

# The future of fiscal policy in the Euro Area

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## *1. Introduction*

The European monetary union (EMU) is a largely incomplete currency union. The Euro founding fathers were well aware of this issue but, because of political constraints, they chose a “minimalistic” solution (Constancio, 2018). The optimistic view of the time was that even an incomplete currency union would have been enough to induce greater political and economic convergence among member countries, making easier to adopt further reforms of the EMU architecture when and only if needed. Thus, a common currency and a fiscal brake, in the form of the Stability and Growth Pact (SGP), represented the only two blocks of the original EMU. There was no perception that, in order to support the currency union, a common financial supervision for banks and a crisis management mechanism for member countries might also be needed.

Concerning fiscal policy, the compromise reflected the leading macro-economic theories of the time. Discretionary “fine tuning” fiscal policy should be avoided to support the cycle, leaving instead to automatic stabilizers to do the job. Asymmetric shocks could be dealt at national level, using the fiscal buffer guaranteed by the respect of SGP in good times. Monetary policy could take care of symmetric shocks and, in case of need, soft cooperation among national fiscal policies would have been enough. Indeed, the same notion of an aggregated fiscal policy for the Eurozone was absent from the debate.

The international crisis of 2008-9 and even more the Eurozone crisis of 2011-13 proved most of these ideas, and in particular the easy optimism of the founders, wrong. The financial crisis showed that there might exist recessions of such amplitude that monetary policy might be stretched to a limit and that a more active role of fiscal policy might be needed, beyond the role of the automatic stabilizers. The spread of contagion between financially interconnected Euro area countries and the overlapping crises, hitting both the bank and the sovereign sectors, showed the importance of a centralized supervision over banks (Draghi, 2018). The risk of a breaking up of the Eurozone led the ECB to resume a role of lender of last resort, at least in specific circumstances. On economic grounds, the crisis also stopped the process of economic convergence across Eurozone members, giving rise to an increased divergence that only very recently seems to start receding (see figure 1).

FIGURE 1 APPROXIMATELY HERE

## 2. *The limits of the European fiscal framework*

The Eurozone took several steps to address these pitfalls. The most important progress have been made in the banking sector, where a single supervisory mechanism and a common resolution system have been introduced. However, it should be stressed that these steps are still largely incomplete. The lack of a common fiscal backstop for the banking sector and of a common deposit insurance system leaves still open the risk of bank runs and of capital flights in case of a new financial crisis, challenging the integrity of the Euro area. The proposal of establishing a more comprehensive Capital Markets Union is still in its infancy.

Concerning fiscal policy, the progress made so far is even more limited. The main innovation has been a further strengthening of fiscal rules, with the introduction of an international treaty, signed by all the Euro area countries, the Fiscal Compact, and the revision of the SGP, strengthening the role of the European Commission in enforcing the rules. A second innovation has been the introduction of the European Stability Mechanism (ESM), as the result of another international treaty across the Eurozone countries. The ESM provides financial support to Euro countries in trouble, in exchange of strict conditionality. However, the ESM is not a tool for macro-fiscal management, but a fund of last resort. It can only intervene in very specific circumstances, namely when a member country has lost access to financial markets, after a technical judgement by the Commission and the ECB on the sustainability of its debt, and with decision rules that require the unanimity of lenders<sup>1</sup>. Financial assistance takes the form of a loan (not a grant) at favourable interest rates, reimbursable over a long period<sup>2</sup>.

The strengthening of the SGP finds little justification in the crisis itself, in the sense that it would be difficult to argue that lack of discipline in controlling public finances were the main cause of the Euro crisis. With the exception of Greece, lack of control of the banking sector, the emergence of private debts and the accumulation of internal and external imbalances are much more obvious culprits (Baldwin and Giavazzi, 2015). Indeed, some of the countries more damaged by the crisis presented the best results in terms of public finance just before the Euro crisis hit. In 2007, for example, public debt to GDP was, respectively, 65% in Portugal, 36% in Spain and 25% in Ireland, well below the Euro average. Even Italy, another high debt country, had managed to reduce debt over GDP down to 103% just before the crisis hit.

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<sup>1</sup> Except in exceptional cases.

<sup>2</sup> So far, 5 countries have had access to ESM programs, Greece, Ireland, Spain, Portugal and more recently Cyprus.

The revision and strengthening of the fiscal rules have been accompanied by some attempts to improve coordination of fiscal and economic policies. The European semester was introduced in order to increase coordination of fiscal policies, and the new Macro-Economic Procedure has been set up to avoid the formation of imbalances and to increase convergence of economic policies. However, both tools have no real teeth. The macro-imbalance procedure is difficult to enforce because, differently from fiscal budget aggregates, it is harder to pinpoint the specific responsibility of a country on several macro indicators. The Commission's Country Specific Recommendations, when touching upon issues outside the fiscal area, are just suggestions and they are treated as such by member countries. Finally, the SGP is a fiscal brake, not a tool for aggregate fiscal management. It contains several provisions to shape the fiscal adjustment required for a country, taking into account its position in the economic cycle; however, it only looks at each country in isolation, discarding the potential fiscal spill-over effects across countries. Thus, no country, when deciding its own fiscal policy, takes into account the effects of its choices on the other countries, leading to potentially sub-optimal Nash equilibria, in particular in those situations in which fiscal spill-overs are important.

#### FIGURE 2 APPROXIMATELY HERE

These problems have been made painfully clear during the 2011-13 recession. A more coordinate fiscal response would have probably alleviated the hardship of the recession in the crisis-hit countries; but the simultaneous fiscal consolidation of all countries, including those that did not need it, made things worse. Figure 2, taken from EFB (2018), illustrates this point. The figure plots the aggregate fiscal stance of Eurozone (defined as the sum of the variations in structural primary fiscal balances of Euro countries) against the difference between potential and actual output for the area. The figure illustrates how fiscal policy has been strongly pro-cyclical in those years, aggravating the general recession of the area. Indeed, according to the estimates by Veld (2013) and Rannenberg et al. (2015), fiscal consolidation in 2011-13 has caused a loss in the Euro area GDP between 8% and 20% with respect to a baseline scenario, depending on the countries.

These macro-economic failures become even more worrying when one considers the mechanisms in place to cushion economic shocks in the Euro area. The Euro area lacks, or it has only to a limited extent, a number of mechanisms that in other currency unions smooth the impact of region-specific shocks, reducing consumption less than the fall in GDP, such as: intergovernmental transfers,

federal income taxes and private sector risk sharing<sup>3</sup>. Indeed, a number of studies (e.g. Alcidi and Thirion, 2017), comparing the Euro area with the US, document that in the latter risk sharing is both higher and accomplished with different means than in the former. Surveying this literature, Milano and Reichlin (2017) conclude that country specific GDP shocks are smoothed by 57% in the USA, but only by 29% in the Eurozone<sup>4</sup>. Not only, but while capital income from cross border asset ownership provides most insurance in the US, in the Eurozone this channel is much more limited (62% versus 24%, respectively, according to an old report by the European Commission (2007)). The bulk of insurance in the Euro area comes from the domestic public sector, and of course when this is fiscally constrained, insurance can only be limited. Completing the Banking Union and establishing a Capital Market Union will certainly increase the importance of the private sector channel in the Euro area. However, this process might take several years. Moreover, some evidence (Furceri and Zdzienicka, 2015) suggests that this channel is less effective during severe downturns, when credit markets are constrained. Private sector risk sharing can also turn pro-cyclical in downturns and it is more effective when working in conjunction with public sector risk sharing (Kalemli-Ozcan et al., 2014).

### 3. *Why we need a common fiscal capacity*

Those are the main reasons why, starting with the Five Presidents' Report (2015), academic experts, some Eurozone member governments, the European Commission and many international organizations have all argued for the introduction of a “common fiscal capacity”, or a macroeconomic stabilization mechanism for the Euro area. The mechanism should be able to provide fiscal ammunitions to support monetary policy in case of large symmetric shocks and provide insurance to member countries in case of asymmetric shocks. The fact that monetary policy is already constrained by the “zero lower bound” in the Eurozone, and it is likely to remain such for a long time, adds some urgency to the proposal.

A diriment question, over which there is still debate between economists and member countries<sup>5</sup> related to the introduction of a “common fiscal capacity”, it is how important are business cycle shocks for the Euro area and which is the degree of synchronization of the economies of member countries. The 2008-9 crisis was certainly exceptional and one could argue that if “normal” shocks in the Euro areas were limited, there was little point in introducing another fiscal instrument beyond

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<sup>3</sup> Even labor mobility across Euro countries, an admittedly long run insurance mechanism, it is much lower – although increasing – in the Eurozone than in other currency unions.

<sup>4</sup> Approximately, this is the ratio of the covariance between growth rates of country-specific consumptions and GDP to the sample variance of GDP growth rates.

<sup>5</sup> See Campos et al. (2018) for a recent meta-analysis that summarizes the macroeconomic literature on the synchronization of the shocks in the Euro area.

what national governments can already do and what the common monetary policy can also do. However, data analysis does not seem to confirm this rosy view (EFB, 2018). Since early 2000s, the average magnitude of output gap fluctuations in the Euro area has been close to 2% of GDP and in several cases has exceeded 3% of GDP. Moreover, aggregate volatility is smaller than fluctuations at national level. Disparities between Member States' output gaps exceeded 2% of GDP in normal times and almost doubled during the crisis. Bi-lateral cross-country correlation of output gaps is on average close to 60%, but with large heterogeneity, ranging from zero to 90%, depending on the countries under consideration.

This suggests quite substantial economic reasons to support the introduction of a common fiscal capacity in the Euro area. However, there are also political reasons. We live in democracies. Shocks of the magnitude that several Euro countries in the periphery have experienced during the recent crisis are bound to create anxiety and revolt in the public opinion, in addition to leaving long term scars in the economies. The European Union and the Euro are easy scapegoats for politicians relying on this discontent. Political backlash and reform reversal become a possibility, threatening the survival of the Euro project. Indeed, there is some evidence showing that while Euro countries kept converging, in spite of the crisis, on economic grounds (for example, in the liberalization of markets and in the quality of main services), they strongly diverged in citizens' perception of the quality of government and in the trust in national and European institutions (Bordignon et al., 2018). Some form of European fiscal insurance, reducing the extent of economic pains of citizens during a heavy crisis, so showing that Europe too "cares", could be very helpful in reversing these feelings.

#### *4. Several proposals on the table*

However, even assuming that a common fiscal capacity is desirable, there is still the question on how to introduce it, taking into account all legal, technical and political difficulties, including of course the need of avoiding permanent transfers and potential moral hazard problems. In national countries, fiscal insurance to sub-national governments is provided somewhat automatically by the national budget, through progressive income taxation, national expenditure on public goods and explicit intergovernmental transfer mechanisms. The EU budget cannot play the same role. It is too small, it is not financed by own fiscal resources, which also implies that it cannot borrow and raise debt to address large shocks, and it is also based on procedural rules that limit flexibility in the use of resources. Finally, it is the budget of the European Union, not of the Euro area. It is not obvious that an EU budget should be used to address a specific problem of the Euro countries, that is the impossibility to devalue the currency to address asymmetric shocks.

None of these characteristics is likely to change in the near future. The bulk of public expenditure in national countries is made up by the social welfare systems, where national political preferences are still too diverse for imagining a larger devolution of competences. This of course does not mean that the EU budget should and could not be revised. To the contrary, there are strong economic arguments to return some competences to member countries, focussing instead more the European budget on truly European “public goods”<sup>6</sup>. And relatively large expenditure programs on some general topics of interest for EU countries (say, infrastructure or digital economy) could provide some form of insurance. Still, size matters.

An example is the recent proposal by the EU Commission (May 2018) to use the EU budget to provide some insurance to Euro member countries. The Commission advocates the introduction of a European Investment Stabilization Fund, making loans to support public investments in Euro countries hit by a large crisis, coupled by a grant in the form of interest rate subsidies, which can cover the entire interest payment. But leaving aside other details, the size of the envisaged program is too small to provide any meaningful support, 30 billion for all Euro countries<sup>7</sup> for the entire period. Loans to countries are also capped, so back of the envelope computations suggest the actual support would be probably be less than 0.1% of GDP in the entire period. Clearly, not enough.

Several authors (Ubidé 2015, Tabellini 2017, Corsetti *et al.* 2016), in slight different forms, have discussed ways to tackle this problem, namely how to build up a relatively large Euro fiscal capacity without a large Euro Budget. In the present context, these ideas sound as political science fiction, but it is worth recalling that a solution could be found if there were enough political will. The general idea is to set up a system where countries commit to transfer part of their fiscal resources (say, 1% of GDP<sup>8</sup>) for a long period of time (say, 50 years) to a Euro Fiscal Authority (the Euro Minister of Treasury? A reformed ESM?). Out of these committed future payments, the Fiscal Authority would issue bonds (generally called stability bonds). In normal times, these bonds would just be given back to member countries in proportion of their payments and could be used by countries to substitute national bonds. In exceptional times, the Fiscal Authority could use these stability bonds to support the economy of the Euro area through general expenditure programs or to help countries hit by particularly strong negative shocks. Of course, the Fiscal Authority should be governed by Euro member countries, with rules less stringent than unanimity, and being made accountable to the Euro-Parliament to maintain democratic legitimacy.

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<sup>6</sup> The proposal of the EU Commission for the Multiannual Financial Perspectives in 2020-27 makes some timid steps in this direction, marginally reducing the share of the EU budget going to agriculture and cohesion funds and increasing instead expenditures on security, border controls and defense.

<sup>7</sup> Plus Denmark, although it is no clear why.

<sup>8</sup> Some suggest these fiscal resources could come from the seignorage that is paid by the Eurosystem to national treasuries.

This proposal would kill several birds at once. Once a sufficient amount of stability bonds has been issued, they would become the “safe-bond” that is generally argued is needed to anchor the Eurozone financial systems and complete both the Banking and Capital Markets Unions. National banks and other financial institutions would hold them and the ECB could use them for its open market operations. This would ease the “doom loop” problem, the excess holdings of domestic public debt by national banks. Lacking the potential support of the ECB, national debt would also become more risky, imposing a higher marginal cost on high debt countries, thus strengthening market discipline.

The problem with this proposal is that in order to eliminate moral hazard effects, the Fiscal Authority should have more incisive powers on the budget choices of member countries. Not only the Fiscal authority should be in charge on fiscal surveillance on member countries, implementing the SGP, but it should also have the power to veto ex ante the budget law of a member country if that violates the EU rules. This would assure the more financially sound countries that the risk sharing that they implicitly provide, would not be wasted by the irresponsible behavior of other member countries. However, no Euro country seems to be willing to consider this passage: sovereignty in fiscal matters is still perceived as too central for the national authorities’ role, to giving it up to a federal body. More generally, this refusal reflects the fundamental problem of the EMU: the lack of a political union, that is of a federal body with sufficient resources and democratic legitimacy to back the monetary union when needed.

Given this political deadlock, the other solutions on the table are just pale versions of the proposal discussed above and quite likely less effective. A largely discussed possibility is to enlarge the tasks of the ESM, allowing it to intervene even before a country has lost access to financial markets<sup>9</sup>. As is the case with the International Monetary Fund, the ESM could provide precautionary credit lines and short term loans based on ex ante (but not ex post) conditionality to countries that have temporary difficulties in accessing financial markets. This might prevent a full-blown financial crisis to occur and consequently improve financial integration across Euro member countries. Ex ante conditionality (say, the respect of the SGP) would also provide better incentives to policy setting by governments. However, the effectiveness of this proposal depends very much on its design. The experience of the IMF with similar programs is not very encouraging. Countries typically do not apply to these programs, because they are afraid that applying might send a negative signal to markets, precipitating rather than averting a crisis. Moreover, enlarging the role

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<sup>9</sup> This hypothesis is usually associated with the proposal of transforming the ESM in a European Monetary Fund, but it is not obvious why. In fact, the ESM has already two of these types of facilities, the precautionary conditioned credit line and the enhanced condition credit line, none of which has ever been used by member countries. The proposals typically suggest to revise these two tools and make them more user friendly in order to incentivize their use.

of the ESM would probably require a deep reform of its governance system, overcoming the unanimity rule. While several proposals are on the table, including one by the Commission itself<sup>10</sup>, the positions of member countries differ too substantially on this issue to predict a rapid solution.

A second set of proposals (not necessarily alternative to the first one) focus instead on the idea of setting up a “rainy day fund”. In normal times, Euro countries would transfer resources to a European body (the ESM? The EU budget? Another specific budget for the Euro area?); in bad times, the fund would support countries in difficulty. The annual payment by each country to the Fund would be very low (depending on the proposal, about 0.1-0.3% of GDP) and contributions from the Fund (or at least, in some proposals, the part in excess of the cumulated contribution by each single country) would be conditional to the respect of fiscal rules (that is, there would be ex ante conditionality). Total payments to the Fund could also be capped at some level, that is: the Fund might not receive further contributions, when they reach some predetermined level of Euro countries GDP. To avoid moral hazard, and to avoid the transformation of support from the Fund in permanent contributions from other countries, one might also think to other mechanisms, like: a cap to the maximal level a country can receive from the Fund, increased contributions by countries that more often receives resources from the Fund, and so on. The general idea is that the Fund should provide some insurance against large shocks and at the same time give correct incentives to member countries. These would come from ex ante conditionality (the respect of fiscal rules), but also by the fact that financing the Fund in good times means forcing fiscal policy to be less pro-cyclical than usually is in these periods, as some money would be subtracted from a country Treasury.

The many proposals on the ground (see for instance EU Commission 2017, Beblavý and Karolien 2017, Bénassy-Quéré et al. 2018, Arnold et al. 2018, Carnot et. al. 2017) differ greatly among each other along several dimensions. 1) In terms of the expected size of the Fund. 2) In terms of the “trigger” mechanism allowing access to the Fund, in particular whether it would be automatically activated on the basis of some economic indicators, or based on some technical assessment and discretionary decision. 3) In terms of whether the Fund should aim at covering only asymmetric or also symmetric shocks. 4) In terms of whether the Fund could borrow (out of expected future payments) in the case where it had not yet accumulated enough resources to play its role when a crisis hits. 5) In terms of whether the Fund should aim to cover only large shocks or relatively smaller ones. 6) Finally, they differ in terms of whether the Fund resources could be freely used by a country or used only to finance some particular type of expenditure (say, unemployment benefits or infrastructures). All these issues would require a lengthy discussion; indeed an entire chapter of the June 2018 Report (EFB, 2018) of the European Fiscal Board (to which one of the author of this

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<sup>10</sup> See the December 2017 proposal of the Commission (2017).



paper contributed) is devoted to them. Let us just summarize here the main conclusions reached in this Report.

First, size is important. The IMF (see Arnold et al. 2018) estimates that somewhat between 1 to 2% of the GDP of a country hit by a large recession (as we witnessed during the recent financial crisis) should be needed to provide relief ex post and proper incentives ex ante. As yearly contributions to the Fund are supposed to be very small (for both political and practical reasons, as they are not returned to countries in normal times), this implies that, if the Fund is not allowed to borrow, it would take a very long time to accumulate enough resources for it to be of any use. Second, as the main important shocks in the Euro area are symmetric, and we already had evidence of sub-optimal fiscal policy in the presence of a large symmetric shock, it would not make much sense to limit the Fund only to address asymmetric shocks. Third, as there are already several lines of defense at the national level against a downturn, the Fund should be really activated only in presence of a relatively large shock. Fourth, automaticity has its merits, both for a timely response and on political grounds. But the long list of criteria that have been proposed in the literature as potential trigger mechanisms for the activation of the Fund (variations of GDP and/or unemployment with respect to a trend, output gap measures, current balances, etc.) all have their limits, given the well-known difficulty of assessing in real time the condition of an economy. It is difficult to avoid the conclusion that some kind of in-depth technical analysis is needed to establish if the conditions for triggering the Fund are satisfied, leaving to politics to take the final decision. Fifth, ex ante conditionality, in terms of respecting the rules, it is hard to establish with the present overly complex system of fiscal surveillance. A simplification of the rules (as proposed by several bodies, including the Commission and the EFB itself) would make much easier to enforce the mechanism and induce correct incentives on governments. Sixth, there are strong arguments for conditioning resources from the Fund to finance only some specific components of public expenditure. There is an over-whelming evidence showing that during a crisis fiscal consolidation is typically obtained by sacrificing mostly investment and capital expenditures. And indeed public investments in the Euro area have been largely reduced as a consequence of the crisis and are still much below their pre-crisis level. This is a bad choice, both because fiscal multipliers are typically higher for capital expenditure than current expenditure, and because cutting capital expenditure means reducing future growth.

##### *5. Concluding remarks*

The European monetary union needs some urgent reforms to thrive. Surely, completing the Banking Union and starting with a Capital Markets Union are priority projects. But fiscal policy also

deserves consideration. Fiscal brakes are important, particularly in a currency union, but they are not a tool for macroeconomic management. And coordination of fiscal policies of otherwise completely autonomous countries has proved to be a chimera. Some centrally managed macroeconomic mechanism is needed for increasing risk resilience in an otherwise poorly equipped monetary union. Large mechanisms, that would make the EMU more similar to other monetary unions and national states are technically possible, but probably unrealistic in the current political juncture. But some intermediate mechanisms, such as a common fiscal capacity, could be introduced. If correctly managed, such mechanism would also provide strong incentives for risk reduction, strengthening the monetary union.

## References

Alcidi, C. and Thirion, G. (2017), *Fiscal risk sharing and resilience to shocks: lessons for the euro area from the US*, CEPS Working Document, No. 2017/07, May

Arnold, N. *et al.* (2018), *A Central Fiscal Stabilization Capacity for the Euro Area*, IMF Staff Discussion Notes 18/03, International Monetary Fund.

Baldwin R. and Giavazzi F. eds (2015) *The Eurozone Crisis. A Consensus View of the Causes and a Few Possible Solutions*, CEPR, London.

Beblavý, M. and Karolien L. (2017), *Feasibility and Added Value of a European Unemployment Benefits Scheme*, CEPS Papers 12230, Centre for European Policy Studies.

Bénassy-Quéré *et al.* (2018), *Reconciling risk sharing with market discipline: A constructive approach to euro area reform*, CEPR Policy Insight, No. 91.

Bordignon M., Gatti N. and Onorato M. (2018), *Getting closer or falling apart? Euro countries after the crisis*, mimeo, Università Cattolica del Sacro Cuore, Milano.

Campos, N. F., Fidrmuc, J. and Korhonen, I. (2018), *A Meta-Analysis of the Effects of Currency Unions on Business Cycle Synchronisation*, Journal of Economic Literature E32, F42.

Carnot, N., Kizior, M. and Mourre, G. (2017), *Fiscal stabilisation in the euro area: A simulation exercise*, Working Papers CEB, 17-025, Université Libre de Bruxelles.

Corsetti G. *et al.* (2016), *Macroeconomic stabilization, monetary-fiscal interactions, and Europe's monetary union*, ECB Working Paper no. 1988.

Costancio V. (2018), *Completing the Odyssean journey of the European monetary union*, Remarks at the ECB Colloquium on "The future of central banking", Frankfurt, 16-17 May 2018.

Draghi M. (2018), *Risk-reducing and risk-sharing in our Monetary Union*, Speech at the European University Institute, Florence, 11 May 2018.

European Commission (2007), *Cross-border risk sharing: has it increased in the euro area?*, Quarterly Report on the Euro Area, 6(3).

European Commission (2017), *Proposal for a Council Regulation on the establishment of the European Monetary Fund*, COM(2017) 827 Final, December

European Commission (2017), *Communication from the Commission to the European Parliament, the European Council, the Council and the European Central Bank – New budgetary instruments for a stable euro area within the Union framework*, COM(2017)822 Final, December.

European Fiscal Board (2018) *Assessment of the prospective fiscal stance appropriate for the euro area*, Brussels.

Five Presidents' Report (2015), *Completing Europe's Economic and Monetary Union*, EU Commission, Brussels.

Furceri, D. and Zdzienicka, A. (2015), *The Euro Area Crisis: Need for a Supranational Fiscal Risk Sharing Mechanism?*, *Open Economies Review*, Springer, 26(4): 683-710, September.

Kalemli-Ozcan S., Emiliano E., Sorensen, B. (2014). "*Debt Crises and Risk Sharing: The Role of Markets versus Sovereigns*," NBER Working Papers 19914, National Bureau of Economic Research, Inc.

Milano V. and P. Reichlin (2017) *Risk sharing across the US and Eurozone: The role of public institutions* VOX

Rannenberg, A., C. Shoder and Strasky, J. (2015), *The macroeconomic effects of the European Monetary Union's fiscal consolidation from 2011 to 2013: a quantitative assessment*, IMK Working Paper 156.

Tabellini G. (2017), *Which Fiscal Union?*, mimeo (previous version published in *How to fix the Eurozone?*, edited by R. Baldwin and F. Giavazzi, 2016).

Ubide A. (2015), *Stability bonds for the euro area*, Peterson Institute Policy Brief no. 15-19.

Veld, J. (2013), *Fiscal consolidations and spillovers in the Euro area periphery and core*, EU Commission European Economy Paper, Economic Papers 506.

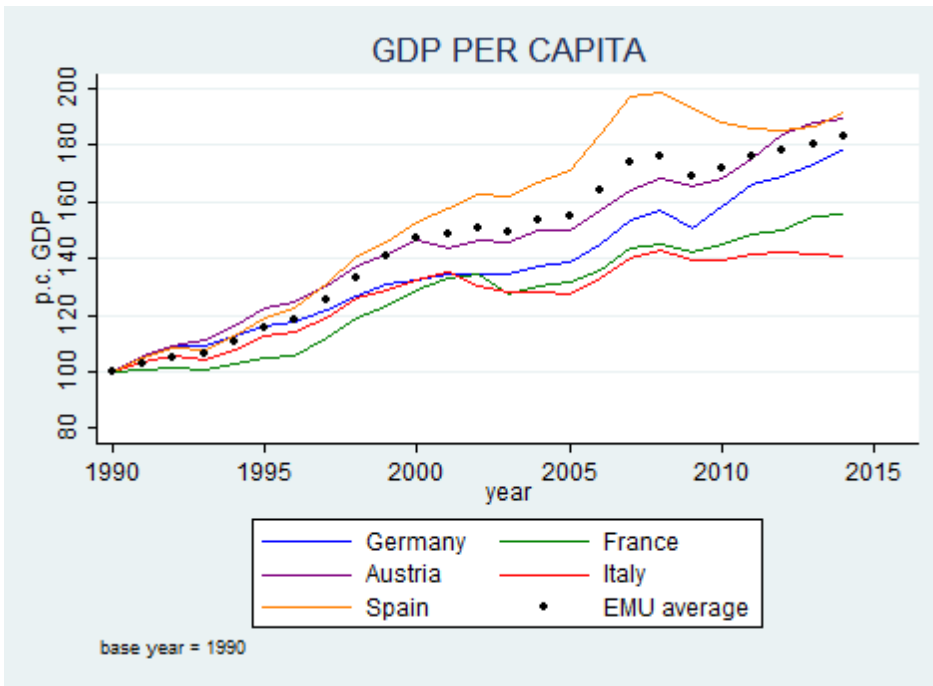


Figure 1 Evolution GDP per capita, area euro , selected countries

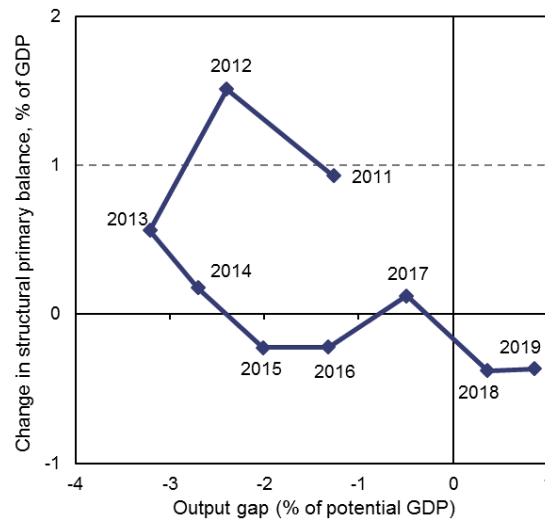


Figure 2 Fiscal stance in the Euro area (EFB, 2018)