Reforming Eurozone fiscal rules. A Critical Appraisal of the debate

by Salvatore D'Acunto & Domenico Suppa

ABSTRACT

The EU fiscal rules have been under criticism due to the weakness of their epistemic foundations and their pro-cyclical bias (Brooks and Basile, 2019; Blanchard et al., 2020). During the sovereign debt crisis, Member States were forced to deflate in periods of weak economic activity and high unemployment, losing capital stock and human capital. With the pandemic emergency, the European Commission has decided to suspend the rules in force and start a reflection about how to reform the fiscal discipline. It seems emerging a widespread consensus on the abandonment of the approach based on the deficit / GDP ratio target and its substitution with the Stochastic Debt Sustainability Analysis (SDSA). This methodology is based on the estimation of confidence intervals for the medium / long-term debt / GDP ratio trend, in various hypothetical scenarios of growth and short-term shocks. According to this approach, fiscal policy would be evaluated for its consistency with stabilization of the debt / GDP ratio. The evaluation should be entrusted to technical independent authorities and the sanctioning power should fall into the responsibility of the European Court of Justice (Wyplosz, 2019). The aim of this paper is to critically assess whether and to what extent the approach based on the SDSA may overcome the limits implicit in the approach based on deterministic numerical targets.

Introduction

Eurozone fiscal rules have long been under the fire of criticism. Despite the various reforms that have altered the regulatory framework stemming from the Maastricht Treaty, many scholars believe that the system keeps on being structurally pro-cyclical (Blanchard *et al.*, 2020). This has serious consequences for Member States: first, when a State is hit by a cyclical downturn, fiscal rules impose adjustments to it that further worsen its growth performance, rather than improve it; second, due to the country's GDP slowdown, the weight of public finance imbalances relative to GDP ends up worsening rather than improving. The recent activation of the general escape clause in the *Stability and Growth Pact* (SGP henceforth) due to the pandemic emergency has therefore been the occasion for an appropriate pause for reflection, stimulating the debate on the reform of the system.

In this debate, a widespread consensus emerged on the abandonment of the approach in force running up to the COVID-19 shock (Heimberger, 2020). The effectiveness of a deterministic rule-based approach has been seriously questioned and an alternative approach – grounded on the replacement of numerical rules with a probabilistic assessment of debt sustainability – has been proposed (Wyplosz, 2019; Blanchard *et al.*, 2020). Due to the undisputed prestige of its supporters, it is likely that this proposal will exercise a significant influence in the Eurozone control room. Our main purpose is to clarify the distinctive features of this innovative way of dealing with the issue.

This contribution is organized as follows. We first summarize the criterion for assessing Member States' compliance with fiscal discipline in force until the recent SGP suspension (§ 2). Second, we will describe the main drawbacks inherent to this approach (§ 3). As will be seen, most of the troubles depend on the crucial role played by an indicator – the so-called *output gap* – conveying ambiguous information content, which has often ended up providing misleading guidance about the conduct of fiscal policy. Third, we will describe the essential features of the new technique proposed to verify compliance by Member States (namely Stochastic Debt Sustainability Analysis) and critically discuss the ability of this approach to overcome the limits implicit in techniques based on output gap estimation (§ 4). Finally, an attempt will be made to evaluate the debate on the SGP reform in the light of a more general reflection on the nature of Eurozone's troubles (§ 5).

The Eurozone fiscal rules before the pandemic

The Eurozone fiscal rules are based on an explicit provision contained in the art. 126 of the Treaty on the Functioning of the European Union (TFEU), according to which "Member States shall avoid excessive public deficits". The conceptual basis underlying this rule is the idea that the key to good macroeconomic performance is price stability (art. 127 TFEU) and that the achievement of this target risks being compromised if Member States' fiscal policy rows against ECB's monetary policy (Eichengreen *et al.*, 1998). However, the coordination of fiscal and monetary policy was a difficult task in a monetary union where member countries maintain fiscal sovereignty. The drafters of the Maastricht Treaty believed they could get to the head of the question by putting a straitjacket on fiscal policy through the well-known 3% deficit/GDP rule (Bovenberg *et al.*, 1991; Kenen, 1992).

However, a rigid deficit/GDP ratio threshold has the obvious drawback of exerting a pro-cyclical impact on the economy. This occurs because the government budget balance does typically move according to the economic trend: on the one hand, due to the relevance of income related taxes, fiscal revenues show a marked tendency to rise during expansions and to fall during reces-

sions; on the other hand, during cyclical downturns governments use public spending to support economic activity and to alleviate the discomfort of the weakest sections of population (Bénassy, Quéré & Coeré, 2014). So, a rigid deficit/GDP ratio accentuates economic fluctuations: during an expansion the budget balance improves, so that fiscal authorities have additional resources with which to further fuel the expansion, implying the risk of giving rise to inflationary pressures; on the other hand, during a recession the budget balance worsens, and the 3% constraint can reduce the room for expansionary measures to Member States.

An attempt was made to remedy the problem with the 2005 reform of the SGP. With that reform, rigid thresholds were abandoned and the European governance institutions embraced the idea that Member States should undertake «to actively consolidate public finances in good times», using unexpected extra revenues for deficit and debt reduction; conversely, «in bad times» the financial situation of the public sector would have had to be assessed with greater indulgence (Council of the European Union, 2005). The logic underlying this model can be outlined with the help of Fig. 1, where the solid line describes the characteristic fluctuating GDP dynamics. When the economy enters a recession, the government budget balance deteriorates (dashed line). However, the resulting deficits are not "structural", but rather mere temporary consequences of the downturn. In bad times, Member States should be therefore left free to increase expenditure and reduce taxation in order to alleviate the suffering of the economy and accelerate the recovery. When the economy will come back to an expansionary path, deficits will naturally disappear due to the increase in income-related tax revenues and the reduction in subsidies to households and businesses.

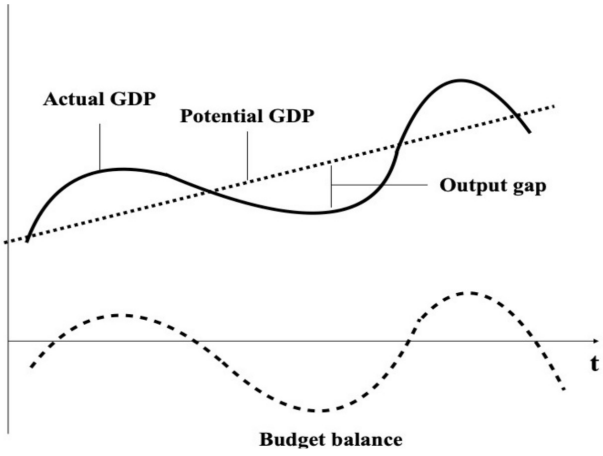

Fig. 1 – Business Cycle and Budget Balance

The problem is obviously how to distinguish bad times from good ones. A very common idea in the economic literature is that it is quite easy to separate, within GDP dynamics, the underlying trend of the economy from the cyclical fluctuations around the trend, and that it is therefore just as easy to obtain an indicator of the cyclical deviation. Imagine that we can describe the trend dynamics of the economy by the dotted line in Fig. 1: then, at any moment in time it would be possible to measure the difference between *actual* and *potential* GDP. The difference between these two figures (*output*

gap) should allow policy-makers to understand if times are good or bad. Since the 2005 SGP reform, the notion of output gap therefore became the reference point of the European Commission to assess compliance with fiscal discipline by Member States (Council of the European Union, 2005).

Unfortunately, identifying the output gap is not a simple matter. It must in fact be derived from the difference between actual and potential GDP. Yet, while the first figure is concretely observable, the second is a mere theoretical construct, and therefore cannot be observed, but only estimated. In the next section, we will try to clarify both the most controversial aspects of the technique generally adopted for estimating the potential output and the drawbacks resulting from the use of the output gap as a reference for fiscal surveillance.

The economic consequences of output gap

In the economic literature, *potential* GDP is generally referred to as the highest level of production that the economy can achieve without generating inflation (Fontanari *et al.*, 2020; Heimberger, 2020). This definition inherently entails a relationship between level of output and inflation. It is evidently taken for granted that when the level of activity rises, the economy "heats up". To increase production, firms are in fact forced to sift the labour force on the market. The resulting scarcity of labour ends up in wage inflation, which in turn carries over (to a more or less significant extent) to prices. This idea is embodied in the Phillips Curve, the negatively sloped relationship between unemployment and inflation rate that has long been the focus of the macroeconomic theory debate.

Although many aspects of this relationship are still controversial, there exists a general agreement that there is an unemployment rate at which inflationary pressures disappear, the so-called Non Accelerating Inflation Rate of Unemployment (Nairu). But then, if one is able to estimate the Phillips Curve and extrapolate the Nairu, that's it: if the total amount of the workforce is known, one can derive the non-inflationary level of employment by a simple difference; and if the average productivity of workers is also known, it is possible to calculate the highest output compatible with price stability, that is *potential output,* by a simple multiplication. This is, in a nutshell, the methodology used by the so-called Output Gaps Working Group (hereinafter OGWG), i.e. the team of experts who estimate the output gap for each individual Eurozone Member State on behalf of the European Commission. At first glance, this technique may appear simple and substantially reliable, but it crucially grounds on the idea that it is possible to neatly separate the cyclical movements from the long run growth trend of the economy. Unfortunately, serious theoretical reasons, as well as much empirical evidence, suggest that the long run trend is significantly influenced by short run fluctuations.

In the theoretical literature on the subject, two distinct prestigious tradi-

tions of thought attribute to cyclical fluctuations the attitude to significantly influence the productive potential of the economy. A first stream, known as *hysteresis theory*, holds that, when a country is affected by an economic crisis, the reduction in the utilization of workforce and plants deteriorates its potential production. Workers remain out of the production process for prolonged periods of time, and therefore lose the skills accumulated over time and become unable to keep pace with the evolution of production techniques. Thus, the unemployed lose the ability to compete on equal terms with *insiders* for a job, so that the disciplinary effect usually exerted by unemployment on wage dynamics weakens (Blanchard & Summers, 1986; Layard & Nickell, 1987). In addition, the prolonged closure of many plants will make their owners unwilling to carry out adequate maintenance, with the effect of reducing the productive capacity of the economy (Carlin and Soskice 1989). The overlap of these two circumstances reduces the economy's ability to respond to demand pressures without pushing up prices. In economists' words, the cyclical fall will cause an increase in Nairu.

Similar results can be obtained by applying the idea, supported by many heterodox scholars, that labor productivity is not exogenous but rather linked to GDP dynamics (Verdoorn, 1949; Kaldor, 1966). According to this view, the GDP/productivity connection conceptually relies upon the effects of economic growth on deepening the division of labor, accelerating technical progress and enhancing scale and learning economies. When the economy expands, productivity growth accelerates and makes the system less subject to inflationary pressures even if the unemployment rate falls; on the contrary, the slowdown in productivity growth during a recession makes the economy less responsive to demand pressures, thus accentuating the system's vulnerability to inflation.

The problem is that measuring the loss of productive potential caused by a cyclical downturns is not easy at all. Let us outline the harmful consequences of an eventual defect in the measurement technique used by the supervisory authority. Take a look at Fig. 2, and imagine the economy is at point A, where it is going to enter a contractionary phase. According to our previous considerations, we may obviously expect that – due to the combined effect of deskilling, capital scrapping and productivity growth slackening – the downturn will shift downwards the potential output curve. Also imagine that the supervisory authority knows that there are two different plausible scenarios, but it doesn't know what of the two is the true one. If it wrongly relies on the pessimistic scenario, the estimation will detect a value of the potential GDP lower than actual, implying a positive output gap. In other words, the country will appear to be going through an expansion, and the supervisor should order the Member State to adopt "corrective" budgetary measures, i.e. to increase taxes and/or reduce spending. The effect would obviously be pro-cyclical: the fiscal "correction" would stifle the fledgling recovery in the cradle and induce a new contraction in economic activity, even before the country is back on the pre-shock

growth path. In turn, the fall in the level of activity risks further restricting the productive potential of the economy, triggering a dangerous vicious circle.

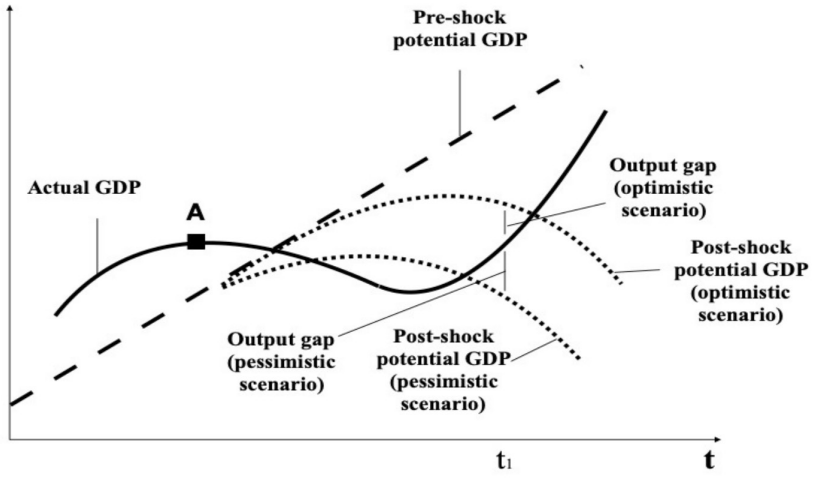

Fig. 2 – The Fiscal Policy Supervisors' Dilemma

The problem is therefore to evaluate whether the available econometric techniques are able to correctly capture the extent of the shifts of the potential output curve induced by the actual output downturns. In this regard, the majority of scholars seem to agree on the low "sensitivity" of the estimation techniques available. In particular, many find very puzzling the evidence of a strong correlation between actual GDP trends and potential GDP estimates. Actually, the cyclical falls in GDP seem to exert an influence on potential GDP that is too significant not to arouse suspicion. Heimberger (2020), for instance, estimated a cross section regression between actual and potential output losses, which gave rise to a regression coefficient close to 1, that is each 1% fall in GDP is supposed to determine a reduction in production capacity of a similar size. A similar result was obtained by Storm and Naastepad (2015), who estimated regressions between NAIRU and actual unemployment in 11 EU Member States for the period 1992-2008. They found that the NAIRU closely tracks actual unemployment, and in all the countries considered the regression coefficient is close to 1 (and $R^2 = 1$). These results appeared counterintuitive at least, and fueled widespread skepticism about the goodness of the techniques in question (Saraceno, 2018, 86-88).

Since these estimates guide the requests for fiscal correction to Member States, it is not surprising that the controversy, far from being confined to the academic sphere, has spread to the political arena. This was, for example, the root of the recurring conflict between the Italian government and the supervisory authority during the prolonged post-2008 recession. On various occasions

the European Commission, grounding on the OGWG estimate of a positive output gap, asked the Italian government for robust fiscal consolidation in a very weak economic phase. Regardless of the political orientation of the governments in office, policy-makers have always severely contested the Commission's requests, complaining that the estimates on which they grounded were biased (Ministero dell'Economia e delle Finanze, 2015; Tria, 2018; Gualtieri, 2019).

The current debate on the SGP reform

Once acknowledged the failure of the SGP, several scholars have put forward reform proposals (e.g. Darvas *et al.*, 2018, Wyplosz, 2019, Blanchard *et al.*, 2020). Opinions about reform greatly diverge, ranging from "rationalizing" the pact to focusing on a different set of rules, to giving an even more relevant role to market discipline. A trend that seems to have gained significant consensus has its main representatives in Wyplosz and Blanchard. Despite the differences on some collateral aspects, they share skepticism towards the numerical rules on which the current SGP is based. According to Wyplosz (2019), «numerical targets cannot be rigorously justified» on the ground of economic logic, and even if they were, «justifications provided are time-dependent and therefore bounded to become outdated».

First of all Wyplosz clarifies that the real objective of fiscal discipline is to guarantee the respect of the intertemporal budget constraint by the Member States, while the public deficit is only the instrument. Compliance with the intertemporal budget constraint obviously does not imply that the public debt must be zero, but only that it must be not "too big" in the very long run. Therefore, once defined an "acceptable" debt/GDP ratio, Member States should be allowed to exceed that threshold during weak cyclical phases, but when the employment emergency is over they should reduce the debt/GDP ratio until it has become acceptable again.

To make clear the meaning of this approach to fiscal discipline consider Fig. 3, where the trends in the debt ratio of three hypothetical countries are described, and assume that an 80% debt/GDP ratio is considered "acceptable". According to Wyplosz's rule, country A is virtuous: it allows to its debt ratio to increase during downturns, but it runs a fiscal consolidation during the following expansion so as to make the debt ratio fluctuating symmetrically around the threshold. By contrast, country B is not virtuous: the deviations from the threshold value during the downturns are not followed by fiscal contractions of similar intensity during the subsequent expansions, resulting in a progressive departure of the debt ratio from the threshold value. Country C is not virtuous too: although the increases in the debt ratio during the downturns are followed by fiscal contractions of similar intensity during the expansions – and therefore

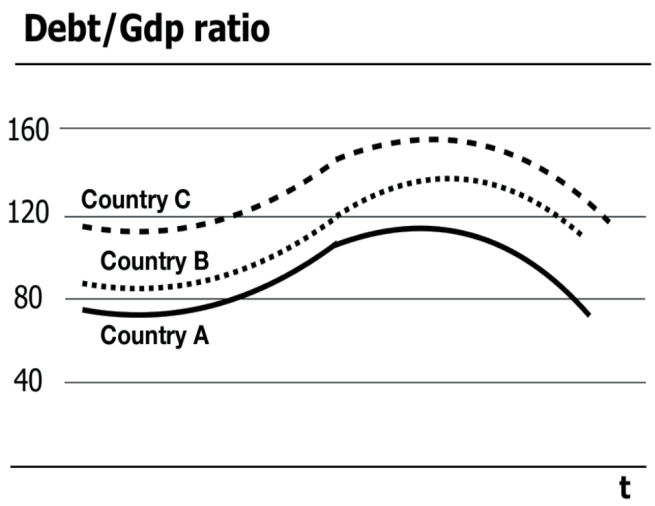

Fig. 3 – Eyeball Test on Debt Sustainability

the debt / GDP ratio tends to remain stable – it nonetheless stabilizes around a "too big" value.

However, the concrete application of this "protocol" to the supervision of fiscal policy runs up against two problems. Firstly, in order for the protocol to have a defined operational content, it is necessary to clarify which debt ratio should be considered "not too big". Secondly, the compliance assessments of Member States should not be done *ex post*, but in real time. For example, if the evaluations did not take place at the end of the period considered, but in the middle of it, the Wyplosz's rule would not give us any useful information: in this case, it would in fact be impossible to distinguish the situation of country A from that of country B, and it would also be impossible to assess whether the debt ratio of country C will evolve towards the threshold value or remain at a higher level.

Regarding the first point, it is well-known that the determination of a country's optimal debt ratio is a very controversial question. There is no consensus on this point in the theoretical literature. Instead, there is a popular empirical literature according to which a debt ratio above 90% may lead to instability and cause a deceleration of growth (Reinhart & Rogoff, 2010). The Reinhart-Rogoff threshold is indicated by Wyplosz (2019) as an adequate reference, although he advises not to consider it with excessive rigidity.

To solve the second problem, it is evidently necessary to make projections on the probable evolution of the debt ratio in the long run. As it is widely known, the key role in the dynamics of the debt ratio is played by the GDP growth rate, the interest rate and the annual budget balances (Wyplosz, 2019; Blanchard *et al.*, 2020). Long run growth and interest rate are commonly esti-

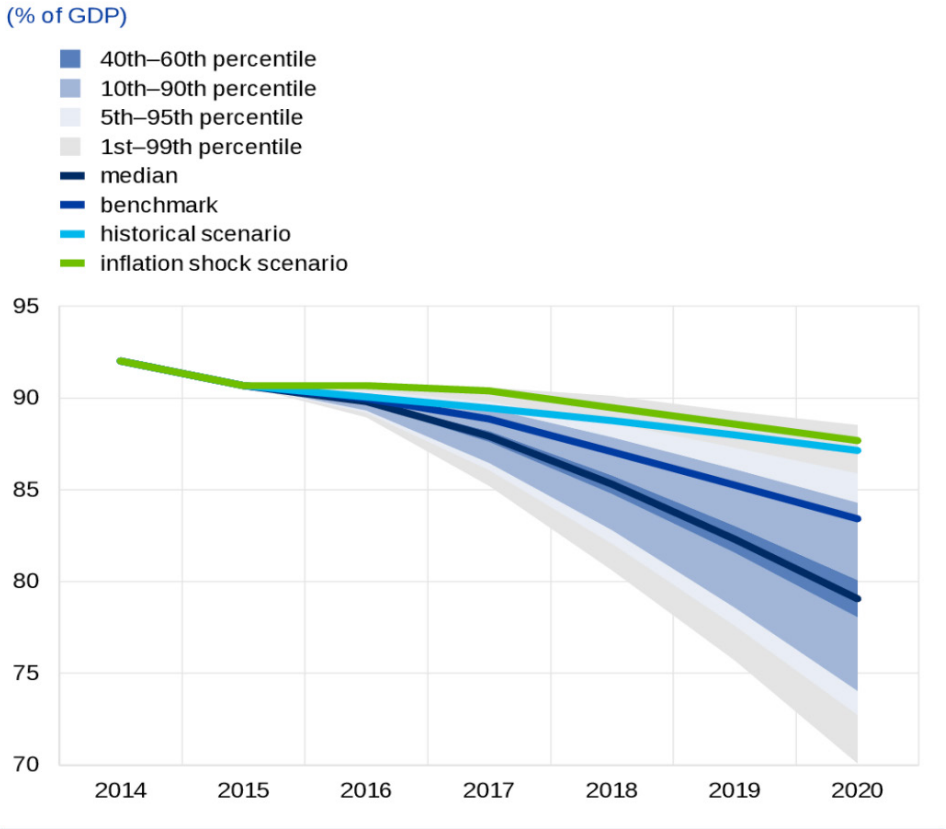

Fig. 4 – Fan Chart for Debt Ratio: The Euro Area Aggregate.

mated, although the precision of these projections is limited. However, we may imagine various alternative scenarios, attach probabilities to each of them and derive probabilistic assessments about the long-run outcome of each different fiscal policy option. Thus, any given multi-year budget plan will result *sustainable* under some scenarios and *unsustainable* under others. The supervisor authority will then be able to assess *with what probability* each of those plans will allow respecting the intertemporal budget constraint. As a consequence, debt sustainability is translated into a probabilistic statement (Blanchard *et al.*, 2020).

This technique, which our Authors propose as a reference for European fiscal discipline (Wyplosz, 2019; Blanchard *et al.*, 2020), is known in the specialist literature as Stochastic Debt Sustainability Analysis (SDSA). Without going into technical details, it can be said that the SDSA attempts to measure the uncertainty about the future trend of the debt ratio by taking into account a wide range of macroeconomic information and on the basis of historical data of variables, such as short-term and long-term interest rates, GDP growth and so on.

In short, SDSA is a procedure combining narrative analysis with VAR (vector autoregression econometric models), bootstrapping and macroeconomic indicators. The bootstrap method serves to avoid that the estimated projections depend on a specific probability distribution (see Consiglio & Zeinos, 2017). To get a feel of the SDSA application, take a look at Fig. 4, where it is shown a fan chart taken from Bouabdallah *et al.* (2017). In this graph, lines marked in different colors identify alternative scenarios of the debt ratio evolution. Each of these trajectories is determined on the basis of different hypotheses regarding the trend of the main macroeconomic variables, also contemplating the hypothesis of more or less probable shocks. The colors of the lines reflect the degree of risk associated with the trend of the indicator: from green (safety target already achieved) to yellow (target achievable in 5 years) up to red (if the target is not achievable or achievable in a longer time).

This procedure raises a number of doubts. First, it must be said that the significance of Rogoff and Reinhart's 90% threshold is still very controversial today, especially in light of the fact that the empirical work on which it grounds has revealed vitiated by calculation errors (see Herndon, Ash & Pollin, 2014). Second, and more important, it is difficult to understand why this technique should allow us to escape the arbitrariness and uncertainties associated with estimating the output gap. As said above, to assess the impact of fiscal policy plans on the debt/GDP ratio it is necessary to determine predictive bands at least for the GDP growth rate and for the interest rate, and to attach a probability to each value included in the range considered. This step of the procedure contains an unavoidable element of arbitrariness. As Keynes has long preached, and the financial crisis and the pandemic confirm, history is not the realization of a probabilistic model. Therefore, the past teaches us next to nothing: how often an event occurred in the past doesn't tell us much about the likelihood of it happening in the future. Attaching a probability to a certain future event therefore always contains an eminently subjective judgment. In practice, the supervisory authority would make decisions on the legitimacy of Member States' choices on the basis of assessments where the analyst has inevitably put his personal "interpretative filter" of reality.

These proposals appear even more disturbing in light of the fact that their supporters regularly accompany them with the suggestion to remove the enforcement process from the political level and to attribute it to bodies irresponsible towards the holders of political sovereignty. According to Wyplosz (2019), one of the main reasons for the bad working of the SGP was the decisive role played by the European Council, "... a political institution (...), not inclined to blindly follow technical rules". Similarly, Blanchard *et al.* (2020) complain that art. 126 of the TFEU assigned the adjudication in excessive deficit procedure to the European Council. From their point of view, the underlying logic was to balance, and some extent offset, the "hard numerical criteria" used by the Commission in the fiscal surveillance with a "soft enforcement process involv-

ing political judgmen".Both essays show an explicit preference for the transfer of these competences to "technical" bodies, such as the European Court of Justice.

A new SGP or a new Europe?

One of the best-known findings from the Optimal Currency Areas (OCA) theory is that various mechanisms may correct the asymmetric shocks eventually hitting member countries of a currency union: a significant mobility of labor, a high flexibility of wages and prices, or an adequately sized common budget with taxes and expenditure strongly correlated to the level of economic activity (Mundell, 1961; Kenen, 1969). When the Maastricht Treaty was signed, it was well-known that Europe excelled neither in the first nor in the second feature. However, the Maastricht drafters preferred not to design common fiscal instruments that could counterbalance those evident weaknesses. So, the fiscal integration perspective was placed in a time horizon so distant as to appear semi-utopian. The implicit bet was that labor market and financial markets would do the job of correcting trade imbalances possibly caused by asymmetric shocks.

Thirty years later, it can probably be said that the bet was lost. Contrary to those expectations, financial markets have often transmitted destabilizing impulses to the real economy (Storm & Naastepad, 2015; Cesaratto, 2017; Celi *et al.*, 2020), and the flexibility of labor markets proved unable to adjust trade imbalances (Storm & Naastepad, 2015). Consequently, when these kinds of problems occurred, they created incentives for speculative capital flows and threatened the survival of the common currency, and European institutions found nothing better than imposing severe restrictive policies on Member States, aimed at adjusting their current account.

This was the true (though unspeakable) rationale of fiscal austerity: to impoverish populations in order to contract the demand for imported goods. Unfortunately, while on the one hand fiscal austerity succeeded in correcting the peripheral countries' trade balance, on the other it produced a slowdown (and in some cases even a halt) in GDP growth. In countries where the de-multiplicative effects of austerity have been more intense, the reduction in fiscal balances in absolute value was more than offset by the fall in the denominators of the deficit/GDP and debt/GDP ratios (Blanchard & Leigh, 2013). In a nutshell, from the most informed literature on the subject it emerges that fiscal austerity fueled the government debt explosion in peripheral countries (De Grauwe & Ji, 2013; Semmler, 2013), rather than containing it as argued in the mainstream narrative. That is public finance imbalances in Europe seem to have a substantially "endogenous" nature: they reflect the natural propensity to instability of a federation of countries characterized by deep structural differences, crossed

by destabilizing impulses coming from financial markets and tied together by the straitjacket of the common currency.

Therefore, it is becoming more and more clear that Eurozone has so far worked badly not because the algorithm used as a reference for assessing compliance with fiscal discipline is "wrong". It has worked badly because the entire institutional framework was designed on the assumption that Eurozone did have effective mechanisms to correct asymmetric shocks, and it did not need for a continental-level fiscal cushioning system. However, various scholars raised doubts about the realism of this assumption at the very beginning of the common currency adventure (Krugman, 1993), doubts that the 2009 crisis largely reinforced (Krugman, 2012).

Reducing institutional design to the search for a "magic formula" capable of reconciling debt sustainability and cycle stabilization therefore appears to us as a bizarre exercise in *denial* (in the psychoanalytic sense). It is like putting your head in the sand in order to avoid facing the vacuum of sovereignty caused by the Maastricht Treaty (Fitoussi, 2013). Maastricht drafters believed that taking away an important part of the government functions of a complex economy from the populations and entrusting it to algebraic algorithms would not compromise the effectiveness of its coordination mechanisms. Unfortunately, the history of the last twenty years seems instead to show that algorithms (and the "automatic pilots" that should implement them) are essentially unable to correctly grasp what is going on in the vital fabric of the societies under their government and to adapt policies to changing contingencies.

In this sense, even the explicit invitation to design rules that "cut out" the political level from the assessment of compliance with fiscal discipline and place the entire process in a "technical" dimension reveals a very disturbing vision of social science. While on the one hand it is claimed to establish governance rules for modern societies intended to maximize (in theory) the welfare of their members, on the other (in practice) it systematically avoids confronting citizens' actual needs, preferences and interests. Rather than discussing to which algorithm attributing the role of fetish for prosperity and to which priests conferring the governance of the related cult, it seems more useful to put back at the center of the debate the question of how to bring back the technique to its rightful place, and how to bridge the existing gap between the holders of political sovereignty and the instruments through which sovereignty should be exercised.

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