 in 2007 to 12 in 2017 (see Table 6).

Table 5

General government debt performance vis-à-vis the 60% of GDP reference value

(1998-2017)		
	General government debt (average)	Number of years with general government debt outperforming the 60% debt reference value
Euro area	77.7	0
EU*	71.6	3
US	79.6	5
Japan	192.9	0

Sources: AMECO database (spring 2018 vintage) and own calculations. Note: * Starting in 2000.

Table 6

Number of countries with government debt above the 60% of GDP reference value

	1998	2007	2017	memo: 2009
Euro area	7	8	12	9
EU	10	9	14	11

Sources: AMECO database (spring 2018 vintage) and own calculations.

Exacerbated by the impact of the financial crisis, these developments have been accompanied by large divergence in government debt levels across the euro area countries (see Chart 8). This leaves the euro area vulnerable to shocks, including through the interest rate channel for the high debt countries.

Chart 8

Dispersion of government debt ratios in the euro area: 1998-2017



Sources: AMECO database (spring 2018 vintage) and own calculations.

The introduction of the debt rule in 2011 has not yet changed this picture. According to this rule, countries with government debt above the 60% of GDP debt reference value should reduce the gap to the reference value by 1/20th on average over three years. It was thus designed to have a memory to ensure that persistent shortfalls in consolidation efforts are not treated as bygones. For countries that were in EDP in

2009 a three-year transition period exists after its abrogation, with progress measured in terms of the change in the structural balance.

At the current juncture, the majority of euro area countries are actually compliant with the debt rule, while notably countries with very high debt ratios and weak growth are not. However, the very large requirements that currently hold for e.g. Italy largely reflect the impact of cumulated shortfalls in structural efforts after these countries exited the EDP (see ECB, 2016b). The debt rule rightly accounts for low nominal growth as a relevant factor, but this does not come close to fully explaining non-compliance. Given the high requirements under the debt rule, the European Commission and the ECOFIN Council have de facto discontinued its application. They have instead argued that compliance (in some cases even projected future compliance) with the less demanding preventive arm (which the Regulation mentions as one necessary though not sufficient condition for compliance), is sufficient to avoid the opening of a debt-based EDP.

Overall, the debt rule's inherent memory is a very useful feature in view of increasing the focus on debt sustainability. At the same time, the fact that the debt rule can take different forms (e.g. backward-looking, forward-looking and accounting for the cycle) and accounts for a number of relevant factors renders it complex and difficult to communicate and monitor.

3.4 The expenditure rule – a first step to resolve shortcomings of the original SGP

The six-pack regulations in 2011 introduced an expenditure rule under the preventive arm. This expenditure rule rests on an expenditure aggregate, which excludes interest spending (which is outside government control), expenditure on EU programmes fully matched by EU funds revenue as well as cyclical elements of unemployment benefit expenditure (see for details European Commission, 2017a). Beyond this, government investment that is nationally financed is averaged over a four-year period to smooth the impact that a very large investment project could have on annual outcomes. EU countries that have not yet achieved their MTOs have to ensure that this expenditure aggregate grows at a rate below a multi-annual reference rate of potential output growth covering ten years. If the expenditure aggregate grows above this reference rate, this needs to be matched by discretionary revenue measures that yield additional tax revenue. Importantly, this requires, inter alia, transparency on how discretionary revenue measures are gauged in a sufficiently prudent as well as consistent manner across time and countries.

Generally, the expenditure rule addresses several of the structural balance's shortcomings. Importantly, it is less procyclical than the structural balance, notably as "revenue windfalls" resulting from abnormal responses of government revenue to economic activity are saved in good times (see European Commission, 2017b). Importantly, unlike the structural balance, which is based on the output gap and thus the level of potential output, the expenditure benchmark relies on a reference medium-term rate of potential GDP growth, averaging the estimates of the previous

five years, the estimate for the current year and projections for the following four years. Consequently, while the expenditure rule also relies on the unobservable potential output, revisions to the expenditure benchmark tend to be much smaller than for the structural balance (see Kamps et al., 2014). Finally, compliance with expenditure growth is generally easier to monitor ex post than changes in the structural balance, which are subject to frequent ex post revisions.

3.5 Enforcement

Any fiscal framework is only as effective as its ownership, which in turn depends on design and enforcement. Lacklustre enforcement undermines the functioning of a fiscal framework and can trigger moral hazard among Member States to not deliver the recommended fiscal adjustment going forward. Also, consistent application of the framework over time and across countries is absolutely necessary to ensure its credibility.

It has, however, become clear that the European Commission and the ECOFIN Council are hesitant to enforce sanctions on sovereigns and frequently invoke the discretion that came with the "strengthened" fiscal rules after the six pack.¹⁶ Obviously, the way the EU's fiscal rules have been set up and accompanied by exemptions leaves the Commission and the Council ample discretion in their application. For example, as mentioned above, the SGP's preventive arm was strengthened by introducing the possibility of financial sanctions in case of "significant" deviations from adjustment requirements towards sustainable budgetary positions. But at the same time, an "overall assessment" was introduced, which leaves ample room for judgement of when a deviation should be considered "significant".¹⁷ As another example, the debt criterion was strengthened by aiming to ensure that non-compliance with the debt rule leads to the opening of a debt-based EDP. But at the same time, a number of "relevant factors" were introduced that can lower requirements under this rule, which also include non-quantifiable factors, which de facto make the debt rule toothless as an instrument to reduce high debt. Beyond this, Regulation (EU) No 1303/2013¹⁸ governing the European Regional and Developments Funds entails the possibility to suspend part or all commitments and/or payments under these funds in case of failure to take effective action under the EDP. At the same time, any decisions by the Council in this regard need to "take into account economic and social circumstances". These, again, are not defined in detail.

With regard to the European Commission, the six-pack reforms assigned it stronger powers in 2011. Since then, a Commission recommendation is deemed to be adopted

¹⁶ For a discussion, see also Wyplosz (2013).

¹⁷ This overall assessment has to be conducted in case countries' compliance with the structural effort and the expenditure rule lead to conflicting outcomes, but has also been conducted when both indicators signal a significant deviation, e.g. for Malta and Hungary.

⁸ Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Social Fund, the Cohesion Fund and the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Council Regulation (EC) No 1083/2006 (OJ L 347, 20.12.2013, p. 320).

unless the ECOFIN Council decides by a qualified majority to reject the recommendation within a given deadline. Regulation (EU) No 1173/2011¹⁹ (sanctions regulation) foresees several kinds of sanction: interest and non-interest bearing deposits, and fines of up to 0.2% of GDP. At the same time, the Commission has, on several occasions in recent years, refrained from proposing financial sanctions in cases in which the sanctions regulation foresees such sanctions as a rule. Drawing on its leeway, for example, the Council effectively did not sanction Portugal and Spain in 2016 even though these countries had previously been assessed as not having taken effective action in response to the EDP recommendations.²⁰

¹⁹ Regulation (EU) No 1173/2011 of the European Parliament and of the Council of 16 November 2011 on the effective enforcement of budgetary surveillance in the euro area (OJ L 306, 23.11.2011, p. 1).

As one exception, in early 2012, the Commission proposed, and the Council followed this recommendation, to suspend €495 million of the Cohesion Fund for Hungary in 2013 for a failure to address its excessive deficit. However, after the Hungarian government later delivered on several of its fiscal commitments, the suspension did not take effect.

Options for reform

4

The insufficient building of buffers in good economic times has high economic costs as it raises the need for procyclical fiscal tightening during economic downturns. This in turn increases the onus on monetary policy. A multitude of proposals on how to mend the EU fiscal governance framework has been put forward in the recent past (see, for example, European Fiscal Board (2017), Eyraud et al. (2018), Benassy-Quere (2018), Darvas et al. (2018), Feld et al. (2018)). This shows that the malfunctioning of the current EU fiscal framework is increasingly acknowledged among a wide group of economic experts.

The following reform principles provide some rationale for mending the current fiscal framework in order to address these problems. It is against these principles that the manifold options for reform that have been put forward by a number of economists, think tanks and international institutions are assessed below:

- Fiscal rules should derive from a sound economic rationale, ensuring also that they are mutually consistent. For example, adjustment requirements should be higher (lower) in good (bad) times and when fiscal sustainability risks are large (low);
- Fiscal rules need government ownership. They should rest largely on variables governments can control. Proposals for reform that will not gain government support will not be politically feasible;
- Fiscal rules should provide incentives for fiscal discipline. Rewarding fiscal discipline instead of sanctioning fiscal indiscipline may often have a larger disciplining effect;
- 4. Fiscal rule implementation presupposes indubitable assessment. While there could be room for economic judgement, political discretion should be minimised;
- Fiscal rules need well-defined escape clauses for severe crisis times. This distinction needs to account for the special features of the euro area and the single monetary policy.

Against this background, the following reform needs in four main areas could be considered, which will be discussed in the following subsections:

- Making the fiscal framework's fiscal indicators coherent by reviewing the triumvirate encompassing the 3% of GDP deficit reference value, the 60% of GDP debt reference value as well as the fiscal compact's MTO of a close to balanced budget;
- Reducing the SGP's complexity with a view towards less reliance on structural balance/output gap estimates;

- Exploring options for achieving higher fiscal discipline by way of financial rewards instead of sanctions;
- Clarifying the role of fiscal policies and the aggregate euro area fiscal stance in times when the euro area is in exceptional circumstances.

4.1 Rendering the fiscal framework coherent

As to the status quo Maastricht setting, mending its incoherence requires that the MTO as well as the debt and deficit reference values are rendered consistent. The following considerations hold:

- The 60% of GDP Maastricht threshold could serve as the fiscal framework's anchor. In parallel, the deficit reference value could in principle stay at 3% of GDP. Its role as upper limit rather than as target for national deficits would, however, need to be clarified, while the MTO's target role would need to be strengthened. At the same time, the MTO could become less demanding than the fiscal compact's MTO, i.e. deteriorate from a close to balanced budget to a structural deficit of about 1½% of GDP for countries with a starting debt ratio close to 60% of GDP. This would (roughly) introduce consistency between the MTO and the debt target under the assumption that nominal growth averages around 3% as has been the case in the EMU period so far.²¹ For high debt countries the MTO could be set at a more demanding level initially in line with the current fiscal compact in order to ensure that their indebtedness converges to 60% of GDP at a sufficiently rapid pace.
- Moreover, a more coherent fiscal framework requires a rethinking of the debt rule. As it stands, there is an inherent tension between the fiscal compact's MTO and the debt rule which needs to be addressed: compliance with the debt rule lowers debt to 60% of GDP, an MTO of a close to balanced budget to levels far below this. In any case, the debt rule in its current format cannot be brought to life again to effectively lower government debt. Some broad reform options exist: (i) the preferable option preserves the rule's "memory-feature" with regard to cumulated consolidation shortfalls, while correcting the debt rule's design to fully insulate it from macroeconomic - including inflation - developments. This could be associated with a significant simplification of the rule itself and a downscaling in the number of relevant factors. The rule could be defined in nominal terms only and be spread over a larger time horizon to give a country more leeway to act over the cycle (e.g. the time horizon over which the average debt reduction should be accomplished could be raised beyond three years).²² Whether the pace of debt reduction should be lowered from 1/20th is subject to debate. On the one hand, a lower pace would allow for smoother adjustment, on the other hand, it would mean that countries with very high debt remain vulnerable to adverse

²¹ Strictly speaking, a deficit of 1½% of GDP, coupled with a nominal GDP growth rate of 3%, would be consistent with convergence to a debt ratio of about 50% of GDP. An MTO of 1½% of GDP would include a small safety margin of ¼% of GDP.

²² See Hauptmeier and Kamps (2019) for a discussion of a debt rule reformed along these lines.

shocks over a longer time period; and(ii) the MTO could be differentiated more according to debt ratios, being less restrictive than currently for low-debt countries while remaining close to balance level for high-debt countries. This would ensure at the same time that (a) for low-debt countries the MTO becomes consistent with the debt target, and (b) for high-debt countries there is a sufficiently fast convergence of the debt ratio towards the target.

4.2 Less complexity with a view towards less reliance on structural balance and output gap estimates

It is without doubt that even experts have difficulties understanding the increasingly complex set of fiscal rules in full detail. A reduction in the complexity of the rules where it is excessive would certainly enhance monitoring through the general public and could increase the pressure on the European Commission and the ECOFIN Council to enforce the rules. However, what exactly is "excessive" goes beyond the scope of this analysis, though it certainly deserves more consideration.²³ As to the roots of the very complex set of rules, Deroose et al. (2018) argue that the EU fiscal framework has become more complex over the years with the Commission's and the Council's intention of "filling gaps in surveillance, providing stronger economic underpinnings, strengthening enforcement and adapting the rules to new circumstances". As we have argued, a large part of this increased adaptation of the rules over the years relates to a more or less persistent dissatisfaction with the structural balance and the underlying measurement of the output gap as the core variable of EU fiscal surveillance. Against this background, inter alia, the Eurogroup has several times highlighted the need to review the methodology for gauging the output gap (see Eurogroup 2016, 2017).

Generally, given the shortcomings of the structural balance, increased emphasis on developments in observable expenditure growth would be useful, also with a view towards more transparency and better monitoring. Improved real-time properties and avoidance of revenue windfalls being spent in good economic times was the idea behind the introduction of the expenditure rule with the six-pack regulations in 2011. However, as this rule came on top of the structural balance and was accompanied by an overall assessment that provided a large scope of discretion, the fiscal framework became even more complex. To this end, many economists have put forward proposals to refocus the EU's fiscal framework even more towards using government expenditure growth as the main and/or only operational variable with government debt-to-GDP acting as an anchor (see Benassy et al. (2018), Feld et al. (2018) and Darvas et al. (2018)). Such proposals - encompassing expenditure rules with a clear debt anchor - would indeed address many of the shortcomings related to the structural balance as the main surveillance indicator. However, focusing the EU fiscal governance framework more - or even solely - on government expenditure has proven politically somewhat difficult so far, not least because the transposition of the fiscal compact has enshrined the structural balance in national primary law in

²³ It seems safe to say that the assessment of compliance under the EDP, which is based on a number of indicators, is excessively complicated. The same holds for the calculation of the debt rule. For a comprehensive review in this regard, see Deutsche Bundesbank (2017).

signatory Member States. There is thus unwillingness to amend the preventive arm regulation, which puts both fiscal indicators (i.e. the structural balance and the expenditure benchmark) on equal footing.

Beyond this, the current practice of gauging the output gap based on a commonly agreed methodology could be amended by more country-specific information. This could enhance ownership among governments compared to the status quo. Where truly independent national fiscal Councils could be given a say on the measurement of output gaps and structural budget balances at the national level. Wyplosz (2012) provides examples of where output gap estimates that are completely in the hands of national fiscal councils have improved fiscal outcomes. Another option to be discussed would be, instead of building on the structural balance, to revert to growth measures over longer time periods that cover a business cycle.

4.3 Options for achieving higher fiscal discipline by way of financial rewards instead of sanctions

The fiscal framework includes financial sanctions as one crucial element in monetary union to protect its members in case fiscal policies in one country go harmfully astray. Effectively correcting insufficiently sound fiscal policies is of high importance for the single monetary policy, which otherwise risks being strained, especially in crises. As shown in Chapter 3, the framework is in principle designed such that sanctions apply only to countries that have failed to correct insufficiently sound fiscal policies. They do not apply to unfavourable fiscal outcomes that are outside governments' control. The de facto absence of financial sanctions and a credible no-bail out rule as a final deterrent to fiscal indiscipline therefore weaken the EU's framework for public finances considerably.

Against this background, it could be tested whether the fiscal framework could be amended such that the tool of sanctions is complemented by more financial rewards (which have proven to work effectively in some parts of public administration).²⁴ For example, to avoid problems of time inconsistency, a multi-annual period of sound fiscal policies could be made a precondition for being granted access to financial means at the EU and/or euro area level. Sound fiscal policies may comprise either minimum periods of being at or above the MTO or full compliance with the SGP's adjustment requirements ex post. Such prudent policies could then allow countries to subsequently receive full access to e.g. EU structural and cohesion funds.²⁵ This avenue has some appeal as discussions on the 2021-27 Multiannual Financial Framework are ongoing.

Generally, adding financial rewards could potentially lead to better compliance with fiscal rules by way of more effective enforcement. The Council may find it easier to reach an agreement on not granting access to funds than imposing fines up to 0.2% of GDP because the latter is politically more difficult. It could be conjectured that this

²⁴ For a review, see National Audit Office (2008).

²⁵ The latter is also included as a proposal in the Commission's reflection paper, see European Commission (2017c).

route works better than sanctioning a country if the EU funds or a fiscal capacity for which access is denied is "joint money" and the share of funds simultaneously rises for those who comply with the rules. Ministers may thus find it more difficult to explain to their electorates why they grant a non-compliant country access to funds and thus forego more funds themselves although the receiving country has breached the rules. In the same vein, ministers of non-compliant countries come under more pressure to explain to their electorate why they have to give up EU funds.

In addition, an incentive-based enforcement of the rules may not be flawless: (a) if the non-compliant country is in bad times, minsters may not want to be "harsh" by not granting access to funds; (b) there may be a time-inconsistency problem such that once access to the funds is granted, the country discontinues prudent behaviour. Still, these risks may be lowered to the extent that all countries participate in the funds. For example, ministers in the Council may not want to forego funds if they are themselves in bad times. Equivalently, they may want to discontinue paying out funds in case, e.g. a country has been granted access to a fiscal capacity but turns non-compliant thereafter.²⁶ Generally, pre-EMU experience, where governments ensured a sizeable reduction in budget deficits to ensure access to EMU, shows that a "carrot" approach has the potential to work. At the same time, the experience with the Maastricht criteria also suggests that a "carrot" approach should not be of a one-off nature as otherwise there is a risk that positive incentives will quickly dissipate.

4.4 Clarifying the role of fiscal policies and the aggregate stance in times when the euro area is in exceptional circumstances

The SGP does not contain rules or instruments to steer the aggregate euro area fiscal stance in times of deep crisis. As we have seen above, the SGP guides each Member State to achieve sound fiscal positions over the cycle. It aims to provide for sufficient room for manoeuvre in downturns to let automatic stabilisers play a role in cushioning shocks. Consequently, with regard to the euro area, the aggregate fiscal stance would just result from a mere summing up of the national fiscal policy stances (see ECB, 2016). In fact, in times when Member States are not yet at their MTO they need to progress towards it, thereby contributing to an overall restrictive fiscal stance. By contrast, countries that have reached their MTO or over-reached it cannot be requested to use this fiscal space in order to support the economy. The SGP is thus inherently asymmetric.

There can, however, be exceptionally bad economic times in which the concept of the aggregate fiscal stance and its steering become important in a euro area context (see Kamps et al., 2017). Generally, fiscal fine-tuning has proven inappropriate as a tool to stabilise the economy during normal economic times. By contrast, fiscal policies may be more effective in stabilising the economy in times of a severe downturn. This is when the precarious state of the macroeconomy is very likely to be confirmed ex post.

²⁶ It clearly matters in this case whether the recipient country received funds e.g. in one pay-out or on an annual basis, the latter being more incentive-compatible.

It seems, however, that the founders of the Maastricht Treaty were influenced by the Great Inflation of the 1970s rather than the deflation of the 1930s, and the EU fiscal rules are written in a way to protect the ECB against unsound fiscal policies triggering inflationary pressures rather than supporting the ECB in reaching its price stability objective in periods of too low inflation. Recent years have proven that the euro area is vulnerable to low inflation, too.

With the 2011 six-pack reforms, an "escape clause" was introduced to the SGP, which may be triggered in case of a severe economic downturn in the euro as a whole – provided debt sustainability is maintained. This escape clause concerns both the SGP's preventive and its corrective arm. However, the notion of a "severe economic downturn in the euro area as a whole" has not been clarified, nor have the implications for the structural effort requirements been clearly defined.²⁷ The European Commission and ECOFIN Council therefore need to agree on the exact conditions under which they would be prepared to trigger the escape clause and how fiscal adjustment should then be modified. This requires assigning a role to the aggregate fiscal stance and having a solid judgement on the state of fiscal sustainability. Such judgement could be delegated to an independent fiscal body.

Article 2(2) of the SGP's corrective arm regulation stipulates that a "severe economic downturn" relates to "a negative annual GDP volume growth rate or [...] an accumulated loss of output during a protracted period of very low annual GDP volume growth relative to its potential".

5

A thought experiment on how to embed a central fiscal capacity into the fiscal framework

As stated above, in EMU the single monetary policy is complemented by fiscal policies that remain largely under the responsibility of national governments. Unlike, for example, the United States, there exist no meaningful countercyclical fiscal stabilisation policies at the central level (see ECB, 2019). Specifically, the United States can rely on some public risk sharing in the form of temporary transfers from the federal budget in the event of idiosyncratic shocks, complemented by "rainy day" funds established at the state level. By contrast, the EU budget has very limited resources (of around 1% of total GDP), which are mainly used for redistribution purposes in the form of EU cohesion funds to foster economic convergence in poorer regions. Following the lessons from the deep financial crisis, during which the automatic stabilisers were exhausted to combat the downturn, a debate has evolved on how a macroeconomic stabilisation function for the euro area could improve the resilience of EMU and support the single monetary policy. Specifically, there may be a case for a central macroeconomic stabilisation instrument to support the aggregate fiscal stance during severe shocks despite a track record of sound fiscal policies. As shown in Section 4.4, there can be exceptionally bad economic times in which the mere summing up of countries' commitments under the inherently asymmetric SGP would not deliver an aggregate euro area fiscal stance that is sufficiently sizeable in stabilising the economy in such precarious times.

A proposal for a macroeconomic stabilisation instrument, a so-called fiscal capacity, was put forward in, among others, the Five Presidents' Report in 2015, which suggested that an automatically working scheme could improve the cushioning of macroeconomic shocks and make EMU more resilient overall (for a discussion, see Koester and Sondermann, 2018). Other more fleshed out proposals have been put forward to create such a central fiscal capacity at the euro area level. These include, inter alia, the European Commission proposal for a European Investment Stabilisation Function (EISF) (see European Commission, 2018), the IMF proposal for a rainy-day fund (see Arnold et al., 2018) as well as joint elaborations of the French and German government in this regard (see Federal Government of Germany, 2018).

Irrespective of the general design features of such a central fiscal capacity, i.e. whether it should support government investment in troughs or rather take the form of an unemployment benefit insurance scheme, one key question is how to create fiscal space at the euro area level over the medium to long term. Such considerations for building up fiscal space at the euro area level for a fiscal capacity (EAFC) could start from a euro area government debt ratio that does on aggregate not exceed 60% of GDP in the steady state. Under the assumption of a euro area wide nominal growth rate of 3.5% of GDP, achieving this objective requires that the

aggregate euro area budget deficit does not exceed 2% of GDP on average over the long term (see Chart 9).

Chart 9

Debt and deficit ratios in steady state under alternative growth assumptions



Source: Own graphical presentation.

Within such a scenario, building up fiscal space at the centre would be achieved if euro area Member States attained and then maintained the fiscal compact's MTO for countries with debt-to-GDP ratios above 60% (i.e. 0.5% of GDP) for a prolonged period of time. Once their government debt-to-GDP ratios have moved to significantly below 60% of GDP, the fiscal compact foresees for these countries an MTO of 1% of GDP. With nominal growth at 3.5% of GDP, this would imply that government debt at the national level converges to around 30% of GDP. This could be accompanied by the possibility of the centre to run deficits of up to 1% of euro area wide GDP (i.e. being equivalent to debt at the central level in the steady state of up to 30% of euro area GDP). Taking national and central debt together – this would be compatible with euro area debt converging to 60% of GDP. In principle, to ensure some safety margin towards the 2% of GDP deficit at the aggregate level, one could consider appropriate a euro area aggregate MTO of 1½% of GDP, with a commensurate split among euro area Member States and the centre, i.e. the EAFC.

Beyond this overall thought experiment of setting-up an EAFC, more specifications would be required regarding the extent to which national government deficits could be allowed to fluctuate around the MTO. Currently, in the absence of an EAFC, euro area Member States are allowed to have their nominal budget balances fluctuate with the business cycle; validated budget deficits of above 3% of GDP would generally lead to the opening of an EDP. In a scenario with an EAFC, the aggregate euro area nominal deficit may in the steady state fluctuate with the cycle around the cumulated MTOs at the national and central level, i.e. around the aggregate MTO of safely below 2% of GDP. It can, in principle, fluctuate at the country level, at the centre or at both levels.

Table 7

Different theoretical scenarios of fiscal policy stabilisation at the national and/or central level

						memo: Euro
						area aggregate
Accumptions						debt-to-GDP
Assumptions:						ratio in steady
steady state nominal GDP growth: 3.5%		national level		central level		state
			Automatic		Automatic	
Automatic stabilisers: OG=-3%; semi-ela	sticity of the budget balance	MTO ¹⁾	stabilisers ²⁾	MTO ¹⁾	stabilisers ²⁾	
wrt OG=0.5		(a)	(b)	(c)	(d)	(a)+(c)
I. "Status quo": Fiscal policies at	deficit-to-GDP	1	1.5	-	-	
national level with no fiscal capacity at the centre	steady state debt-to-GDP ratio	30	-	-	-	30
II. Fiscal policies at national level with a fiscal capacity with balanced budget	deficit-to-GDP	2	1.5	0	0	
requirement at the centre (EA aggregate debt stabilising at 60% of GDP)	steady state debt-to-GDP ratio	60	-	0	-	60
III. Fiscal policies at national level with						
fiscal capacity with borrowing capacity	deficit-to-GDP	1	1.5	1	0	
at the centre (EA aggregate debt		1	0	1	1.5	
stabilising at 60% of GDP)	steady state debt-to-GDP ratio	30	-	30	-	60

Source: Own graphical presentation.

Notes: 1) "MTO" represents the average budget deficit over the cycle. 2) "Automatic stabilisers" gives additional deficit coming on top of the MTO for an output gap of -3%. This has no impact on the steady-state level of debt if fiscal policy is symmetric over the cycle.

Whether the nominal budget balance would be allowed to fluctuate around the MTO at the national and/or central level would need to depend on where the automatic stabilisers are anchored. Consequently, to the extent that automatic stabilisers continue to be situated at the national level, the budget deficit should be allowed to fluctuate mainly around the MTO at the country level. In the same vein, in the absence of automatic stabilisers at the level of the EAFC, there appears to be no reason for sizeable fluctuation around the MTO at the central level.

How much should the national budget balances be allowed to fluctuate around the MTOs within a fiscally more integrated EMU? Considerations in this regard could start from the conjecture that a negative output gap over a normal cycle does not exceed 3%. If one applies to this the average semi-elasticity of the budget balance with respect to the output gap of 0.5, the cyclical component as reflecting the size of automatic stabilisers that could be allowed to fluctuate around the MTO amounts to 1.5% of GDP.²⁸

Table 7 presents three different scenarios to illustrate these considerations, which should be seen as an incomplete taxonomy as there exist theoretically intermediate cases.

²⁸ This way of thinking to derive the EDP threshold based on MTO plus automatic stabilisers is commensurate with the 2005 SGP reform which introduced the MTO. Article 2(a) of the preventive arm regulation states: "Each Member State shall have a differentiated medium-term objective for its budgetary position. These country-specific medium-term budgetary objectives may diverge from the requirement of a close to balance or in surplus position, while providing a safety margin with respect to the 3% of GDP government deficit ratio." This creates the link between the MTO and the EDP threshold, although, from a historical perspective, the MTO was introduced only after the deficit reference value had been introduced with the Treaty in 1992. The provision that the MTO shall be defined such that it provides a safety margin towards breaching the 3% of GDP deficit reference value is referred to as the "minimum benchmark". This minimum benchmark holds for all euro area countries and ranges from -0.6 in Finland to -2.1 in Greece (unweighted euro area average -1.3). Beyond this, the SGP's preventive arm set a minimum benchmark for most countries. Thereafter, the fiscal compact in 2013 introduced an even stricter threshold of 0.5% of GDP.

- Scenario I depicts the so-called "status quo" in which fiscal policies are conducted at the national level with no fiscal stabilisation capacity at the centre. This scenario implies that national fiscal policies targeting an MTO of 1% will lead to government debt-to-GDP ratios that stabilise at around 30% of GDP. The automatic stabilisers assumed at 1.5% of GDP would have no impact on steady state government debt: they would also not imply a breach of the 3% of GDP deficit reference value (i.e. 1% of GDP plus 1.5% of GDP < 3% of GDP). Consequently, in this scenario, the euro area aggregate debt-to-GDP ratio would stabilise at 30% of GDP.
- Scenario II again assumes that fiscal policies are conducted at the national level and considers that there is an EAFC in place, though with a balanced budget requirement. Unlike Scenario I, euro area government debt would be allowed to stabilise at 60% of GDP. This would be commensurate with an MTO at around 2% at the country level. In this scenario, however, the automatic stabilisers – again assumed at 1.5% of GDP, would imply that the 3% of GDP Treaty deficit reference value is breached at times in troughs.²⁹
- Finally, Scenario III assumes that fiscal policies are conducted at the national level and are accompanied by an EAFC that is equipped with a borrowing capacity (the latter making up the difference to Scenario II). This gives rise to two possibilities: first, both the national and the central level record an MTO of 1% of GDP over the long term, but automatic stabilisers work only at the country level; second, both the national and the central level record an MTO of 1% of GDP over the long term, but automatic stabilisers work only at the central level. In both of these theoretical cases, government debt-to-GDP ratios stabilise at 30% of GDP at both levels, the automatic stabilisers have no impact on steady state government debt such that the euro area aggregate debt ratio stabilises at 60% of GDP.

Actually, the appropriate EDP threshold at the national level would crucially depend on where a central fiscal capacity would be statistically recorded. If the EAFC were a fully independent EU institution, its deficit would not be attributed to the individual Member States in the national accounts. If instead the EAFC would not be a fully independent EU institution, its accrued deficits would statistically need to be re-routed fully to the Member States, i.e. increase deficit ratios at the national level.

Achieving a new steady state of a fiscally more integrated euro area would be a decades-long process. When building up fiscal space at the centre, one could introduce a condition whereby the centre could accumulate permanent debt only to the extent that aggregate Member State debt had fallen below 60% of GDP. With fiscal compact compliance and steady state nominal growth of 3-3.5%, this would realistically take until around 2030. In addition, the starting positions in terms of government debt are very different across countries. Given the size of the EAFC, it should be noted that not all the money accumulated at the centre would need to be

²⁹ This would be transitory in case fiscal policy is symmetric over the business cycle. For cases in which the 3% of GDP deficit reference value is breached, the SGP entails a provision according to which an EDP does not need to be opened in case the breach is considered temporary and the excess over the reference value is limited (which is usually interpreted as an excess of below 0.5% of GDP).

kept in a stabilisation capacity. Instead, it could be used for allocation purposes as well.

It is clear that any move towards further fiscal deepening in EMU – where fiscal space is built up at the centre as national fiscal policies adhere to the MTO - requires that fiscal rules at the sub-central level be strengthened vis-à-vis the status quo. Consequently, there need to be mechanisms that ensure loosened fiscal policies in downturns are surely reversed in upswings. This is what is in fact foreseen by the EU's fiscal compact, though uneven compliance among Member States implies so far that it is de facto not working to the intended effect. For comparison, in the United States, nearly every state government faces significant constitutional or statutory limitations on their ability to run budget deficits. In many cases, fiscal rules are binding as they are constitutionally imposed and cannot be simply adjusted in countries' legislations when majorities change. Overall, rules at the US state level have been shown to be related to generally low levels of debt. It has to be acknowledged, though, that the low debt ratios at the sub-federal level in the United States are the result not only of a much longer history of balanced budget rules but also of a degree of risk sharing and a fiscal stabilisation function at the central level (see ECB, 2019). There is also evidence that such strict rules at the national level, notably those enshrined in the constitution and with few exemptions, give rise to building buffers in economic good times. This reflects the very limited room for manoeuvre such rules may provide in downturns. At the same time, some empirical evidence points to the fact that such rules nonetheless tend to act overall procyclically, i.e. the built-up buffers are on average not large enough to allow meaningful anticyclical policies in downturns.³⁰

Of course, achieving a new steady state of a fiscally more integrated euro area would be a decade-long process, requiring Treaty reform allowing for the euro area to evolve more in the direction of a fiscal federation.³¹

³⁰ For a discussion on the literature, see Lutz and Follette (2012).

³¹ When building up fiscal space at the centre, one could introduce a condition whereby the centre could accumulate permanent debt only to the extent that aggregate Member State debt had fallen below 60% of GDP. Back-of-the-envelope calculations, assuming fiscal compact compliance and nominal growth of 3%-3.5%, suggest that this would take until around 2030.

6 Conclusions

The aim of the EU's fiscal framework is to avoid unsound public finances in order to help the conduct of the single monetary policy. Based on our analysis, we can draw lessons vis-à-vis what the fathers of the Maastricht Treaty had aimed for: (i) they were right about the need for fiscal rules. Divergent fiscal policies are a severe problem for the functioning of EMU, as evidenced by the debt crisis; (ii) average deficits have come down considerably in the euro area compared with the pre-EMU period. The argument often made that the rules have been completely ineffective is thus wrong. Nevertheless, the tendency towards limited or insufficient building of fiscal buffers prevailed in some countries despite several attempts to strengthen the fiscal framework. This also highlights the importance of consistently applying and enforcing the fiscal framework over time and across countries; (iii) the sovereign-bank nexus was overlooked. In fact, the magnitude of shocks has been much larger than foreseen by the founders of the SGP when the framework was set up; (iv) the issue of low inflation was also overlooked, with evidence emerging in recent years that the euro area is also vulnerable to low inflation; (v) the procyclicality problem has been recognised but not solved. Overall, it appears that a dichotomy between countries has emerged over time, with one group of countries having achieved broadly sound fiscal positions and the other persistently remaining a long way off their MTOs. More analysis appears warranted as to what extent this development has been driven by the emergence of different fiscal reaction functions after the sovereign debt crisis.

There are possibilities for making the SGP more effective in bringing about sounder public finances and avoiding the procyclicality observed over the first 20 years of its operation. With the banking crisis leading to massive increases in government debt in some countries and the integrity of the euro area under major threat, the SGP was faced with unprecedentedly critical events. With the benefit of hindsight, there was a lot of muddling through in terms of the fiscal resolution to the crisis and there appears to be scope for improving the fiscal framework. As the paper has shown, this can be achieved notably by making the fiscal rules more coherent, by reducing their complexity – including through less reliance on the structural balance – and by more incentive-based enforcement of the framework.

However, the fixing of the fiscal rules framework cannot be seen in isolation from other initiatives in the context of the discussions on improving fiscal governance and deepening EMU, which are beyond the scope of this paper. Such initiatives include the possibility of delegating fiscal surveillance to a neutral/independent body, the clarification of the approach to dealing with unsustainable debt and the strengthening of fiscal risk-sharing in EMU (through the establishment of a euro area fiscal capacity and the introduction of safe assets). The alternative of following a strategy of "muddling through" going forward would be very risky. National debt ratios would likely continue to diverge and there is the risk that the sovereign debt crisis would resurface in the next economic downturn.

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To conclude, any delay in reforming the fiscal framework increases the risk of extreme adjustment needs in future crises. The functioning of the SGP is only one piece of a puzzle to reform EMU, but it is an important one.

References

Arnold, N., Barkbu, B., Ture, E., Wang, H. and Yao, J. (2018), "A central fiscal stabilization capacity for the euro area", IMF Staff Discussion Note, March.

Benassy-Quere, A., Brunnermeier, M., Enderlein, H., Fahri, E., Fratscher M., Fuest, C., Gourinchas, P.-O., Martin, P., Pisani, F., Rey, H., Schnabel, I., Veron, N. and Weder di Mauro, B. (2018), "Reconciling risk sharing and market discipline: a constructive approach to euro area reform", CEPR Policy Insight, No 91, January.

Darvas, Z, Martin, P. and Ragot, X. (2018), "The economic case for an expenditure rule in Europe", *Vox EU*, 12 September.

Dell'Ariccia, G., Ferreira, C., Jenkinson, N., Laeven, L., Martin, A., Minoiu, C. and Popov, A. (2018), "Managing the sovereign-bank nexus", *Working Paper Series*, No 2177, ECB, Frankfurt am Main, September.

Delors Committee (1989), "Report on economic and monetary union in the European Community", prepared by the Committee for the study of Economic and Monetary Union and chaired by J. Delors.

Deroose, S, Carnot, N., Pench, L. and Mourre, G. (2018), "EU fiscal rules: Root causes of its complexity", *Vox EU*, CEPR Policy Portal, 14 September.

Deutsche Bundesbank (2017), "Design and implementation of the European fiscal rules", *Monthly Report*, June.

Enderlein, H. and Rubio, E. (2014), "25 years after the Delors report: which lessons for Economic and Monetary Union?" Policy Paper 109, Jacques Delors Institute, April.

Eurogroup (2016), "Statement on the draft budgetary plans for 2017", Brussels, December.

Eurogroup (2017), "Statement on the draft budgetary plans for 2018", Brussels, December.

European Central Bank (2015), "Flexibility within the Stability and Growth Pact", *Economic Bulletin*, Issue 1, ECB, Frankfurt am Main.

European Central Bank (2016a), "The euro area fiscal stance", *Economic Bulletin*, Issue 4, Frankfurt am Main.

European Central Bank (2016b), "Government debt reduction strategies in the euro area", *Economic Bulletin*, Issue 3, Frankfurt am Main.

European Central Bank (2018), "Country-specific recommendations for fiscal policies under the 2018 European Semester", *Economic Bulletin*, Issue 4, Frankfurt am Main.

European Central Bank (2019), "Fiscal rules in the euro area and lessons from other monetary unions", *Economic Bulletin*, Issue 3, Frankfurt am Main.

European Commission (2017a), "2018 Draft budgetary plans: overall assessment", Brussels, November.

European Commission (2017b), *Vade Mecum on the Stability and Growth Pact*, Brussels, March.

European Commission (2017c), "Reflection Paper on the Deepening of the Economic and Monetary Union", Brussels, May.

European Commission (2018), Proposal for a regulation of the European Parliament and of the Council on the establishment of a European Investment Stabilisation Function, Brussels, May.

European Commission (2019), "Fiscal outcomes in the EU in a rules-based framework – new evidence", Report on Public Finances in EMU 2018, European Economy Institutional Paper 95, Brussels, January.

European Court of Auditors (2018), "Is the main objective of the preventive arm of the Stability and Growth Pact delivered?", Special Report, No 18.

European Fiscal Board (2017), 2017 Annual Report of the European Fiscal Board, Brussels.

Eyraud, L. and Wu, T. (2015), "Playing by the rules: Reforming fiscal governance in Europe", *IMF Working Paper*, WP/15/67, March.

Eyraud, L, Debrun, X., Hodge, A., Lledo, V. and Pattillo, C. (2018), "Second-generation fiscal rules: Balancing simplicity, flexibility and enforceability", IMF Staff Discussion Note, April.

Fagan, G., Henry, J. and Mestre, R. (2001), "An area-wide model (AWM) for the euro area", *Working Paper Series*, No 42, ECB, Frankfurt am Main, January.

Federal Government of Germany (2018), Meseberg Declaration, June.

Feld, L, Schmidt, C., Schnabel, I. and Wieland, V. (2018), "Refocusing the European Fiscal Framework", *Vox EU*, 12 September.

Hauptmeier, S. and Kamps, C. (2019), "The Stability and Growth Pact's debt rule revisited", *Working Paper Series*, ECB, Frankfurt am Main (forthcoming).

Kamps, C., de Stefani, R., Leiner-Killinger, N., Rüffer, R. and Sondermann, D. (2014), "The identification of fiscal and macroeconomic imbalances", *Occasional Paper Series*, No 157, ECB, Frankfurt am Main, November.

Kamps, C., Cimadomo, J., Hauptmeier, S. and Leiner-Killinger, N. (2017), "Reflections on the euro area fiscal stance", *Intereconomics*, Vol. 52, No 2, May/June, pp. 125-131.

Koester, G. and Sondermann, D. (2018), "A euro area macroeconomic stabilisation function: assessing options in view of their redistribution and stabilisation properties", *Occasional Paper Series*, No 216, ECB, Frankfurt am Main, October.

Lutz, B. and Follette, G. (2012), "Fiscal rules, what does the American experience tell us?", *FEDS Working Papers*, No 2012-38, Federal Reserve Board, Washington, D.C., May.

National Audit Office (2008), "The use of sanctions and rewards in the public sector", London.

Paredes, J., Pedregal, D.J. and Perez, J.J. (2009), "A quarterly fiscal database for the euro area based on intra-annual fiscal information", *Working Paper Series*, No 1132, ECB, Frankfurt am Main, December.

Wieser, T. (2018), "Fiscal rules and the role of the Commission", *Vox EU*, CEPR Policy Portal, 21 May.

Wyplosz, C. (2012), "Fiscal rules: theoretical issues and historical experiences", *NBER Working Paper*, No 17884, March.

Wyplosz, C. (2013), "Europe's quest for fiscal discipline", European Economy, Economic Papers, No 498, Brussels, April.

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