

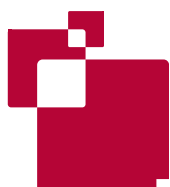
WHICH FISCAL UNION FOR THE EURO AREA?

AGNÈS BÉNASSY-QUÉRÉ, XAVIER RAGOT,
AND GUNTRAM B. WOLFF

Highlights

- Fully-fledged federations assign fiscal policy stabilisation largely to the federal level, based on a relatively large budget. In the euro area, a large federal budget is unrealistic at the current level of political and societal integration, and fiscal stabilisation will continue to rely mainly on national policies.
- For aggregate fiscal policy to become more stabilising with respect to the economic cycle, while achieving long-term sustainability, it is necessary (i) to avoid imposing self-defeating fiscal adjustments on crisis countries by making sovereign debt restructuring a real possibility (which involves strengthening the banking sector and extending the remit of the European Stability Mechanism); (ii) to task the planned independent European Fiscal Board with delineating exceptional times during which fiscal coordination is needed on top of monetary policy; (iii) to make national fiscal policies more stabilising by allowing incremental investment and unemployment spending to be shifted from bad to good times based on national adjustment accounts.
- We also recommend a move towards a European unemployment (re-)insurance scheme targeted at 'large' shocks, with varying contributions from countries and a minimum set of labour-market harmonisation criteria, which in any case are desirable for the functioning of monetary union.

This Policy Contribution was prepared for the *Conseil d'analyse économique*, of which the authors are members. Agnès Bénassy-Quéré (agnes.benassy-quere@psemail.eu) is the Chairwoman of the *Conseil d'analyse économique*, Xavier Ragot (xavier.ragot@gmail.com) is the President of the *Observatoire français des conjonctures économiques*, Guntram B. Wolff (guntram.wolff@bruegel.org) is the Director of Bruegel. The authors are grateful to Aurélien Eyquem and Paul Berenberg-Gossler for their support, and to various informed contacts for their insights during the writing of this paper.



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SUMMARY

The construction of the euro area left aside the question of a fiscal union, but the crisis re-opened the debate.

Of the three classical functions of fiscal policy – provision of public goods, redistribution and stabilisation – only the last provides a clear justification for fiscal policy at euro-area level. Unsustainable fiscal policies in one member state could destabilise the entire euro area, and national policies could also have direct and indirect demand effects with an impact on area-wide inflation. ‘Every man for himself’ is not an option. But coordination is difficult because it involves 19 national budgetary processes and a common central bank.

Empirically, fiscal policy in the euro area and elsewhere often tends to accentuate rather than attenuate the economic cycle. The discretionary part of fiscal policy, as opposed to automatic stabilisers, is responsible for this unfortunate feature, while automatic stabilisers generally work well. Fully-fledged federations assign fiscal policy stabilisation largely to the federal level, based on a relatively large budget. In the euro area, a large federal budget is unrealistic at the current level of political and societal integration, and fiscal stabilisation will continue to rely mainly on national policies.

We make three recommendations that would lead national fiscal policies to be more stabilising with respect to the economic cycle, while achieving long-term sustainability. First, the euro area should avoid imposing self-defeating fiscal adjustments on crisis countries. To achieve this, sovereign debt restructuring should be made possible by further strengthening the banking sector and extending the remit of the European Stability Mechanism. Second, fiscal policy in exceptionally good or bad times should be guided by the planned independent European fiscal board, while

the Stability and Growth Pact (SGP) would apply strictly in ‘normal’ times. Of course, fiscal coordination is mostly needed in exceptional times, when the European Central Bank can no longer by itself stabilise the euro area. Third, the Stability and Growth Pact should be able to adapt in a more flexible way to the economic cycle by shifting incremental investment and unemployment spending from bad to good times based on national adjustment accounts, rather than through unclearly defined discretionary measures as is presently the case. This third proposal would strengthen automatic stabilisers that were in fact cut in some cases during the crisis.

In addition, we recommend a move towards ‘federal’ insurance for very large shocks. This should be based on automatic stabilisers and should not involve conditionality when it is activated. The best option is likely to be a European unemployment (re-)insurance scheme for large shocks. All countries that comply with a minimum set of labour-market harmonisation criteria would be required to participate, with their payments into the scheme based on objective criteria. Labour market harmonisation is also desirable for the functioning of monetary union and could be incentivised by the re-insurance scheme. throughout 2017, even when taking into account the changes announced throughout 2015, and especially if the ECB decides to increase its monthly purchases. We recommend that the ECB further alter the programme guidelines. Changes could include the purchase of corporate bonds as well as senior well-rated uncovered bank bonds. A more radical change would be to move away from an allocation of asset purchases between countries based on the ECB capital keys, to an allocation based on the actual size of countries’ outstanding debts.

INTRODUCTION

The idea to complement European Monetary Union with some form of fiscal federalism is not new. In 1977, the MacDougall report suggested the introduction of a small budget of around 5-7 percent of GDP as a first step, the long-term objective being “a Federation in Europe in which federal public expenditure is around 20-25 percent of gross product as in the USA and the Federal Republic of Germany” (Commission of the European Communities, 1977, pp10-11).

Fifteen years later, the Maastricht Treaty did not incorporate any form of ‘fiscal union’, except in the very narrow sense of fiscal discipline: fiscal profligacy at national level was rightly identified as a major risk to the monetary union, so each member state committed to maintain sound finances. The Stability and Growth Pact (SGP) details the operationalisation of fiscal discipline. A common budget existed but it was a European Union, not a euro-area, budget.

This was, of course, no accident. There was strong political resistance in many countries to the sharing of fiscal resources and political sovereignty. And while academics and senior civil servants were arguing the case for fiscal integration, no political agreement was found. Some argued that fiscal and political union would eventually follow monetary integration. Others contended that the Maastricht set-up was stable.

The discussion re-emerged in 2010 with the financial and fiscal crisis in several member states. The European Financial Stability Fund (EFSF), followed

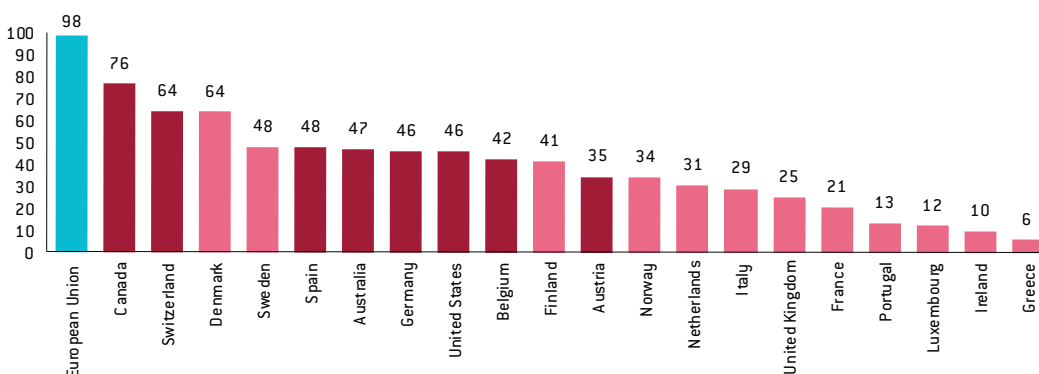
by the European Stability Mechanism (ESM), were established in order to have a fiscal instrument to deal with systemic risks in the euro area. The EFSF-ESM would lend to troubled governments provided they engaged in adjustment programmes designed to ensure that they remained solvent. Moreover, in the context of banking union, a small but single resolution fund was decided on. In December 2012, Herman Van Rompuy and the presidents of other EU institutions (Van Rompuy *et al*, 2012) further proposed to introduce a “fiscal capacity” in the euro area, in order to “improve the absorption of country-specific economic shocks, through an insurance system set up at the central level” (p5). In June 2015, the so-called Five Presidents’ Report (Juncker *et al*, 2015) noted that “all mature Monetary Unions have put in place a common macroeconomic stabilisation function to better deal with shocks that cannot be managed at the national level alone” (p14). It proposed to work on a “fiscal union” that would “improve the cushioning of large macroeconomic shocks and thereby make EMU over all more resilient” (p14).

This Policy Contribution discusses what type of fiscal instrument in addition to existing tools would best improve the functioning of the monetary union.

1. WHY DISCUSS FISCAL UNION?

States typically have significant fiscal resources at the central level with regional government spending generally not exceeding 50 percent of total government spending (Figure 1)¹. In federal countries, the share of regional spending is larger, up to 76 percent in Canada. If one were to consider

Figure 1: Ratio of local to general government expenses in 2013 (in %)



Source: International Monetary Fund, Government Finance Statistics, September 2015. Dark red: federal countries.

1. At the country level, the notion of ‘general government’ covers the central government, local governments and social security institutions. Local governments cover municipalities and, in federal countries, states or regions.

the EU as a federation, it would be a complete outlier, with 'local' (ie member state) budgets representing 98 percent of total expenditure. As for the euro area, it has no budget except the lending capacity of the ESM (€500 billion in 2016, equal to about 10 percent of euro-area member states' combined budgets).

Following the conventional classification of public intervention (Musgrave and Musgrave, 1989), the purpose of a federal budget is threefold. First, it should finance those public goods that are common to all regions, such as research, infrastructure, diplomacy and defence. Second, it may carry out transfers between regions to correct geographical or historical disadvantages and maintain national cohesion. Third, it ensures macroeconomic stabilisation, ie smoothing out business fluctuations in line with the GDP trend at national level and across the regions, local budgets being generally constrained by tight balanced-budget rules².

The small EU budget has so far been entirely devoted to the first two objectives. This raises three questions. First, should the EU budget be expanded and/or re-purposed? Second, does EU and national spending need to be complemented with spending at other levels of government, such as the euro area or Schengen area? Third, does the euro area need federal resources for fiscal stabilisation?

On the first question, we agree with those who argue that the EU budget needs to become more efficient and future-oriented³. The second question is related to the issue of multi-layered European integration. For instance, security and refugee policies and the control of external frontiers are common public goods mainly for the Schengen area, which has a different composition to both the EU and the euro area and could justify a Schengen-specific budget. At the euro-area level, although there is no budget in a strict sense, the ESM contributes to a common public good specific to the euro area, namely financial stability.

Should the euro area be equipped with a budget in order to finance public goods such as infrastructure, energy transition, human capital, refugee and asylum policy or security? It can be

argued that growth spillovers are especially significant within the monetary union, because of their impact on debt sustainability. Additionally, labour mobility is key to the smooth functioning of a monetary union; thus euro-area countries might have more at stake than others to secure the Schengen agreement. Finally, euro-area countries have already accepted more sharing of sovereignty than others. However, it is difficult to argue in favour of another layer of spending without first reconsidering the EU budget, and more generally reconsidering the assignment of policies across the different levels of governance within the EU. Such a re-examination could lead to deeper policy integration in the euro area in some fields with public goods, if the political will is greater in the euro area and the appropriate governance can be put in place.

From a strict economic viewpoint, we are left with the stabilisation issue when thinking about a 'fiscal union for the euro area'. In this respect, the Maastricht set-up was sensible. In normal times, the European Central Bank (ECB) would act to stabilise shocks affecting the euro area as a whole: it would cut the interest rate in downturns and raise it in upturns. As for shocks affecting individual countries, there would be ample room to address them through national fiscal policy, provided fiscal discipline fully applies in good and normal times.

The Maastricht set-up failed both before and during the crisis⁴. Before the crisis, for various reasons, the SGP failed to eliminate the sovereign debt crisis risk. During the crisis, the ECB soon exhausted its most efficient monetary easing tools, while a large number of member states were obliged to tighten fiscal policy because of market pressure, SGP rules or national fiscal rules.

In order to correct these different failures, the euro area began to equip itself with the ESM, the banking union, and the reshuffling of fiscal and macroeconomic surveillance (six-pack, two-pack, fiscal compact). The question is then whether additional tools are needed, or whether existing tools need to be revised in the narrow perspective of macroeconomic stabilisation, which is the issue that is really specific to the monetary union⁵.

2. See Cottarelli and Guerguil (2014).

3. See Sapir *et al* (2003).

4. See Bénassy-Quéré (2015).

5. According to Mundell (1961), a federal budget can partially compensate for the loss of monetary independence in a monetary union.

2. FISCAL STABILISATION IN THE EURO AREA

Fiscal stabilisation is the use of fiscal policy to support the economy through higher spending or lower taxes in a downturn, and to eliminate the budget deficit in an upturn. Fiscal policy is important at the country level to cater for country-specific shocks and at the federal level in circumstances when monetary policy is less effective than usual. However fiscal policy is not the only tool for macroeconomic stabilisation in federal countries.

2.1 The role of the federal budget for macroeconomic stabilisation

In federations, one important task of the federal budget is macroeconomic stabilisation at the sub-national level (through temporary net transfers) and at the country level (through federal borrowing). This stabilisation tool also operates through two other channels which are in fact more powerful: the diversification of financial portfolios, and the ability of public and private agents to borrow or lend at sub-national level⁶. Interestingly, responsibility for bank supervision and market stability is always assigned to the federal level, not to local authorities. Against this background, the idea to create a European capital markets union that deepens capital markets and increases cross-border capital flows, in particular in the form of equity, is highly welcome. However, the European Commission's current proposals are far too timid to achieve the goal of integrated and stable capital markets. Deeper and more integrated capital markets will require major steps in the areas of harmonisation of accounting, insolvency, corporate transparency and taxation (Véron and Wolff, 2015).

It is sometimes argued that, once the monetary union is made more stable thanks to a more resilient banking sector and lower public and private debt, there will be no need for stabilisation instruments at euro-area level: 'risk reduction' would be a substitute for 'risk sharing' (Gern *et al*, 2015). This is at best a long-term vision, however. Although efforts to strengthen the banking sector through micro and macro prudential supervision are clearly welcome, it will never be possible to completely rule out a serious financial and

economic crisis. It is therefore necessary to have sufficient stabilisation instruments.

In crisis times, whatever the 'flexibility' of the SGP, a national government might lose its capacity to smooth consumption. This is the *raison d'être* of the ESM, which will temporarily substitute for private lending and provide conditional funding. However, the ESM is not a substitute for a euro-area budget. As highlighted by Pisani-Ferry (2011), it is a mutual assistance scheme, not a common budget involving the delegation of some competences to the centre.

Shifting significant parts of national government spending to the euro-area level would be an enormous step towards European integration. Such a decision would go far beyond the issue of macroeconomic stabilisation policies –it would go to the core questions of national preferences, political preferences, democratic legitimacy and long-standing historical differences between countries. Although the case for more collaboration in areas such as environment, defence, intelligence services and refugee and asylum policy has never been stronger, we doubt that countries are willing to shift the corresponding legitimacy for such decisions to the appropriate level to federalise their operation. Moreover, even such steps towards federalisation would barely be enough to generate macroeconomic stabilisation tools of sufficient size at the euro-area level, because the corresponding spending is unrelated to the economic cycle.

As the build-up of any meaningful federal budget is not plausible in the short and medium terms, it will remain essential to improve the coordination of national fiscal policies. The euro area will likely remain a hybrid model in which fiscal policy is largely national but decision-making over that policy is shared⁷.

2.2 Macroeconomic stabilisation through national budgets

In the euro area, in the absence of a federal budget, aggregate fiscal policy is the result of 19 national fiscal policies. The challenge then is to make sense of these combined national policies, for three different reasons:

6. In federations, the federal budget has a significant macroeconomic stabilisation role, but is still less powerful than lending-borrowing and portfolio diversification. In the euro area, consumption smoothing only relies on lending and borrowing, and to a lesser extent on portfolio diversification. See Allard *et al* (2012). According to Kalemli-Ozcan *et al* (2012), consumption smoothing has deteriorated during the recent crisis because of credit constraints in the most affected countries.

7. See Pisani-Ferry (2015).

BOX 1: PRO-CYCLICAL FISCAL POLICY AT AGGREGATE LEVEL

The orientation of aggregate fiscal policy in the euro area can be captured by the *fiscal impulse*, ie the variation in the ratio of the general government balance to GDP. A rise in the budget balance means fiscal tightening, whereas a fall means loosening. These variations are deemed counter-cyclical if they go in the same direction as the economic cycle (eg fiscal tightening when GDP grows faster than potential growth) and pro-cyclical in the opposite case.

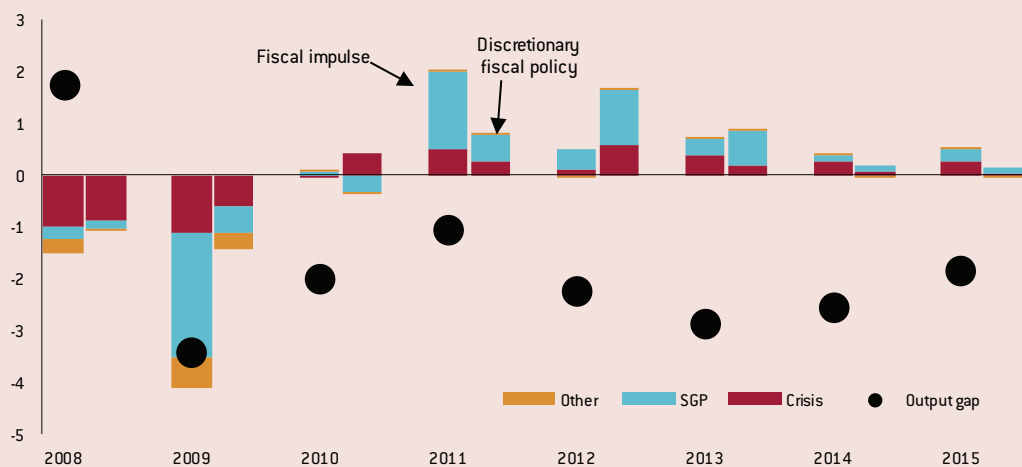
The fiscal impulse can be decomposed into an 'automatic' variation related to the economic cycle, and a discretionary part, although the calculation of the discretionary part of fiscal policy relies on disputable measurements of potential growth and assumptions about the elasticity of spending and revenue to GDP growth.

Figure 2 plots the contributions of three groups of countries to the fiscal impulse and discretionary fiscal policy of the euro area from 2008 to 2015: crisis countries (under an ESM programme), countries under the corrective or preventive arm of the SGP, and other countries*. The sum of the three contributions constitutes the aggregate fiscal policy of the euro area. The graph also shows the aggregate output gap over the same period.

Both the fiscal impulse and the discretionary fiscal policy display similar patterns: over this seven-year period, the aggregate discretionary fiscal policy was clearly counter-cyclical only in 2009 and 2011**, while 2008, 2012 and 2013 were clearly pro-cyclical, and the other years roughly neutral. Figure 2 shows that automatic stabilisers are not strong enough to compensate for a destabilising discretionary policy.

The chart also shows that the fiscal tightening was largely a result of the contribution of crisis countries and Excessive Deficit Procedure (EDP) countries in 2011-13, while other countries hardly mattered in defining the fiscal impulse. They did contribute with a discretionary stimulus in 2009 though.

Figure 2: Fiscal impulse and discretionary fiscal policy of euro area, and contributions of different country groups, 2008-15, in % of euro-area GDP or potential GDP



Source: Ameco and authors' calculations. Note: The fiscal impulse is the variation in the financial budget balance in percent of euro-area GDP; the discretionary fiscal policy (or fiscal stance) is the variation in the structural budget balance in percent of euro-area potential GDP; the output gap is the gap between GDP and potential GDP of the euro area, in percent of potential GDP.

* The composition of the three groups varies over time.

** In 2011, counter-cyclical comes from fiscal tightening while the output gap is less negative than a year before.

- Monetary and fiscal policies interact: when fiscal policies are loosened, demand and thereby inflation expand, which might trigger a monetary policy tightening. National fiscal policies therefore affect other member states via the reaction of monetary policy.
- Fiscal policy may supplement monetary policy. When monetary policy is constrained by the zero lower bound (ie the inability to further cut the interest rate), fiscal policy would need to be activated to increase inflation and demand. In such a situation, the sum of national fiscal policies becomes particularly important.
- National fiscal policies have direct cross-border effects. In normal times, these direct demand spillovers are limited and depend on the size and the openness of the economies concerned. At the zero lower bound, however, a fiscal stimulus in one country has unambiguous effects in neighbouring economies⁸. This externality is generally not taken into account at national level.

These three effects provide strong arguments in favour of coordination of fiscal policy by the 19 euro-area member states, and between them and the ECB. For instance, significant fiscal consolidation in several member states, as happened in constrained countries in 2012, in a situation of negative GDP growth and decelerating inflation, should have been accompanied either by a fiscal expansion elsewhere or an easing of monetary policy in order to stabilise euro-area wide inflation. When monetary policy is at the zero lower bound, coordination of fiscal policies becomes crucial in order to prevent a deflationary spiral⁹. It is then a matter of collective choice about who should do how much in terms of fiscal stabilisation policy, beyond the more structural policies that matter for inflation.

Fiscal policy coordination has proved unsatisfactory since the inception of the euro. The euro area's fiscal policy has not played its macroeconomic stabilisation role since 2008, except in 2009 and 2011 (Box 1). While the relative role of fiscal and monetary policy in 2012-13, and the relative role of market constraints versus fiscal rules, can be debated, the overall macroeconomic performance of the euro area and the persistently low euro-area inflation rates are in our view enough of reason to argue for an improved system. The European governance toolkit does not presently allow a desirable aggregate fiscal stance to be distributed across the different national budgets of member states¹⁰.

The pro-cyclicality of fiscal policy in the euro area (ie its inclination to accentuate rather than attenuate the cycle) is not a pure result of the crisis. On average from 1995-2008, both the fiscal impulse and the discretionary parts of fiscal policy were expansionary in upturns and contractionary in downturns¹¹. This feature is not specific to the euro area: the United Kingdom, Canada and Australia also display pro-cyclical policies. However, the United States, Japan and Switzerland proved able to carry out counter-cyclical policies. Fiscal stabilisation is not an easy task, but the euro area seems to be particularly bad in its decision-making process: discretionary fiscal stabilisation seems not to work, while counter-cyclical automatic stabilisation only partially compensates for pro-cyclical discretionary policy¹².

The political economy approach to fiscal policy can easily explain why discretionary fiscal policy is mostly pro-cyclical: in an upturn, there are strong political incentives to spend the windfall gains, rather than to curb government debt; and because the debt has not been curbed, fiscal space is lacking in the subsequent downturn to support the economy through more government deficits. The question then is whether and how

8. See Blanchard *et al* (2015).

9. See Independent Annual Growth Survey Consortium (2016).

10. This was already the conclusion of Darvas and Vihriälä (2013): "The concept of the 'aggregate fiscal stance' is a largely empty concept" (p6).

11. Empirical evidence is available from the authors.

12. There are major differences between member states. For example, Germany displays much less pro-cyclical behaviour than Spain.

'The overall macroeconomic performance of the euro area and the persistently low euro-area inflation rates are in our view enough of reason to argue for an improved system.'

fiscal union could change this situation, in which the SGP has failed. Since national budgets are likely to remain prominent in the foreseeable future, we start by examining stabilisation capacity at the national level before moving to possible euro-area wide tools.

3. NATIONAL FISCAL POLICIES

A key challenge is to restore the ability of each national budget to be stabilising at country level and to contribute to macroeconomic stabilisation at the aggregate level when needed. This involves:

- More pressure to reduce the debt ratio in normal and good times to allow for fiscal stabilisation in bad times;
- Potential debt restructurings to prevent overly-harsh austerity and make rules more credible;
- Flexibility of SGP rules in bad times;
- The possibility to coordinate a fiscal stance, in particular when monetary policy is no longer sufficiently effective.

13. See for example Rebooting Consensus Authors (2015).

14. See Independent Annual Growth Survey Consortium (2016) for a discussion on fiscal multipliers over the business cycle.

15. See Gianviti *et al* (2010), Committee on International Economic Policy and Reform (2013) and Corsetti *et al* (2015).

16. Reinhart and Trebesch (2015) and Asonuma and Trebesch (2015) show that sovereign debt restructuring on average has a positive impact on the economy when carried out through nominal haircuts, as opposed to softer forms of restructuring: preventive restructuring (ie before default) involves lower haircuts and higher output than post-default restructuring.

Furthermore, euro-area members can benefit from support from the ESM and possibly the ECB's Outright Monetary Transactions, which will smooth the negative effects of debt restructuring in terms of market access and interest rates.

before public money can be tapped, are a first response. Breaking the sovereign-bank feedback loop will however require further action, including the diversification of banks' sovereign exposures, a European deposit guarantee scheme, an effective, common fiscal backstop and, more generally, a harmonisation of legal and procedural frameworks (such as foreclosure rules and bankruptcy procedures) that also feed the loop. The hope that bail-in alone will eliminate the fiscal implications of systemic financial crises is naïve, because the bail-in tool is far less effective in a systemic crisis.

Finally, there is a long literature on question (c). Following Calmfors and Wren-Lewis (2011) and Calmfors (2015), we argue that the combination of fiscal rules and advisory fiscal councils has an important role to play to improve fiscal policy, and in particular to reduce the deficit bias. Fiscal councils also make it possible to implement more 'intelligent' fiscal rules in a credible way.

However, we are not starting the discussion in a steady state: several euro-area countries will have to bring down their debt ratios in a low-growth environment, which is very difficult and might entail self-defeating fiscal retrenchment¹⁴. Moreover, the political cycle or the expectation of a future bail-out might reduce the willingness of some governments to cut their debts. To make rules binding in all circumstances, it would thus be necessary at some point to make debt restructuring really happen in case of insolvency.

3.2 The ESM, sovereign debt restructuring and financial stability

The ESM provides financial assistance to euro-area member states under strict conditions and when the financial stability of the euro area is endangered. It therefore plays the important role of alleviating the fiscal adjustment in countries that are priced out of markets, provided the country is considered solvent. While we agree that the speed of fiscal adjustment in some ESM programmes has been too quick, it is undoubtedly true that without such assistance, and without debt restructuring, the adjustment would have been even harsher.

In response to question (a), we believe that micro and macro prudential policies will have a significant role to play. It would be naïve however to believe that micro and macro prudential policies will be able to eliminate the possibility of financial crises in the future, which brings us to (b).

In terms of question (b), the new EU bank resolution procedures, which involve extensive bail-in

Should the euro area introduce a rule-based debt

restructuring procedure, as some scholars have proposed¹⁵? A pre-established procedure could help prevent situations such as in Greece, where the threat of insolvency becomes linked to continued membership of the monetary union. Such a procedure could also prevent situations in which, because those two issues become linked, countries enter excessive austerity programmes that could eventually defeat their purpose by leading to overly large GDP contractions that render sustainability even more illusory. This is an argument in favour of early, significant debt restructuring¹⁶. Finally, a clear debt-restructuring scheme might revive market discipline in the euro area, providing market-led incentives for fiscal responsibility.

But creating mechanisms that allow for early debt restructuring can give rise to moral-hazard problems. The solvency of a state is mainly a political question: governments can decide whether or not they want to do the necessary budgetary adjustment to remain solvent. Creating a relatively easy way out, by allowing for easy debt restructuring, would tilt incentives towards more irresponsible fiscal policy early on. The current setting, in which debt restructuring is possible but is painful because of the accompanying adjustment programme imposed by European institutions, might in fact strike the right balance between market discipline and fiscal responsibility.

Federal states tend to rely more on rules and on control from the centre than on market discipline when large sub-national entities are at risk. Sub-national debt restructuring is relatively infrequent, and is not organised *ex ante* through debt-restructuring schemes (Box 2).

The key issue then is not so much to introduce an explicit debt restructuring mechanism, but rather to make debt restructuring possible in practice when a government is insolvent. Currently, euro-area sovereign debt restructuring involves three difficulties:

- Collective action (the risk of hold outs);
- The resilience of the banking sector, especially the national banking sector;
- The risk of contagion.

BOX 2: SUB-NATIONAL FISCAL CRISES IN FEDERAL COUNTRIES

Cordes *et al* (2015) studied 16 episodes of sub-national fiscal crises in federations between 1975 and 2012. They found that sub-national debt restructuring is very rare, and involves either small political entities (municipalities or cantons) or cases in which the federal debt is itself restructured. The main exception was the restructuring of the debts of American states in the 1840s. Pre-set resolution frameworks are also rare, and where they do exist, they are barely used. The exception is the United States with its Chapter 9 rule, which provides a legal framework for restructuring the debts of political subdivisions or public agencies. Chapter 9 was recently used to restructure the debts of Jefferson County (Alabama, 2011), San Bernardino (California, 2012) and Detroit (Michigan, 2013). However, states and the District of Columbia cannot use Chapter 9, and half of the states have prohibited sub-state entities from filing for bankruptcy.

Most sub-national fiscal crises in the sample of Cordes *et al* (2015) were solved through some form of federal support: guarantees, direct or indirect loans, or transfers. Policy conditions were generally attached to federal support, and enforced through financial or administrative sanctions. In some cases (New York City in 1975, District of Columbia in 1996, some South African entities in 2011-12), loans by the federal government came with direct administrative control over the budget. In some other cases (Bremen and Saarland in 1994-2004), fiscal profligacy resumed after the end of the programme.

According to Cottarelli and Guerguil (2015), fiscal discipline at sub-national level relies on a combination of market discipline and fiscal rules, the latter being often self-imposed. This setting has the advantage of preserving appropriate incentives at the local level of government while reducing borrowing costs on average.

17. See Committee on International Economic Policy and Reform (2013). The report proposes further adjustments to CACs to make them more effective.

By making debt restructuring more difficult, each of these three points makes it less credible *ex ante*. The risk then is to restructure too late, with additional costs.

We do not cover here the problems related to collective action. Since 2013, sovereign bonds in the euro area have included collective action clauses (CACs) in order to coordinate possible debt restructuring. Aggregation clauses have been added to make CACs more effective by incorporating all existing bonds of a given class in a debt restructuring process, rather than acting on each series separately¹⁷. In order to further facilitate collective action, CACs could incorporate an automatic extension of maturities when an ESM programme is decided¹⁸. This would help the ESM deal with liquidity crises by reducing the amounts of redemption during the ESM programme, without constituting a 'credit event'. It would also protect the ESM against an incorrect assessment of a crisis as a liquidity crisis, when it later morphs into a solvency crisis. In such a case, the eventual debt restructuring would apply to a larger pool of debts.

of banks' exposures to sovereign risks is key for the credibility of a debt restructuring when a government becomes insolvent. One possibility would be to gradually end the exemption of sovereign bonds from large exposure rules, possibly in combination with the introduction of a diversified basket of bonds that would still escape the rule. Strategic default could become a concern if debt holding becomes totally diversified. However, the political cost of a default is generally high (Borenzstein and Panizza, 2009). In addition, the strategic default would only be possible if a majority of creditors agrees, which is unlikely if it is an unfounded strategic default.

As shown by Greece in 2014-15, the risk of sovereign debt restructuring, especially if it is associated with exit from the euro area²⁰, destabilises the banking sector through deposit flight. In the Greek case, massive Emergency Liquidity Assistance (ELA) played the role of lender of last resort to the banking system. However, relying on ELA involves the national central bank playing a quasi-fiscal role. A deposit (re-) insurance scheme at the euro-area level would help stabilise the banking system and protect the central bank from coming close to breaching the treaty²¹. It would also keep financing and credit conditions relatively unaffected by the potential debt restructuring, thereby limiting the fallout onto the economy. As a first step, such a scheme could be introduced for those banks directly supervised by the Single Supervisory Mechanism²².

Like the single resolution fund, the deposit insurance scheme would be funded by contributions from the banks themselves. However, shocks to the banking sector might be of a different order of magnitude compared to the accumulated funds, and the funds will therefore not be fully credible unless backed by a fiscal instrument. National budgets alone would be insufficient for this, since relying on them would annihilate the efforts to break the bank-sovereign doom loop and would result in a continuing fragmented banking system. The ESM should rather play the backstop role.

Recommendation 1: Complete the banking union with incentives to progressively diversify banks' exposures to sovereign risks, and a deposit

18. See Weber *et al* (2011). It may be argued that automatic maturity extension would raise borrowing costs and scare investors when a country is considered close to an ESM programme. Although no firm prediction can be made, it should be noted that similar concern when introducing CACs in euro-area sovereign bonds have not materialised. See Carletti *et al* (2015). Additionally, OMTs and ESM precautionary lines would help contain contagion to neighbouring countries.

19. See ESRB Annual Report, 2015.

20. Von Bogdandy *et al* (2015) argue that debt restructuring towards official creditors is legally compatible with membership in monetary union.

21. See the European Commission's proposal to introduce a European Deposit Insurance Scheme (EDIS): European Commission (2015).

22. Such a step could potentially accelerate the restructuring of smaller banks in weaker countries.

23. The ECB has said it would not buy more than 25 percent (a ratio later raised to 33 percent) of a given government debt series, in order not to be in the position to veto (or not) a debt restructuring. This is to protect the ECB against breaching the treaty through debt monetisation and to limit market price distortions.

Here we concentrate on the two other objections to sovereign debt restructuring, namely the (lack of) resilience of the banking sector, and the risk of contagion.

a. Resilience of the banking sector

The resilience of the banking sector in the face of a sovereign default depends on the weight of the defaulted bonds on the asset side of banks' balance sheets, on the ability of banks to absorb the losses on the liability side, and on the impact of sovereign default on other debtors in the economy.

Since the beginning of the global financial crisis in 2008, a bold effort has been made to reinforce the liability side of banks' balance sheets. On the asset side, however, the share of domestic sovereign bonds has increased in a number of countries. In 2014, for instance, domestic sovereign bonds represented 12 percent of the assets of Italian banks, the corresponding share being 10 percent in Portugal, and around 9 percent in Germany, Spain and Belgium¹⁹. A progressive diversification

guarantee scheme backed by a common fiscal backstop.

b. The risk of contagion

Envisaging a debt restructuring in one member state might trigger a liquidity crisis in another member state because of a direct effect or a pure contagion effect, especially in the transition period when government debts remain high. One way to circumvent this problem is through Outright Monetary Transactions (OMTs): the ECB is prepared to buy sovereign bonds on secondary markets in potentially unlimited amounts provided an adjustment programme is applied. OMTs have not been used so far, and they might become more complicated to use after a long period of quantitative easing²³. The ESM should be prepared to provide automatic bridge financing to those member states that comply with the SGP but suffer from a sudden surge in their spreads. The existence of such an instrument would again make it more credible that a sovereign debt restructuring can really be implemented when one of the member states is insolvent. It would also smooth the discontinuity, hence the stigma associated with an ESM programme²⁴.

Recommendation 2: Reinforce the ESM so that it can act as a firewall in case of a sovereign debt restructuring.

3.3 Flexibility in bad times

Credible fiscal rules are important in a monetary union. The rules provide guidance to markets (and to the central bank) on what the future path of key policy variables could be (Iara and Wolff, 2014). They also reduce the scope of unsustainable policies that can have negative effects on the union and they provide a transparent basis for policy discussions between member states.

However, it is impossible to produce rules that set out an optimal fiscal policy for all circumstances. In certain circumstances, especially in major recessions when monetary policy is constrained by the zero lower bound, rules might (and have) prevent(ed) some euro-area member states from contributing to an adequate fiscal stance at

the aggregate level, while not preventing some other countries to proceed with counter-cyclical policies.

SGP rules are subject to three kinds of flexibility during a downturn. First, countries under the preventive arm of the pact may decelerate their adjustment efforts when affected by negative economic shocks, depending on numerical thresholds²⁵. Second, countries under the corrective arm might see their adjustment path redefined at the discretion of the European Commission. Third, exceptional circumstances might be invoked if the euro area as a whole is deemed to be facing very bad times.

Although they are welcome, these flexibilities are insufficient, for economic and governance reasons. From an economic viewpoint, SGP flexibility is mainly available to countries under the preventive arm of the SGP, and even in this case the flexibility does not eliminate pro-cyclical policies. Countries under the corrective arm might be concerned if their growth is really bad, but in this case market pressures could nevertheless force pro-cyclical policies. Most importantly, countries that comply with the SGP, by definition, cannot take advantage of its flexibility. If the euro area as a whole faces a very negative situation, there is no instrument to bind those countries to implement expansionary policies²⁶.

From a governance viewpoint, the flexibility of fiscal rules largely relies on the judgement of the Commission, while sanctions are decided by the ECOFIN council (or the Eurogroup). The problem is that the Eurogroup, which brings together the finance ministers of the member states, is not accountable at the euro-area level, but each member is accountable only at the respective national level. Hence, by construction, it is difficult for the Eurogroup to promote a euro-area wide view of fiscal policy. The European Parliament, meanwhile, has not given strong guidance to the European Commission on the area-wide fiscal stance²⁷.

The European Commission has announced the creation of a European Fiscal Board (EFB) in order to improve the discussions on a euro-area fiscal

24. Contrasting with Fuest and Peichl (2012), we think that the ESM is a complement to, rather than a substitute for, sovereign debt restructuring.

25. See European Commission (2015a).

26. The Macroeconomic Imbalance Procedure can be used here but the enforceability of a fiscal recommendation under the MIP is doubtful.

27. On the divisions within the European Parliament over fiscal policy, see eg Frantescu (2015). Despite multiple signs of excess supply in the euro area, there seems to be little appetite at European level for a more expansionary fiscal policy. Thus, fiscal policy decision-making derives its legitimacy from national parliaments and these parliaments are at best only partially involved in European decision-making. See Hallerberg *et al* (2016).

stance (European Commission, 2015b). This independent board of experts shall give recommendations to the Commission on the area-wide fiscal stance and on the implementation of the SGP. The EFB will strengthen the euro-area wide leg of the European semester (Bénassy-Quéré and Ragot, 2014). However, its guidance will have to remain “within the rules of the SGP”.

We believe the discussion on the euro-area aggregate fiscal policy should explicitly distinguish between normal times and exceptional times at the euro-area level. Exceptional times would correspond to situations in which the ECB is not able to stabilise the economy without the complement of fiscal policy.

The role of the EFB would be first to identify ‘exceptional times’ based on transparent criteria such as interest rates and inflation. In exceptionally bad times, it would recommend a distribution of fiscal policy between all member states, whether they are covered by the corrective arm of the pact, the preventive arm, or are out of any SGP procedure. These guidelines would trigger the ‘escape clause’ of the SGP; the EFB would also propose coordination with unconstrained countries, helping to avoid the deflationary trap. In exceptionally good times, the EFB could look beyond the SGP and recommend large fiscal surpluses in order to complement monetary policy, reduce the risk of financial bubbles and accumulate fiscal space in order to cushion the next crisis.

Recommendation 3: Task the European Fiscal Board with identifying extraordinary good or bad times at euro-area level and providing independent guidance on the appropriate euro-area wide fiscal stance and its distribution between national budgets.

Such an advisory body can help to reinforce fiscal discipline in good times and to establish

objectively when extraordinary circumstances require greater emphasis on the euro-area fiscal stance. A declaration of extraordinary times based on transparent criteria would also not give rise to any unfounded self-fulfilling announcement effects. In normal times, since there is much less need for fiscal coordination, each government would remain free to set its own fiscal policy within SGP boundaries and under the scrutiny of national fiscal boards, in line with the subsidiarity principle.

As an advisory body, however, the EFB can only make non-binding proposals, leaving the decision-making to the democratic institutions. In principle, the decision would be taken by the Council, but again this could not be binding within the present treaty²⁸. A revision of the treaty would be necessary to correct for the asymmetry of fiscal policy requirements in order to reduce the risks related of deflation and of overheating of the euro area as a whole. In exceptional times, the fiscal balance of each member state should be decided jointly through a democratic process that could rely on a vote of the euro-area finance ministers and a vote of a euro-area chamber of the European Parliament. In the short run, the implementation of a euro-area fiscal stance will mostly rely on peer pressure and the sense of responsibility of individual member states. Alternatively, euro-area finance ministers could decide to activate a fund that would borrow on the market in order to provide for fiscal stimulus in bad times, and reimburse the debts in good times, based on a common resource (Pisani-Ferry, 2015).

3.4 Adapting existing rules

The current fiscal rules are highly complex, opaque and difficult to understand, let alone communicate to parliamentarians. In particular, the computation of potential output and structural balances is extremely difficult and leads to unstable

28. Article 126 of the Treaty on the Functioning of the European Union imposes fiscal discipline, not fiscal stabilisation.

‘In exceptional times, the fiscal balance of each member state should be decided through a democratic process that could rely on a vote of the euro-area finance ministers and a vote of a euro-area chamber of the European Parliament. In the short run, the implementation of a euro-area fiscal stance will mostly rely on peer pressure.’

or even wrong fiscal policy recommendations. The flexibility in the SGP introduced by the Commission in 2014 in order to limit the pro-cyclicality of fiscal policy is itself quite complex, without delivering in terms of stabilisation.

In federal countries, sub-national fiscal rules are generally much simpler, but this is compensated for by a large federal budget that carries out macroeconomic stabilisation. In the absence of a federal budget, however, the only choice is to adapt existing rules in order to encourage counter-cyclical policies while ensuring long-run sustainability. We believe that such a double objective should be achieved through national adjustment accounts rather than through SGP flexibilities. In 'bad' times (defined by the EFB), a member state would be permitted to exclude some specific incremental spending from the measurement of the government deficit. The corresponding amounts would be put in the adjustment account. In 'good' times (again, as defined by the EFB), the expenses of the adjustment account would be reinjected into the calculation of the deficit. Accordingly, the SGP rules could be streamlined by eliminating flexibility²⁹.

In order to avoid any ratchet effect, the list of public spending that would be subject to the adjustment would need to be very restrictive. Two candidates stand out: incremental unemployment expenditures, and incremental public investment spending.

- Incremental unemployment expenditures: if the EFB classifies a period as 'bad' in a country, the corresponding rise in unemployment should be considered mainly cyclical. Excluding the associated incremental spending from the measurement of the deficit would provide temporary stimulation to the economy. Safeguarding the associated expenditures would also contribute to better protection for workers. At a later stage, these incremental expenditures could be covered by a European unemployment insurance scheme (see section 4).
- Incremental public investment: one good feature of government investment is that the

spending can be pushed forward or backward, which is not the case for government consumption. Nevertheless, apart from 2009, public investment in the euro area appears either a-cyclical or (since 2010) pro-cyclical. Making public investment counter-cyclical would provide a powerful instrument for macro-economic stabilisation. We believe such counter-cyclical public investment would be easier to achieve at the country level than at euro-area level, where the decision-making chain necessarily takes longer³⁰. To incentivise governments not to *reduce* public investment in a crisis, any fall in investment could be netted out with incremental unemployment spending.

In both cases, the key requirement for the avoidance of moral hazard is to prevent national governments (individually or collectively through the Eurogroup) from defining what 'good' and 'bad' times are. An additional advantage of having the EFB at the centre of the scheme would be that the definition of 'good' and 'bad' times for each member state could also depend on the situation at the euro-area level. Implementing such adjustment accounts would have represented around 0.7 percent of GDP in 2009 for the euro area as a whole.

Recommendation 4: Replace the 'flexibility' of the SGP with respect to the economic cycle by national adjustment accounts that would shift selective cyclical spending from 'bad' to 'good' times, as defined by the European Fiscal Board.

4. EUROPEAN UNEMPLOYMENT INSURANCE AND LABOUR MARKET CONVERGENCE

Although in the short term there is little other choice than to rely on national fiscal policies, this remains a fragile solution because fiscal coordination is not natural for policymakers entrusted with national mandates, while the implementation of 'flexible' fiscal rules has also proved difficult. In the longer run it would be advisable to move at least part of fiscal stabilisation for large shocks from the national to the euro-area level.

29. It is more appropriate here to rely on public spending rather than revenues which already play an automatic stabilisation role. Stable tax rates are generally considered an important factor of long-term growth (see for example Fernández-Villaverde *et al.*, 2011). Note that an adjustment account is part of the German debt brake (*Schuldenbremse*): when the federal structural deficit exceeds 0.35 percent of GDP, the excess deficit is transferred to a control account. When the latter reaches a cumulated deficit of 1 percent of GDP, the federal government needs to 'reimburse' it as soon as the business cycle allows to do so.

30. Excluding net public investment from the calculation of the deficit on a permanent basis (as is the case with a fiscal golden rule) might not be appropriate in the euro area. Such rule would introduce a bias in favour of physical capital rather than human capital. Thus we prefer to use such rule as a stabilisation instrument. Barbiero and Darvas (2014) propose a similar rule to ours. Given the weight of local investment, sub-national mechanisms would also be needed.

4.1 Designing a federal budget for the euro area

The idea of a federal budget devoted to macroeconomic stabilisation in the euro area faces three major objections: (a) size; (b) effectiveness; and (c) moral hazard.

a. Size

In the foreseeable future it is difficult to envisage for the euro area a budget of comparable size to existing federations. The question is then how much stabilisation could a small budget of say 2 percent of GDP deliver: if a 20 percent-of-GDP federal budget provides a 15 percent smoothing effect in the United States (Sørensen and Yosha, 1998), shouldn't a 2 percent-of-GDP euro area budget provide only 1.5 percent smoothing?

In fact, existing federal budgets, which are the result of history, are not only devoted to macroeconomic stabilisation. They cover the running of federal services, military spending, or permanent transfers that might not react to the macroeconomic cycle. In the euro area, a macroeconomic stabilisation scheme might be designed from scratch with the single objective of producing significant stabilisation. As shown by several studies, a small budget could produce significant temporary transfers provided this is its unique mandate, and especially if the budget (i) concentrates on 'big' shocks and (ii) is not balanced every year but only over the cycle³¹.

b. Effectiveness

The literature based on real-time data has shown that fiscal policy can be counter-cyclical in its intentions while pro-cyclical in its results (Cimadomo, 2012). The reasons for this gap between intentions and results are forecasting errors and delays in the implementation of fiscal policy. As shown by the strong correlation of municipal investment in France with electoral

cycles (Besson, 2002), discretion does not necessarily produce a counter-cyclical policy. Therefore, it might be safer to rely on automatic stabilisers. Most existing proposals for a euro-area stabilisation budget rely on a fund based on pre-determined rules.

c. Moral hazard

Adding a layer of taxation and spending necessarily raises the question of shared tax base or provision of public goods (common pool problem; see Von Hagen and Harden, 1995). The macroeconomic insurance provided to member states might also provide more of an incentive towards less responsibility, *de facto* transforming temporary transfers into permanent ones (Feld and Osterloh, 2013). The issue of moral hazard should be taken seriously, and the existing blueprints for a euro-area fiscal capacity are not equivalent in this respect. For instance, the incentives for governments to curb national unemployment will differ depending on whether a European unemployment benefit is given on top of national benefits, or only at the end of the national insurance period, when national entitlements have been exhausted. The incentives also differ depending on the trigger for European insurance payments (unemployment level or variation) and on the clawback system³².

4.2 European unemployment (re-)insurance

Unemployment insurance has emerged as the most studied project, whether it takes the form of a fully-fledged European insurance scheme (with labour market harmonisation) or a re-insurance scheme³³.

A European unemployment (re-)insurance (EUI) scheme could in principle be defined similarly to the United States where federal insurance provided an average support of around 0.4 percent of GDP per year to the states from 2008 to 2011. The federal level would intervene (i) only in very bad

31. See the early proposal by Italianer and Vanheukelen (1992). More recently, see Wolff (2012) and Gros (2014). The latter study shows that the Italianer-

Vanheukelen blueprint would have made Spain receive a transfer of 2 percent of GDP each year from 2008 to 2012, after having paid contributions of 1 percent in 2003-04 and 2 percent in 2005. Germany would have received transfers over 2003-05 and paid a contribution of around 1 percent of GDP during the crisis.

32. See Claeys *et al* (2014) and Bénassy-Quéré and Keogh (2015).

33. See Caudal *et al* (2013) and Gros (2014).

'The crisis has shown that a common currency without a common fiscal policy is not viable. However moving the euro area into a fully-fledged federation will take a long time, should it happen at all.'

times, (ii) only to extend the duration of unemployment benefits (at the end of the insurance period, when the next step is social assistance), and (iii) with co-financing by the state. Limiting the payment of benefits to very bad times, properly defined, would mitigate moral hazard between countries and within countries, because it is hard to believe that countries would choose to stay in those very bad times. Such limitations would also allow payments to be made in those periods when public spending does have an impact on the economy while the public sector is highly constrained. Large shocks also have a disproportional impact on social welfare. Although the EUI would benefit the long-term unemployed, the system would not finance structural unemployment because it would be temporary and counter-cyclical.

However it is difficult to imagine an EUI without prior minimal harmonisation of labour markets. Current differences mean that the unemployment rate in different EU countries reacts differently to the same shock, which makes transfers predictable *ex ante*³⁴. Harmonising labour markets in the euro area would be helpful in itself to make monetary union function properly, to increase the impact of the common monetary policy and to foster labour

mobility. However it would be a huge task that cannot be justified only by the introduction of an EUI. Hence the EUI should be considered an ingredient of the necessary agenda of at least partial labour market harmonisation. Like EMU itself, access to EUI would be granted after a number of convergence criteria have been fulfilled, with the objective of covering all euro-area countries³⁵.

Recommendation 5: Launch an ambitious agenda for labour market convergence. A common unemployment (re-)insurance scheme for large shocks would be one element of the agenda and would feature varying fees.

In the short term, the potential of unemployment benefits to reduce fiscal pro-cyclicality should be fully exploited through an adjustment to national incentives (see above).

The crisis has shown that a common currency without a common fiscal policy is not viable. However moving the euro area into a fully-fledged federation will take a long time, should it happen at all. In the meantime, it is urgent to reinforce the ESM, possibly to extend its remit, and to correct the tendency of national fiscal policies to be pro-cyclical, both in good times and in bad times.

REFERENCES

- Allard, C., P.K. Brooks, J. C. Bluedorn, F. Bornhorst, F. Ohnsorge and K. M. Christopherson (2012) 'Toward a Fiscal Union for the Euro Area', *Staff Discussion Note* N°13/9, International Monetary Fund
- Asonuma, T. and C. Trebesch (2015) 'Sovereign Debt Restructurings: Preemptive or Post-Default', *CEISifo working paper* 5605
- Barbiero, F. and Z. Darvas (2014) 'In sickness and in health: protecting and supporting public investment in Europe', *Policy Contribution* 2014/02, Bruegel
- Bénassy-Quéré, A. (2015) 'Maastricht flaws and remedies', in Baldwin, R. and F. Giavazzi (eds) *CEPR e-book*
- Bénassy-Quéré, A. and A. Keogh (2015) 'Une assurance chômage européenne ?' *Focus CAE* no. 7
- Bénassy-Quéré, A. and X. Ragot (2014) 'A policy mix for the euro area', *Note CAE*
- Besson, D. (2002) 'L'investissement des administrations publiques locales : influence de la décentralisation et du cycle des élections municipales', *Insee Première* No. 867, October
- Blanchard, O. and J. Wolfers (2000) 'The role of shocks and institutions in the rise of European unemployment: the aggregate evidence', *The Economic Journal* 110, March

34. Based on econometric estimations for 20 OECD countries covering 1960-95, Blanchard and Wolfers (2000) find that "Higher replacement rates, longer duration of unemployment benefits, higher employment protection, a higher tax wage, higher union contract coverage and density, lead to a larger effect of shocks on unemployment" (p20).

35. A parallel with the banking union can be made in a case in which an ambitious euro-area wide project would trigger bold reforms at national level. See Ministero dell'Economia e delle Finanze (2015). In the case of the labour market, the scheme could cover the risk, for example, that reduced employment protection would trigger a sudden increase in the unemployment rate.

- Blanchard, O., C. J. Erceg and J. Lindé (2015) 'Jump Starting the Euro Area Recovery: Would a Rise in Core Fiscal Spending Help the Periphery?' *Working Paper* No. 21426, NBER
- Borenzstein, E., and U. Panizza (2009) 'The cost of sovereign defaults', *IMF Staff Papers*, 56 (4): 683-741
- Calmfors, L. and S. Wren-Lewis (2011) 'What should fiscal councils do?' *Economic Policy* 26: 649-695
- Calmfors, L. (2015) 'The role of fiscal rules, fiscal councils and fiscal union in EU integration', *IFN working paper* No. 1076
- Carletti, E., P. Colla, M. Gulati and S. Ongena (2015) 'No mere walk on the beach. Are collective action clauses introduced in European sovereign bonds actually priced?' mimeo, January
- Caudal, N., N. Georges, V. Grossmann-Wirth, J. Guillaume, T. Lellouch and A. Sode (2013) 'Un budget pour la zone euro', *Trésor-Éco* n°120, October
- Cimadomo, J. (2012) 'Fiscal policy in real time', *Scandinavian Journal of Economics*, 114(2): 440-465
- Claeys, G., Z. Darvas and G. Wolff (2014) 'Benefits and drawbacks of European unemployment insurance', *Policy Brief* 2014/06, Bruegel
- Commission of the European Communities (1977) 'Report of the Study Group on the role of public finance in European integration', *MacDougall Report*, April
- Committee on International Economic Policy and Reform (2013) *Revisiting sovereign bankruptcy*, October
- Cordes, T., M. Guerguil, L. Jaramillo, M. Moreno-Badia and S. Ylaoutinen (2015) 'Subnational fiscal crises', in Cottarelli, C. and M. Guerguil (2015) (eds) pp198-223
- Corsetti, G., L. P. Feld, P. R. Lane, L. Reichlin, H. Rey, D. Vayanos and B. Weder di Mauro (2015) 'A New Start for the Eurozone: Dealing with Debt', *Monitoring the Eurozone* 1, London: CEPR
- Cottarelli, C. and M. Guerguil (eds) (2014) *Designing a European Fiscal Union, Lessons from the experience of existing federations*, Routledge
- Cottarelli, C. and M. Guerguil (2015) (eds) *Designing a European Fiscal Union*, Routledge
- Darvas, Z. and E. Vihriälä (2013) 'Does the European semester deliver the right policy advice?' *Policy Contribution*, 2013/12, Bruegel
- European Commission (2015) 'Completing the banking union', COM (2015) 587 final, 24 November
- European Commission (2015a) 'Making the best use of the flexibility within existing rules of the stability and growth pact', COM(2015) 12 final, 13 January
- European Commission (2015b) 'Establishing an independent advisory European Fiscal Board', Decision COM (2015) 8000 final, 21 October
- Feld, L. and S. Osterloh (2013) 'Is a fiscal capacity really necessary to complete EMU?', *Freiburg Discussion Papers on Constitutional Economics*, 13/5
- Fernández-Villaverde, J., P. A. Guerrón-Quintana, K. Kuester and J. Rubio-Ramírez (2011) 'Fiscal volatility shocks and economic activity', *American Economic Review*, 105(11): 3352–3384
- Fuest, C. and A. Peichl (2012) 'European Fiscal Union: What is it? Does it work? And are there really "no alternatives"?' *IZA Policy paper* no. 39
- Frantescu, D.P. (2015) 'EU's macroeconomic policy: no clear way forward, as political families disagree', *VoteWatch Europe*, 5 November
- Gern, K.J., N. Janssen, and S. Kooths (2015) *Economic policy coordination in euro under the European semester*, report for the European Parliament, November
- Gianviti, F., A. O. Krueger, J. Pisani-Ferry, A. Sapir and J. von Hagen (2010) *A European mechanism for foreign debt resolution: a proposal*, Blueprint No. 10, Bruegel

- Gros, D. (2014) 'A fiscal shock absorber for the Eurozone? Lessons from the economics of insurance,' *VOXeu*, 19 March
- Hallerberg, M., B. Marzinotto and G. Wolff (2016) 'The Europeanisation of Eurosceptic Parliaments? The Changing Role of National Parliaments Under the European Semester', *Working Paper*, Bruegel, forthcoming
- Iara, A. and G. Wolff (2014) 'Rules and risk in the Euro area', *European Journal of Political Economy* 34(C): 222-236
- Independent Annual Growth Survey Consortium (2016), *Give Recovery a Chance*, iAGS Report
- Italianer, A. and M. Vanheukelen (1992) 'Proposals for community stabilization mechanisms: some historical applications', in *The Economics of Community Public Finances*, *European Economy*, special issue
- Juncker, J.-C., D. Tusk, J. Dijsselbloem, M. Draghi and M. Schulz (2015) *Completing Europe's economic and monetary union*, Five Presidents' Report, 22 June
- Kalemli-Ozcan S., E. Luttini and B.E. Sørensen (2012) 'Risk-Sharing During the Crisis', mimeo
- Ministerio dell'Economia e delle Finanze (2015) *A European unemployment insurance scheme*, October
- Mundell, R. (1961) 'A theory of optimum currency areas', *American Economic Review*, 51 (4): 657-65
- Musgrave, R. and P. Musgrave (1989) *Public Finance in Theory and Practice*, McGraw Hill
- Pisani-Ferry, J. (2011) *The Euro Crisis and its Aftermaths*, Oxford University Press
- Pisani-Ferry, J. (2015) 'Rebalancing the governance of the euro area', *Document de travail* No. 2015-02, France Stratégie
- Rebooting Consensus Authors (2015) 'Rebooting the Eurozone: Step 1 – Agreeing a Crisis narrative', *Vox*, 20 November
- Reinhart, C. and C. Trebesch (2016) 'Sovereign debt relief and its aftermaths', *Journal of the European Economic Association*, forthcoming
- Sapir, A., P. Aghion, G. Bertola, M. Hellwig, J. Pisani-Ferry, J. Viñals and H. Wallace (2003) *An Agenda for a Growing Europe: The Sapir Report*, Oxford University Press
- Sapir, A., G. Wolff (2015) 'Reform of euro area governance: Which problem to fix and how?', *Policy Brief* 2015/01, Bruegel
- Sørensen, B. and O. Yosha (1998) 'International risk sharing and European monetary unification', *Journal of International Economics*, 45, 211-238
- Van Rompuy, H., J. M. Barroso, J. C. Juncker and M. Draghi (2012) *Towards a genuine economic and monetary union*, European Council, 5 December
- Véron, N. and G. Wolff (2015) 'Capital markets union: a vision for the long term', *Policy Contribution*, 2015/05, Bruegel
- Von Bogdandy, A., M. Fratzscher and G. Wolff (2015) 'Greece's debt burden can and must be lightened within the Euro', *Frankfurter Allgemeine Zeitung*, 23 July; in English on *Bruegel Opinion*, 5 August
- Von Hagen, J. and I. Harden (1995) 'Budget processes and commitment to fiscal discipline', *European Economic Review*, 39 (3-4): 771-779
- Weber, A., J. Ulbrich and K. Wendorff (2011) 'Safeguarding financial market stability, strengthening investor responsibility, protecting taxpayers: A proposal to reinforce the European Stability Mechanism through supplementary bond issuance terms', *Frankfurter Allgemeine Zeitung*, 3 March
- Wolff, G. (2012) 'A budget for Europe's monetary union', *Policy Contribution* 22/2012, Bruegel