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Future of Fiscal Rules in the Euro Area
Workshop on “Fiscal Rules in Europe: Design and Enforcement”
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Keynote Address by Vitor Gaspar, Director, Fiscal Affairs Department

It is for me a great honor to have the opportunity to deliver a keynote on the Future of Fiscal Rules in the euro area. I want to thank the organizers and, in particular, Lucio Pench for the opportunity.

The IMF has been engaged with members countries on the introduction or improvement of fiscal rules. We have also been looking at cross-country experiences with fiscal rules. It goes without saying that we have been participating in the debate on fiscal rules as well as the broader subject of euro area architecture.

Our views are public. For example, in his September 2018 speech, Poul Thomsen, the director of the European Department, has used a powerful image. He argued that the euro area should have full public and private risk-sharing mechanisms. But, in parallel, risk sharing must be accompanied by risk reduction. Many countries will not support risk sharing in the absence of risk reduction.

More generally, IMF staff has identified three crucial elements (see also Berger, Dell’Ariccia, and Obstfeld, 2018):

Completion of the banking union. Some important progress has been made, including the creation of a single supervisor and a single resolution mechanism. But the banking union also requires a European Deposit Insurance Scheme.
Integrated single European capital market. This is crucial for making the financial system in Europe more resilient. To fully unlock the potential of capital markets there is need to increase information transparency, move to more efficient insolvency regimes and to simplified and harmonized withholding tax rules.
Central Fiscal Capacity. A central fiscal capacity at the euro area level would strengthen the ability to deploy fiscal policy, complementing monetary policy, in case of significant euro area-wide downside dynamics. It would also help countries stabilize their economies in downturns.

Progress on these reforms is essential but has been too slow. And there is no political agreement on the way forward.

European integration and the euro reflect political priorities. The completion of the euro area reform agenda depends on the European politics. The solution will likely go well beyond economics and finance.

My talk is organized as follows:

First, I will focus on the original rationale for having fiscal rules.

Second, I will discuss some important lessons we have learned over the last thirty years and identify some open issues.

Third, I will present some policy options.

In the last section, I will conclude.

Also to note: I will focus on supranational fiscal rules and on the euro area.
I may slip and occasionally use Europe or European Union in a loose way. 1/

Why Fiscal Rules in the Euro Area?

In general, fiscal rules are necessary to offset biases in fiscal policy conducted according to day-to-day politics. The most relevant are deficit and debt biases. In most advanced economies, public debt ratios have been on an increasing path one business cycle to the next. Such half-century increases in public debt are unprecedent in peace time.
In the late 1980s, countries were starting to change their macroeconomic policy frameworks in fundamental ways. New Zealand provides an early and pioneering example. It passed its Public Finance Act and its Reserve Bank Act in 1989. That was the year when the Delors Report was adopted.

Reforms in New Zealand and other countries reflected a fair amount of consensus on the superiority of a stability-oriented macroeconomic policy framework. In such framework, an independent monetary policy would be responsible for delivering price stability. Sometimes employment or economic activity were on par with price stability. But, in any case, by maintaining price stability, over the medium term, monetary policy would keep output close to potential. Monetary policy would achieve such goals by systematically deciding on policy interest rates. In this it followed an old insight from Wicksell. In such a context, fiscal policy contributed to stability mainly through automatic stabilizers and by preserving sound public finances. Only in extreme cases of a severe and prolonged recession did expansionary discretionary fiscal policy offer any promise.

What about the euro area? In my view, at the time, the case for fiscal rules was stronger. With monetary unification, the elimination of exchange risk, would make sovereign bonds, from participating countries, into closer substitutes. If one considers the limiting case of perfect substitutability, the public bond market of the euro area would become a common pool (Detken, Gaspar and Winkler, 2004). The consequences from fiscal profligacy would be muted in the large European market. At the same time, there would be negative international spillovers associated with bond market turbulence and financial instability. Lamfalussy (in the Delors Report) argued that market discipline alone would not suffice. Rules were necessary for stability.

Risks were associated with high levels of debt and deficits and hence the rules would have the form of upper limits. That was the vision that shaped the Maastricht Treaty. The latter also encompassed such important rules as “no bail-out” of sovereigns and the prohibition of monetary financing.

Let me recall that I personally started my involvement in European economic and monetary issues when the Delors Report had just come out in 1989. I remember very lively discussion on whether the Delors Report would be “a” basis for the forthcoming negotiations or “the” basis. “A” won. I was then involved in the Maastricht negotiations representing my country, Portugal. Later, I became chairman of the alternates of the Monetary Committee. In that context, we helped prepare many important pieces of legislation, including the first version of the Stability and Growth Pact. In 1989, I joined the European Central Bank (ECB) SDG research. I was involved in the setting up of the ECB’s monetary policy strategy (see, Issing and others, 2001) and in the first review of the strategy, in 2003. In 2009, at the time of the tenth anniversary of the euro I was at the European Commission leading its Bureau of European Policy Advisers. I edited the book, the Euro the first decade in collaboration with Servaas de Roose, Marco Buti and Joao Nogueira Martins (2010). Now that I have established beyond reasonable doubt that I am old let me move on.

Over time, the fiscal rules in Europe have become more complex and opaque. The evolution process followed a long and winding road. Changes to the original setup of the fiscal framework were frequent and substantial. Blanchard, Leandro and Zettelmeyer (2019) compared the evolution of fiscal rules with the Cathedral of Seville. But I believe the complexity of the evolution of fiscal rules is even better captured by the evolution of another building also in Andaluzia, Spain: Mosque-Cathedral of Cordoba. It is a building that integrates successive layers of building spanning a full millennium. In the area of fiscal rules more layers were built in a period thirty times shorter. It is opportune to recognize that in the remarks that follow I benefited from careful reading of the contribution by Blanchard, Leandro and Zettelmeyer (2019). My debt goes well beyond Medieval Andalusian architecture. 2/

It is, I believe, opportune to revisit the analysis on fiscal policy included in the Delors Report. The main contribution was a paper, submitted by Alexander Lamfalussy (and produced in collaboration with his team at the Bank for International Settlements (BIS)). The title: Macro-coordination of fiscal policies in an economic and monetary union in Europe (1989).

It made two fundamental points: first, given the insignificant size of the EU budget, the task of defining a Union-wide fiscal policy stance had to rely on the *coordination* of national budgetary policies. Second, fiscal discipline is necessary. Financial markets can exert some disciplinary influence. But they are not sufficient: "The constraints imposed by market forces might either be too slow and weak or too sudden and disruptive." The conclusion was that sharing a single financial market and a single currency implied the need to accept constraints on the conduct of fiscal policies.

For the purpose of my talk today it is interesting that both elements of Lamfalussy's analysis proved problematic in actual practice. In the slide we have a perfect illustration of the too slow and weak market discipline in the period from 1999 to 2007. And quite sudden and disruptive in the period of the sovereign debt crises in the euro area. The rules did not prevent the market turmoil that they were designed to avoid.

Despite the governance reforms implemented over 2005–13, such as increased flexibility, greater automaticity in enforcement, and greater ownership supported by revisions in national legislation, compliance track record with fiscal rules has been very poor.
Here we follow Eyraud et al, 2017. The idea is simply to compare fiscal results with four simple numerical references (disregarding the complications, qualifications and judgement allowed by the fiscal framework).

Under these simplifying conditions: the MTO was violated in 80 percent of observations under consideration, with almost two-thirds of countries exceeding the MTOs in every single year. Compliance worsened during the crisis: in 2009, the MTO rule was violated by 90 percent of countries, the debt ceiling by 50 percent of countries, the deficit ceiling by 85 percent of countries, and the required fiscal effort by 75 percent of countries. In parallel, the share of countries with a debt ratio greater than 60 percent increased from 35 percent in 1999 to 75 percent in 2015 There are a number of important caveats and qualifications to this summary that are spelled out in Eyraud, Gaspar and Poghosyan (2017).

Our analysis of the compliance with 3-percent deficit rule over the three-year planning horizon suggests that the main driver of poor ex post compliance was weak execution of plans. Given that the EC has not applied any fines or sanctions, this is also a sign of weak enforcement. Although the noncompliers consistently planned to reduce their deficits below the 3 percent threshold set out by the rules in each of the projected years, execution slippages more than offset these plans, leading to a median upward deviation from the ceiling of up to 2 percent of GDP at the end of the third year. 3/

I summarize Edward Prescott's intuition about commitment through rules as: first, societies must find good – but often time-inconsistent – policy rules; second, societies have to find a way to stick to these rules. The evidence presented on the frequent revision of the rules and poor compliance suggests that we are far off Prescott's standard.

European fiscal rules did have effects. They may not have worked as intended but – still – they did affect policy-making. That is clear in the process leading to the start of the euro area. But here I want to quote an interesting result documented by Caselli and Wingender (2018). They show the 3-percent deficit rule ceiling did not act as an upper bound but more as a target or a "magnet". The number of observations around the threshold increased, reducing the occurrence of both large government deficits and surpluses.

One of important features of the fiscal rules is to make sure that countries accumulate sufficient buffers in good times so as to be able provide support to the aggregate demand in bad times – through automatic stabilizers or even discretionary expansionary policy. In other words, fiscal rules should be designed to favor counter-cyclical fiscal policies. Nevertheless, despite various amendments to strengthen the counter-cyclical features of the rules, the outcomes have been mainly pro-cyclical.

At the individual country level fiscal policy was procyclical in most countries most of the time. The right-hand-side chart (slide 10) shows most country-year observations of structural primary balances fall in the two quadrants that correspond to procyclical policies (almost 60 percent of the total).

These charts (slide 11) using the Industrial Production Index to compare the Great Depression and the Global Financial Crisis follow an original contribution from Barry Eichengreen and Kevin O'Rourke to VoxEU. The original idea was to show that the turning point happened much earlier in the Global Financial Crisis (likely due to effective policy action).

The idea then was to prolong the comparison to show that the recovery may have come earlier but has not been strong (a point made in Barry Eichengreen's *Hall of Mirrors).* These charts (slide 11) show the behavior of industrial production following the start of the Great Depression in 1929 and the start of the Global Financial crisis in 2008. It is remarkable that industrial production in the Euro Area is yet to recover to pre-crisis levels.

That remind us of the words of Alvin Hansen, in his Presidential Address, delivered to the American Economic Association, in December 1938: "This is the essence of secular stagnation – sick recoveries which die in their infancy and depressions that feed on themselves" In a secular stagnation there is excess of savings over investment.

In addition, economic performance within the Euro area was very uneven. Persistent divergences have occurred. This is best illustrated by contrasting real per capita GDP growth in Germany and Italy. Over the last twenty years Germany experienced a very strong real per capita GDP growth, above the average for the Euro area and at the level that of the United States. In contrast, real per capita GDP in Italy is almost at the same level as twenty years ago.

Importantly, the growth performance was similar in the first years of the euro area. But afterwards, following the implementation of structural including the labor reforms, Germany was well prepared to weather the global financial crisis (e.g. Krebs and Scheffel, 2013). In contrast, in Italy structural impediments to growth contributed much to the disappointing economic performance. That became very visible since the onset of the global financial crisis.

Germany is the issuer of the reference safe assets in the euro area.

Surprisingly, over the last twenty years, the average structural primary surplus in Italy was 1½ percent of potential GDP, against 0.9 percent for Germany. Nonetheless, Italy is characterized by high and rising public debt. In contrast, in Germany debt is quickly declining.

Between 2010 and 2019, Italy's gross debt-go-GDP ratio increased by about 18 percentage points. During the same period, debt in Germany declined by 24 percentage points of GDP. Low growth and high cost of debt are primary reason why Italy has not managed to escape from vicious circle of high public debt. Italy is also quite sensitive to changes in market sentiment as evidenced by significant swings in sovereign bond yields. Interest rate-growth differential, on the other hand, is very favorable in Germany thanks to record-low and negative interest rates.

Using an extended accounting approach that fully recognizes the importance of economic growth (which keeps track of the impact of growth on primary fiscal surpluses) Mauro and Zilinsky show that differences in growth rates are key in determining changes in the debt-to-GDP ratios (Mauro and Zelinsky, 2016).

Going forward, long-run competitiveness and prosperity in the Euro area requires deep transformation towards green and digital economy and society. This requires higher public investment, more extensive synergies with private investment and, more generally, smart and agile public policies that facilitate change and transformation.

For example, the outline of a EU's Green Deal, presented by the Commission on December 11, 2019 provides a list of 50 initiatives designed to achieve carbon neutrality by 2050 in a sustainable growth framework. It is clear that the transition toward carbon neutrality requires substantial investments.

The IMF database on public sector balance sheets (https://data.imf.org/?sk=82A91796-0326-4629-9E1D-C7F8422B8BE6) shows that the general government net worth has, on average, worsened in euro area countries, since 2000. The median general government net worth moved – roughly - from positive 20 percent of GDP, in 2000, to negative 20 percent of GDP, in 2016. As the right-hand-side chart (slide 15) shows, there are significant differences between the change in net worth and the increase in gross debt.

European countries have relatively low level of public sector net worth. Targeting public sector net worth is used in New Zealand. The similar approach has recently been proposed by some authors as part of new fiscal frameworks (see for example, Hughes and others, 2019). The recent improvements in fiscal reporting to hold governments to account for the value of assets created by public investments provides an opportunity to go beyond the traditional debt and deficits. Policymakers need to understand the extent of the public sector fiscal exposure through state-owned enterprises, public-private partnerships, pensions and guarantees (IMF, 2020; Detter and Fölster, 2015). 4/

Aging societies change the political equilibrium by tilting spending preferences in favor of the elderly. This makes reforming programs such as pensions, even more difficult. Such reforms are necessary because pressures stemming from age-related spending will increase in the decades to come. The Public Sector Balance Sheet (PSBS) approach offers a framework to discuss the implications from macroeconomic changes. For example, low interest rates make the situation even more challenging. The present value of future cash-flow commitments increases. Pre-funding pension obligations becomes more expensive. This was emphasized by Alan Auerbach (2019), at the fourth ECB biennial conference on fiscal policy and EMU governance. His presentation was on the future of fiscal policy. Any prudent fiscal framework has to account for the future burden associated with policy commitments (mostly pensions and health).

Something that would have surprised me in 1989 would be to be told that negative interest rates on bonds would be common in thirty years' time.

In the early 1970s, with the US exiting from Gold Standard in 1971 and the onset of the fiat money regime, inflation increased in most countries. The period became known as the Great Inflation. That was followed by an active, successful disinflation – with Paul Volcker as Fed Chairman - from 1979. Eventually, inflation entered an enduring declining path globally. As a result, nominal interest rates have fallen significantly. Even if we take a very long-term historical perspective, nominal interest rates have never been this negative before. This is true for all major advanced economies, including the euro area countries.

The prevalence and the persistence of low rates has encouraged some scholars to start questioning the conventional wisdom about the costs of deficits and debts. For example, in his American Economist Association presidential lecture Olivier Blanchard (Blanchard 2019) argued that with interest rates so low including relative to growth rates, “the issuance of debt without a later increase in taxes, may well be feasible.” The purpose of the lecture, according to Blanchard, was to allow for a richer discussion of debt policy and appropriate debt rules. In doing so we are following John Hicks. In a little known paper, *The Classics Again*, he explains that under Wicksell’s policy interest rule approach the LM curve is horizontal in the (Y,i) space. He, then, goes on to argue that Keynesian and Classic Economics diverge when the LM curve is horizontal, not by policy choice, but because circumstances are so that policy is constrained. As this happens, we move from Wicksell to Keynes. As of today, the relevance of the effective lower bound on monetary policy and very low and persistent interest rates are a fundamental characteristic of the landscape that was not anticipated in 1989 (not even in 2009). The implications for the conduct of fiscal policy associated with the prospect of low interest rates for long has been, in recent months, explored by Olivier Blanchard (Blanchard, 2019a and 2019b; Blanchard and Pisani-Ferry, 2019; Blanchard and Summers, 2019; Blanchard and Tashiro, 2019; Blanchard, Leandro, Merler and Zettelmeyer, 2018).

In contrast, it is important to note that we are not seeing anything unusual regarding the interest rate-growth differential. If we take a long-term historical perspective interest rate-growth differential was negative for most advanced economies, for most time. The current period does not stand out. That is why in my keynote I emphasize the constraints on monetary policy rather than on interest rate-growth differential.

Given these macroeconomic circumstances, what is the role of monetary policy? The conventional view originates with Knut Wicksell. He showed how—by controlling policy interest rates—central banks would be able to deliver overall price stability.

It is interesting to note that Wickell emphasized that his version of the interest rate rule made Central Banks’ knowledge of the natural rate of interest unnecessary. Observed price changes provided sufficient information for policy action.

Interest rate rules—as a means to deliver price stability—were formally considered in the context of New Keynesian and New Neoclassical Synthesis Models (Clarida, Gali and Gertler, 1999; Goodfriend and King, 2001; Woodford, 2005).

If policy rates are constrained or under the shadow of the effective lower bound, the ability of monetary policy to deliver price and business cycle stability is limited. The role of fiscal policy is, therefore, reinforced. From the viewpoint of business cycle stability that is best done through enhanced automatic stabilizers.

Creating a central fiscal capacity is one of the three critical unfinished jobs to complete the euro area architecture, along with completing the banking union and capital markets union. I may just repeat what I said at the beginning. There are three fundamental priorities to consider in the architecture of the euro area:

Completion of the banking union. Some important progress has been made, including the creation of a single supervisor and a single resolution mechanism. But the banking union also requires a European Deposit Insurance Scheme.

Integrated single European capital market. This is crucial for making the financial system in Europe more resilient. To fully unlock the potential of capital markets there is need to increase information transparency, move to more efficient insolvency regimes and to simplified and harmonized withholding tax rules.

Central Fiscal Capacity. A central fiscal capacity at the euro area level would strengthen the ability to deploy fiscal policy, complementing monetary policy, in case of significant euro area-wide downside dynamics. It would also help countries stabilize their economies in downturns.

An important guiding principle for the future of fiscal rules in the euro area is simplicity. Three main directions: first, consolidation of preventive and corrective arms, second, shifting to a single fiscal anchor and a single operational target, and third, establishment of a central fiscal capacity (Andrle and others, 2015).

Shifting to a single fiscal anchor and a single operational target could serve the dual objective of fiscal sustainability and simplicity. An option is to use the public debt-to-GDP ratio as the anchor and an expenditure growth rule as the operational target, with a debt correction mechanism to better link the rule to the anchor. Tying real expenditure growth to the economy's potential growth rate would serve economic stabilization and debt sustainability, while providing a clear operational guide that is easier to measure, communicate, and monitor.

The IMF's recent research shows that the level of public debt is the most important predictor of crises, showing strong nonlinearities (Moreno Badia, Medas, Gupta and Xiang, 2020). Moreover, beyond certain debt levels, the likelihood of crises increases sharply regardless of the interest-growth differential. Also, the interest rate-growth differentials are no higher prior to sovereign defaults than in normal times (Mauro and Zhou, 2019).

Moreover, contrary to common belief, lower nominal interest rates do not necessarily imply more fiscal policy space. This is clear from debt’s equation of motion. Nominal GDP growth and interest rates are closely related. If both growth and interest rates decline by the same magnitude, the effect on public debt is zero. The headline deficit should fall in line with interest payments.

Expenditure rules a balance between the objectives of flexibility and simplicity, although they can be sensitive to initial conditions. An increasing number of countries have shown interest in in expenditure rules in recent years. Spending rules have to be supplemented by correction mechanisms to deliver the debt anchor.

The experience of many countries with the golden rule of public finance has not been encouraging. That provides another motivation for the PSBS approach. As a complement to a system of rules focusing on debt and deficit the PSBS provides useful information to consider the public finance impact of public investments.

There is room for progress. The first comprehensive estimate of public assets in the European Union was only released in November 2018, by the European Commission. The publication highlights significant data shortcomings in many countries (Gaspar, Gonguet and Stone, forthcoming).

The new macroeconomic reality of low nominal interest rates and the complexity of the implications of population dynamics and transformational dynamics suggests the reinforced public expertise in public finances. The role of fiscal councils could be made commensurate to these challenges. In particular, they could be entrusted, among other tasks, with the responsibility to produce the macroeconomic forecasts grounding the budget, and also the costing of fiscal policy measures.

According to this logic, fiscal councils could be made fully independent. The European Fiscal Board could also be made fully independent and be placed at the center of a system of independent national fiscal councils. To repeat: this could be a good way to respond to the increased complexity arising from the constraints on policy interest rates and economic transformation associated with the green and digital transitions.

Based on the survey that the IMF conducted in 2016, fiscal councils in the euro area differ in terms of the extent of their independence. Also, most fiscal councils do not prepare forecasts and do not provide costing of fiscal measures (IMF, 2013).

The slide (24) is not fully up-to-date, there have been changes in the most recent period. For example, Luxembourg’s National Council of Public Finance does deal with the long-term sustainability issues. Similar, the remit of the Independent Advisory Board to the Germany

Stability Council does include responsibilities for forecast assessment and the issuance of recommendations.

Let me conclude.

The euro area architecture requires the completion of banking union, capital markets union and a central fiscal capacity.

The review of the ECB's monetary policy strategy is timely.

There is ample room to simplify fiscal rules for the euro area by using a single debt anchor and a single operational (nominal) spending target.

The added complexities associated with constraints on policy rates and the intertemporal dimension of population dynamics and green and digital transformations point to:

- better information based on accrual accounting and the PSBS approach;
- reinforced role for a system of independent national fiscal councils with an independent European Fiscal Council, at its center.

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Endnotes:

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1. Delors' Report – The Delor's report was launched in Apr 1989 by the Delor's Committee, which was chaired by the then President of the European Commission, Jacques Delors and consisted of central bank governors and other members. The Delor's report suggested the three stages for achieving Economic and Monetary Union and helped the monetary and economic unification process to develop. The three conditions were - full and irreversible convertibility of currencies, the establishment of the free movement of capital, irrevocably fixed exchange rates between European currencies and, finally, the adoption of a single currency.
2. Maastricht Treaty - Representatives from 12 countries signed the Treaty on 7 February 1992 – Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain and the United Kingdom. The treaty established the European Union; laid the foundations for the Euro; introduced the criteria that countries must meet to join the Euro and it was a step forward for European integration.
3. Stability and Growth Pact (SGP) – The inception of the SGP comes about as the EU Member States agree to strengthen the monitoring and coordination of national fiscal and economic policies to enforce the deficit and debt limits established by the Maastricht Treaty.
4. Preventive Arm - The preventive arm of the SGP aims to ensure sound budgetary policies over the medium term by setting parameters for Member States' fiscal planning and policies during normal economic times, while taking into account the ups and downs of the economic cycle.
5. Corrective Arm - The corrective arm of the SGP ensures that Member States adopt appropriate policy responses to correct excessive deficits (and/or debts) by implementing the Excessive Deficit Procedure (EDP) and essentially bring down the headline deficit figure of 3% of GDP.
6. Structural Balance –Corrects the nominal government budget balance for one-offs and business cycle effects and it is used to assess the underlying fiscal policy effort.

Estimates of the structural budget balance play a central role in the preventive arm of the Stability and Growth Pact.

7. First European Semester – The Commission proposed in May and June 2010 to create a European Semester and this new governance architecture was approved by the Member States on 7 September 2010. The semester entails the EU and the euro zone to coordinate ex ante their budgetary and economic policies, in line with both the Stability and Growth Pact and the Europe 2020 strategy.
8. Six Pack –The reinforced Stability and Growth Pact (SGP) enters into force on the 13th December 2011, with a new set of rules for economic and fiscal surveillance. These new measures, the so-called "Six-Pack", are made of five regulations and one directive proposed by the European Commission and approved by all 27 Member States and the European Parliament.
9. Fiscal compact – The fiscal compact as enshrined in the new “Treaty on Stability, Coordination and Governance in the Economic and Monetary Union” was agreed at the EU summit of 30 January 2012 and signed on 2 March by the Heads of State or Government of all EU countries, with the exception of the United Kingdom and the Czech Republic. The main provision of this Treaty is the requirement to have a balanced budget rule in domestic legal orders.
10. Two –pack- The “Two-Pack” established in 12 March 2013 completes budgetary surveillance cycle for euro area and further improves economic governance.
11. Communication Flexibility – This guidance essentially focuses on how the Commission will apply the SGP rules to foster the strengthening of the link between structural reforms, investment and fiscal responsibility in support of jobs and growth.

3/ However, this Gaspar et al. exercise should not be considered a formal test of compliance, at least, for five reasons: first, it is based on ex post data (using the AMECO database) and does not correct for the classification changes that occurred following the transition from the ESA95 to the ESA2010 fiscal reporting formats; second, targets are assumed to be similar across countries, cover the whole period, and be constant over time; third, the assessment does not take into account the possible activation of escape clauses or other provisions granting some flexibility; fourth, the comparison is carried out for all 19 EA countries, comprising those that introduced the euro after 1999; and fifth, numerical deviations may not necessarily represent cases of noncompliance given that the EC also exerts economic judgment, on top of its quantitative assessment, in both preventive and corrective arms.

4/ In the United Kingdom, Richard Hughes and others recently proposed a net worth ‘objective’ to deliver an improvement in public sector net worth as a share of GDP over a fixed five-year term from 2020-21 to 2024-25. This means that the growth in the value of the government’s total financial and fixed assets needs to exceed that of its debt and other liabilities over the next five years as a share of GDP.