

Dipartimento di Scienze economiche e metodi matematici

SOUTHERN EUROPE RESEARCH IN ECONOMIC STUDIES

The crisis of economic governance in the European Union

Ernesto Longobardi

SERIES Working Papers N. 07/2015

SERIES sono pubblicati a cura del Dipartimento di Scienze economiche e metodi matematici dell'Università degli Studi di Bari "Aldo Moro". I lavori riflettono esclusivamente le opinioni degli autori e non impegnano la responsabilità del Dipartimento. SERIES vogliono promuovere la circolazione di studi ancora preliminari e incompleti, per suscitare commenti critici e suggerimenti. Si richiede di tener conto della natura provvisoria dei lavori per eventuali citazioni o per ogni altro uso.

SERIES are published under the auspices of the Department of Economics of the University of Bari. Any opinions expressed here are those of the authors and not those of the Department. Often SERIES divulge preliminary or incomplete work, circulated to favor discussion and comment. Citation and use of these paper should consider their provisional character.

The crisis of economic governance in the European Union

Ernesto Longobardi*

June 16, 2015

Abstract

This paper deals with the origin and the evolution of the European system of fiscal rules and discusses the perspectives for future developments. The early debate about the design of establishing a monetary union in a not optimal currency area, with decentralized fiscal policies, is reconsidered. The main developments of the European rules-based fiscal governance are discussed, starting with the Maastricht Treaty and going through the institution and the evolution of the Stability and Growth Pact (SGP). After drawing a brief outline of the system of fiscal rules in force at present, the key issue of the estimation of potential output is considered. The shortcomings of the estimation practices are, to a large extent, responsible for the inadequate results produced by the shift from nominal to structural targets, which was the main aim of the SGP reforms. The paper concludes sketching the debate on the reform of the European economic governance.

Key words: Fiscal Rules, Fiscal policy, European Monetary Union

JEL codes: E62, H60, H77

Paper presented at the *German-Italian Centre for European Excellence Colloquium* on: *The Quality of Political Institutions in Europe: Economic Perspectives in an Interdisciplinary Cross Examination*, Villa Vigoni, June 14-16, 2015.

^{*} University of Bari, Italy, ernesto.longobardi@uniba.it

Index

- 1. Introduction
- 2. A single currency in a not optimal currency area: the early debate
- 3. The evolution of the European rules-based fiscal governance
- 4. The system of E.U. fiscal rules: an overview
- 5. Potential output, the unknown
- 6. The failure of the movement to structural balance targets
- 7. The crisis of the rules-based approach and the way ahead
- 8. Conclusions

1. Introduction

In a famous article published in *The Economist* few months after the Maastricht Treaty was signed, Martin Feldstein arose a number of questions about the perspectives of the European Monetary Union (Feldstein, 1992). He argued that a single currency for Europe was destined to be "an economic liability", which could be justified only in the light of the potential political benefits. He challenged the idea, put forward by the European Commission, that the adoption of a unique currency was a necessary ingredient for the completion of the internal market ("One Market, One Currency"), arguing that it was possible to attain all the gains of a free-trade zone without moving to a common currency. The shift to a single currency would, instead, have raised unemployment and instability, and was also likely to diminish – not to increase - the intra Europe trade. The main disadvantage of renouncing to the existing national currencies was the impossibility of an adjustment through a change in the nominal exchange rate in the presence of a negative asymmetric shock: from then on member countries could only rely on the downward flexibility of wages and prices in order to modify the real exchange rate. In practice, because wages and prices adjust only slowly, the adjustment would involve real variables, i.e. output and employment, with significant social costs.

As said, according to Feldstein the only way to justify the single European currency was on political ground. A single currency was the strongest possible signal that the European Community was on the way of becoming a single state and it would have accelerated the formation of a federal political union. The first step would have been the centralization of taxation and budgetary policy, being very hard to believe that a monetary union could cohabit long with decentralized fiscal policies.

Well, since the Maastricht Treaty (1992), for a period that has now lasted almost a quarter of a century, there has not been any significant movement towards a political union. Even the perspective of centralizing fiscal policy has never gained any significant momentum. The original Maastricht's choice of decentralized national fiscal policies linked together in a framework of binding fiscal rules has not yet been seriously challenged. Maastricht's fiscal parameters have been embedded into the Stability and Growth Pact (1997), which has thereafter been reformed several times, especially after the financial and economic crisis started in 2008.

However the European rules-based economic governance is by now under attack. The extraordinary complexity of the systems of norms, the lack of transparency - especially the opacity which covers the borderline between the technical field and the political arena - the growing consciousness of the incapacity of the present system to reconcile stability and growth are

challenging the very own possibility of survival of the system of economic governance, and, at the end, of the Union itself.

This paper retraces the origin and the evolution of the European system of fiscal rules and discusses the perspectives for future developments. The next section reconsiders the early debate about the original design of establishing a monetary union in a not optimal currency area, keeping fiscal policy decentralized at the country level and entrusting coordination to a system of fiscal rules. Section 3 deals with the main developments of the European system of fiscal governance, starting with the Maastricht rules and going through the establishment and the evolution of the *Stability and Growth Pact* (SGP). After drawing a brief outline of the system of fiscal rules in force at present (Section 4), Section 5 discusses the key issue of potential output estimation. The shortcomings of the methodologies employed are at the basis of the virtual failure of the movement from nominal targets to structural ones, which was the main scope of the SGP reforms (Section 6). Section 7 summarises the main pitfalls of the rules-based European economic governance and discusses the main options for a reform. Section 8 concludes.

2. A single currency in a not optimal currency area: the early debate

Feldstein's alarm, which has just been recalled, was not isolated at the time when the Maastricht agreement was in preparation. There was a widespread consciousness that the European Monetary Union was going to be an extraordinary and unique case in the history of the economic systems. The uniqueness of the design was twofold. From one side, essentially Europe did not satisfy any of the requirements that, according to the Optimal Currency Area theory, make convenient for a group of countries to join in a monetary union with fixed exchange rates or to adopt a single currency. In particular Europe could not rely upon mobility of labour through the different member states, which, apparently, in the USA is the main adjusting factor when asymmetric shocks to aggregate demand (business cycle) or structural long run shifts in equilibrium real exchange rates occur. The second aspect of singularity of the European construction was that the choice of having a single currency and a centralised monetary policy was not accompanied by an analogous option on the side of fiscal policy. In federal countries, like the USA, the central fiscal system provides an alternative powerful source of regional stabilisation. In the presence of asymmetric shocks the automatic stabilizers contribute to dampen the upturns and to hinder the downturns. In the regions in expansion the revenue of taxes linked to the economic activity (income taxes, sales taxes etc.) increases, while public subsidies for unemployment reduce; conversely in the regions hit by a negative demand shock the former decreases and the latter increase. Thus, through the central budget, fiscal resources are shifted from surplus countries to deficit countries, contributing to re-establish the equilibrium. In countries where differences in productivity and competitiveness are structural characteristic of

¹ Well-known seminal contributions to the OCA theory are Mundell (1961), McKinnon (1963), Kenen (1969). For a survey of the "second wave" of OCA theories see Tavlas (1993), and Broz (2005) for a comprehensive survey of the OCA literature.

the economic system, the transfer of resources - through the central budget - from "rich" to "poor" areas becomes a permanent feature of "holding together". ²

In the Europe to come, the adjustment through the nominal exchange rate being precluded, the labour markets not being at all integrated, and in the absence of a centralized fiscal policy, the macroeconomic adjustment was left to the internal flexibility of wages and prices, but -this was the warning coming from Feldstein in the cited article - a decline in domestic prices is likely to require a period of increased unemployment with the connected painful social costs. Feldstein (see also Godley, 1992) cited the case of New England. During the 1980s the New England economy had benefited from a strong increase in national demand, particularly for computers, military equipment and financial services. As a consequence the relative level of New England wages and salaries increased significantly faster than in the rest of the country and the unemployment rate shrank to a level less than half the national average. Later on, however, at the end of the eighties, demand shifted away from New England products: as a result the unemployment rate rapidly increased. Being impossible for New England to change the nominal exchange rate respect to the rest of the country, the adjustment could only derive from a decrease in the relative level of wages and prices or through migration of labour. In those years, in a neat paper, also Krugman discussed the New England case as a lesson for Europe, which was then moving to complete the monetary union (Krugman, 1993).

If, on one side, the European option for a decentralised solution could be interpreted as confidence in the self-regulating properties of the markets (flexibility of wages and prices, mobility of factors) - and this opinion was in fact present in the debate, being primarily interpreted by the UK government - other stances in the European political arena were rather relying on the autonomy of the national authorities of fiscal policy for macroeconomic adjustments. The problem with this position was that the system of rules, that was being constructed, was exclusively oriented to the aim of soundness and stability of public finances, as a condition for the safety of the monetary union. The necessity of rules governing and coordinating national efforts to preserve macroeconomic stability was totally ignored. Moreover in the following evolution of the events, the rules-based framework, that was established, would have dramatically shrunk the room for active fiscal policies at the national levels and the whole system of rules would have ended up being definitely pro-cyclical.

3. The evolution of the European rules-based fiscal governance

A political history of the European fiscal rules has not yet been written.

For sure the two Maastricht's fiscal criteria – a deficit /GDP not above 3% and a debt/GDP ratio not above to 60%, with reference to the general government –, destined to assume the rank of constitutional principles founding the Union, did not have noble origins. A tale has been told of a young official of the government of François Mitterrand, Guy Abeille, inventing the 3% deficit criterion, an evening in June 1981, without even looking for any scientific justification, but just

² It should be reminded that the European Union does not foresee permanent transfers from richer regions to poorer ones, which, instead, often characterise both unitary countries and federations, being one of the main ingredients of "fiscal federalism" (Draghi, 2015).

because the French deficit was at the time close to that value. ³ Positively the rule was experimented in France during the '80s (with just one violation, in 1986). In December 1991 the bound was upgraded from being French to be European⁴. Apparently it was Jean-Claude Trichet to convince Germany, which was strongly in favour of introducing fiscal rules, to accept the French proposal of the binomial 3%-60%. The French argument was, again, a mere ratification of the existing prevailing values: on average, in the European Community, the debt/GDP ratio was about 60%; assuming a nominal growth rate of 5% (made up by 2% of inflation and 3% of real growth), which at that time was a reasonable assumption, the maximum affordable deficit resulted 3%.⁵

Grant (1996) refers that Jacques Delors, who had been one of the main engineers of the architecture of EMU, was not happy with the rules-based approach to fiscal policy, being, at least in principle, favourable to centralization. Eventually he accepted the rules' system as a compromise to save his design of a monetary union.

An alternative explanation, which has sometimes been given, of the choice of 3% as a limit to the deficit, is that it was considered a reasonable measure for public investment. In such a way the rule would actually have consisted in an indirect - in a sense occult - way to introduce a "golden rule", according to which the current account of the budget should be balanced, while the capital expenditure could be financed by debt, because of its multiyear productivity.

Whatever it was, it is very difficult to justify the Maastricht fiscal criteria on economic grounds. As debt sustainability is concerned, the perspective of considering a debt sustainable if converging to a finite value, given the fiscal stance, had then already been abandoned in favour of a methodology relying on the concept of intertemporal budget constraint. Moreover the two rules did not even guarantee that the member countries would have become more similar, because the steady state debt/GDP ratio of a single country depends on a number of parameters that may differ among countries.

With the approval, in 1997, of the *Stability and Growth Pact* (SGP), the system of European economic governance was shaped in the form that it has maintained until now, despite having gone through an intensive process of progressive adjustments and reforms. In particular the SPG was since its origin articulated into two "arms". The *preventive arm* was designed to monitor the fiscal stance of member countries, with the aim of guaranteeing the compliance with Maastricht rules. The task of the *corrective arm* was, instead, to compel non-compliant member countries to restore compliance, through an interactive complicated process named *excessive deficit procedure* (EDP). Within the contest of the preventive arm, member countries must pursue a *medium term objective* (MTO), consisting in a budget close to the balance or in surplus. The MTO was originally

³ Le Parisien, 28 September 2012, the Frankfurt Allgemeine Zeitung September 2013, Il Sole 24 Ore, 29 January 2014. This is the story. After winning the elections in 1981, the socialist government increased the deficit from 50 to 95 billions of francs to maintain the promises of the electoral campaign. President Mitterrand in order to contain the pressure for further expenditure increases asked Pierre Bilger, at the time Director of the Department of the Budget, to envisage a budget rule to refrain expenditure. Bilger assigned the task to two young economists with a strong mathematical background, Dominique de Villepin and Guy Abeille. It was the latter to elaborate the algorithm: 100 billion of deficit were the 2,6% of GDP and ... 3 is a nice number!

⁴ Thus Europe is debtor to France not only of the VAT but also of the Maastricht criteria!

⁵ In fact we have d=xb, where d is the deficit/GDP ratio, x the nominal rate of growth, b the debt/GDP ratio. Nowadays with x=2%, considered more realistic, given the rule d=3%, b would result 100%; conversely a 60% debt limit would imply a 1,6% deficit limit.

defined in nominal terms, like the 3% rule. However, while the 3% ceiling leaves enough room for automatic stabilizers to act, the MTO would not, because it consists in a balanced budget. Even the shortcoming of having an identical target for all countries was not dealt with in the original version of the SGP.

In deciding about starting an EDP, exceptional circumstances were to be considered, the exceptionality being defined as GDP contracting by 2% a year.

It must be emphasized that with the introduction of SGP the two Maastricht criteria of 3% and 60% remained intangible. The SGP was, in fact, a structure built around them, a shelter with the aim of improving their credibility and enforcement.

With the 2005 reform of the SGP, the shift to *structural balance* occurred. The structural balance was defined as the nominal balance adjusted for the cyclical effects and net of temporary measures. With the reform, furthermore, the MTO became country specific, establishing that it should take into account the single country debt level and the effect of ageing on the public finance. Countries that have not yet reached their MTO should stay on a predetermined path towards it, guaranteeing an annual adjustment in terms of structural balance of at least 0.5 GDP points.

Exceptional circumstances were redefined in terms of a negative output gap or a protracted rate of growth below the potential one.

In 2011, with the "six pack", the second important reform of the SGP took place. A number of institutional and procedural innovations were introduced, among which the "European semester". Two more indicators of fiscal stance were inserted among the SGP's tools: the expenditure benchmark within the preventive arm, and 1/20 criterion for the debt reduction in the corrective arm. New escape clauses for unusual events with major budgetary impact and for a general crisis were provided for.

In 2013 the Two Pack reinforced budgetary surveillance and coordination for Euro Area countries. On March 2nd, 25 member states out of 27 signed the *Treaty on Stability, coordination and Governance* (TSCG), known as "fiscal compact". The Treaty does not belong to EU legal system and does not contain any new specific innovation concerning the SGP. It was a solemn confirmation of the commitment of the signing countries to fully comply with the SGP and introduced a number of institutional, procedural and political norms and provisions. Among them the commitment stands out of transposing some of the SGP rules into national legislation, starting with the criterion of balanced budget, to be introduced into national legal orders through constitutional or reinforced norms.

4. The system of E.U. fiscal rules: an overview

The declared aim of the SGP is to provide a stable environment for monetary policy and to ensure the sustainability of public finances in the EU.

In order to monitor the fiscal policies in the Member States, the preventive arm of the SGP relies on two pillars: the *Medium-Term Objective* (MTO) and the *Expenditure Benchmark* (EB).

The MTO is a budgetary target established for each Member State in terms of structural balance. The structural balance (SB) is defined as the cyclically adjusted nominal balance (CAB) of

general government, net of one off and other temporary measures. CAB is a function of the *output gap* (OG), which measures the distance of the actual GDP from the *potential output* (PY), the latter being the maximum GDP attainable from a full utilization of productive resources (labour and capital) without generating inflationary pressure⁶. The methodology used for the estimation of PY, which is one of the most delicate and controversial aspects of the entire architecture of EU fiscal governance, is outlined in the next section.

The MTO has a triple aim (European Commission, 2013a, 2013b). First, it must provide a safety margin with respect to the 3% GDP deficit limit. For each MS, it is estimated as a "minimum benchmark" taking into account the output volatility occurred in the past and the budgetary sensitivity to output fluctuations.

Second, the MTO must ensure sustainability or rapid progress towards sustainability. This bound is given by the sum of three components. The first is the traditional Maastricht objective of convergence of the debt/GDP ratio towards 60%; the second responds more to an idea of sustainability as compliance of an intertemporal budget constraint⁷, because it consists in the budget adjustment necessary to cover a fraction of the present value of the age-related expenditure expected in the long run. The third is a supplementary debt-reduction effort, required to countries where the debt/GDO ratio is above 60%, which is linearly and slightly decreasing with the debt/GDP ratio.

The third aim of the MTO is to assure compliance with the -1% lower bound for countries belonging to the Euro Area and ERM2, which was established with the 2005 reform.

The three goals of MTO give rise to three distinct bounds in terms of structural balance, respectively *MTO minimum benchmark* (MTO^{MB}), *MTO implicit liabilities and debt* (MTO^{ILD}), *MTO Euro/Erm2* (MTO^{Euro/Erm2}). Each country's MTO must comply with all the three requirements, i.e. it must be set at the maximum (in absolute terms) among the three bounds:

Member Sates can propose a MTO more ambitious than that one resulting from the norms. MTOs are revised every three years or when a structural reform occurs having a major impact on the sustainability of public finances, especially in concern with age-related public expenditure.

If a Member State is not – or is not planning to be – at its MTO it should nevertheless be on an appropriate adjustment path to its MTO. An annual appropriate improvement in the structural balance is defined as follows:

- O.5% of GDP for Euro Area and ERM2 Member States;
- for Member States with a debt/GDP ratio over 60% or with pronounced risk of overall debt sustainability, a faster adjustment path (i.e. above 0.5%) is required;
- the adjustment must be greater in good economic times than in bad ones;

⁶ In symbols we have: SB = CAB – one off and temporary measures; CAB = $d - \varepsilon$ * OG; OG = (Y-PY)/PY, where d is the nominal balance of general government/GDP and ε is a semi-elasticity measuring the sensitivity of d to business cycle.

⁷ The intertemporal budget constraint implies total assets covering total liabilities. The former are given by the sum of explicit liabilities (the existing debt stock) and implicit liabilities, i.e. the present value of liabilities generated in the future by the existing system of norms; correspondingly, the latter consist in the sum of existing public property and the present value of future revenue (taxes and other forms of revenue).

- it must take into account revenue windfalls and shortfalls;
- the adjustment may be loosened in the case of an unusual event outside the control of the Member State or in periods of severe downturn for the Euro Area or the Union as a whole.

The expenditure benchmark is meant to strengthen the capacity of Member States to attain the MTO. The rational of this guide is that windfall revenues, that is to say those exceeding the increase in tax revenue that can be expected from GDP growth, should be used to cut deficit and debt, keeping the expenditure on a stable path, independent from the business cycle. To this end the evolution of public expenditure is evaluated in comparison with the medium term rate of growth of potential output. With reference to each financial year, the rate of growth of potential GDP is calculated as an average of the estimates referring to a period of 10 years, consisting of the 5 years preceding the financial year in question and the following four years.

The aggregate of public expenditure considered does not include interest payments, the cyclical component of unemployment benefits and the outlays for programs supported by the European funds. Furthermore it is depurated from the volatility typical of public investments: in each budget year the actual capital expenditure is substituted with the four years average relative to that year and the three previous ones. From the resulting expenditure aggregate it is subtracted the tax revenue deriving from discretionary measures or relative to the automatic increase of the yield of taxes levied for specific purposes. Finally the resulting expenditure aggregate is deflated with the GDP deflator index.

The expenditure benchmark is different depending on whether the Member State has already attained its MTO or not. In the former case the rate of growth of expenditure must not exceed the medium term rate of growth of potential GDP, while in the latter case it must be less than it and consistent with an improvement of the structural balance of at least 0.5 GDP percentage points. In both cases a greater rate of growth of public expenditure is admitted if financed by discretionary tax measures, not considering one off and temporary measures.

The corrective arm (CA) deals with the question, which is at the core of the entire E.U. fiscal rules' architecture, if member states actually comply with the deficit and the debt rules and, in the case non compliance is ascertained, it implements a step by step procedure – the Excessive Deficit Procedure (EDP) – with the aim of correcting non-compliance. The EDP can end up with the imposition of financial sanctions.

A Member State is non-compliant with the deficit requirement if the general government deficit is greater than 3% of GDP. No other assessment is required for the Commission to write a report under Article 126(3) of the Treaty, containing the proposal to the Council to launch an EDP.

Establishing non-compliance with the debt criterion is much more cumbersome. A Member State is considered non-compliant with the debt criterion if general government debt is greater than 60% of GDP and is not "sufficiently diminishing" and approaching 60% of GDP "at a satisfactory pace". As we have seen, the concepts of "sufficiently diminishing" and the "satisfactory pace" have been specified with the six-pack SGP reform of 2011. The debt criterion in considered as being fulfilled if the differential of the debt with respect to 60% has decreased "over the previous three years at an average rate of 1/20th per year as a benchmark". Furthermore, the requirement is also considered fulfilled if "the budgetary forecasts of the Commission indicate that the required reduction in the differential will occur over the three-year period encompassing the two years following the final year for which data is available". It is also specified that "the

influence of the cycle on the pace of debt reduction" should be taken into account (Regulation 1467/97).

Thus, there are two configurations of the debt criterion: the *backward looking* version, which considers the average over the three years preceding the year in consideration, and the *forward-looking* one, considering the average over the last year for which data on debt are available, usually the year before that one in consideration, and two years ahead. The impact of the cycle should also be taken into account.

5. Potential output, the unknown

The concept of potential output is central to the whole construction of European fiscal rules because it is at the basis of the three main indicators used to monitor the fiscal stance: the output gap, which, in turn, enters the definition of structural balance; the expenditure benchmark; and the 1/20 rule for debt reduction.

The main problem is that potential output is not a well-defined concept, but something rather "nebulous", which can be calculated drawing upon a number of different approaches, each one providing a different result. Given the broad margins of discretion, the risk is high of a politicisation of the assessment (Mody, 2014). At present this possibility is confirmed by the contrast on this theme between the Italian Government and the Commission.

An exhaustive treatment of the topic of potential output is beside the scope of this paper. In this section only the broad framework of the method used by the Commission⁸ will be outlined, providing some elements for a comparison with the alternative approach used by the OECD.

The methodology used by the Commission for the estimate of potential output assumes "a production function" linking the output to the inputs. The inputs are supposed to be labour, capital and third component, the total factor productivity, considered responsible for the part of output that can not be attributed to capital and labour, and capturing the effect of technological progress. The function is a Cobb-Douglas with constant returns to scale, an assumption which implies competitive markets. The total factor productivity depends on the efficiency in the use of capital and labour and on the degree of their utilization. In estimating the potential output the production function is employed considering, as arguments, potential labour and the trend component of total factor productivity, while capital is assumed at the actual values. The historical series utilised cover a period of more of fifty years, starting with 1960 and ending with the last year of the forecast span. Potential labour is that one corresponding to the *non-accelerating wage rate of unemployment* (NAWRU), i.e. the unemployment rate at which the rate of wage increase is constant. NWRU is estimated assuming a Phillips curve, which relates the change in the rate of wage inflation to the cyclical unemployment rate and other exogenous variables (such as labour productivity, terms of trade etc.).

The framework used by the OECD to estimate the potential output is not substantially different from that of the Commission. Also the OECD framework is based on the assumption of a Cobb-Douglas production function to explain output and of a Phillips curve to explain the natural rate of unemployment. Differently from the Commission model, the production function includes human capital among independent variables, as a factor of production, being human capital

⁸ The methodology for the estimate of the potential output and of the output gap used by the Commission is agreed upon within the *Output Gap Working Group* – OGWG), set up by the Economic and Policy Committee – EPC of the European Council.

measured on the basis of the returns to education. The main difference, however, with the Commission approach is not connected with this latter aspect, but with the estimate of the natural rate of unemployment. The OECD makes use of the concept of not accelerating inflation rate of unemployment (NAIRU), defined as the rate of unemployment compatible with a stable inflation rate, which is set equal to the declared goal of monetary authorities. For some countries, like Italy, for example, the inflationary expectations are anchored to the medium term goal of the European Central Bank (ECB), that is to say 2% (Johansson et al. 2012; Ollivaud and D. Turner, 2014).

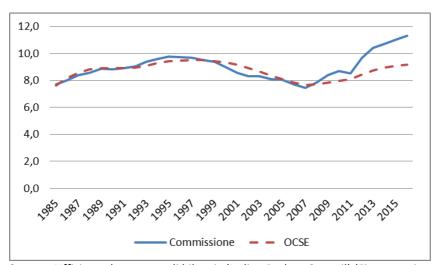


Fig. 1 – EU Commission NAWRU and OECD NAIRU: a comparison

Source: Ufficio parlamentare di bilancio (Italian Budget Council) (Fioramanti et al. 2015)

Figure 1 compares the Commission's NAWRU with the OECD NAIRU estimates. When unemployment increases faster than inflation decreases, the OECD methodology implies a NAIRU significantly lower than Commission's NAWRU. The fact that inflation decreases less fast than unemployment increases is interpreted in the OCED model as the effect of a strict link between inflationary expectations and the ECB monetary target. Instead, the model of the Commission interprets this evidence as a proof that, because of an effect of *hysteresis*, NAWRU has increased in a very significant measure and its value is by now very close to the actual unemployment rate (Fioramanti et. al., 2015).

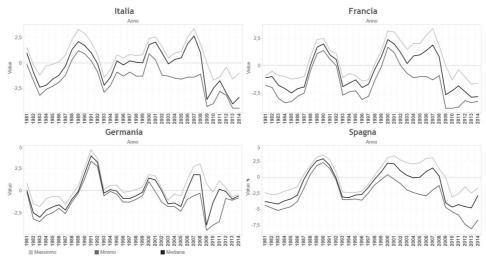
In conclusion, the choice of the variables to be used in the estimation of NAWRU, and hence of the potential output, suffers from a high degree of arbitrariness. In particular, with the Commission approach, NAWRU is very sensitive to the actual rate of unemployment. The problem of pro-cyclicality is, thus, brought back into the picture, since potential output ends up to be correlated with the actual level of unemployment, and the latter may be adversely affected by the fiscal rules.

6. The failure of the movement to structural balance targets

The shortcomings of the estimate of potential output have undermined the significance of the shift from nominal to structural targets started with the 2005 reform (Eiraud and Wu, 2015, p. 18-22).

The two main problems are the high volatility of the estimates of the output gap and the differences among the estimates produced by different international organisations. A recent study of the Italian Budget Council (Fioramanti et al. 2015) thoroughly illustrates both of them. The revisions of the estimates of the output gap are very large, due both to the updating of historical data and to the inclusion of new data. Figure 2 illustrates the variability among 29 estimates of the output gap (from Autumn 2002 to Autumn 2014) with reference to the period 1981-2014 and to the four biggest countries of the Euro Area.

Fig. 2 - Volatility of the estimates of output gap (1981-2014) European Commission estimates from Autumn 2002 to Autumn 2014



(Maximum, Minimum, Median)

Source: Ufficio parlamentare di bilancio (Italian Budget Council) (Fioramanti et al. 2015)

The second drawback is given by the relevant differences in estimates provided by different international organisations (particularly the European Commission, OECD and IMF). Figure 3 compares the Commission and the OECD estimates of the rate of growth of potential GDP.

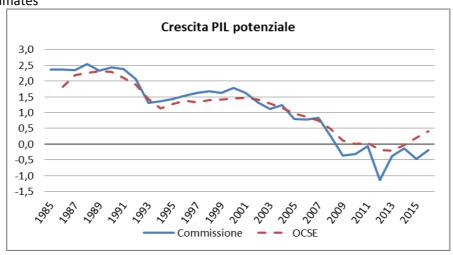


Fig. 3 - Output gap and potential GDP: a comparison of European Commission and OECD estimates

Source: Ufficio parlamentare di bilancio (Italian Budget Council) (Fioramanti et al. 2015)

According to the note of the Italian Budget Council (Fioramanti et al., 2015, p. 7), the differences between the estimates of potential GDP and the output gap elaborated by the European Commission respect to those ones of other international institutions, together with the size of their revisions, should suggest great caution in using them in the formulation of policy rules for member states. This is especially true in phases, as the present ones, of recession and stagnation, when it is objectively very difficult to distinguish between cyclical and structural components. A more appropriate approach would be to make use of the Commission method for estimating the output gap just as a starting point, testing the robustness of results through a comparison with a number of other estimates and methods.

7. The crisis of the rules-based approach and the way ahead

The crisis of the European rules-based economic governance can no longer be denied. The main drawback of the European system of rules can be briefly listed as follows.

1) The rules have never been effectively enforced: statistically non-compliance largely prevails over compliance. The scenario emerging from Tables 1, 2 and 3 (reproduced from Eyraud and Wu, 2015) is quite impressive. Considering the period from 1999 to 2013 and the three major countries of the Euro Area, it can be seen that the 3% deficit rule has been abided by France only 6 years out of 15; by Germany 8 and Italy 6; the debt 60% rule, 4 years by France, 1 by Germany and never by Italy; the rule of a structural deficit not above 0.5% was observed 3 times by Germany, never by France and Italy. Looking at the Euro Area (18), in 2013 the three bounds— deficit, debt and structural deficit — were complied with by 11, 5 and 4 countries, respectively. Rules that are not binding lose credibility and

- legitimacy and fuel a sense of injustice when, for some reasons, they are actually and effectively enforced.
- 2) The system suffers of a great complexity. As it is illustrated in Figure 4, the European governance system employs 8 different rules referring to 6 distinct aggregates. The high number of rules creates the risk of overlap and inconsistency (Eyraud and Wu, 2015, p. 14-18)
- 3) The rules were ill defined since the origin, with the Maastricht treaty. Eichengreen (2003) expressed the concept very neatly: "The 3 per cent reference value is arbitrary. It has no basis in economic logic. It bears no obvious relationship to the sustainability of public debt, which is presumably the underlying concern that the pact is designed to address. ... The basic problem with the Stability Pact ... is that it is based on arbitrary numerical rules that have little if any sound economic rationale and are therefore unlikely to be regarded as legitimate". The problem persisted with the later developments of the SGP's rules.

Table 1 - Euro Area: General Government Overall Balance, 1999-2013 (Percent of GDP)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Euro Area (18)	-1.5	-0.1	-2.0	-2.7	-3.2	-2.9	-2.5	-1.4	-0.7	-2.1	-6.3	-6.2	-4.1	-3.7	-3.0
Austria	-2.4	-1.8	-0.2	-0.9	-1.7	-4.6	-1.8	-1.7	-1.0	-1.0	-4.1	-4.5	-2.4	-2.6	-1.5
Belgium	-0.7	-0.1	0.4	-0.2	-0.2	-0.2	-2.6	0.3	-0.1	-1.1	-5.6	-4.0	-4.0	-4.1	-2.7
Cyprus	-4.3	-2.3	-2.2	-4.4	-6.6	-4.1	-2.4	-1.2	3.5	0.9	-6.1	-5.3	-6.3	-6.4	-5.4
Estonia	-3.5	-0.2	-0.1	0.3	1.7	1.6	1.6	2.5	2.4	-3.0	-2.0	0.2	1.1	-0.2	-0.2
Finland	1.7	7.0	5.1	4.2	2.5	2.3	2.7	4.1	5.3	4.3	-2.7	-2.8	-1.0	-2.2	-2.5
France	-1.8	-1.5	-1.7	-3.3	-4.1	-3.6	-3.0	-2.4	-2.8	-3.3	-7.5	-7.0	-5.2	-4.9	-4.3
Germany	-1.6	1.1	-3.1	-3.8	-4.2	-3.8	-3.3	-1.7	0.2	-0.1	-3.1	-4.2	-0.8	0.1	0.0
Greece	-3.1	-3.8	-4.5	-4.9	-5.8	-7.5	-5.6	-6.2	-6.8	-9.9	-15.6	-11.0	-9.6	-8.9	-12.7
Ireland	2.5	4.9	1.0	-0.3	0.4	1.4	1.6	2.9	0.2	-7.4	-13.7	-30.6	-13.0	-8.1	-7.0
Italy	-2.0	-0.9	-3.2	-3.2	-3.6	-3.6	-4.5	-3.4	-1.6	-2.7	-5.4	-4.4	-3.6	-2.9	-2.8
Latvia	-3.8	-2.8	-2.0	-2.3	-1.6	-1.1	-0.4	-0.6	-0.7	-4.4	-9.1	-8.1	-3.5	-1.4	-0.9
Luxembourg	3.4	6.0	6.1	2.1	0.5	-1.1	0.0	1.4	3.7	3.2	-0.7	-0.8	0.2	0.0	0.1
Malta	-6.9	-5.7	-6.3	-5.7	-9.0	-4.6	-2.9	-2.7	-2.3	-4.6	-3.7	-3.5	-2.7	-3.3	-2.8
Netherlands	0.4	2.0	-0.3	-2.1	-3.2	-1.8	-0.3	0.5	0.2	0.5	-5.6	-5.0	-4.3	-4.0	-2.4
Portugal	-3.1	-3.3	-4.8	-3.4	-3.7	-4.0	-6.5	-4.6	-3.2	-3.7	-10.2	-9.9	-4.3	-6.5	-5.0
Slovak Republic	-7.4	-12.3	-6.5	-8.2	-2.8	-2.4	-2.8	-3.2	-1.8	-2.1	-8.0	-7.5	-4.8	-4.5	-2.8
Slovenia	-3.0	-3.7	-4.0	-2.4	-2.7	-2.3	-1.5	-1.4	0.0	-1.9	-6.3	-5.9	-6.4	-4.0	-14.7
Spain	-1.3	-1.0	-0.6	-0.3	-0.3	-0.1	1.3	2.4	2.0	-4.5	-11.1	-9.6	-9.6	-10.6	-7.1

Note: Red cells: overall deficit above 3% of GDP.

Source: Eyraud and Wu (2015)

Table 2 - Euro Area: General Government debt, 1999-2013 (Percent of GDP)

(,														
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Euro Area (18)	71.6	69.2	68.2	68.0	69.2	69.6	70.5	68.6	66.2	70.1	79.9	85.7	88.1	92.7	95.0
Austria	66.8	66.2	66.8	66.2	65.3	64.7	64.2	62.3	60.2	63.8	69.2	72.5	73.1	74.4	74.5
Belgium	113.6	107.8	106.5	103.4	98.4	94.0	92.0	87.9	84.0	89.2	95.7	96.6	99.2	101.1	101.5
Cyprus	59.3	59.6	61.2	65.1	69.7	70.9	69.4	64.7	58.8	48.9	58.5	61.3	71.5	86.6	111.7
Estonia	6.5	5.1	4.8	5.7	5.6	5.0	4.6	4.4	3.7	4.5	7.1	6.7	6.1	9.8	10.0
Finland	45.7	43.8	42.5	41.5	44.5	44.4	41.7	39.6	35.2	33.9	43.5	48.8	49.3	53.6	57.0
France	59.0	57.5	57.1	59.1	63.3	65.2	66.8	64.1	64.2	68.2	79.2	82.7	86.2	90.6	93.5
Germany	61.3	60.2	59.1	60.7	64.4	66.2	68.6	68.0	65.2	66.8	74.5	82.5	80.0	81.0	78.4
Greece	94.9	104.4	104.7	102.6	98.3	99.8	110.0	107.8	107.3	112.9	129.7	148.3	170.3	157.2	175.1
Ireland	47.0	37.0	34.5	31.8	31.0	29.4	27.2	24.6	24.9	44.2	64.4	91.2	104.1	117.4	123.7
Italy	113.1	108.6	108.3	105.4	104.1	103.7	105.7	106.3	103.3	106.1	116.4	119.3	120.7	127.0	132.6
Latvia	12.4	12.4	14.1	13.6	14.7	15.0	12.5	10.7	9.0	19.8	36.9	44.5	42.0	40.8	38.1
Luxembourg	6.4	6.2	6.3	6.3	6.2	6.4	6.1	6.7	6.7	14.4	15.5	19.5	18.7	21.7	23.1
Malta	55.2	53.9	58.9	57.9	66.0	69.8	68.0	62.5	60.7	60.9	66.5	66.0	68.8	70.8	73.0
Netherlands	61.1	53.8	50.7	50.5	52.0	52.4	51.8	47.4	45.3	58.5	60.8	63.4	65.7	71.3	73.5
Portugal	51.4	50.7	53.8	56.8	59.4	61.9	67.7	69.4	68.4	71.7	83.7	94.0	108.2	124.1	129.0
Slovak Republic	47.8	50.3	48.9	43.4	42.4	41.5	34.2	30.5	29.6	27.9	35.6	41.0	43.6	52.7	55.4
Slovenia	24.1	26.3	26.5	27.8	27.2	27.3	26.7	26.4	23.1	22.0	35.2	38.7	47.1	54.4	71.7
Spain	62.4	59.4	55.6	52.6	48.8	46.3	43.2	39.7	36.3	40.2	54.0	61.7	70.5	86.0	93.9

Note: Red cells: public debt above 60% of GDP.

Source: Eyraud and Wu (2015)

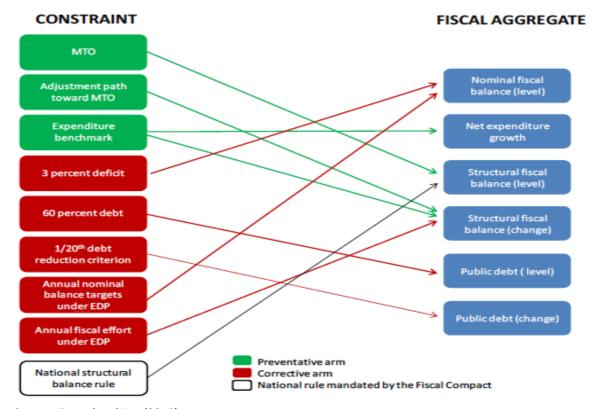
Table 3 - Euro Area: General Government Structural Balance, 1999-2013 (Percent of potential GDP)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Euro Area (18)	-1.8	-1.1	-3.0	-3.2	-3.4	-3.1	-2.8	-2.3	-2.2	-3.0	-4.5	-4.4	-3.5	-2.1	-1.3
Austria	-2.7	-2.5	-0.3	-0.7	-0.9	-0.7	-1.3	-1.8	-1.9	-1.9	-2.7	-3.2	-2.2	-1.6	-1.1
Belgium	-1.1	-1.0	-0.1	-0.2	-1.1	-1.4	-0.9	-1.4	-1.4	-2.2	-3.9	-3.4	-3.5	-3.0	-2.3
Cyprus	-4.4	-2.8	-3.0	-4.6	-7.9	-5.1	-3.4	-1.7	2.2	-0.7	-6.3	-5.6	-6.4	-6.5	-3.5
Estonia	-2.1	-0.2	-0.4	-0.3	0.5	1.4	-0.1	-1.3	-1.6	-4.5	-1.0	-0.8	-0.5	0.0	-0.4
Finland	1.2	6.0	4.7	4.4	3.4	2.6	2.9	3.2	2.7	2.4	0.5	-1.1	-0.6	-1.0	-0.6
France	-2.3	-2.7	-3.1	-4.4	-4.7	-4.8	-4.7	-4.2	-4.7	-4.4	-6.2	-5.9	-4.8	-3.8	-3.0
Germany	-1.7	0.4	-3.9	-3.9	-3.3	-2.9	-2.2	-1.7	-0.8	-0.8	-0.7	-2.2	-1.0	0.3	0.6
Greece	-3.6	-4.2	-4.9	-4.5	-5.7	-7.7	-5.2	-7.4	-7.8	-9.7	-14.7	-9.1	-6.0	-1.0	2.0
Ireland	1.7	3.5	-0.2	-1.0	0.5	1.7	1.3	1.6	-2.1	-8.0	-9.6	-9.3	-8.4	-7.9	-6.2
Italy	-2.2	-1.8	-4.5	-4.0	-5.6	-5.3	-5.6	-4.4	-3.6	-3.9	-4.2	-3.8	-3.7	-1.5	-0.9
Latvia	-3.7	-2.4	-1.8	-2.2	-1.9	-1.8	-2.0	-3.3	-4.3	-6.0	-4.6	-2.9	-1.4	-0.2	-1.0
Luxembourg	2.4	3.9	4.6	0.9	0.6	-0.9	-0.2	0.6	1.5	2.6	1.7	0.4	1.0	1.7	1.4
Malta	-7.0	-6.5	-6.1	-6.2	-6.1	-6.1	-4.2	-3.3	-3.5	-5.8	-3.6	-4.5	-3.3	-3.9	-2.9
Netherlands	-0.3	0.9	-1.0	-1.6	-1.7	-0.8	0.6	0.5	-1.0	-0.7	-4.2	-4.2	-3.8	-2.7	-1.3
Portugal	-4.2	-4.7	-6.3	-4.3	-5.7	-5.9	-6.1	-4.5	-3.8	-4.6	-8.5	-8.4	-6.1	-3.5	-2.6
Slovak Republic	-7.1	-11.4	-5.5	-7.4	-1.9	-2.1	-2.2	-4.0	-4.3	-4.9	-7.8	-7.2	-4.8	-3.9	-2.0
Slovenia	-3.3	-4.1	-4.2	-2.8	-2.7	-2.5	-1.9	-2.5	-2.6	-4.6	-4.7	-4.9	-5.0	-2.7	-2.5
Spain	-1.8	-1.9	-1.9	-1.3	-1.1	-0.1	0.3	1.0	0.6	-4.7	-8.6	-7.1	-6.5	-4.1	-2.8

Note: Red cells: structural deficit above 0.5% of potential GDP.

Source: Eyraud and Wu (2015)

Fig. 4 – European fiscal rules and aggregates



Source: Eyraud and Wu (2015)

- 4) If their underlying rationale is to make the debt/GDP ratios to converge towards the same level (60%), the rules imposed should differ among countries, in order to take into accounts all the variables (the existing level of debt, the rate of inflation, the rate of growth, the rate of interest), which determine the path of the debt/GDP ratio over time. It is true that, starting with the first reform of SGP (2005), the MTO is "country specific", but, on one side, the range of allowed variation of the MTO is quite limited, and, on the other side, the considered country specific determinants of the MTO are very limited in scope.
- 5) The concept of potential GDP is at the core of the whole architecture of rules-based governance. However, no estimation strategy exists which could not be challenged on technical grounds. The discretion left to analysts open the door to uncertainty, controversy and political bargaining.
- 6) The mechanism exerts pro-cyclical effects. This shortcoming was meant to be avoided with the recourse to the structural balance, instead of the nominal one. However the problem, at the end, persists, because of the strong correlation between the natural rate of unemployment, which is estimated in order to calculate the potential output, and the actual rate on unemployment. There is a widespread agreement that fiscal policy in the Euro Area in the crucial phase 2011-2013 was pro-cyclical (eg Sapir and Wolff, 2015; Mody, 2015).
- 7) Fiscal tightening, imposed by the EU rules, has not helped to reduce public debt burdens. Overwhelming empirical evidence has challenged the thesis of "expansionary austerity", which has long founded the approach of the "Troika" (IMF, CEB, European Commission). By contributing to slow down growth, the EU economic governance has made the debt ratios to raise.
- 8) The EU economic governance lacks of an effective mechanism to deal with macroeconomic imbalances. The absence of binding rules for distributing the duty of the adjustment between surplus countries and deficit countries is particularly prejudicial in the Euro Area, which is a very special context, with a single currency and 19 fiscal policies. When surplus countries refuse to adopt expansionary measures to inflate their economies, the job is entirely left to the deficit countries, and the rebalancing can result ineffective and socially very costly.
- 9) The criterion of a balanced structural budget implies excessive primary surpluses for high debt countries, with the consequence of dampening their rate of growth and exacerbating the debt problem, instead of meliorating it. Rules of sound finance, which may be appropriate for countries where the debt ratio is moderate, may become disruptive for countries where the legacy of the past the existing debt is too high. Europe has renounced to tackle the question of debts that are too high to be considered sustainable inside the present set of fiscal rules. From one side a strict interpretation of the no bail out principle has ruled out any proposal of mutualisation of part of the debt. On the other side, the choice that private creditors should not bear any consequence for having subscribed sovereign bonds has excluded any hypothesis of debt restructuring (Mody, 2015).

What way ahead for EU economic governance? The consciousness of the crisis of the European system of economic governance is now widespread, while the debate about alternative design of reform is growing. Two main approaches may be distinguished. A first view proposes a smarter and more effective rules-based framework, while the second approach emphasises the

need to move from rules to institutions. The two strategies seem partially to merge because even the first approach provides for new institutional arrangements in order to guarantee a more effective enforcement of rules. However the two visions of the desirable evolution of the monetary union remain quite different. In particular, while the "from rules to institution approach" implies an enlargement of the field of direct action of institutions, relatively to rules - to include for example fiscal policy - the "towards smarter rules" approach does not.

Buti (2015) has recently provided a very neat formulation of the "towards smarter rules" strategy. He notices that "fiscal rules are now widespread, both in advanced and emerging economies, which is a testament to their increasing popularity" and that in the EU "there has been an impressive amount of lessons learnt, paving the way for smarter and more effective rules-based frameworks". Fiscal rules should guarantee long-run budgetary discipline, but at the same time they should allow fiscal policy to be used to stabilise the economy in the short-run. Integrating countercyclical properties in fiscal rules is all the more important in the EMU to avoid putting an excessive burden on monetary policy. Furthermore, new operational targets must be envisaged, because both debt and deficit criteria raise questions. Public debt ratios "are too exposed to uncontrollable factors to serve as annual targets", while balances need to be cyclically adjusted, but "structural deficits are weakened by large measurement uncertainties".

In this perspective a number of studies has discussed the choice of new operational targets, mostly based on the "fiscal effort" variable, fiscal effort being defined as "the change in the fiscal stance resulting from discretionary fiscal actions taken during the year on the spending and revenue side" (Eyraud L, and T. Wu, 2015, p. 31). Among these studies Carnot's proposal is worth mentioning of "a rule of thumb", which conciliates the requirement of long run fiscal discipline, with the acknowledgment of the stabilising-effect of fiscal policy and an operational annual target reflecting policy choices (Carnot, 2014; Buti and Carnot, 2015).

The second possible approach to the reform of the European governance - "from rules to institution" – is, at present, mainly backed by the ECB. In a recent speech President Draghi (2015) underlines that up to now two different methods of economic governance have been employed. In some areas institutions have been invested with executive power: the ECB for monetary policy, the SSM (Single Supervisory Mechanism) for financial policy and the Commission for competition policy. In other areas, such as fiscal and economic policies, executive power has remained at the national level and a rules-based framework of coordination has been established. According to Draghi institutions have done better than rules: "The fiscal rules have repeatedly been broken and trust between countries has been strained". In this vision an institution-based approach would work better for two main reasons: on one side institution with executive power "facilitate both more credible and more flexible policymaking"; on the other side, they "create clearer and more direct accountability". Draghi concludes: "there must be a quantum leap in institutional convergence, we need to move from a system of rules and guidelines for national economic policy making to a system of further sovereignty sharing with common institutions".

Among the proposals that emphasize the need to strengthen the central institutional level of the Euro Area, the *Bruegel's* design of establishing a *Eurosystem of Fiscal Policy* (EFP)

⁹ In a sense also rules are institutions: in this section the term institution is used in the meaning of institutional body.

comparable to the Eurosystem of central banks can be mentioned (Sapir and Wolff, 2015). At the centre there would be a *Governing Council*, composed of a Euro Area finance minister and five budget directors. The decisions of the Council would become binding at the national level in case of substantial danger to debt sustainability or severe recession. In normal times, instead, fiscal policy would be managed in a decentralised manner, the role of the Council being limited to address not binding recommendations. Quite important, the Bruegel project foresees to enhance the political legitimacy of the central level and to confer it a certain amount of tax capacity, which would depend on the decisions of a Euro Area parliament.

A strong commitment for the institutional approach characterised, in 2012, both the *blueprint* of the Commission (European Commission, 2012) and the subsequent four Presidents' report *Towards a genuine EMU* (Van Rompuy, 2012; Van Rompuy et al. 2012). In particular the Presidents' design provided that, after the establishment of the SSM in stage 1, "a well defined and limited fiscal capacity to improve the absorption of country-specific economic shocks, through an insurance system set up at the central level" would be established in stage 3. While the SSM has eventually entered into force the 4th of November 2014, the building of a proper fiscal capacity for the Euro Area has not made so far any relevant progress. Recently the Euro Summit (24 October 2014) and the European Council (18 December 2014) have given the mandate to the Four Presidents "to prepare next steps on better economic governance in the Euro Area". At the Informal European Council of February 12th 2015, the Four Presidents have produced a preliminary "Analytical Note" (Juncker et al. 2015) in order to start a discussion process. Among the questions asked to the Member States, the dilemma between the rules and the institutional approach is reproposed: "To what extent can the framework of EMU mainly rely on strong rules and to what extent are strong common institutions also required?".

In the meantime the Commission has provided a Communication over making the best use of flexibility within the SGP (European Commission, 2015), which, from a political angle, "might be seen as a small step towards a more authoritative centre", even if "significant changes towards stronger European institutions would require deep legal (i.e. treaty) changes and more political appetite than is currently encountered in national capitals" (Buti, 2015).

8. Conclusions

The need for a reform of the Euro Area system of economic governance is unanimously recognised. The failure of the rules-based framework to reconcile goals of long run fiscal discipline with the need for stabilisation and growth policies has been amply documented. The main drawback of European set of fiscal rules is the impossibility to calculating potential income and output gaps on incontrovertible scientific basis. The discretion allowed to the group of technicians in charge of the estimation gives rise to intricate bargaining processes and political compromises. On the one side the European governance is overabundant, because rules are too numerous and complicated; on the other side it is insufficient, because it lacks both a mechanism to monitor and correct macroeconomic imbalances and appropriate tools to deal with a number of "legacy" problems which differentiate the member countries in a very substantial way, starting with debt burdens.

The dichotomy between the "smarter rules" and the "stronger institutions" approaches has been described. At the moment, however, the political climate does not appear the most favourable for broad institutional reforms and, despite a quite rich technical debate, strong political initiatives are lacking.

References

Broz T. (2005), "The Theory of Optimum Currency Areas: A Literature Review", *Privredna kretanja i ekonomska politika*, 104, pp. 53-78.

Buti M. (2015), "What future for rules-based fiscal policy?, IMF Conference. Rethinking Macro Policy III: Progress or Confusion?, Washington D.C., April 15-16.

Buti M. and N. Carnot (2015), "What is a 'responsible' fiscal policy today for Europe?, VOX, CEPR's Policy Portal, 24 February.

Draghi M. (2015), "Speech at SZ Finance Day 2015", March 16, European Central Bank, www.ecb.europa.eu

Eichengreen B. (2003), "What To Do with the Stability Pact", Intereconomics, January/February, pp. 7-10.

European Commission (2012), A blueprint for a deep and genuine economic and monetary union. Launching a European Debate, Communication from the Commission, COM(2012) 777 final/2, Brussels 30 November.

European Commission (2013a), Building a Strengthened Fiscal Framework in the European Union: A Guide to the Stability and Growth Pact, Vade mecum on the Stability and Growth Pact, European Economy Occasional Paper 150, May.

European Commission (2013b), *Vade mecum on the Stability and Growth Pact*, European Economy Occasional Paper 151, May.

European Commission (2015), Making the best use of the flexibility within the existing rules of the stability and growth pact, Communication from the Commission to the European Parliament, the Council, the European Central Bank, the Economic and Social Committee, the Committee of the Regions and the European Investment Bank, COM(2015) 12 final provisional, Strasbourg, 31 January.

Eyraud L, and T. Wu (2015), "Playing by the Rules: Reforming Fiscal Governance in Europe", International Monetary Fund Working Paper, 15/67

Feldstein M. (1992), "The case against EMU", The Economist, June 13.

Fioramanti M., F. Padrini and C. Pollastri (2015), *La stima del PIL potenziale e dell'output gap: alcune criticità*, Ufficio parlamentare di bilancio (Italian Budget Council), Nota di lavoro n. 1, gennaio.

Godley W. (1992), "Maastricht and All That", London Review of Books, 8 October (http://www.lrb.co.uk).

Grant C. (1996), *Delors: Inside the House that Jacques Built*, London, Nicholas Brealy Publisging.

Juncker J-C., D. Tusk, J. Dijsselbloem and M. Draghi (2015), *Preparing Next Steps on Better Economic Governance in the Euro Area*, Four Presidents' Analytical Note, Informal European Council, 12 February

Johansson, Å.,Y. Guillemette, F. Murtin, D. Turner, G. Nicoletti, C. de la Maisonneuve, P. Bagnoli, G. Bousquet and F. Spinelli (2012), "Long Term Growth Scenarios", OECD Economics Department Working Papers, No. 1000, February.

Kenen, P. (1969), "The Theory of Optimum Curremcy Areas: An Eclectic View", in Mundell and Swoboda (eds.), *Monetary Problems in the International Economy*, University of Chicago Press, Chicago.

Krugman P. (1993), "Lessons of Massachusetts for EMU", in Torres F. and F. Giavazzi (eds.) Adjustment and growth in the European Monetary Union, Cambridge University Press, pp. 241-261

Mazzolini G. and A. Mody (2014), "Austerity Tales: the Netherland and Italy", Bruegel, 3rd October.

McKinnon, R. (1963), "Optimum Currency Area", *American Economic Review*, September, pp. 717-725.

Mundell, R. (1961), "A Theory of Optimum Currency Areas", *American Economic Review*, pp. 657-665.

Mody A. (2014), "Are the Eurozone's fiscal rules dying?", Bruegel, 28th October.

Mody A. (2015), Living (Dangerously) Without a Fiscal Union, Bruegel Working Paper 2015/03, March.

Ollivaud, P. and D. Turner (2014), "The Effect of the Global Financial Crisis on OECD Potential Output", *OECD Economics Department Working Papers*, No. 1166, OECD Publishing. http://dx.doi.org/10.1787/5jxwtl8h75bw-en

Sapir A. and G. Wolff (2015), "Euro Area governance: what to reform and how to do it", *Policy Brief* 2015/01, Bruegel.

Tavlas G.S. (1993), "The 'New' Theory of Optimum Currency Areas", *The World Economy*, 16, pp. 663-685.

Van Rompuy H. (2012), *Towards a genuine Economic and Monetary Union*, Report by the President of the European Council, Brussels 26 June, EUCO 120/12

Van Rompuy H., J.M. Barroso, J-C. Juncker and M. Draghi (2012), *Towards a genuine Economic and Monetary Union*, Four Presidents' Report, 5 December.