H. Y. C. U. assesses the current framework and proposes a major simplication. We recommend substituting the numerous and complex rules with a simple new rule: nominal expenditures should not grow faster than long-term nominal income, and they should grow at a slower pace in countries with excessive debt levels. Our simulations suggest that this rule would help reconcile scal prudence and macroeconomic stabilisation of the economy. We set out a national and European institutional framework that could implement such a rule. We advocate the credible enforcement of scal rules, mixing several instruments pertaining to surveillance, positive incentives, market discipline and increased political cost of non-compliance.

improved is France: we recommend the better integration of the French independent scal council (Haut-Conseil des nances publiques) into the national budget process by broadening its mandate to include endorsement of scal forecasts and debt sustainability analysis, by increasing its capacity to independently produce scal and macroeconomic forecasts.

1 The rationale for scal rules

What are scal rules for?

A scal rule can be de ned as a constraint on a government's scal policy that imposes numerical limits on public nance aggregates (expenditures, revenues, budget balance and/or public debt). Its two main objectives are the long-term sustainability of public nances and the short-term stabilisation of economic activity.

Between 1990 and 2015, the number of countries with national and/or supranational scal rules surged from ve to 96. What is the rationale for such rules?

First, most scal rules take the form of ceilings on aggregates, such as decit, public debt or public spending, but do not set out the details of components of the budget. One diculty is that scal rules constrain government policies but should not limit democratic choices.

ey should help to correct identi ed de cit biases and coordination failures in the complex decision-making process, but should not appear as a bureaucratic constraint on democracy. We recognise that this arbitrage between rules and discretion is not easy, especially in the European context in which cultural and political histories have created di erent views of the balance between the two.

e general rationale for such rules is to avoid political cycles in public nance which might distort short-term incentives to opt for high de cits today followed by future austerity. Economists have focused on political biases that favour de cits. is is certainly valid in many countries. However, current political debates in some European countries, such as Germany, suggest that a bias towards surpluses might be at work. Fiscal rules are not a magic answer to these biases, but if they are well-designed and implemented can go a long way to limit their impact. However, if not well-designed and implemented, they can also be a source of instability, in particular if they generate pro-cyclical scal policy.

The speci c need for scal rules in the euro area

In a monetary union such as the euro area, there are additional arguments to justify the adoption of scal rules and the adoption of a common framework. e issue here is that governments do not internalise the long-term impacts of their scal policy decisions on other Economic and Monetary Union (EMU) members. Too expansive (or too restrictive) scal policies and debt accumulation by one country have potential impacts on the others.

In ationary or de ationary scal policy in one euro-area country could impact the average euro-area in ation targeted by the European Central Bank and trigger a monetary tightening or easing for all (Bénassy-Quéré *et al*, 2016). European involvement in the scal rule is also justifed because scal policy has a role in both the build-up and correction of wage/price divergences, especially in a non-optimal monetary union in which factor movements and purely market-based relative price adjustments in different countries cannot exciently compensate dis-equilibrating developments.

ere could be also a channel via interest rates: an increase in the de cit and debt of one country would lead to higher interest rates in other euro-area countries. However, this channel has not so far been empirically relevant and in fact during the euro-area crisis the opposite might have happened as investors ed countries with high debt and bought the public debt of 'safe-haven' euro-area countries. is new e ect might be an independent justication for scal rules to prevent such destabilising movements in crisis periods.

e distinctive feature of EMU comprised of sovereign countries is that debt restructuring or debt monetisation, which might be the consequences of excessive debt accumulation by one country, heavily a ect the other member countries. ere is a risk that the ECB could be pressured to use monetary policy to prevent a default in scally weak countries via debt monetisation. is monetisation, ie the implicit transfer to the country whose public debt is purchased by the ECB, might generate an in ation tax on all EMU countries or reduce transfers from central banks to governments. Such transfers are not voted on by parliaments and might eventually lead to a backlash against the monetary union, as the amounts at stake

are potentially very large. is was well understood at the time of the creation of the euro; Article 123 of the Treaty on the Functioning of the European Union (TFEU) expressly prohibits the ECB from purchasing member countries' public debt directly from public authorities. In addition, Article 125 of the TFEU prevents any form of EU liability for member states' debt obligations (no bailout clause). However, in a situation when there is a risk of a messy default and of a potential exit from the currency union, triggering contagion and collateral damage for all members, the cost of a bailout through nancial assistance loans might be lower than the cost of default and exit¹. erefore, the pressure for monetisation and/or bailout through nancial assistance loans is very strong, reducing the credibility of the no-monetisation/no-bailout rules (Gourinchas *et al*, 2018).

At various points during the euro-area sovereign debt crisis, Greece, Ireland, Portugal, Spain and Cyprus had to ask for the support of other member states in order to avoid defaults or collapses of their domestic banking sectors and, potentially, exit from the monetary union.

In addition, the expectation of bailouts might also have reduced market discipline in the sense that the cost of borrowing for some countries might have been too low in the period before the crisis. is might also have reduced the incentive for scal prudence, such as in Greece in the 2000s. Note therefore that debt sustainability, not the public decit per se, should be the core objective in the EMU. Note also that macroprudential rules that limit the vulnerability of nancial institutions are a necessary complement to scal rules because, as seen for example in Ireland and Spain, bank debts can rapidly be transformed into public debts (Martin and Philippon, 2017).

Finally, because countries in a monetary union no longer have the monetary instrument to stabilise their economies against asymmetric shocks, the scal instrument is a key countercyclical policy tool. Hence, scal rules in the EMU, more than in countries with independent monetary policy, must play a countercyclical role.

2 The de ciencies of the current European scal framework

European scal rules originate from the Maastricht Treaty (1993), which speci ed the criteria for joining EMU, including budget de cit and public debt criteria. e Stability and Growth Pact (SGP), put in place in 1997, clari ed and complemented the scal criteria. e SGP was reformed in 2005, in 2011 (by the so-called 'six-pack')², in 2012 (by the so-called 'Fiscal com-





Figure 1: Average absolute revision of the change in structural budget balance from the year preceding the estimation to the year of the estimation, % GDP

Observation 2: Potential output, the output gap and the structural balance are badly estimated, undermining real-time scal policy decision-making.

Because of these problems, it is not surprising that the EU scal rules were exposed as not t for purpose. ey led to pro-cyclical scal policies before the 2008 global nancial crisis (over-expansive scal policy in many EU countries), and, with the sole exception of 2009, they also contributed to pro-cyclical scal tightening starting in 2010, which likely played a role in prolonging the recession and increased unemployment in the EU. Eyraud *et al* (2017) presented comprehensive analyses of the European scal framework and concluded that scal policy was acyclic in its preparation phase (meaning an unchanged structural balance over the economic cycle), but became pro-cyclical in its execution phase, which corresponds to frequent divergence between commitments and budget execution⁸.

exibility has been used to the extreme to avoid sanctions. Flexibility was also used to avoid opening an excessive de cit procedure (EDP) for high-public debt countries not complying with the 1/20th debt reduction rule. is rule should be met three years after closure of a previous EDP. ough Italy left its EDP in 2013 and Belgium its in 2014, , these two countries did not meet the debt-reduction criteria when the three-year period after these dates elapsed. Even the May 2018 conclusion of the Commission concludes that the two countries continue to miss the debt reduction benchmark in 2018 and 2019 according to both the scal plans of the respective governments and the forecasts of the Commission

We have noted that structural budget balance estimates are subject to large revisions, partly because of uncertain output-gap estimates. Based on that nding, one might argue that medium-term potential growth estimates, which are the basis of our proposed expenditure rule, could be also subject to large revisions – but this is not the case. With the exception of 2008, even European Commission estimates were subject to rather small revisions¹⁰.

European countries. In countries with debt levels significantly above 60 percent of GDP, the necessary initial budgetary effort is unrealistically high if, for example, the debt brake parameter is chosen to fit France or Germany. This is the reason we recommend an expenditure rule based on a five-year country specific debt reduction target.

This is what OFCE simulated: a sequence of budgetary efforts is computed each year in order to reach a debt reduction objective over a five-year period. The sequence is revised every year based on the new debt level. Debt reduction objectives vary for different countries depending on their debt levels. In this way, the necessary effort is concentrated in the early years and tends to move to zero over time. Examples of the OFCE simulations for France's debt dynamics and real public expenditure growth rates for three objectives (-2 percent; -4 percent and -6 percent reductions in debt over GDP over five years), suggest that depending on the degree of ambition of the five-year debt reduction target, an expenditure rule can generate debt reduction dynamics that are similar or less stringent than the MTO rule. In all cases of the proposed expenditure, the real growth rate of expenditure for France would converge to a bit less than 1 percent (therefore less than the potential growth rate assumed to be 1.1 percent) but with more front-loading of the adjustment in the early years. CEPREMAP simulations also show that in order to obtain, over a five-year period, a five percentage-points reduction of the public debt-to-GDP ratio, an inflection point is necessary early on that itself requires a front loading of fiscal adjustment with a negative impact on growth (Brand and Langot, 2018).

Next, we analyse the cyclical properties of the rule. This analysis is based on a rule calibrated for France. The rule has good countercyclical properties for unexpected demand shocks. First, the nominal growth rate of expenditure is not affected by the shock and automatic stabilisation is at work because of lower revenues and higher deficits. Second, a negative demand shock generates inflation below expectations. As the growth rate of nominal public spending is based on expected inflation, such a shock induces a higher real growth rate of public expenditure and therefore a positive fiscal impulse¹⁴. Concerning supply shocks, such as oil price shocks generating a fall in output and an increase in inflation, the expenditure rule is still stabilising because it induces a budget deficit but the higher unexpected inflation slightly reduces its stabilising properties (relative to the current rule). Overall, if, as is mostly believed, demand shocks are predominant in the euro area, we conclude that the expenditure rule has better cyclical properties than the current rule.

To illustrate the better countercyclical properties of the expenditure rule, Figures 2 and 3 show the observed primary public spending growth rate in France and the

4 Institutional and legal issues

Creating the right institutions

A recent literature on scal discipline emphasises the complementary role of scal rules and the establishment of national independent scal institutions (IFIs) or scal councils (Alesina and Tabellini, 2007; Beetsma and Debrun, 2018). Building such institutions is not enough to improve trust in public governance but it is a necessary ingredient.

e ability of a scal council to identify biases in governments' scal and economic fore-casts and to provide competent macroeconomic analysis is essential to its e ectiveness. Fiscal councils can provide macroeconomic forecasts in relation to budget preparation that do not su er from the optimistic biases often found in o cial government forecasts. is is even more important because euro-area countries appear to have responded to the 3 percent limit imposed by the Stability and Growth Pact by o ering over-optimistic forecasts when they are most in danger of breaching the limit (Frankel and Schreger, 2013). is is the reason we believe independent growth forecasts are key, especially in the presence of scal rules.

e OECD identi es six conditions for such councils to be e ectively independent:

 Proper inclusion in the national scal framework (including integration into the national budget process with evaluation of the medium-term sustainability of public nances, realisation of budget esti5/Span Aan086 583tasendent growth forasy and5276 Tm[r)1 gs0 Tw 9n Aan086n5270 Recommendation 2: Expand the mandates of all independent scal institutions so they can make assessments of medium-term potential growth, in ation and the impact of tax changes on government revenues, and also run long-term scal sustainability analysis.

The French independent scal institution

One example of a country in which the national fiscal framework could be improved is France. French government forecasts of growth one year ahead were characterised by optimistic biases in relation to budget balances and growth from 1996 to 2013 (Frankel and Schreger, 2013). On average the forecast error for the budget balance was 0.36 percentage points of GDP, compared to 0.29 – and 0.09 excluding Greece – on average for 20 OECD countries. Only seven of these 20 countries have more optimistic biases than France in relation to the balance forecast. As for the growth forecast, the average error pre-2013 was 0.57 percentage points, compared to a 0.27 percentage points average forecast error for the 20 OECD countries. However, since 2013 and the creation of the French High Council of Public Finance – Haut-C(a)7 (tion.f)/MCI(e p)-24 (e 20 co) od is

The scope of the HCFP (see Box 1) is limited in comparison to similar bodies in other EU countries. The HCFP does not produce macroeconomic forecasts: it simply publishes an opinion on the government's macroeconomic scenario but does not provide a formal endorsement (unlike, for example, in Spain or Italy). Nor does the HCFP generate fiscal forecasts and its 'endorsement' role derives from an extensive interpretation of its mandate while IFIs in many other countries are mandated to focus also on the analysis of the actual balance in relation to the 3 percent rule, on compliance with the MTO and on structural adjustment. The capacity to provide a sound assessment of fiscal forecasts depends critically on the quality of the information provided and the time the institution is given to process and analyse this information. The HCFP is only given about one week to provide such an opinion, which is much shorter than the time other IFIs have to perform similar work, and clearly does not allow for a deep analysis. Lastly, the comply-or-explain principle, according to which budgetary authorities should react publicly

Forecast errors should be better acknowledged and the HCFP should present its central forecasts while also showing the probability of di erent outcomes. How to enforce the rules?

mpanied by instruments that reduce the danger that default risk transforms itself into the minimation risk. is is one objective of the European Central Bank's Outright Monetary (OMT) instrument and it is important to keep this instrument in the toolbox to acquain self-ful lling expectations. Market discipline that prices default risk should liminated. Redenomination risk is dierent in nature and should not be allowed to destabilise the euro area.

One can go a step further to guide market discipline towards providing the right incentives for scal prudence. One possibility would be forcing countries that violate the scal rule to issue junior bonds to nance expenditure in excess of the scal rule (Benassy-Quéré et al, 2018).

Legislative changes needed to introduce our proposal e EU scal framework is based on the TFEU, the SGP and the Treaty on Stability, Coordi-				

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