TOWARDS A MORE RESILIENT EURO AREA

IDEAS FROM THE ‘FUTURE EUROPE’ FORUM

EDITED BY
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ESMT BERLIN

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The Centre for European Policy Studies (CEPS) is an independent policy research institute in Brussels. Its mission is to produce sound policy research leading to constructive solutions to the challenges facing Europe.

ESMT Berlin is an international business school and provides an interdisciplinary platform for discourse between politics, business, and academia.

The German Council of Economic Experts (GCEE) is an academic body advising German policy makers on questions of economic policy.

The views expressed in this publication are those of the author(s) of the essays and comments and should not be attributed to CEPS, ESMT or the GCEE. Details of the authors and 'Future Europe' forum participants contributing to this collection can be found in the final chapter.

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Foreword

Over the past year, the virtual meetings of the 'Future Europe' forum have provided a unique opportunity for discussing how to render the governance of the euro area more robust. This volume collects a range of contributions by high level experts on many technical aspects. Different contributors have sometimes come to different conclusions. But what is common to all is the search for a more resilient euro area with solutions based on sound economic principles, rather than political expediency or prejudices.

I hope these contributions will, in their diversity, help lead to better decision making as our political leaders have recognised that the time has come to take concrete steps to make the euro fit for an increasingly challenging economic environment.

It has been a privilege to exchange ideas with such a diverse and high-powered group of researchers and thought leaders and I trust the readers of this ebook will value their insights.

Daniel Gros
Director, CEPS
June 2018

Foreword

Economic growth is comprehensively and, in some parts, even strongly returning to the eurozone. Fears for the survival of the euro that predominated previously have dispelled. However, this is only one aspect of the situation in which Europe finds itself – the reality, as visible, for example, from recent events in Italy, is not as rosy. Unemployment in general has fallen, but remains a great challenge in particular for young people. Sovereign as well as private debt poses significant risk – not only for individual member states, but also for the eurozone as a whole.

Europe stands at multiple crossroads, facing significant challenges and difficult decisions. It is therefore important to develop new policy proposals and to coordinate them at an international level. Together with the German Council of Economic Experts, ESMT formed the 'Future Europe' forum in 2017 to do just this. Over the past year, we have brought together top researchers and thought leaders for continuous exchanges around a wide variety of themes.

The European Union is essential as a model of peace, freedom, and sound economic governance. With this ebook, we would like to share many of the proposals that have been debated in the forum. We hope to reach a greater audience and spark a much wider discussion around this highly important subject of a future economic model for Europe.

Jörg Rocholl
President, ESMT Berlin
June 2018

Foreword

Throughout the last few years, Europe has been involved in a lively debate about its future. There is no scarcity of suggestions for reform, and proposals frequently point in quite different directions. Unfortunately, the discussion on reform options often lacks clear and sound economic reasoning and is dominated by political strategies.

Since the beginning of the crisis in the euro area, the German Council of Economic Experts (GCEE) has been devoted to contributing constructively to this reform debate. In 2012, it introduced its encompassing concept 'Maastricht 2.0' for a more stable architecture of the euro area. At least in principle, many reforms to date – the reform of the fiscal framework, the Banking Union and the Single Resolution Mechanism – are consistent with this framework. However, gaps remain.

In addition to formulating its own suggestions, the GCEE aims at facilitating a constructive international debate to improve the understanding between the often fiercely opposing views that tend to shape the public debate. It therefore co-organised the 'Future Europe' forum, which was established to facilitate a quality debate on ideas how to further improve the resilience of the euro area. By bringing together a group of more than two dozen scholars and thinkers from eight nations, this initiative yielded a rich and multifaceted debate.

This ebook brings this debate into the public domain, with short essays on policy proposals followed by summaries of the discussions at the forum. I hope you enjoy discovering these deliberations.

Christoph M. Schmidt
Chairman, German Council of Economic Experts
June 2018

Preface

Jochen Andritzky and Jörg Rocholl

Much progress has been made in improving resilience of the single currency since the beginning of the crisis. But many important issues remain to be tackled. The leaders of euro-area member states are expected to use the European Union Summit on 28-29 June 2018 to take preliminary decisions about which additional reforms to pursue. The run-up to this meeting has seen a lively debate involving economists and policymakers, albeit against a backdrop of rising Euroscepticism among and waning trust between European partners.

The setting for 'Future Europe'

With the help of ESMT and the German Council of Economic Experts (GCEE), we initiated the 'Future Europe' forum in the summer of 2017. We wanted to bring together a high-level group of economists to discuss economically sensible, legally sound, and politically feasible concepts that deserved to be taken forward. By offering a forum for discussion, we hoped to foster constructive dialogue.

We chose an innovative video-conference format to bring experts together face to face without them having to leave their desks (or living rooms). Some 30 economists took part in almost a dozen such virtual meetings, and their contributions culminated in this publication, brought out jointly by the Centre for European Policy Studies (CEPS), ESMT and the GCEE.

This publication gathers summaries of these economists' proposals and the discussions they sparked. Our main aim was not to produce a variant of the jointly-authored academic paper, but to foster a lively debate between economists who – as one participant put it – "agree somewhat, but not too much". This ebook as a result combines essays outlining an individual author's thoughts with summaries of the informed, impassioned, and always respectful discussions during each forum. While each contribution can only be attributed to the respective author, each idea and thought is in our view a valuable input that deserves to be considered by European governments as they set about the next euro-area reforms.

The 'Future Europe' discussions

Every chapter of this ebook is devoted to discussion of one issue put forward in the virtual meetings. For the sake of clarity, we have grouped issues into three categories - (i) fiscal and structural questions, (ii) banking and financial issues, and (iii) institutional matters. Readers should, of course, bear in mind that some of these contributions were made months ago and that some policy debates have progressed a lot since then.

Fiscal and structural issues

Recent public debate about euro-area reforms has often revolved around mechanisms for fiscal stabilisation, with several proposals now on the table. Taking a step back to discuss lessons from the economics of insurance, Daniel Gros argued the euro area does not need to offset all shocks by a small fraction, but needed protection against shocks that are rare, but potentially catastrophic. He proposed a "stormy-day fund" as being much more useful to the euro area than the much discussed "rainy-day fund" – akin to a catastrophe-insurance policy with a high deductible. The ensuing discussion showed many participants accepted the benefits of an insurance mechanism in principle, but also highlighted many hurdles, like criteria for shock measurement, for example.

Mathias Dolls, Clemens Fuest, Dirk Neumann and Andreas Peichl looked at possibilities for macroeconomic stabilisation by analysing different designs for a common unemployment insurance and their benefit for interregional smoothing. The ensuing discussion focused on the problem of generating sufficient smoothing benefits while avoiding quasi-permanent transfers. Another stumbling block was seen in the difficulty of harmonising diverse national social security systems, many of which also interact with national unemployment insurance.

Besides risk sharing through a stabilisation function, participants discussed how fiscal policy could act as a shock absorber. The euro area's fiscal framework, in particular the fiscal rules and their enforcement, had earlier been identified as a key weakness. Roel Beetsma and Eloïse Stéclebout-Orseau discussed different ways of fixing the fiscal framework, for example by reducing its pro-cyclicality, improving compliance and reducing complexity. In addition, they argued for an investment protection capacity. In the discussion that followed, many participants spoke out in favour of an expenditure rule to reduce the pro-cyclicality of fiscal rules, while keeping the public debt ratio as important anchor. This led to a lively discussion about the role of market discipline and how to deal with excessive debt.

Sovereign debt restructuring was the topic of a contribution by Jochen Andritzky, Désirée I. Christofzik and Lars P. Feld. The authors called for a more credible framework for sovereign debt restructuring to ensure creditors participate in crisis resolution and to protect the European Stability Mechanism (ESM) from lending to insolvent member states. They proposed a tiered approach of market-based maturity extensions when debt is high, and more thorough debt restructuring as needed. Participants acknowledged the need for sovereign debt restructuring as an instrument to make the no-bailout clause credible, but were wary of unintended consequences. This showed how hard it is to strike a balance between flexibility and credibility.

Complementing the discussion on sovereign debt, Jeromin Zettelmeyer and Álvaro Leandro compared different concepts for providing safe assets in the euro area. They found that most criticism of European Safe Bonds (ESBies), a safe asset created by pooling and tranching sovereign debt, do not stand up to scrutiny, whereas some otherwise attractive alternatives would require some degree of member-state guarantee. The discussion revealed different views about the stabilising role of banks holding domestic assets, and about the contribution of safe assets to financial system stability.

Banking and financial issues

The creation of the Banking Union highlighted the most obvious omission in the euro area's initial architecture and marked the most comprehensive recent reform in the single currency bloc. Besides making the banking system more stable, Banking Union will reduce the sovereign-bank 'doom loop'. Three contributions tackled the most pressing issues that remain.

Nicolas Véron examined bank crisis management and resolution, an essential part of Banking Union – and nothing less than a paradigm shift from 'bail-out' to 'bail-in', and from national to European decision-making. Experience with the new regime is scarce, he noted, but several issues had already emerged – the need to harmonise national frameworks for bank insolvency, for example, and to enhance the authority of the Single Resolution Board over the execution of resolution. All participants agreed Banking Union was a crucial step, but some worried about decision-making complexity and questioned whether a bail-in of senior bank debt was credible. Whether the European-level direct recapitalisation tool for banks is needed was hotly debated by participants.

Dirk Schoenmaker made the case for a single European deposit insurance scheme to prevent bank runs and avoid crises endangering smaller national systems. Country- and bank-specific risk premia, and strict supervision with mandatory write-downs of non-performing loans would safeguard against moral hazard. As country-specific risk premia and abandoning country-specific deposit insurance could be politically contentious, an alternative discussed was the creation of national compartments in a centrally managed deposit insurance system. They would take persistent national differences into account and align incentives better. Participants agreed that integrating deposit insurance and bank resolution could simplify crisis management and exploit the pooling potential of insurance.

Dietrich Matthes and Jörg Rocholl proposed creating a euro zone basket, a formula to exempt part sovereign debt holdings from risk-weighting, to limit regulatory privileges for sovereign debt held by banks. In order to break the so-called bank-state nexus, banks would be given incentives to diversify sovereign debt holdings to reduce their 'home bias' – the practice of holding large exposures of the sovereign debt of the country in which they are headquartered. While possibly a politically palatable way to address the issue of zero risk weighting of sovereign exposures, some participants said only the introduction of a safe asset would encourage banks to diversify their sovereign debt holdings. But there was wide agreement that diversifying sovereign holdings would reduce overall risks and weaken the bank-state 'doom loop'.

Beyond completing Banking Union, policymakers were also encouraged to improve risk sharing through capital markets. In a forum on Capital Markets Union, Diego Valiante called for better availability and comparability of data from areas like accounting and credit reporting, and stronger enforcement tools in common supervision and insolvency proceedings. A slew of other issues was raised in the discussion, suggesting there are many political landmines and no one silver bullet. Progress could be slow and hinge on further integration of the European economy.

Institutional issues

Aside from fiscal and financial issues, institutional reform is an important element as it is an instrument of deeper political integration. In the forum, we focused our attention on two issues – enlarging the mandate of the ESM and establishing a euro-area finance minister.

Jochen Andritzky argued a stronger and more credible crisis mechanism would allow for private risk sharing. It would, in his view, boost investor confidence that financial turmoil would be less frequent and less disruptive. A preventive facility could be a new financial backstop for member states that adhere to sound economic policies. Second, the crisis facility could be reformed to couple more credible creditor participation with longer programme adjustment periods and more gradual fiscal consolidation. The discussion revealed a variety of views about the ESM's role. The idea of tiered assistance depending on country size, policies, and origin of the shock obtained some plaudits, while also a strengthened role for the ESM in banking crises received broader support.

Guntram Wolff discussed the European Commission's proposal to establish a European finance minister, who would be Commission Vice President, chair of the Eurogroup, and in charge of the euro-area portion of the EU budget. He concluded such a position would be institutionally and politically ill conceived. Instead, the current Eurogroup chair should be strengthened and accountability to the European Parliament increased. Participants were sceptical whether this could deliver better 'technocratic' decisions or have any real influence in the absence of powers to tax, borrow, or spend. Participants thought it unlikely that member states would relinquish any national sovereignty, but agreed the independent European Fiscal Board should be strengthened.

The outlook

The euro-area crisis threw a stark light on flaws in the euro's architecture and national policies. Much has improved since and, even if things stay as they are, any claims that the euro is destined to fail now sound farfetched. No economic or monetary union can ever be perfect.

But the crisis has left deep scars, damaging trust and elevating fears about moral hazard. For some, euro-area members did not show enough solidarity. For others, this invocation of standing together was no more than a call to pay for others' mistakes. Crisis legacies like high public debt and battered bank balance sheets have cast a pall on the idea of more risk sharing.

The outlook is challenging. The upswing has reduced risks and restored convergence, but it will be insufficient to heal all ills. Recent reforms of the euro-area architecture were well intended, although their litmus test in the form of another severe downturn is still pending. Moreover, the rise in the number of Eurosceptic voters has fuelled fears of rising exit risk, undermining deeper integration, and damaging the prospects of more convergence and greater resilience. A European deposit insurance system, for example, cannot prevent bank runs driven by fears of a euro exit. The euro area will probably have to deal with a number of such flutters in the future.

The discussions in the 'Future Europe' forum revealed many trade-offs that will prove tough to evaluate as policymakers plan further reforms. The public and political debate about policy options often does not reach the depth of economic arguments. Our forum wants to alert the public to an economic debate that grapples with fundamental concepts like incentive effects. At the same time, participants kept in mind political feasibility, often a reflection of differing voter preferences. Despite the different opinions that came to light, our discussions showed a deep recognition of the achievements that have enabled the countries of Europe to close ranks with conviction.

We hope this will make our ebook a fascinating read, one that will lead to a better mutual understanding and spur a more constructive public debate about the steps that lie ahead for us all. We would like to thank all the contributors – the authors of the essays, the participants in the discussions, as well as those institutions and individuals who supported this project.

1 A fiscal shock absorber for the euro area? Rationale and insights from the economics of insurance (and reinsurance)

Daniel Gros

CEPS

Most proposals aimed at reform of the governance of the euro area include a call for a fiscal stabilisation fund or mechanism to absorb shocks. Recent examples include the IMF proposal for a 'rainy-day' fund (Arnold *et al.*, 2018), the speech of the French President at the Sorbonne (Macron, 2017), the December 2017 proposals of the European Commission (European Commission, 2017) and earlier official reports (European Council, 2012).

The literature from academia and think tanks has also provided many concrete proposals for such mechanisms. These mechanisms usually foresee that a certain percentage of each up or down in the economy is offset by payments to (or from) a central fund (see Dullien, 2013 and Enderlein, 2013) and, 20 years earlier, Pisani-Ferry *et al.*, 1993) for examples).

But this approach neglects a key insight from the economics of insurance, namely that protection against large shocks, even if they are rare, is much more valuable than protection against small shocks, even if they are more frequent.

Insurance and convexity

Insurance is useful when the cost of a shock is convex, i.e. when a shock of twice the magnitude of previous one causes more than twice the damage. The case for insurance at the microeconomic level is usually simply that utility functions are assumed to be concave (and hence the cost of losing income becomes convex). The same reasoning could of course also be applied directly to macroeconomic fluctuations.

But the euro crisis has vividly illustrated another reason why the cost of large shocks can be more than proportionally large. The key mechanism is that large shocks can impair access to financial markets. In this case, consumption smoothing is no longer possible, or becomes very expensive.

Moreover, the case of Greece has shown that the social cost of very large, 'catastrophic' shocks can be immense because a shock that leads to insolvency creates a host of other problems, including widespread bankruptcy. By contrast, the small fluctuations that were prevalent during the 'Great Moderation' did not involve large costs, as temporary shocks to output or income could be smoothed at a low cost via savings or borrowing in the capital market. [1]

[1] There is some confusion in the literature on the purpose of shock absorbers. In principle, the ultimate motive for insurance should be to smooth consumption over time. But most empirical analysis concentrates on the variability

There are thus good reasons why social loss functions are assumed to be convex. Most optimal control models simply assume a special form of convexity, namely that the social loss function is quadratic in output (or output compared to its equilibrium level; see Blanchard and Fischer, 1996). A simple way in which this functional form can arise in reality could be observed during the euro crisis, when large shocks to output had an immediate impact on the fiscal deficit and the interest rate on government debt increased with the deficit (or public debt).[2] There are thus practical reasons to believe that large shocks can have very large costs.

A first line of defence against this type of problem is to adopt a prudent fiscal policy and maintain a low level of debt. But the crisis even engulfed countries that had run fiscal surpluses and had rather low levels of public debt at the start of the crisis, such as Ireland and Spain. 'Self-insurance' is thus not enough. But then what type of insurance is needed?

Insurance with deductible first-best

A widespread practice in the insurance industry is to offer clients full coverage only above a certain deductible or threshold. This approach should be applied to the discussion about the need for a shock absorber for the euro area as well.

The basic idea behind insurance with a deductible is illustrated in Figure 1. The usual quadratic social loss function (blue line) is shown as the square of the shock that is hitting the economy (e.g. the increase in unemployment or the fall in GDP) on the horizontal axis. This represents the shock to which the economy would be subject in the absence of an insurance mechanism.

With a (partial) shock absorber, which offsets a certain percentage of the shock (as proposed by Enderlein, 2013), the welfare impact of all shocks is lower, as indicated by the red line.

An alternative to a shock absorber is to introduce a deductible, but to fully compensate all shocks registering above that threshold. The resulting welfare loss as a function of the shock is indicated by the green line (where the threshold was set at 1).

The actuarially fair price for both types of insurance will of course depend on the parameters of the probability density function of the shocks, the percentage of the shock absorbed and the deductible.

The difference between the welfare losses under the two approaches can be discerned in Figure 1 as the difference between the areas between the green and the red lines to the left and to the right of the point where they meet. The example drawn in this figure suggests that the area to the right is much larger, but the two areas must be weighted by the probability of these shocks occurring. It thus seems that, *a priori*, it is not possible to determine in general whether a proportional shock absorber or an insurance contract with a deductible is superior.[3]

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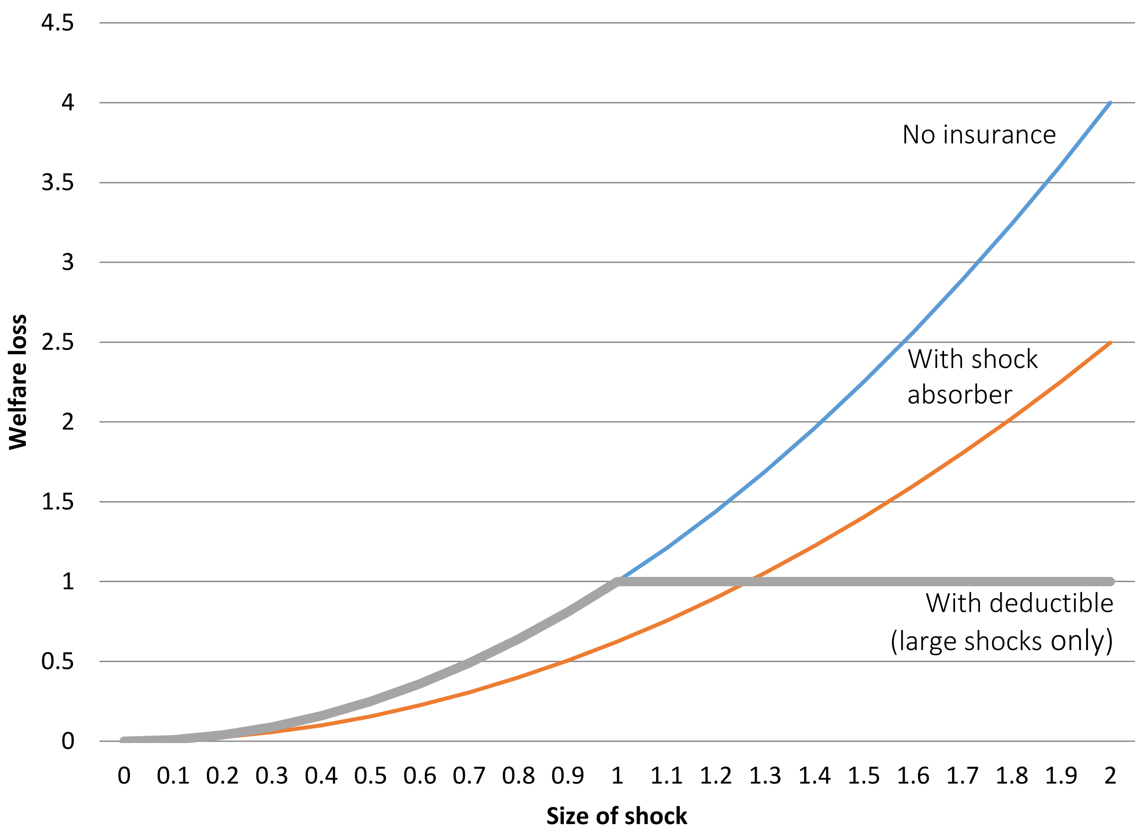
of income (GDP). Asdrubali *et al.* (1996) are one of the few to analyse how variations in income are transmitted to variations in consumption. Furcieri and Zdzienicka (2013) build their proposal on this approach.

[2] Benigno and Woodford (2004) derive this functional form more generally; for a critique, see Mayer (2002).

[3] Formally, the actuarially fair cost of a shock absorber under which a fraction alpha of any shock, x, is absorbed by the insurer is given by alpha E(x). This cost is then set against the reduction in the expected welfare loss through the insurance pay-outs.
With a quadratic loss function, one can calculate the following expected losses:

However, Arrow (1974) advanced a general theorem that insurance with a deductible is superior. He proved that "if we stay within the class of contracts with the same expected loss, EU *(=expected utility)* maximisers prefer a contract with full (100%) insurance above a fixed deductible."[4]

Figure 1. Welfare loss with a (partial) shock absorber vs insurance with deductible



Source: Own calculations.

The same principle also applies within the insurance industry itself. Most insurance companies take out so-called reinsurance against very large claims.[5] The underlying reason is that a normal insurance company is risk-neutral for any small claim. A very large claim, however, could impair the company's access to financial markets and might even put its survival in danger, thus

- No shock absorber: the welfare loss would be proportional to the variance of the shock, i.e. $E(x^2)$.
- Shock absorber: the welfare loss would be proportional to the variance of the shock attenuated by the fraction alpha, or $(1\text{-alpha})^2*E(x^2)$.
- Insurance with deductible: the welfare loss would be given by the sum of two elements. For a shock smaller than the deductible (indicated by gamma), one has to take the expected value of x^2, but for larger shocks (i.e. x>gamma), the welfare loss will be just equal to gamma^2 (which has to be multiplied by the probability that x>gamma).

The welfare gain from the (proportional) shock absorber can be calculated as the difference between its cost (=alpha E(x)) and the reduction in welfare losses ($=E(x^2) - (1\text{-alpha})^2*E(x^2)$).

[4] See Russel (2004). See also Gollier and Schlesinger (1996) for a more general version of the theorem concerning the optimality of full insurance above some fixed deductible.

[5] Not all reinsurance contracts specify 100% coverage for losses above the threshold. But insurance companies usually try to cover themselves fully against catastrophic losses, even if this entails more than a reinsurance contract.

implying very large losses for the shareholders. In this case, the convexity might not be of the usual quadratic form, but the general principle of insurance becoming useful when costs are convex nevertheless applies.

An illustration: Normally distributed shocks

The advantage of insurance with a deductible over the shock absorber (with the same premium) can be illustrated graphically using the most widely used functional form concerning the distribution of shocks, namely that they are normally distributed. This is often a convenient assumption to solve linear quadratic problems, but it has the disadvantage that no analytical solution exists for the normal (Gaussian) distribution (or probability density function) for the truncated variances and expected values that one needs in order to evaluate the comparative welfare losses and the actuarially fair cost of providing either a shock absorber or an insurance contract with a deductible.[6]

Figure 2 below thus shows the numerical values of the difference between the welfare loss under a shock absorber and insurance with a deductible as a function of the deductible in terms of the standard deviation of the distribution of the shock. The size of the shock absorber was adjusted in each case so that the actuarially fair price of both contracts was the same.

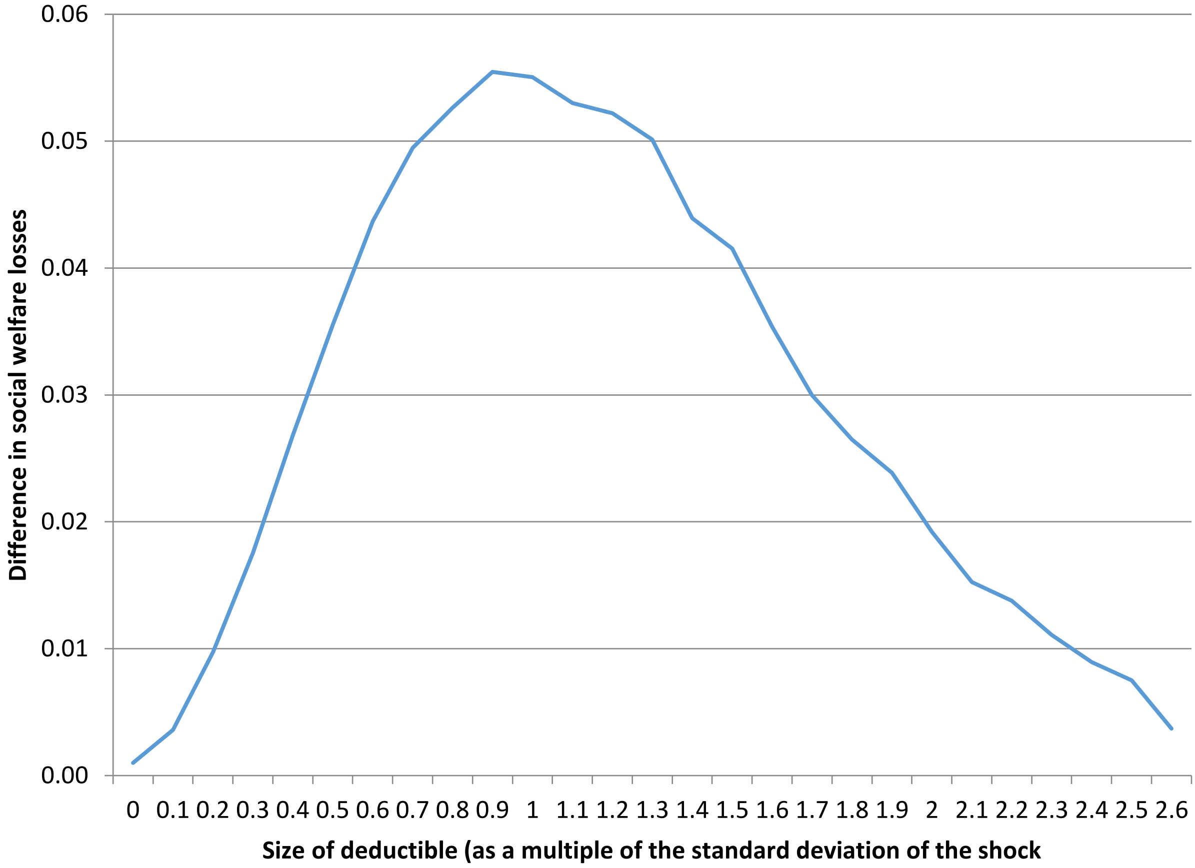
It is apparent from Figure 2 that the difference is always positive, i.e. the welfare loss is always lower under an insurance contract with a deductible, as proven more generally by Arrow (1974).

Figure 2 also illustrates a general property of insurance with a deductible. The value of such an insurance contract depends on the size of the deductible: if it is zero, the contract provides full insurance; if the deductible is infinity, there is no insurance at all. This also implies that the difference between a shock absorber and insurance with a deductible must go towards zero as the deductible goes to zero (in this case, the shock absorber will have to go to full shock absorption), and it must go again to zero as the deductible goes towards infinity. At that point, there will be little difference between the two types of insurance because the (actuarially equivalent) proportional pay-out would go towards zero.

For the case considered here, i.e. the shock is distributed according to a standardised Gaussian model, Figure 2 shows that insurance with a deductible offers the most advantageous coverage if the deductible is equal to one (one standard deviation). In other words, an insurance contract with a deductible equal to one standard deviation of the shock is more advantageous than a proportional shock absorber.

[6] Another drawback of the normal distribution is that reality has 'fat tails', i.e. large events materialise more often than one would expect if the distribution were normal.

Figure 2. Difference in social welfare losses between a proportional shock absorber and reinsurance (=insurance with a deductible)



Source: Own calculations.

Conclusions

Many observers and policy-makers are now arguing that the euro area needs to introduce a system of fiscal shock absorbers to protect itself against shocks. The experience of the US is often cited as a key justification for such a proposal. For example, two studies by the IMF (2013a and 2013b) find that about 20% of shocks to state income are offset by the US federal fiscal system. But such a system would have been of limited value in the euro crisis: offering a country whose output falls by 1% (relative to the euro area average) a transfer of 0.2% of its GDP would be of very limited usefulness. A country hit by a very large shock, say 5% of GDP (like Portugal or Ireland), would of course receive a larger transfer, but the problems would not be substantially different (a fall of income by 4% instead of 5%). By contrast, in an insurance system with a deductible of say 1% of GDP, the country hit by a small shock would receive nothing. But most of the large shock would be offset (fully above the 1% deductible).

In short, what the euro area really needs is not a system that offsets all shocks by some small fraction, but a system that protects against shocks that are rare, but potentially catastrophic. The many minor cyclical shocks that do not impair the functioning of financial markets can then be dealt with via borrowing at the national level. The euro area's rescue mechanism, the European Stability Mechanism, does not provide this much-needed insurance function. It gives only loans, which must be repaid with interest, whereas insurance provides a transfer when a shock materialises (against premium payments during good times).

One way to create an insurance programme with a deductible would be to launch a system of reinsurance for national unemployment insurance systems, under which the national systems would pay regular premia to a central euro area fund (see the contribution by Mathias Dolls, Clemens Fuest, Dirk Neumann and Andreas Peichl in the following chapter). Gros (2013) proposes that this reinsurance principle could be applied in the area of deposit insurance, which could remain in the first instance national. In the event that a large banking crisis led to losses that exceed the fiscal capacity of the national government, the European fund could then be activated to support the national deposit guarantee system.

Proposals for 'rainy day' funds often contain elements of reinsurance in the sense that countries only qualify for pay-out if they experience a recession or downturn (for a useful overview, see Arnold *et al.*, 2018). But in most cases the pay-out is only proportional to the downturn. This is different from the basic idea of insurance with a deductible under which there is no pay-out for small (negative) shocks, but a potentially very large one if the magnitude of the shock exceeds a specified threshold. The analysis here suggests that the latter is more important.

In other words, 'stormy-day' funds are superior to 'rainy-day' funds.

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Annex: Notes from Virtual Meeting – 25 September 2017

Presentation by Daniel Gros, discussion led by Jeromin Zettelmeyer and Roberto Perotti

Participants *(alphabetical)*

Jochen Andritzky	German Council of Economic Experts
Mathias Dolls	Ifo Institute
Daniel Gros	Centre for European Policy Studies
Roberto Perotti	Bocconi University
Pietro Reichlin	LUISS Guido Carli University
Jörg Rocholl	ESMT Berlin
Jeromin Zettelmeyer	Peterson Institute for International Economics

Jeromin Zettelmeyer and Roberto Perotti agreed broadly with the case for a re-insurance mechanism, with the former recalling its benefits for fiscal stabilisation at the zero lower bound. A mechanism as outlined would also go some way to address moral hazard concerns. However, the implementation of a re-insurance mechanism could be tricky: the system would need to be calibrated and variables such as deductibles and risk premiums vary between countries and over time.

Roberto Perotti added that the output gap remains a black box in the eyes of many, and – as the experience of determining structural unemployment in Italy during the 2012 episode shows – can be subject to disputes. He also pointed out that – if there were a fiscal equalisation mechanism in the euro area – payments would mostly have flown one way which would likely be politically unsustainable.

Daniel Gros responded that safeguards are in place to avoid a permanent transfer. In particular, a rating system could be used that determines the risk premium to be paid. He pointed out simulations indicating that normally no large one-way transfer would have occurred. The mechanism would just lead to payouts in response to changes, not shifts in levels. Similar to an insurance policy, the risk premium would go up after the payouts, so over a long period there would not be transfers. The beauty of the approach is that – given the country-specific calibration, experience rating and response to changes – there does not need to be a major harmonisation of national unemployment systems.

Jochen Andritzky asked why such a system could not be established as private sector solution or as an optional mechanism to which member countries could sign up voluntarily. Another question is whether incentives remain to make the loss function more convex, for instance by making the labour market less flexible. Daniel Gros responded that well-known market insufficiencies explained why there is no private sector solution. He also emphasised the advantage of pooling a larger number of countries. Jeromin Zettelmeyer added that risk premiums could be calibrated to individual risk to address different convexities of the loss function.

Pietro Reichlin compared the mechanism to the ESM or deficit financing. Given that the ESM lends at concessional terms, it mimics a re-insurance mechanism. He also shared the concerns about the political viability of such a mechanism. Depending on the calibration, other simulations have shown that Italy would have been a net payer and Germany would have been a net receiver. He would prefer to develop the ESM towards becoming a European Monetary Fund and facilitate market integration, including through EDIS. Daniel Gros emphasised that such a mechanism would not substitute for the ESM. However, as opposed to ESM lending, the mechanism could avoid a situation where ESM loans aggravate debt overhang.

Jörg Rocholl wondered whether the best application would indeed be unemployment insurance. Daniel Gros referred to his work on EDIS, which would be a primary application.

Jochen Andritzky proposed a loan instead of a grant as payout, with the decision to be taken later whether the situation was a cyclical shock or something more structural. If such a system could be made credible, markets would internalise the fact that the loan could turn into a grant. Daniel Gros said that there does not need to be a distinction between permanent and cyclical given the payments are based on changes, not shifts in levels of unemployment. Also, higher risk premiums would compensate for any payouts over time. Jeromin Zettelmeyer thought it may still be a relevant point given differences in the volatility of unemployment rates.

2 An unemployment insurance scheme for the euro area?

Mathias Dolls

ifo, CESifo

Clemens Fuest

ifo, LMU and CESifo

Dirk Neumann

OECD

Andreas Peichl

ifo, LMU and CESifo

The eurozone debt crisis has revived the debate about institutional reforms in the European Economic and Monetary Union (EMU) and has elevated this topic to the top of the European policy agenda. Some observers argue that deeper fiscal integration is necessary to avoid the break-up of the eurozone. In line with this view, institutions like the IMF or the European Commission have outlined proposals including stronger elements of fiscal risk sharing and a macroeconomic stabilisation function at euro area level.[1] A widely discussed reform proposal is a common unemployment insurance (UI) scheme. Supporters argue that a centralised EMU-UI system would cushion asymmetric shocks in the eurozone and provide income insurance to the most vulnerable households. It would thus improve economic resilience within the EMU and strengthen the social dimension of European policy-making (Andor, 2014, Lellouch and Sode, 2014, MEF, 2016). However, the main concerns relate to the issues of permanent transfers across member states undermining the credibility of the no-bailout clause and moral hazard for national economic policies, administrations, and individuals. These adverse incentive effects would lead to more, rather than less unemployment.

This contribution[2] presents new research findings on the stabilising and redistributive effects of a common unemployment insurance scheme for the euro area (henceforth EMU-UI). It provides insights regarding its potential added value and discusses moral hazard issues. We argue that the added value of common unemployment insurance as a fiscal risk sharing device hinges on its ability to provide interregional smoothing. Other potential stabilisation effects of EMU-UI, such as improved counter-cyclicality or intertemporal smoothing, can be achieved, in principle, by countries acting alone, for example by introducing minimum conditions for national UI schemes or by national debt issuance. We develop a decomposition framework that assesses the effectiveness of different EMU-UI schemes in acting as an automatic stabiliser.

[1] See e.g. IMF (2018), Berger *et al.* (2018), or the recent European Commission "Reflection Paper on the deepening of the Economic and Monetary Union", as well as its roadmap for EMU reform published in December 2017 (European Commission 2017 a,b).

[2] A short version of Dolls *et al.* (2018).

Running counterfactual simulations based on micro data for the years 2000-13, we find that 10% of the income fluctuations caused by transitions into and out of unemployment would have been cushioned through interregional smoothing at euro area level. However, smoothing gains are unevenly distributed across countries, ranging from -5% in Malta to 22% in Latvia. Our results suggest that during 2000-13 the interregional smoothing potential has been as important as intertemporal smoothing through debt. Our simulations also reveal that four member states would have been either a permanent net contributor or net recipient.

Possible Characteristics of an EMU-UI system

A common unemployment insurance system for the euro area could be designed in several ways. Two principal options have been discussed in both the academic literature and in policy debates so far (see Beblavý and Lenaerts, 2017, Brandolini *et al.*, 2016). A first option would be a common EMU-UI system that covers short-term unemployment and provides a basic level of insurance by partly replacing national UI systems. To limit the risk of permanent redistribution, and to preserve incentives for national policy-makers, long-term unemployment would not be covered. Benefits from the EMU-UI system could be supplemented by additional payments from national UI systems. This would allow for diversity across member states so that existing differences in replacement rates and benefit duration could be maintained. Importantly, such a scheme would provide direct transfers to the short-term unemployed regardless of the size of the unemployment shock in a given member state. As an alternative, a common scheme could kick-in only following large unemployment shocks. Such a contingent EMU-UI system could also be designed as a reinsurance scheme where national UI systems stay in place and there are no direct transfers from the EMU-UI system to the short-term unemployed, but financial flows between the European fund and national governments (Bénassy-Quéré, 2018 and Dolls *et al.*, 2016). A further design question relevant for both alternatives is whether the EMU-UI should be allowed to issue debt. If debt issuance is ruled out, one option could be to build up reserves during economic upswings that could then provide a buffer during recessions.

Empirical approach and decomposition framework

Data and methodology. In our simulation experiment, we introduce an unemployment insurance scheme for the EA18 member states and ask what would have happened if such a scheme had been introduced at the beginning of the euro in 1999. Linking micro data from the EU Statistics on Income and Living Conditions (EU-SILC) and EU Labour Force Survey (EU-LFS), we construct a series of reweighted cross-sections for the simulation period which replicates changes in labour market conditions (such as the unemployment rate, share of short- and long-term unemployed, and the size and composition of the labour force) in each member state. Critically, our approach can account for heterogeneity in various characteristics of the populations in different countries that macro data approaches cannot capture. We simulate the financial flows of different variants of an EMU-UI, which will be discussed below.

Our analysis is based on the following assumptions: First, we do not take into account general equilibrium effects of an EMU-UI system, i.e., our analysis remains in a partial equilibrium context. Accounting for these macroeconomic feedback effects would require linking our micro data to a macro-econometric simulation model. Second, we do not simulate changes in government behaviour or individual behavioural responses. In the light of these assumptions, our results should be interpreted as analysing the 'first-round' effects of an EMU-UI system. If EMU-UI had the desired stabilising effects, the financial flows in the system would differ from those calculated here; the redistributive effects would probably be smaller. However, if the moral hazard effects dominated, the financial flows from contributors to recipients could also be larger.

Decomposition. We decompose the effect of introducing an EMU-UI system into three steps. The first is to harmonise national systems: that is all member states introduce an unemployment insurance scheme with common features. The second step is to introduce a common EMU-UI scheme by pooling the contributions from all member states in every year and to finance unemployment benefits from this pool using the same contribution rates in all countries. This leads to *interregional* smoothing of unemployment shocks. The third step is to allow the EMU-UI system to run deficits or surpluses. This leads to *intertemporal* smoothing.

We simulate four UI schemes, shown in Table 1, in order to isolate and quantify the importance of different stabilisation channels of an EMU-UI. Stabilisation is measured as the fraction of the income change due to employment changes within a given year that is absorbed by the UI system. We estimate the impact of harmonisation by comparing the stabilisation potential of actual national UI schemes (scheme 1) and harmonised UI schemes that fulfil certain minimum standards (scheme 2). As minimum conditions, we choose a replacement rate of 50% which roughly corresponds to the average replacement rate in Eurozone countries, a benefit duration of 12 months, and a broad coverage of all short-term unemployment with previous earnings. The simulated EMU-UI schemes (schemes 3 and 4) have the same payout rules, but a (geographically) widened budget. Differences in stabilisation effects between harmonised national UI schemes and the centralised EMU-UI scheme (scheme 3) are due to interregional smoothing, while intertemporal smoothing effects are singled out by comparing EMU-UI schemes with and without debt issuance (scheme 4).

Table 1. *Simulated UI schemes*

Simulated UI schemes	Minimum conditions?	Pooling of contributions?	Debt issuance?
1. Actual national UI schemes	no	no	no
2. Harmonised national UI schemes	yes	no	no
3. EMU-UI (balanced budget in every year)	yes	yes	no
4. EMU-UI (balanced budget over the period 2000-13)	yes	yes	yes

Notes: Actual national UI schemes (1.) as observed over the period 2000-13. We use a national UI calculator that incorporates all relevant policy rules of national UI systems. Harmonised national UI schemes (2.) need to fulfill certain minimum conditions, in particular a replacement rate of 50% and a maximum benefit duration of 12 months. Schemes 3 and 4 have the same generosity as scheme 2, but contributions are pooled at euro area level.

Results and Discussion

Stabilising effects

Harmonisation gains. We find substantial heterogeneity between national UI schemes regarding the degree of income insurance in case of unemployment. Consequently, the stabilisation gain for the short-term unemployed through harmonising unemployment benefits varies across member states and over time. However, the combined stabilisation effect of harmonised benefits and adjusted contributions is neutral in our analysis as more generous benefits lead to higher social insurance contributions.

Smoothing gains. Our main results are presented in Table 2. As mentioned above, we find that the simulated EMU-UI scheme would have provided interregional smoothing gains by cushioning 10% of income fluctuations that are due to transitions into and out of unemployment at euro area level. Interregional smoothing effects are unevenly distributed across member states, ranging from -5% in Malta to 22% in Latvia. Overall, 17 out of 18 member states would have been stabilised through interregional smoothing. At the same time we find procyclical effects in some years for most countries. Our results suggest that the interregional smoothing channel is as important as intertemporal smoothing through debt. The latter provides an additional cushioning effect of 9% at euro area level.

Table 2. *Smoothing effects of simulated EMU-UI*

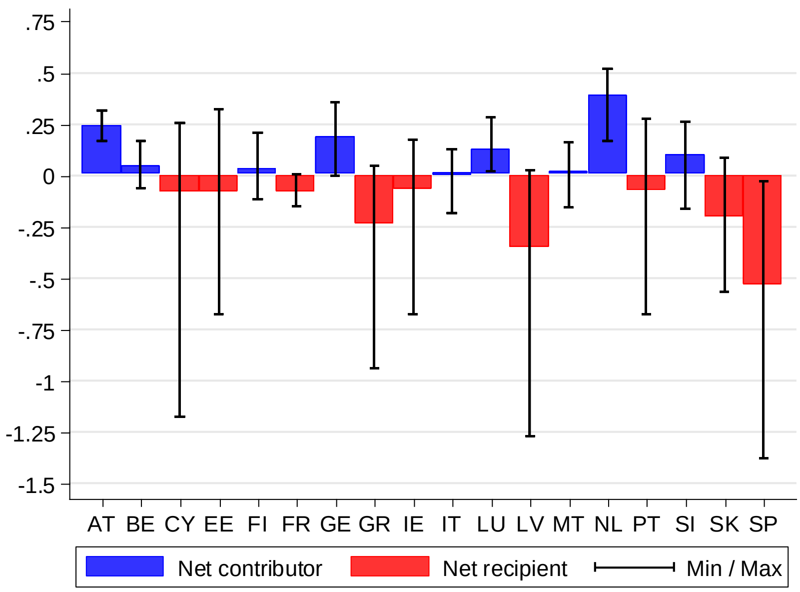
	Interregional	Intertemporal	Overall
AT	5.8	18.2	24.0
BE	3.0	14.5	17.5
CY	17.7	7.3	25.0
EE	19.4	0.8	20.2
FI	2.4	22.5	25.0
FR	7.7	12.8	20.5
GE	11.0	5.8	16.8
GR	12.0	4.8	16.9
IE	15.7	5.9	21.6
IT	5.5	11.4	16.9
LU	7.1	18.0	25.1
LV	21.6	1.2	22.8
MT	-4.6	24.9	20.3
NL	8.3	13.9	22.2
PT	13.4	5.8	19.2
SI	5.6	13.5	19.1
SK	9.6	5.6	15.2
SP	17.8	5.3	23.0
EA18	9.9	9.3	19.2

Notes: Stabilisation coefficients for interregional and intertemporal smoothing weighted by shock size over the period 2000-13. Smoothing coefficients at EA-18 level calculated as population-weighted average of member state's smoothing coefficients. The unweighted smoothing coefficients at EA-18 level are 10.0 for interregional smoothing and 10.7 for intertemporal smoothing.
Source: Dolls *et al.* (2018).

Budgetary and redistributive effects

The simulated EMU-UI scheme could be implemented with a relatively small annual budget. Over the period 2000-13, average benefits would have amounted to roughly €47 billion per year. If it were calibrated to be revenue-neutral (at euro area level) over the period 2000-13, the uniform contribution rate would have amounted to 1.56% on employment income. The scheme is not designed to cause permanent redistribution across countries because only short-term (rather than structural) unemployment is insured. Nevertheless, our simulations reveal that a small number of member states would have been net contributors (Austria, Luxembourg, Netherlands) or net recipients (Spain) in each year of our simulation period. Figure 1 shows that Austria, Germany and the Netherlands would have been the largest net contributors with average yearly net contributions of 0.19-0.39% of GDP. Latvia and Spain are the largest net recipients (average yearly net benefits of 0.36 and 0.54% of GDP).

Figure 1. Average yearly net contributions, 2000-13

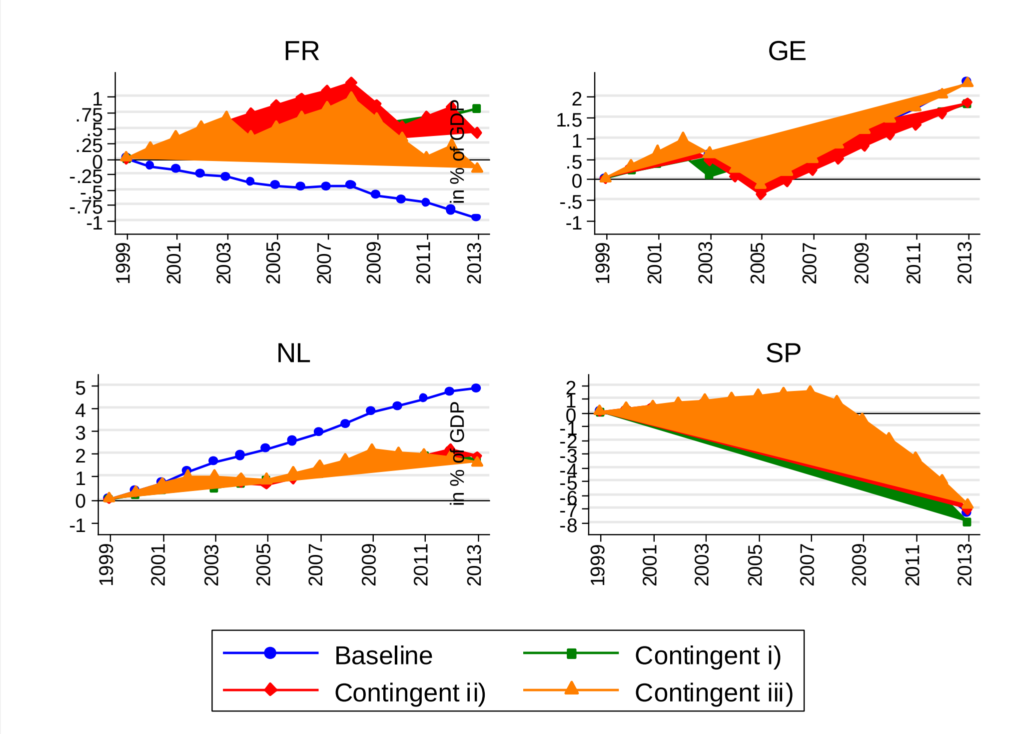


Note: Net contribution = Social insurance contributions - benefits. Contribution rate is uniform across member states. Scheme is revenue-neutral over the simulation period.
Source: Dolls *et al.* (2018).

Contingent EMU-UI scheme

The rationale for a contingent EMU-UI scheme is that member states can deal with normal business cycle fluctuations, whereas large shocks may jeopardise social cohesion and put public finances under excessive strain. Contingent benefits from the EMU-UI that only kick-in during severe recessions could also alleviate the risk of permanent and unidirectional transfers. We simulate an EMU-UI scheme with contingent benefits that is activated if the unemployment rate in year *t* is at least 1 percentage point higher than the unemployment rate in i) year *t*-1, ii) years *t*-1 or *t*-2, iii) years *t*-1 or *t*-2 or *t*-3. Longer look-back periods ensure that EMU-UI benefits can remain activated in sustained periods of high unemployment. In all other dimensions, such as payout rules and revenue-neutrality at euro area level, the contingent benefit schemes are identical to the baseline EMU-UI scheme (scheme 4 in Table 1).

Figure 2. Cumulative net contributions – Contingent benefits



Note: Baseline and contingent benefits. Contingent scheme i): Benefits are paid if unemployment rate in year *t* is at least 1 percentage point higher than in *t*-1 (one-year look-back period). Contingent scheme ii): 2-year look-back period. Contingent scheme iii): 3-year look-back period.
Source: Dolls *et al.* (2018).

We find that with a three-year look-back period, contingent benefits would have been triggered in all member states at least once and no country would have been a permanent net contributor or net recipient. With average yearly benefits of €13, 19 and 22 billion at the Eurozone-level, the overall budget of the three contingent EMU-UI schemes is significantly smaller compared to the non-contingent EMU-UI scheme (€47 billion per year). Figure 2 shows the cumulative net contributions to the baseline and to the three contingent EMU-UI schemes of selected countries. France, a net recipient at the end of the simulation period in the baseline, becomes a net contributor under contingent benefit schemes i) and ii). In the Netherlands, accumulated net contributions are reduced by more than 50% by the end of the simulation period relative to the baseline. Spain, a net recipient in the baseline throughout the simulation period, becomes a net contributor until 2007 and a net recipient in the remaining years. These results show that an EMU-UI system with contingent benefits could indeed provide more targeted transfers to member states that see their labour market conditions significantly deteriorating.

Conclusion

Our paper has analysed the potential added value of an EMU-UI which hinges on its ability to provide interregional smoothing. We have shown that, over the period 2000-13, the interregional smoothing effects would have been counter-cyclical on average, but with pro-cyclical effects in most member states in some years. Moreover, smoothing gains would have been unevenly distributed across countries. While the simulated EMU-UI schemes are not designed to give rise to permanent transfers, our results reveal that four member states would have been either a permanent net contributor or net recipient. Experience rating or contingent benefits could limit the degree of cross-country redistribution, but might reduce the desired insurance effects.

One should note that simulations of the fiscally most integrated EMU-UI scheme assume revenue-neutrality over the entire time span considered, but not in each period. This raises the issue of whether the EMU-UI would be allowed to issue debt. In our calculations, the EMU-UI would have produced a surplus in its early phase, so that reserves would have been available to finance higher benefits in the crisis. While reserves would provide a buffer in the next recession, there is a concern that political pressures would prevent the accumulation of surpluses and, instead, let the EMU-UI incur more and more debt until it needs to be 'bailed out' by the member states. Clearly, even though a balanced budget in each period would limit the ability of the system to act as a fiscal stabiliser, an effective debt limitation would be needed.

Finally, we should emphasise that our analysis has a number of limitations which should be taken into account in interpretation of the results. Most importantly, it is not the objective of our paper to establish whether or not the introduction of an EMU-UI scheme is desirable in terms of overall welfare. Our analysis is descriptive and simply focuses on the financial flows implied by an EMU-UI and the ability of these flows to act as an automatic stabiliser. In addition, we take economic behaviour as given. Adding behavioural and welfare effects to the analysis would be a promising subject for future research.

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Annex: Notes from Virtual Meeting – 13 November 2017

Presentation by Mathias Dolls, discussion led by Ricardo Reis

Participants (alphabetical)

Jochen Andritzky	German Council of Economic Experts
Roel Beetsma	University of Amsterdam
Mathias Dolls	ifo Institute
Daniel Gros	Centre for European Policy Studies
Pietro Reichlin	LUISS Guido Carli University
Ricardo Reis	LSE
Jörg Rocholl	ESMT Berlin
Nicolas Véron	Bruegel and Peterson Institute for International Economics
Jeromin Zettelmeyer	Peterson Institute for International Economics

Ricardo Reis made three points. First, unemployment insurance needs to be viewed in connection with other social policies, in particular poverty prevention, disability insurance, early retirement, and basic income policies. A harmonisation of unemployment insurance would be difficult without harmonising other policies as well, which in turn would affect the stabilisation properties of the system. However, harmonising these policies may not be where Europe stands in terms of political union and voter preferences.

Second, the simulation shows that the no permanent transfer condition is not satisfied over the simulation period. As basic unemployment levels differ between countries and over time, and unemployment tends to be very persistent, the no transfer requirement may only be satisfied over very long time periods. If this is politically not tenable, and the system would be required to zero out every five or ten years, the stabilisation benefit would be much lower. Third, an insurance solely against very bad outcomes is equally important and maybe more effective.

Following up, Jeromin Zettelmeyer suggested simulating the re-insurance version of a scheme that could consider an 'experience rating' (see discussion notes in annex to Chapter 1), and evaluate the stabilisation outcome and the resulting transfer properties. He also pointed out that constraining transfers to zero out every few years – basically within a business cycle – does not make much sense as it could come to resemble self-insurance. He expressed hope that euro area member would be sufficiently patient to permit a longer period, such as a generation, to allow net payments to even out. Furthermore, he pointed out that the survey results presented in fact suggest that on an unconditional basis, a majority may exist for the common unemployment scheme.

Roel Beetsma wondered whether only uncorrelated shocks should be considered. In the simulation, it may be the case that even countries hit by a shock remain net contributors if the euro area is hit by a correlated (or symmetric) shock. Mathias Dolls responded that interregional smoothing is indeed not countercyclical in all countries, as countries suffering smaller shocks may still remain a net contributor.

Roel Beetsma also pointed out that it may be useful to take into account different equilibrium unemployment rates. Mathias Dolls responded that the idea was to simulate a basic scheme without considering equilibrium unemployment rates, or other feedback effects.

Pietro Reichlin agreed to the benefits of the proposal and pointed out that it may raise levels of public approval for the EU if it shows it can save not only banks, but also individuals. He also saw the benefit of possibly facilitating the convergence of institutions. However, he wondered about the simulation result for Italy, in which the country turns out to be a net contributor, which would worsen its already difficult position. He also pointed out that the individuals who suffered most in Italy are most likely the most difficult to insure, such as the self-employed or elderly. Hence, he thought it may be best to focus efforts on a system that offers transfers only in case of large shocks and leaves it up to the recipient country how to spend the funds.

Daniel Gros recalled that the value added of a system of large gross payments going one direction one year, and in the other direction another year, is questionable. Only if the marginal benefit is convex and not linear, could such a system make sense.

Jochen Andritzky commented that if the starting point were different, in other words if national schemes had sufficient reserves to avoid pro-cyclical increases in contributions in a downturn, then the stabilisation benefits would turn out lower. He wondered whether a European labour contract with a European unemployment insurance, which could co-exist in parallel to national labour contracts and labour market institutions, is a way to go instead. However, unity of liability and control may be tricky to maintain as other economic policies also affect unemployment.

Ricardo Reis reiterated that any harmonisation may be difficult to achieve. He wondered whether other, simpler schemes for shock absorption may be preferable, such as a European level treasury. However, the individual relation of unemployment insurance distinguishes it from country-level shock absorption schemes.

Jochen Andritzky mentioned other ways to absorb shocks, such as allowing countries (or national unemployment systems) to incur larger deficits and facilitate their financing, if needed, through ESM assistance. Such a system could be compared to the US, where states have to repay federal contributions. Ricardo Reis pointed out that a difference to the US is when and how these contributions are to be repaid. Daniel Gros responded that there is a great difference between a system of transfers and an ESM loan. Jeromin Zettelmeyer agreed that self-insurance through incurring debt is not risk sharing, unless repayment is made state contingent. However, hitting the sweet spot between intercountry risk sharing and permanent transfer is tricky. Making repayments to the ESM state contingent could blur the lines with crisis lending, and thus a separate institution would be needed. Jochen Andritzky agreed that at least a facility other than macroeconomic adjustment programmes would be required.

Mathias Dolls emphasised that interregional smoothing is the key element of the proposal, not the intertemporal aspect. In this way, interregional smoothing could turn out to be pro-cyclical. Jeromin Zettelmeyer said that this could be mitigated by a borrowing facility, although this would always be politically contentious.

3 European fiscal rules and governance: Quo vadis?

Roel Beetsma

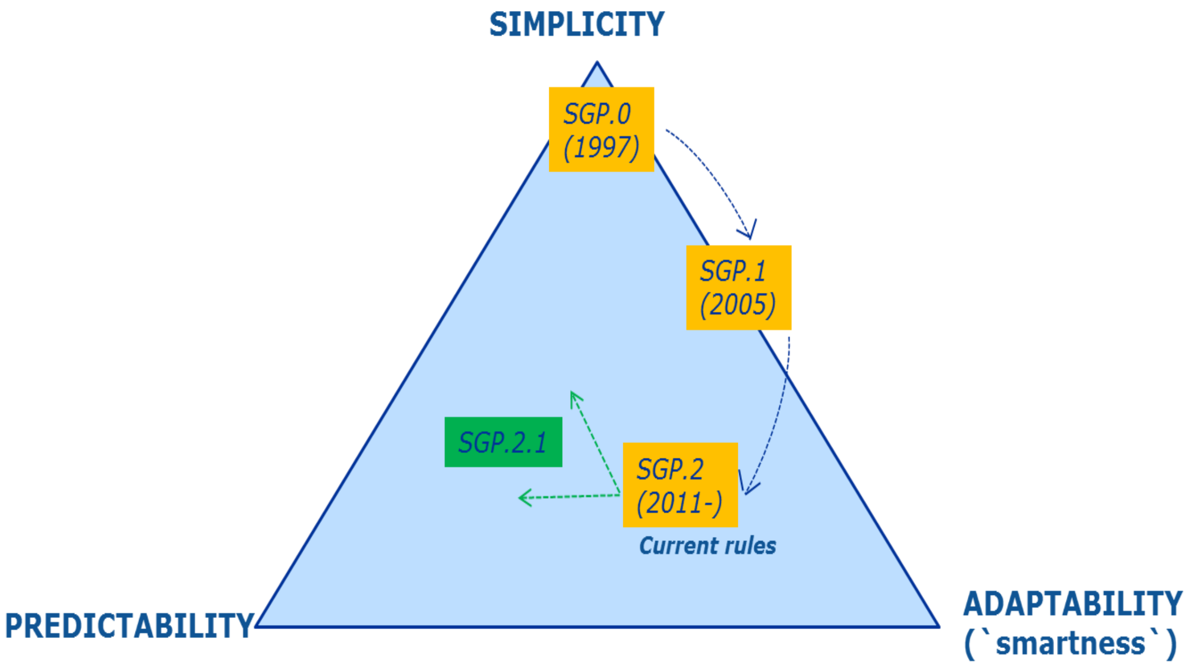
University of Amsterdam and Member of the European Fiscal Board

Eloïse Stéclebout-Orseau

Secretariat of the European Fiscal Board

The Stability and Growth Pact (SGP), the European Union's construct to enforce fiscal discipline among the Member States, has undergone a number of important changes since its inception more than 20 years ago. In the triangular trade-off between simplicity, adaptability and predictability (see Figure 1), the SGP started as relatively simple, but relatively weak in terms of adaptability and predictability. The reform in 2005 introduced the country-specific medium-term budgetary objectives (MTOs) and it allowed for the costs of certain structural reforms, such as a transition from pay-as-you-go to funded pensions, to be taken into account in the trajectory to the MTO. In 2011, further amendments introduced elements to refine the requirements and the assessment of compliance, including a norm for expenditure growth, a modulation of fiscal effort depending on the cyclical position and a specific procedure in case of deviation under the preventive arm.

Figure 1. Trade-off in the Stability and Growth Pact



Source: Buti (2018).

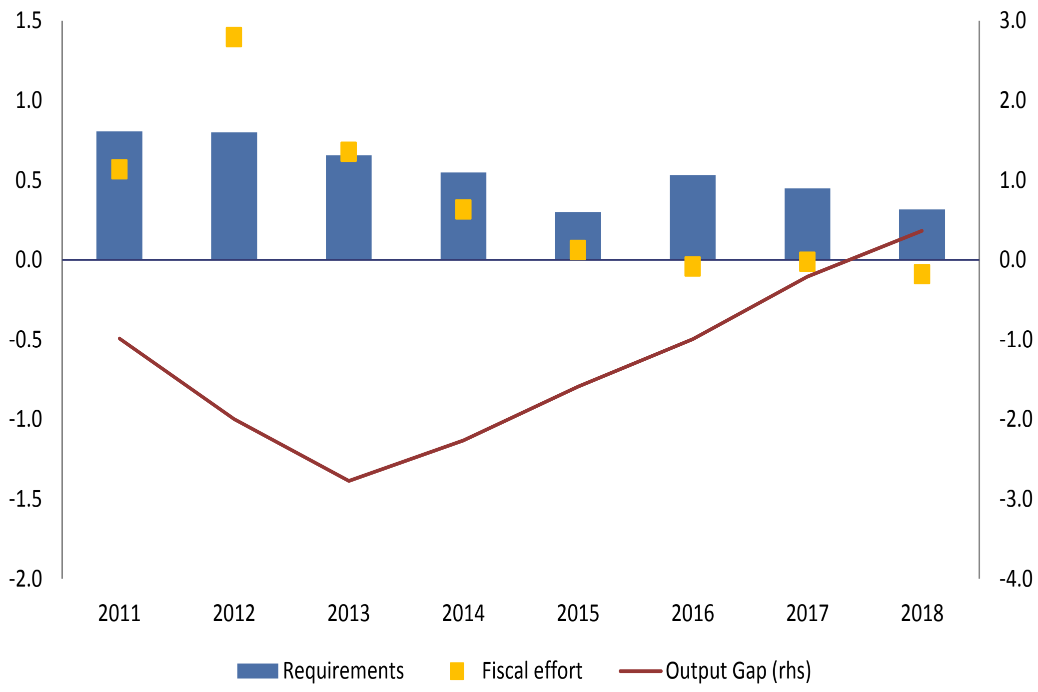
More recently, in 2015 the European Commission described how it would adjust fiscal requirements based on both the cyclical position and debt sustainability conditions, and also taking into account the cost of certain structural reforms and public investment expenditure. Finally, for the 2018 cycle, the Commission may decide to lower the requirements for some countries if it finds that their economic situation warrants it. Hence, the consecutive changes have made the Pact 'smarter', i.e. more adaptable, but less predictable overall. In any case, the complexity of the Pact has increased enormously along the way. The latest version of the European Commission's (2018) Vade mecum adds up to 220 pages.

This contribution briefly reviews the weaknesses in the implementation of the SGP before putting forward proposals to reinforce the fiscal framework. It considers first incremental fixes, then improvements that would require more fundamental changes. Finally, it discusses the role of financial markets in enforcing fiscal discipline.

Failings of Europe's fiscal policy

It is well known that the SGP has not prevented countries from running excessive deficits. Notably, shortly after the eruption of the global economic and financial crisis, most member states were placed in the Excessive Deficit Procedure (EDP), while public debts soared, partly as a result of interventions in the financial sector, but mostly because of the weak cycle. As a result, to maintain access to the capital markets at reasonable conditions, governments were forced to implement fiscal contractions in the midst of a very weak economic situation. In fact, fiscal efforts in 2012 were close to 1.5% of GDP, substantially exceeding the requirements of the SGP – see Figure 2.

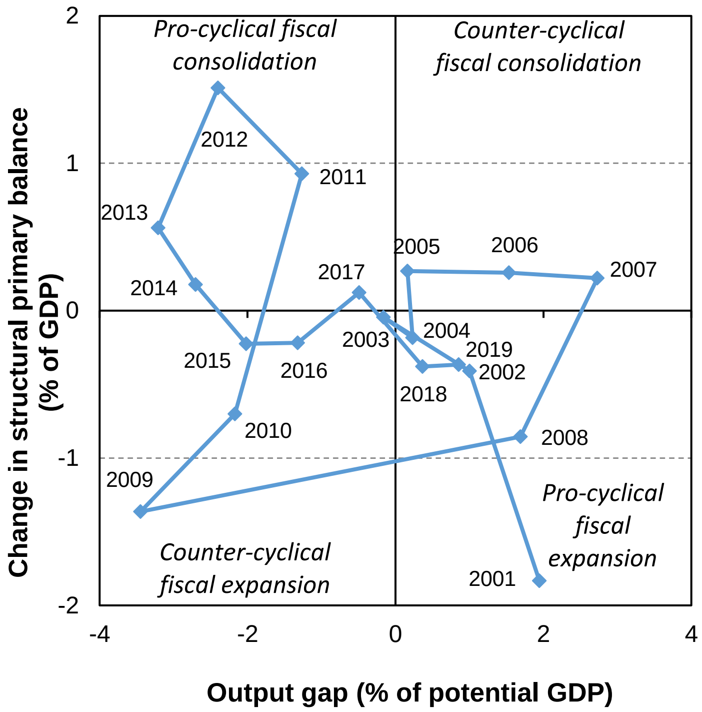
Figure 2. Aggregate euro area fiscal effort versus requirements and output gaps



Note: Output gap is in percent of potential GDP.
Source: Buti (2018).

As has often been pointed out, the main failing of European fiscal policy is its pro-cyclicality. See Figure 3, which plots the change of the structural primary balance against the output gap in percent of potential GDP. Half of the time since 2000, the fiscal stance has been pro-cyclical, with the structural primary balance tending to deteriorate when the output gap is positive and to improve when the output gap is negative. When times are good, governments tend to relax their fiscal efforts, forcing them to tighten their efforts when circumstances are no longer benign, which is precisely when contractions hurt their populations hardest. The pattern of relaxation of fiscal efforts is again visible in a number of countries now that their economies have the wind in their sails. The SGP has not been able to prevent this pattern, despite the increasing importance attached over time to its preventive arm.

Figure 3. Change in structural primary balance (vertical axis) vs. output gap (horizontal axis)



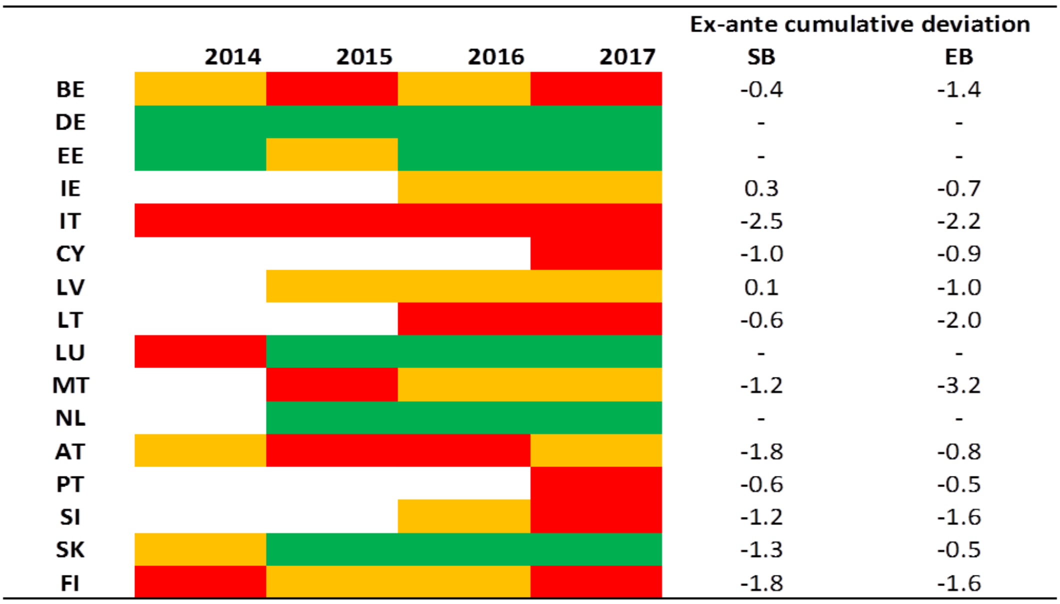
Note: Change in the cyclically-adjusted primary balance until 2010, change in the structural primary balance thereafter.

Incremental improvements in the SGP

The European Fiscal Board (2017) in its first Annual Report has come up with a number of suggestions to improve the enforcement of the SGP and to strengthen the incentives it offers to avoid pro-cyclical fiscal policies. These suggestions were of an "incremental nature", i.e. aimed at improving the SGP within the confines of current Treaty, and concern both the preventive and the corrective arms of the SGP.

A first set of suggestions aims at making the SGP more symmetric. Currently, the preventive arm of the SGP does not require compensating for past deviations from fiscal targets. Hence, member states may have an incentive to target a "non-significant" deviation from the required fiscal effort, that is, a deviation of less than 0.25% every year.[1] Obviously, over time, these deviations would add up to a substantial deviation from the envisaged adjustment path – see Figure 4. A way to address this perverse incentive is to introduce a "compensation account" in which past deviations are accumulated. As with the compensation account in the Swiss debt brake or the "control account" in the German debt brake, governments would be required to make up for past failures to exert enough effort. Reductions in the account would only apply during economic upturns. Asymmetry of the rules is also inherent in the corrective arm. Currently, a worsening of economic conditions may lead to more lenient fiscal targets and/or an extension of the deadline to correct an excessive deficit, whereas the rules in future could also tighten the fiscal targets when economic conditions exhibit an unexpected improvement.

Figure 4. Small tolerated deviations from targets are systematically exploited



Note: SB = structural balance, EB = expenditure benchmark.

The EFB also makes some proposals to improve the enforcement of the SGP. The Commission and the Council have the discretion to cancel fines for no effective action, which they exploited in the cases of Portugal and Spain in 2016. The incentives to enforce the Pact, in particular when financial sanctions are foreseen, are often weak. They can be weak on the side of the Commission, which may fear that popular support for the European Union will be further undermined or that its reputation will be undermined if its recommendations for further steps in the EDP are blocked by ECOFIN. Also, it is easy for governments, at least in some countries, to blame 'Brussels' for unpopular recommendations and decisions. The Ministers of Finance, in turn, may be reluctant to exert peer pressure and spoil relations with their colleagues. In addition, they may fear receiving a fine themselves, if their country were to end up in a similar situation at a later date. Finally, there may be domestic public opinion considerations.

The possibility exists to suspend part or all of the commitments or payments related to the European Structural and Investment (ESI) funds following lack of effective action. This requires

[1] Or of less than 0.5% over two years.

the Commission to engage in a structured dialogue with the European Parliament. Once the EDP is held in abeyance or abrogated, the suspension of the funds is lifted and they are re-budgeted. A complication is that conditionality applied to ESI funds may be pro-cyclical and that countries would make unequal use of these funds and, hence, the effectiveness of this sanctioning instrument would operate unevenly across different countries. A possibility would be to extend conditionality beyond the ESI funds. Moreover, conditionality could be made more automatic. With the preparation of a new multiannual financial framework, member states could establish the amount of funds to be withheld in the case of non-compliance. Once non-compliance with EU fiscal rules is established, funds would be suspended as long as non-compliance persists. This would have the advantage of being a credible sanctioning mechanism for all member states. To minimise collateral damage, it could be aimed at non-productive expenditures, such as expenditures on the welfare state.

Fundamental improvements to Europe's fiscal framework

The proposed adjustments to the SGP discussed in the previous section were relatively incremental. However, voices pleading a radical overhaul of Europe's fiscal framework are becoming louder. A thorough overhaul might actually necessitate a re-opening of the Treaty. Any redesign of the framework faces a trade-off between simplicity and flexibility. Simple rules do not account for economic circumstances and are inflexible, potentially forcing governments into following suboptimal policies. By contrast, flexible rules require complex provisions to account for all possible circumstances, and thus may be difficult to enforce and thereby undermine fiscal sustainability.

The question is how a smart institutional design can alleviate this trade-off. The EFB discusses the possibility of a radical simplification of the SGP in the longer term. To limit the consequences of diminished flexibility, the EFB proposes introducing escape clauses for adverse economic circumstances. Assessing these circumstances would then be left to an independent institution and escape clauses would be triggered on the basis of a recommendation from this institution. The recommendation could include parameters for the escape, such as the amount by which the fiscal target can be reduced and how much time the country is given to correct the deviation. The proposal sees as crucial that the institution is able to take its decisions in a truly independent way, which means that is can conduct its own economic analyses and that it has sufficient resources to do this. It imposes requirements on the appointment process and the background of its Board Members – see the OECD's Principles for Independent Fiscal Institutions (Von Trapp *et al.*, 2016).

What might such a radically simplified SGP look like? It could have a single long-run target such as a debt anchor of, say, 60% of GDP, or lower. The IMF, among others, has argued in favour of the debt ratio as a single objective. Eventually, it is more debt than deficits that matter for the space accessible to a government and for conditions in the capital markets.[2] One could discuss whether it is gross or net debt that should be targeted. Net debt would require establishing the

[2] Still, the deficit could provide independent information on the prospects for a government's finances, as deficits tend to be persistent and high deficits are difficult to correct.

government's assets in a comparable way, while gross financial liabilities are closely linked to refinancing needs. Hence, gross debt seems to be the more relevant concept to target in practice. A long-run target would then be supported by an intermediate target that is consistent with the long-run target. This could take the form of a deficit norm formulated in nominal or structural terms. The former may provide insufficient incentive for conducting the necessary fiscal effort, although an intermediate target that is sufficiently distant could be translated into a planned path of structural effort. This brings us to the operational instrument, the most obvious candidates being the change in the structural balance and the growth of (primary) public expenditure (net of discretionary revenue measures). In the case of the former, the intermediate objective could be some form of MTO. Similarly, in the case of net expenditure growth, the gap between the current budget balance and the intermediate objective could define the required adjustment in net expenditure growth. It is important, though, to define a unique operational target to avoid arbitrage between the targets.

The proposal to radically simplify the SGP assigns a large role to an independent fiscal institution (IFI). A legitimate question is whether the recommendation to trigger the escape clause and its specific design could come from national IFIs. While national IFIs play an important role in preparing and assessing forecasts and monitoring fiscal rules, we are sceptical that they could be entrusted with this task, which requires consistency of their decisions across countries: conditions for allowing an escape should be equally tight across the euro area. Such consistency would not be easy to guarantee, even if the fiscal framework is centrally designed and identical across member states. In addition, being closer to national governments, it may be harder to shelter IFIs from government influence.

Finally, fiscal discipline might be more effectively enforced if the euro area were equipped with a central fiscal capacity (CFC) mandated to stabilise the economy in case of major shocks. There would be several potential advantages to this: national fiscal policies could focus on ensuring sustainability; fiscal support could be provided directly where it is needed, relying on multiplier effects rather than on spill over effects; and, if access to the CFC were conditional on adhering to the SGP, this would provide a strong incentive for countries to comply. Of course, designing a CFC raises numerous questions, including how to finance it, when and how to trigger payments, and, crucially, how to avoid permanent transfers and moral hazard (e.g. see the attempt by Carnot *et al.*, 2017). A variety of proposals have been made recently that fulfil these requirements to different extents. The European Fiscal Board discusses the possibility of an unemployment reinsurance fund and of an investment protection capacity. While the idea of an unemployment reinsurance fund has received most attention in the literature (e.g., see Beblavý *et al.*, 2015, Dolls *et al.*, 2015, and Arnold *et al.*, 2018),[3] overall the EFB believes the investment protection capacity to be the more promising avenue, as it can build on existing experience and leveraging resources from the private sector. Moreover, it would positively affect both demand and long-run growth potential. Finally, investment is likely the expenditure category hit hardest during a crisis.

[3] Beetsma *et al.* (2018) propose a CFC scheme for the Eurozone in which transfers are linked to shocks in world trade – they claim that such a scheme minimises the danger of moral hazard.

The role of market discipline

Financial markets are known to react in a very abrupt way. While over a very long period they kept yield differences on eurozone public debt to a minimum, there was a sudden outburst of panic in April and May 2010, resulting in rapidly widening gaps between periphery and core yields. The crisis-management framework that was put in place did little to sooth the markets and yield differences may even have reached levels exceeding those that would reflect differences in default risk. Only the ECB managed to calm markets down. Unfortunately, the ECB medicine, in particular its quantitative easing program, may have dangerous side effects in the form of asset market bubbles and misleading market signals resulting in capital being channelled to investments of which the risks are under-priced.

For financial markets to exert a disciplining effect on governments requires two parts of the chain to work: (i) differences in risk should be priced in properly, and (ii) governments should respond to (significant) yield rises with measures that improve public finances. Regarding the former, there are, in theory at least, several possibilities to improve the pricing of public debt. One is to impose charges on an unduly high concentration of public debt from a single issuer on the balance sheets of commercial banks. Another is to abolish the zero risk-weighting of sovereign debt for the capital requirements of commercial banks. The design of the introduction of such measures is crucial. For example, concentration charges would have to be phased in gradually, so that banks have enough time to off-load excess amounts of debt of their own sovereign and to avoid disruptions in the markets for the financing of both sovereigns and banks. Similarly, risk-weighting of sovereign debt needs to be increased gradually. Of course, there is also the problem of establishing the appropriate numerical values for concentration charges and risk-weighting. However, the most important obstacle is resistance from the political side. Some countries use their banking sector as an easy and cheap way to finance their deficits (e.g. Ongena *et al.*, 2016). These governments obviously cannot be expected to be enthusiastic about such proposals.

Concluding remarks

The Economic and Monetary Union is still far from complete. The European Commission in its "December package" of 2017 sets out a roadmap for deepening it, which comprises the completion of the capital markets union, the banking union and proposals for structural reform support, a convergence facility for non-euro member states and a stabilisation function to be embedded in the new EU multiannual financial framework. The package also contains proposals to improve democratic accountability and effective governance. It is unclear as yet which elements of the package may be brought into existence within the foreseen time span, but there is clearly substantial uncertainty about the outcomes, because member states have widely diverging views on the desirability of deepening EMU.

The simplification of the SGP has been postponed until 2020 or even later. This is unfortunate, because there is a widely-shared perception that its functioning needs to be improved, while a revision of the Pact could be part of a broader package of proposals with gains from trade-offs for the different sides of the debate. In this contribution, we offered some proposals to improve the functioning of the Pact, as well as to simplify it. We also discussed the complementarity between the Pact and a well-designed CFC, and we closed with a discussion of the options for enhancing the role of market discipline in enforcing fiscal discipline.

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Annex: Notes from Virtual Meeting – 16 January 2018

Presentation by Roel Beetsma, discussion led by Lars P. Feld

Participants (alphabetical)

Jochen Andritzky	German Council of Economic Experts
Roel Beetsma	University of Amsterdam
Mathias Dolls	ifo Institute
Lars P. Feld	University of Freiburg, German Council of Economic Experts
Álvaro Leandro	Peterson Institute for International Economics
Pietro Reichlin	LUISS Guido Carli University
Nicolas Véron	Bruegel and Peterson Institute for International Economics
Beatrice Weder di Mauro	INSEAD Singapore
Jeromin Zettelmeyer	Peterson Institute for International Economics

Lars P. Feld noted that – despite all their imperfections – the fiscal rules of the Stability and Growth Pact (SGP) have an impact. A key challenge lies in the pro-cyclicality of the rules. Cyclically-adjusted deficits are difficult to determine and often distorted, particularly when calculated in real time. Furthermore, member states are sovereign in their conduct of fiscal policy and the capacity of the higher (European) level to constrain member states is limited. He agreed that the current rules are too complex.

He argued for focusing on the debt-to-GDP ratio and aiming to reduce public debt ratios so as to make the euro area more resilient to shocks. This could be achieved by an expenditure rule, possibly stripping out cyclical components of unemployment compensation. In addition, he considered compensation accounts a good way of correcting over-optimistic or over-pessimistic assessments. Unfortunately, most member states have not introduced compensation accounts following the Fiscal Compact. However, corrections from compensation accounts should not take place pro-cyclically. In his view, linking the SGP and the Macroeconomic Imbalance Procedure (MIP) is problematic, as it offers the European Commission an additional argument to put or reduce pressure on selected countries. Roel Beetsma agreed to focusing on the debt ratio and recalled that the debt ratio is influenced by stock-flow operations, among other factors. He agreed with the comments on the usefulness of well-designed compensation accounts. He also mentioned that fiscal coordination does not come about by itself and needs to be organised.

Jeromin Zettelmeyer also favoured an expenditure rule to avoid the issue of cyclical adjustment. An expenditure path could be set based on expected potential output growth and inflation, say at a five-year horizon, which is not nearly as hard or volatile as a yearly cyclical adjustment in real time. However, there is a problem when the expenditure path is set for the first time and it may require adjustments over time. Roel Beetsma pointed out that relative prices between different categories of public spending may change, which can pose a challenge with regard to the nominal expenditure path, as the experience of the Netherlands has shown.

Jochen Andritzky wondered about enforcement, considering sanctioning unlikely to be powerful enough. This is why the GCEE proposed linking compliance with fiscal rules to the framework for sovereign debt restructuring: countries that fail to comply with fiscal rules would ask their bondholders to extend maturities in case of a crisis requiring ESM assistance (see Andritzky *et al.*, 2016). Alternatively, rule compliance could be linked to access to ESM precautionary facilities. Certainly, these are extremely blunt ways of fostering market discipline. **Roel Beetsma** found these ideas well worth discussing, but warned about doubtful time consistency.

In this context, **Jeromin Zettelmeyer** referred to the recently published Franco-German reform proposal (Bénassy-Quéré *et al.*, 2018). Milling over the credibility of market discipline, the report calls for making restructuring less "horrible" by presenting a package that also includes more risk sharing. In the report, a version of Accountability Bonds (Fuest and Heinemann, 2017) is proposed where excess deficits are funded through junior bonds including an automatic maturity extension clause. This contractual feature makes restructuring of junior bonds more credible as no policy decision is required. **Nicolas Véron** added that the report's authors were not in favour of automatic re-profiling of the debt stock at large as this is too disruptive and henceforth not credible. **Roel Beetsma** agreed, but wondered whether there is a market for junior bonds. **Nicolas Véron** responded that a higher spread would be intended, and only low volumes may need to be issued. **Jochen Andritzky** clarified that the GCEE proposal is not for a fully automatic mechanism either, and only bases the initial maturity extension at the first stage on fairly simple criteria, whereas deeper debt restructuring including haircuts would be based on DSA not dissimilar to the IMF's framework.

4 Sovereign debt restructuring in the euro area?

Jochen Andritzky, Désirée I. Christofzik and Lars P. Feld

German Council of Economic Experts[1]

In the euro area, responsibility for fiscal policy rests with national governments. At the current juncture, completing political union or installing a strong euro area capacity with the power to tax and spend do not appear feasible. Therefore, national responsibility for fiscal policy will continue to be complemented by common fiscal rules, such as those discussed in Chapter 3, to help member states to arrive at sustainable public finances. In addition, market discipline provides incentives to keep public indebtedness low in order to avoid getting into trouble in the first place.

The debt crisis in European Monetary Union (EMU) has illustrated that market turbulences can occur and can cut off member states from market funding. Thus, the European Stability Mechanism (ESM) was created to provide an alternative source of financing and to complement the global financial safety net. However, the ESM must not undermine the credibility of the no-bailout clause – an important safeguard against moral hazard in policy-making – or lead to large transfers. The ESM's conditionality framework, including its safeguards against lending to insolvent countries, aims at preventing this.

For the ESM to help member states where public debt may be unsustainable on one hand, and prevent moral hazard at the same time on the other hand, the ESM needs an instrument to restore solvency. Currently, the euro area lacks a sufficiently credible framework for such situations. This sets the euro area apart from the IMF which – after introducing the systemic exemption clause in face of the euro area crisis – strengthened its lending framework in 2015 (IMF, 2015).

While creditor bail-in has become an accepted principle for banking crises as part of the euro area Banking Union project, no similarly comprehensive framework is available for sovereign debt crises. All that exist are provisions in the ESM Treaty for sustainable debt and the introduction of Collective Action Clauses (CAC) in newly issued bonds since 2013. However, an operational framework that explicitly sets out when and how debt restructuring is activated, does not exist. Such a framework could also improve crisis prevention by strengthening market discipline *ex ante*.

Addressing liquidity and solvency issues in two stages

Such an instrument could consist of a market-based mechanism that is activated as part of the ESM's macroeconomic adjustment programmes when the beneficiary's public debt is high. Restructuring could take place in two stages. In the first stage, highly indebted member states

[1] This contribution is a short version of Andritzky *et al.* (2018).

would initiate a maturity extension at the beginning of an ESM programme to reduce financing needs. In other words, disbursements of any funds become conditional on creditors and debtors reaching an agreement on a standstill for the duration of the programme. Only if needed, a deeper debt restructuring could address solvency concerns in a second stage during the course of the programme. The two-stage approach resolves the difficulty of having to distinguish between a pure liquidity crisis and a solvency problem at the onset of a crisis when long-term economic potential and debt sustainability are most uncertain.

Maturity extensions when debt is high bear several benefits. First, they reduce subordination given the preferred creditor status of official lenders and maintain creditors' exposure, which can later become subject to deeper debt restructuring. Second, they are considered to be less disruptive than outright debt reductions, therefore reducing the risk of contagion (IMF, 2014b). This provides time for creditors to create buffers before an eventual debt reduction is implemented. Third, maturity extensions reduce the funding need for rollovers which draw heavily on the ESM's limited resources. In the recent crises of Greece, Ireland, and Portugal, maturing long-term debt securities accounted for respectively 62 %, 21 %, and 64 % of the total funding needs (Figure 1). Using these savings in lending capacity, the ESM could finance macroeconomic adjustment programmes with longer durations, leaving more time for reforms.

Figure 1.

Financing needs[1] during the crises in Greece, Ireland and Portugal

1 – Sum of general government deficit and amortization of long-term debt securities. 2 – Greece: including PE borrowing need.
a – May - December. b – January - June. c – Including December 2010. d – June - December.

Source: Andritzky et al. (2018)

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The completion of a first-stage restructuring does not preclude deeper debt restructuring, such as including coupon or face-value reductions, if necessary, to restore a member state's solvency. This second-stage operation should ensure durable market access after the end of the programme and full repayment of the ESM to prevent moral hazard at the cost of the ESM's creditors, the taxpayers of the euro area. Conducting deeper debt restructuring at a later stage offers more time for reforms to bear fruit and for creditors to build buffers. It allows for a deeper analysis by the ESM and more comprehensive negotiations to find a tailor-made solution to the solvency problem.

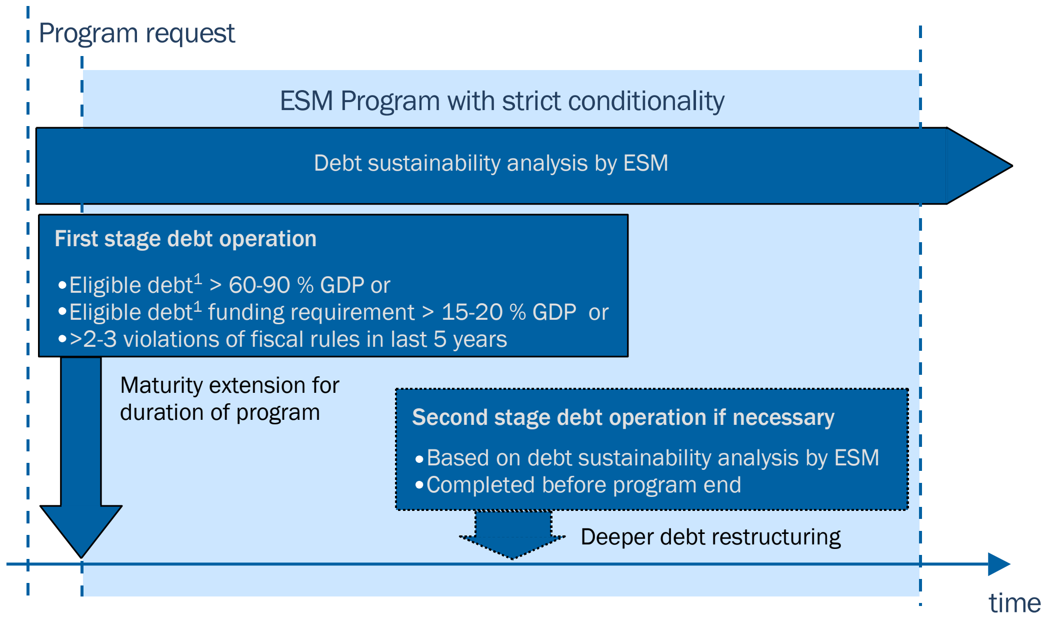
Implementing the mechanism requires a legal foundation to rule out that holdouts – a minority of bondholders trying to escape the restructuring – can become a serious threat to the debt operation. First, new bonds should contain single limb voting procedures as proposed by the IMF (2014a). Such collective action clauses – Creditor Participation Clauses (CPC) – could be linked to the restructuring framework outlined above which could be integrated in ESM regulations. Second, an amendment to the ESM Treaty could introduce an immunity clause as proposed by Buchheit *et al.* (2013) or Fuest *et al.* (2014). Such a provision would protect the assets of a member state from attachment during and after an ESM programme as long as it has loans drawn from the ESM.

Our proposal rests on the premise that a maturity extension causes minimal disruptions to financial intermediation. Therefore, it is important that bonds with CPCs retain their function as collateral. On the one hand, banks need to diversify their sovereign debt holdings which could be achieved by penalising instead of incentivising large and non-diversified sovereign debt holdings by banks and other financial institutions. On the other hand, unwarranted obstacles to market-based maturity extensions need to be removed. For instance, if bondholders agree to a maturity extension to the benefit of resolving a crisis, there is no reason why the ECB should not accept these assets as collateral or why rating agencies would classify them the same way as a claim that has become worthless.

Choice of triggers

Our proposal contains different approaches to distinguish between first-stage versus second-stage debt restructuring (Figure 2). As it is the case today, a debt sustainability analysis (DSA) lays the basis for decisions by the ESM to require debt restructuring.

Figure 2. Timeline of a two-stage decision system for ESM programmes



1 – Newly issued debt including Creditor Participation Clauses.

Source: Andritzky et al. (2018)

For the first-stage decision, we propose that maturity extension is triggered if debt qualifying under this mechanism exceeds a particular debt ratio in the range of 60 % to 90 % of GDP, or its refinancing volume exceeds a particular level in the range of 15 % to 20 % of GDP during the ESM programme. Note that the framework does not apply to legacy debt as only debt issued under the new framework is taken into consideration. Indicators such as the debt ratio and gross financing need are accepted anchors in evaluating debt sustainability (IMF, 2011; IMF, 2013). Providing clear thresholds of hard-to-manipulate criteria strengthens the *ex ante* disciplining effect and reduces the discretion of policy-makers. Yet, our proposal stops short of an automatic maturity extension, as proposed by Weber *et al.* (2011), as in our view the drawback of contractual rigidities outweighs the gain in credibility of the no-bailout principle.

As an innovative, alternative criterion we propose a compliance with fiscal rules that could help to strengthen their *ex ante* disciplining effect on fiscal policy. Compliance with these rules can be seen as relevant factor for assessing debt sustainability because it can be interpreted as proxy for the economic and political capacity to deliver fiscal adjustment.

For the second-stage decision, the need for deeper debt restructuring is judged on the basis of the ESM's revised DSA. As opposed to a statutory approach where an external body imposes restructuring, the terms of the restructuring would be agreed between the debtor country, bondholders, and the ESM. Deeper debt restructuring should aim at achieving debt sustainability in the long run to ensure durable re-entry to bond markets while minimising disruptions to the ongoing recovery. The transaction would need to be completed before the end of the ESM programme.

A credible and sustainable path towards the new regime

Public debt in many member states is still high, making any change to the institutional setting of sovereign debt markets tricky. To avoid adverse market reactions, we propose to phase-in the mechanism over time by issuing bonds with CPCs as current debt falls due or deficits require additional financing. The framework would only apply to this portion of debt. Since such a phase-in progresses continuously, there is no cliff-edge problem and the transition path is fully credible.

To illustrate this, Andritzky *et al.* (2018) simulate two speeds for the phase-in based on calculations by Eidam (2016).[2] Data include all government bonds issued by central governments available on Bloomberg as of 2016. Assuming that the issuance of new debt including CPCs started in 2017, Figure 3 shows the outstanding stock of government bonds including the CPC in percent of GDP for two scenarios. In one scenario, all new deficits and all bonds falling due are refinanced with new securities containing CPCs. In the second scenario, only deficits are financed with bonds containing CPCs.

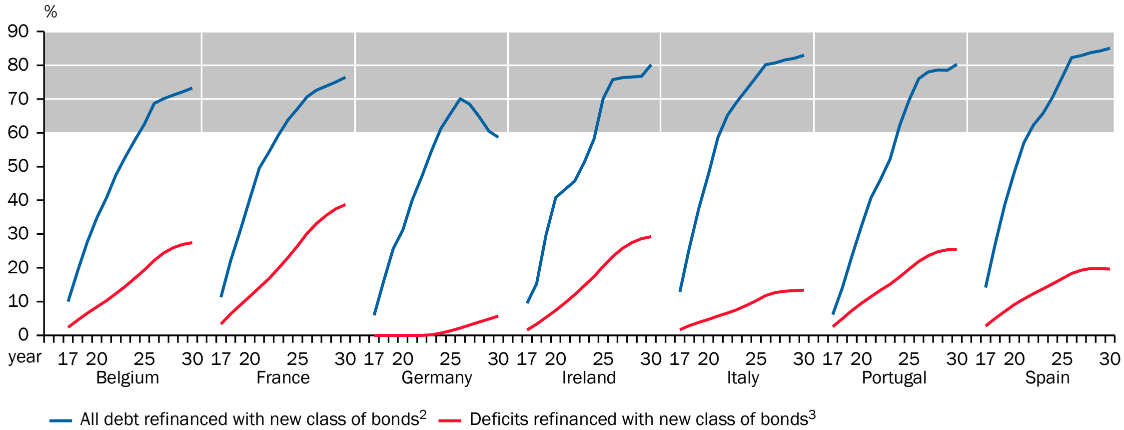
Most countries would pass the lower threshold of 60% of GDP within a couple of years if all debt is refinanced with CPC-bonds. Depending on projected deficits, the phase-in is much more gradual if only new deficits are financed with CPC-bonds. In practice, we believe CPCs may

[2] See Andritzky *et al.* (2018) for further assumptions.

become the market standard. In that case, member states may decide to issue a larger share of debt with CPCs, in particular if these bonds, like current bonds with CACs, do not trade at a discount.

Figure 3.

Penetration of debt stock with bonds including Creditor Participation Clauses (CPCs) issued from 2017[1]



1 – Assumes bonds are issued with new clauses starting in 2017 based on maturity profile for bonds as of end-2014, with (i) maturity of newly issued bonds similar to 2014 and (ii) nominal debt following European Commission (2015) and extrapolated from 2027. 2 – Assumes that shares of other debt relative to GDP remains constant. 3 – Deficits until 2026 based on European Commission (2015), and converging towards 0.5% of GDP at a speed of 0.5 percentage points afterwards. Bonds with CPCs falling due are rolled into similar bonds.

Sources: Andritzky et al. (2018) and Eidam (2016)

The design of the framework as well as its gradual phase-in can prevent another Deauville moment for the euro area when implementing the proposal. Previous reforms, most notably the Banking Union, have already made the EMU more robust. Similar to the new bail-in policies of the Banking Union, a bail-in of sovereign debtholders is already part of the current rulebook, with the exception that current inefficiencies and political obstacles may render it difficult to implement. However, besides completing the Banking Union, complementary measures are necessary as outlined above.

Conclusion

This contribution proposes a framework for sovereign debt restructuring as part of the euro area's crisis mechanism. Such a framework would bolster the no-bailout clause by more explicitly outlining the euro area's approach to deal with situations where public debt is not sustainable in an orderly way. The difference to today's setting, in which sovereign debt restructuring is already foreseen in both the ESM regulations and as part of IMF lending rules, is to lend the approach credibility. Therefore, our proposal aims at removing unnecessary uncertainty in crises and reduces the economic costs of sovereign debt restructuring. This strengthens market discipline and reduces moral hazard.

A two-stage approach as proposed herein strikes a balance between a rule-based approach that is more credible and a discretion-based approach that is more flexible: As a maturity extension – the first stage – can be achieved at relatively limited cost, we suggest easy-to-evaluate trigger points. Deeper debt restructuring – the second stage – would take place, if at all, at a later time based on a more comprehensive set of decision criteria.

We explicitly refer to the IMF (2014b, 2015) new lending framework which is closely related. The key difference to the IMF framework is that our proposal explicitly puts maturity extension and deeper debt restructuring in sequence. This is a response to the experience that, while liquidity problems are obvious once a country requests crisis assistance, the member state's solvency cannot be assessed reliably until much later. Despite this difference, in most cases such sequencing remains compatible with the IMF new lending framework.

In contrast to other proposals that propagate more institutional or contractual rigidities, our approach is market-based in the sense that the decision to trigger an orderly restructuring within this framework rests with bondholders. Our approach also does not require tranching. To allow time to tackle legacy debt while providing for a credible path to adopting this framework, we illustrate a potential transition phase, in which the bonds including CPCs increase gradually. Once fully phased in, our proposal would massively reduce required programme funding, thereby bolstering the firepower of the ESM. Complementing this framework with a completed Banking Union, the removal of regulatory privileges for sovereign debt, and other amendments to enable restoring member states' debt sustainability does in our view not result in financial instability but would rather strengthen the euro area vis-à-vis today's regime dominated by excessive ambiguity and *ad hoc* solutions.

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Annex: Notes from Virtual Meeting – 03 May 2018

Presentation by Jochen Andritzky, discussion led by Pietro Reichlin and Jeromin Zettelmeyer

***Participants** (alphabetical)*

Jochen Andritzky	German Council of Economic Experts
Arnoud Boot	University of Amsterdam
Sam Langfield	European Central Bank
Pietro Reichlin	LUISS Guido Carli University
Nicolas Véron	Bruegel and Peterson Institute for International Economics
Jeromin Zettelmeyer	Peterson Institute for International Economics

In his comments, Pietro Reichlin addressed three questions. First, should the mechanism rest on pre-established rules or on a case-by-case analysis? Second, is this mechanism a tool for minimising cost if and when restructuring becomes inevitable or a tool to reduce moral hazard and excessive deficits? Third, should we maintain and improve mechanisms for withstanding a temporary loss of confidence without debt restructuring?

Building on these questions, Pietro Reichlin wondered why there needs to be restructuring in cases where moral hazard does not play a role, for instance in a pure liquidity crisis following contagion. The existence of a restructuring framework could by itself trigger or deepen a confidence crisis. If no insurance against confidence crises exists, the euro area may end up with under-pricing and too little investment in sovereign debt. Jochen Andritzky pointed out the difficulty of distinguishing liquidity from solvency crises and that the proposal intends to minimise disruptions and the economic costs of ESM programmes. For example, the ESM could offer longer programmes and more gradual adjustment, and enhance its toolbox with a revised preventive facility. He also outlined the transition into the new framework, which would avoid instability from legacy debt. Only new bonds would be equipped with Creditor Participation Clauses, and policymakers would agree on a path of introduction to phase in the mechanism carefully.

In the view of Pietro Reichlin, the proposal may have unintended consequences. Countries may avoid ESM assistance or may also engage in tactics such as using domestic banks to accumulate national sovereign debt, as is currently the case in Italy. Also, accounting rules must be taken into account and there could be a shortening of maturities when a crisis nears, elevating rollover risk. Jochen Andritzky emphasised that the idea of the proposal is to reduce cost and disruption compared to *ad hoc* restructuring. In his view, member states may try to avoid ESM assistance for other reasons, such its political cost, rather than through fear of restructuring. Accounting rules, collateral frameworks, and rating practices may need to be amended to avoid unnecessary disruptions.

For Jeromin Zettelmeyer, the no-bailout rule – as the key pillar of the euro's architecture – needs to become credible. Otherwise, exit from the euro area cannot be ruled out as an ultimate tool for resolving crises.

The issue of a suitable trigger for restructuring was a recurring issue in the discussion. **Pietro Reichlin** emphasised that deciding whether a restructuring is the best choice depends on a complex set of conditions and contingencies. Pre-established rules, such as the decision criteria for a maturity extension, increase the probability of incurring a type II error (i.e., imposing debt restructuring on a solvent country). **Jeromin Zettelmeyer agreed and** contrasted two strategies to make the no-bailout rule credible given the challenge of time consistency. On the one hand, commitment devices to restructure the debts of insolvent countries could be strengthened. However, strong commitment devices like pre-established triggers have unintended consequences, such as higher type II error probabilities. Furthermore, the case of Greece had shown that even supposedly tough commitment devices could fail. For instance, IMF participation failed as a commitment device because the IMF changed its Exceptional Access Policy to accommodate Greece's circumstances. On the other hand, the Franco-German euro report (Bénassy-Quéré *et al.*, 2018) relies less on hard commitment devices and more on discretion (akin to the IMF's new lending framework) while focusing on measures to make restructuring less costly. In his view, the second approach was better. With respect to Andritzky's proposal he thought the debt ratio was not an informative enough indicator to serve as threshold, while gross financing need (GFN) criteria are better suited. The fiscal rule violation is a sound addition in countering moral hazard by governments. **Jochen Andritzky** agreed that the proposal presented uses fairly simple criteria as a commitment device. However, deeper debt restructuring would allow for more discretion, similar to the IMF framework, whereas simple decision criteria are only applied in deciding maturity extension. This – like in the Franco-German report – should cause limited disruptions.

In response to remarks contrasting the proposed framework to the IMF's new lending framework, **Jochen Andritzky** recalled that the IMF framework allows for discretion. There may be instances in which the proposed framework requires maturity extension while the IMF does not, but also situations in which the IMF requires deeper restructuring. The latter may be particularly relevant in the presence of high legacy debt. The need to avoid "amortisation walls", i.e. periods of very high GFN, must be taken into account.

Arnoud Boot expressed concerns about policies that infringe on national sovereignty *ex post*. An *ex ante* focus might be crucial. In his view, *ex-ante* pricing of generic features in sovereign debt can only have a 'disciplining' effect if it relates clearly to a country's behaviour. A reduction in legacy debt is crucial before introducing *ex ante* rules in good times if they are to impose discipline. Generally, a system is required that can withstand defaults. **Nicolas Véron** agreed that as long as a restructuring is systemic for the euro area, its 'disciplining' effect will not be credible. He wondered whether breaking the sovereign-bank nexus is sufficient to prevent systemic effects. **Jochen Andritzky** took the view that concentration limits for sovereign debt holdings for banks and other systemic financial institutions are key to avoiding systemic effects. Together with other measures, this would notably lower the cost associated with restructuring. **Pietro Reichlin** disagreed. In his view, restructuring always carries the risk of causing a systemic crisis, drawing a parallel to the US where subprime mortgage problems triggered widespread crises. **Jeromin Zettelmeyer**, in contrast, took the view that if no institution had a life-threatening amount of risky instruments, the Global Financial Crisis would not have broken out. **Nicolas Véron** recalled that contagion in the euro area was magnified by breakup risk.

Sam Langfield asked which ESM programme facilities this framework would apply to and how the length of the maturity extension would be defined. **Jochen Andritzky** responded that the framework should apply to the implementation of ESM macroeconomic adjustment programmes. A maturity extension would apply to all bonds. Despite aggregation clauses, convincing bondholders of long maturity bonds may be harder, especially when it is clear that there is a liquidity problem only in the near term.

Contrasting the proposal under discussion with the Bundesbank's (Monatsbericht July 2016), **Jeromin Zettelmeyer** pointed out that an automatic mechanism can trigger runs unless restructuring clauses are written in a way that long-term bond holders are not forced into a maturity extension. **Jochen Andritzky** likened the Bundesbank's contractual approach to state-contingent debt to providing some form of self-insurance. Automatic maturity extension would be set in stone and could create amortisation walls at the end of an ESM programme.

5 A safe asset for the euro area? Evaluating alternative proposals

Álvaro Leandro

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Financial systems require 'safe' assets to operate. In the United States, this role is performed by Treasury bonds. The euro area, however, lacks a common safe asset and banks tend to rely on bonds issued by their own countries. This became a problem during the 2010-2012 euro crisis, as increases in sovereign borrowing costs raised the funding costs of domestic banks, which curtailed lending, exacerbating the recession and hence sovereign stress. Even in non-crisis times, the lack of a common safe asset contributes to financial fragmentation in the euro area, as differences in sovereign risk across countries lead to differences in funding and lending conditions across member states, even though they share a common monetary policy.

Bond holdings by euro area banks continue to be heavily biased towards domestic sovereigns, despite the economic recovery and the creation of a common banking supervision. This has led to a resurgence of interest in ideas to create a common euro area safe asset (Brunnermeier *et al.* 2017, European Commission 2017, Buti *et al.* 2018, Leandro and Zettelmeyer 2018 a,b). The leading proposal is to create 'sovereign bond backed securities' (SBBS) issued by intermediaries that would purchase a diversified pool of euro area sovereign bonds. SBBS would consist of a senior tranche – sometimes called 'European Senior Bonds', or 'ESBies' – and one or several subordinated tranches that would absorb any first loss. By picking the right subordination level – that is, by making the subordinated tranches 'thick enough' – ESBies can, in principle, be rendered low-risk. Based on a default simulation model, Brunnermeier *et al.* (2017) estimate that a subordination level of about 30% would be required (that is, the senior tranche would consist of 70%) to reach the expected loss rate of a German bund.

Unlike earlier proposals to create a common 'Eurobond', ESBies would not require any guarantees or additional revenue commitments on the side of member states. Furthermore, the technical feasibility of the SBBS proposal has recently been evaluated by a task force of the European Systemic Risk Board (ESRB 2018), and the European Commission has issued a regulation proposal to enable the development of an SBBS market (European Commission 2018). At the same time, the SBBS approach has been heavily criticised from many sides. The critics have focused mainly on three arguments.[2] First, in a crisis in which sovereign risks in the

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[1] The authors are grateful to Jochen Andritzky, Jesús Fernández-Villaverde, Sam Langfield and participants of the 'Future Europe' forum for useful comments and suggestions.

[2] See Academic Advisory Council to the German Ministry of Finance (2017), Minenna (2017), Standard and Poor's (2017), Greive et al (2018), De Grauwe and Ji (2018), Giugliano (2018), Münchau (2018) and Claeys (2018). For less critical perspectives, see JPMorgan (2017) and Goldman Sachs (2018).

euro area become highly correlated and several countries might default, the supposedly 'safe' senior tranche might end up being much less safe than its proponents claim. Second, SBBS envisage the simultaneous issuance of senior and junior tranches, but would anyone want to buy the junior tranches, particularly in a crisis? Third, ESBies might upset the functioning of national bond markets, raising sovereign borrowing costs. Given these criticisms, ESBies may continue to face an uphill battle.

Are the criticisms justified? Are there better alternatives to ESBies? To answer these questions, we compare SBBS with five alternative ideas to create euro area safe assets. Like SBBS, all avoid joint and several guarantees, and all rely to some extent on diversification, while differing in other key respects.

1. Bonds issued by a capitalised intermediary ('capitalisation approach'). The safe asset could consist of a single-tranche bond issued by a public intermediary backed by a diversified pool of euro area sovereign bonds. Rather than through tranching, it would be made 'safe' by a sufficiently thick capital cushion. The required size of the cushion would depend on how the capital is invested: if invested in the same portfolio that backs debt issuance, it would be exactly the same as that of the junior tranches in the SBBS proposal – namely, about 30% of total assets. If it is kept in cash, capitalisation could be a little lighter, in the order of 25%. The need to provide this (public) capital can be regarded as the cost of avoiding tranching.
2. National tranching following by pooling. National debt could be issued in two or more tranches (Wendorff and Mahle 2015). The safe asset function could subsequently be performed by a diversified pool of senior national tranches. As with SBBS, 'safety' would be created through a combination of diversification and tranching, except in reverse order: first tranching, then pooling. This has the advantage that the tranching would be undertaken by the national issuers themselves, so that the approach could be implemented without any intermediation. However, because tranching is applied before risk is diversified, achieving the same expected loss as ESBies would require a higher subordination level – about 70%, rather than just 30% in the SBBS approach.
3. E-bonds. In an idea going back to Monti (2010), a *senior* public intermediary would issue a single bond backed by a diversified portfolio of euro area sovereign debt bought at face value. The funding costs of the bond would be passed on to the sovereigns in proportion to the volumes of debt held in the portfolio of the public intermediary. As in the SBBS proposal, safety would hence be created through a combination of diversification and seniority, except that seniority now refers to the seniority of the issuer of E-bonds in the sovereign bond market, not to a senior tranche debt instrument. In a variant of this proposal, the safety of E-bonds could be increased further by endowing the senior public intermediary with some capital. This would make it similar to the capitalisation approach, except that much less capital would be required.
4. Bonds issued by a leveraged euro area sovereign wealth fund. As in the capitalisation approach, a publicly owned, capitalised institution would issue debt backed by a portfolio of assets. However, this portfolio would be internationally invested to maximise long-term returns subject to a desired risk level. This would allow the intermediary to start small, based on some 'seed capital', and gradually grow in size by

reinvesting its earning and leveraging its capital subject to maintaining a prescribed capital adequacy. Once the desired size has been reached, the fund could start paying a dividend.

5. **Bonds issued by a central budget.** Finally, a safe asset could be created in the form of euro area debt issued by a central budget (Ubide 2015). This debt would be sustained by either a euro area-level tax (such as a corporate tax or VAT) or by contributions from member states. As in the case of the SBBS, national tranching and pooling, and E-bond proposals, one can interpret 'safety' as arising from a mix of seniority and diversification. Diversification means that the revenues that are used to service the bonds are based on the economic strength of the entire euro area, while seniority means that taxes or contributions would be dedicated to the euro area budget and could not be diverted to other uses even if a member state is in fiscal distress.

In Leandro and Zettelmeyer (2018a, 2018b), we evaluate and compare these proposals with ESBies based on: (1) the volume of safe assets that each approach could create; (2) the safety of these assets, particularly considering tail events; (3) their impact on sovereign borrowing costs and fiscal discipline; (4) possible redistributive implications; and (5) possible unintended consequences.

Volume

In the SBBS, capitalisation, national tranching and E-bond approaches, safe assets are backed by diversified portfolios of national debt. The maximum volume of safe assets that can be generated is hence constrained both by the desired safety level, reflected in a corresponding subordination level and a particular set of portfolio weights, and the available volume of euro area sovereign bonds.

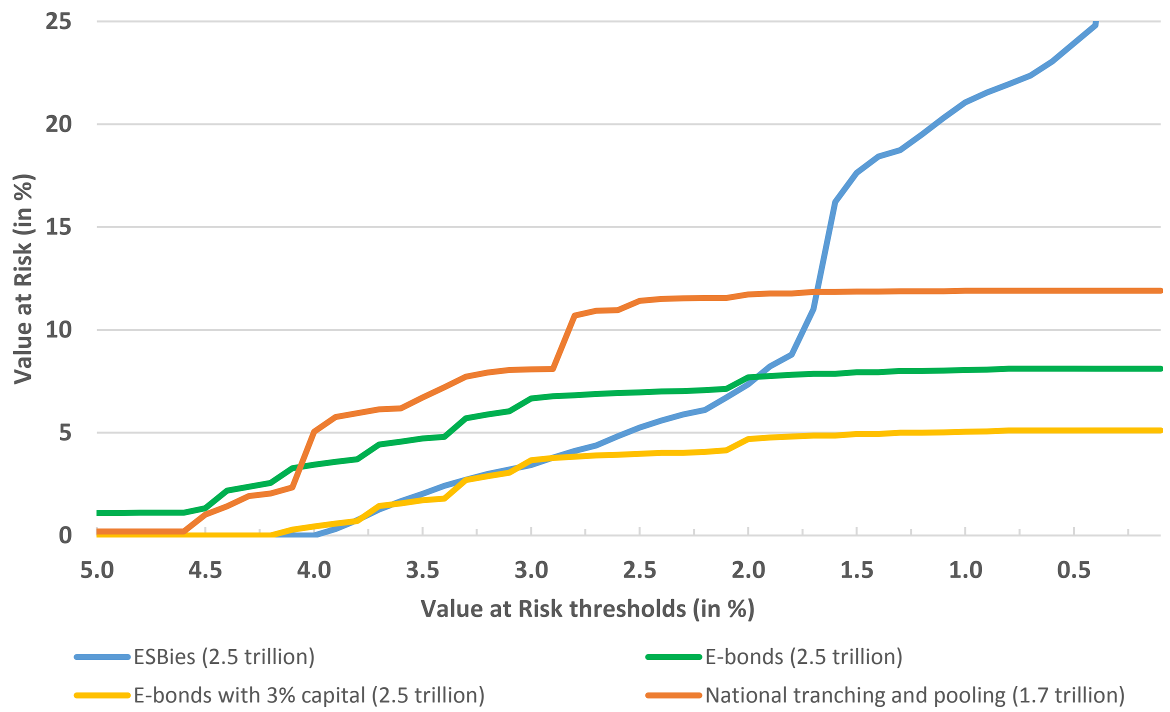
Because it requires a high subordination level, national tranching and pooling would have the lowest yield in terms of volume, capable of generating senior asset pools (that is, diversified baskets of senior national debt tranches) worth about 15-17% of euro area GDP – about in line with the volume of euro area general government debt securities that are currently held by euro area banks. SBBS can potentially create the largest volumes of safe assets, of up to 35% of euro area GDP, but this would require buying up to 80% of the German and French debt markets. If the intermediary is not allowed to buy more than 50% of each country's debt market, the most efficient way of generating European safe assets would be via either SBBS or the E-bond approach, both of which could yield up to about a quarter of euro area GDP in terms of safe assets generated. Because the capitalisation approach is identical to SBBS except that the junior tranches are replaced by a capital cushion, it could deliver the same volumes as SBBS, but the required capital amounts are high. For example, generating 24% of GDP worth of safe assets would require 0.3*24 = 8% of euro area GDP in capital.

The amount of debt that a euro area budget could sustain would depend on the revenues that are dedicated to it. For example, it can be shown that under a range of assumptions about growth and real interest rates in the euro area, a primary surplus of 0.5% could sustain debt of at least 25% of GDP.

Safety

All approaches relying on diversified pools of national debt can be calibrated, using a given default simulation model, to target a particular expected loss rate. In that sense, all can be made equally safe. However, they differ in how these losses are distributed, particularly in the risk tail. These differences can be illustrated using a common measure for unexpected losses, the 'value at risk' (VaR). The VaR at probability p measures the maximum loss occurring with probability p or higher. Figure 1 shows VaRs for ESBies, national tranching and E-Bonds (in two versions, including a 'capitalised' version). VaRs corresponding to the capitalisation approach are identical to those shown for ESBies.

Figure 1. Value at Risk of different approaches, at different thresholds



Note: This figure shows the Values at Risk (VaRs) of four potential safe assets, at different thresholds ranging from 5% to 0.5%, using portfolio weights derived in Leandro and Zettelmeyer (2018a). For ESBies, we assume the portfolio weights given by column (5) in Table C6 of Leandro and Zettelmeyer (2018a); for E-bonds, the portfolio weights in Table 3; for national tranching and pooling, the weights given in Equation 1 of Table 2.
Sources: authors' calculations based on the simulation model of Brunnermeier *et al.* 2017.

The figure shows that ESBies (and bonds issued by an equivalently capitalised intermediary) fully protect their holders against risks occurring with probability of about 4% or higher and are more effective than E-bonds or national tranching in protecting their holders against tail risks between about 2 and 4%, but are more vulnerable to extreme tail risks. This is because ESBies are fully protected against individual or multiple defaults by euro area member states whose total losses-given-default do not exceed the size of the non-senior SBBS tranches. Once this cushion is depleted, however, holders of ESBies would bear the full cost of further defaults. In contrast, E-bonds and national tranching bear losses any time the losses-given-default of a single country exceeds the portion of its debt held by subordinated debt holders. At the same time, they continue to offer partial or even complete protection (depending on loss-given-default assumptions) in the very unlikely event that countries such as France, Germany or Netherlands were to default in addition to lower rated countries.

To offer better protection against severe defaults by smaller countries or combinations of smaller countries, the E-bond intermediary could be capitalised. Figure 1 shows that a 3% capitalisation (ten times less than what was required in the pure capitalisation approach) would offer the same degree of protection as ESBies for moderate tail risks together with much higher protection against extreme risks. Even if all euro area sovereigns defaulted, holders of capitalised E-bonds would only suffer losses in the order of 5% of face value.

Borrowing costs

All else being equal, the reduction of crisis risks associated with the sovereign exposure of banks should reduce borrowing costs over time. This said, not all might be equal – in particular, debt restructuring may become a more viable means for the resolution of debt crises. If so, the impact on borrowing costs might depend on a country's fiscal position and growth prospects, raising borrowing costs for countries whose debts may not be sustainable, and lowering borrowing costs for other countries.

The E-bond-proposal has an additional disciplining effect because bonds issued to the market would be subordinated to claims held by the E-bond intermediary. Since this implies that investors would bear higher losses-given-default, the *marginal* cost of debt issuance for countries that have reached their debt issuance limit to the E-bond intermediary would go up. However, this rise in the costs of borrowing from the market does not necessarily translate into a rise in overall borrowing costs. The reason is that a share of the debt is now being borrowed from the E-bond intermediary at the much lower German cost of borrowing (assuming that the E-bond was designed to exactly match the expected loss rate of the German bund), and the E-bond issuer passes its low funding costs on to its borrowers. In Leandro and Zettelmeyer (2018a), we show that the net effect is to slightly raise average borrowing costs for the highest rated borrowers and to slightly lower average borrowing costs for the lowest rated borrowers.

In contrast to E-bonds, ESBies would not subordinate national debt, only the non-senior tranches of SBBS. This said, they may "interfere" with national debt markets to the extent that they reduce liquidity, as debt purchased by the intermediary would be held to maturity and hence would no longer be available for trading. However, the SBBS proposal can be implemented in a way that would maintain large volumes of tradable national debt to preserve its liquidity (for example, 50% of the debt stock or 200 billion in tradable securities, whichever is smaller, see Leandro and Zettemeyer 2018a). Furthermore, the presence of a large liquid market in euro area safe assets could reduce the costs of hedging euro area risks, reducing the cost of dealer inventories of sovereign bonds and raising liquidity in national markets (ESRB 2018).

Redistribution

Assuming they work as intended, the SBBS, capitalisation, and national tranching approaches all rule out redistribution because bond purchases occur at market prices. Assuming that prices reflect risk, there would hence be neither profits nor losses to be redistributed. A euro area budget might lead to redistribution, but only if the expenditure side is designed to do so; a euro area sovereign wealth fund will avoid redistribution provided that profits and losses are distributed in proportion with the capital shares.

This leaves the E-bond proposal as the main outlier. Redistribution arises because the funding costs of the intermediary are distributed to its debtors according to their portfolio weights, regardless of how much risk each debtor contributes. However, because of the E-bond intermediary's senior creditor status, the redistributive effect would be quantitatively small. Simulations indicate that total redistribution could be in the order of €10 billion over five years, mostly at the expense of Germany (-3 billion) and France (-2.2 billion) and to the benefit of Greece (4 billion), Spain (1.4 billion) and Portugal (1 billion). Redistribution could be reduced by excluding exceptionally risky borrowers, such as Greece, from the portfolio, or by capitalising the intermediary in a way that reflects the contribution by each member state to the risks borne by the intermediary.

Unintended consequences

All proposals are potentially prone to 'accidents' that might prompt intervention by the ESM and/or the ECB, and hence carry mutualisation risk. However, the risk of such accidents could be kept very low through appropriate design. In the case of the euro area budget or wealth fund, this means choosing the revenue or contribution streams appropriately and placing limits on how they can be spent or invested. In the case of SBBS, bonds issued by a capitalised intermediary and E-bonds, the focus should be on minimising counterparty risks associated with the intermediary or intermediaries, as well as sovereign debt restructuring rules that ensure that intermediaries are not discriminated against (in the case of SBBS) or have their seniority respected (in the case of E-bonds). In the case of national tranching, the main worry is the greater volatility and potentially lower liquidity of junior debt issues, which might trigger faster loss of market access. This requires an ESM that is both large enough to prevent debt runs and capable of differentiating between debt runs and solvency problems.

A frequent criticism of SBBS is that the junior tranches might not find any buyers in future debt crises, or perhaps even in normal times. It is easy to show that the latter fear is unwarranted, because SBBS, as analysed in ESRB (2018), would mostly reduce rather than increase the net supply of lower-rated sovereign and sovereign-based securities (since they 'use up' bonds in the same rating categories that would correspond to the junior tranches, see Leandro and Zettelmeyer 2018b). In debt crises, the junior tranches might indeed lose market access, but only if some of the countries in the SBBS portfolio also lose market access. It can be shown that if countries losing market access are excluded from the portfolio bought by SBBS issuers, and if sovereigns cannot discriminate against SBBS issuers in a default situation, then it is logically impossible for SBBS to lose market access. Furthermore, even if SBBS were to lose market access, the consequences would be benign, as countries could simply continue to issue sovereign debt directly to the markets.

Conclusion

Most criticisms directed at SBBS/ESBies do not stand up to scrutiny. Furthermore, SBBS do well compared to several alternative proposals to create safe assets without member state guarantees. They would protect their holders against a wide range of risks, including correlated defaults. They could deliver a relatively large volume of safe assets, in the order of 25% of euro area GDP, while maintaining liquid national bond markets. They would not impact the borrowing costs of sovereigns, and they would not lead to redistribution across countries.

It would be possible to create a safe asset instrument without tranching – hence avoiding an aspect that SBBS critics frequently criticise – while mimicking the properties of ESBies in all other respects. However, this would require a high level of public capital, which would functionally play the role of the junior tranches, in the order of 25-30% of assets.

At the same time, some competing proposals could be superior to ESBies in at least some dimensions. In particular, a lightly capitalised version of Monti's (2010) 'E-bond' approach would have two advantages. First, it would offer the same protection as ESBies against moderate tail risks, and higher protection in extreme cases. Second, it would have a fiscal disciplining effect on sovereigns, by raising marginal borrowing costs of countries with high debt levels, without raising their average borrowing costs. Unlike SBBS, however, E-bonds would imply some (if modest) redistribution, and some stakeholders may not welcome their more pronounced impact on national bond markets.

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Annex: Notes from Virtual Meeting – 23 October 2017

Presentation by **Jeromin Zettelmeyer**, discussion led by **Jesús Fernández-Villaverde**

Participants *(alphabetical)*

Jochen Andritzky	German Council of Economic Experts
Roel Beetsma	University of Amsterdam
Mathias Dolls	ifo Institute
Jesús Fernández-Villaverde	University of Pennsylvania
Daniel Gros	Centre for European Policy Studies
Mark Hallerberg	Hertie School of Governance
Philippe Martin	Sciences Po
Roberto Perotti	Bocconi University
Pietro Reichlin	LUISS Guido Carli University
Jörg Rocholl	ESMT Berlin
David Thesmar	MIT Sloan School of Management
Jeromin Zettelmeyer	Peterson Institute for International Economics

Jesús Fernández-Villaverde recalled that the bank-sovereign loop does not only work through sovereigns. Bocola (2016) shows how banks suffer from a sovereign default through firms even if banks do not hold domestic government debt. He also pointed out the idea that the total risk in an economy remains unaffected, as explored by Barro *et al.* (2017). In effect, a safe asset for the euro area may just reallocate risk among economic agents. In addition, it is questionable whether a government would observe the seniority structure implied by national tranching if there were a default. A euro area budget or, also, ESBies would not suffer this problem.

Daniel Gros challenged the assumption that diversification of government bond holdings would lead to large distributional changes. For instance, Italian banks have issued bonds while at the same time holding (Italian) sovereign bonds, earning a negative margin. Investors who invest in bank bonds could instead directly hold government bonds. Hence, banks do not provide additional demand for government bonds or stabilise markets. **Jeromin Zettelmeyer** found this empirical observation useful, but doubted the conclusion that government bond holdings by banks reflect irrationality. **Daniel Gros** pointed out that supervisory pressure may be at play.

Roberto Perotti questioned the benefits of creating a safe asset. Italian banks or insurance companies would have fared worse during 2011/12 if they had held lower yielding ESBies instead of Italian government bonds. He also pointed out that it could be tricky to ensure the safety of revenue streams or senior tranches in situations such as the recent developments in Catalonia. **Jeromin Zettelmeyer** said that Italian banks may have simply been lucky during the crisis.

Daniel Gros argued that the higher risk inherent in Italian government bonds may have driven up the costs of capital for Italian banks. In turn, they would have benefited from a diversification of government bond holdings. Jeromin Zettelmeyer responded that the proposal does not try to address the issue of structurally weak banks.

Jochen Andritzky suggested that any proposal would need to be robust relative to the different situations in which a sovereign default may occur. First, any proposal must not inhibit orderly debt restructuring of government debt as part of ESM-programmes as proposed by the GCEE (Andritzky *et al.*, 2016). Second, any proposal would need to be robust in the case of a default due to unwillingness to pay. Third, a proposal must be able to cope with an exit. Jeromin Zettelmeyer responded that the first type is the one his proposal seeks to address. Willingness-to-pay issues, however, are unlikely in the absence of disruptive political events. Exits are a relevant consideration, and ESBies would be less problematic than a euro area budget.

Pietro Reichlin mentioned that Italian banks may be undervaluing risk in a gamble for redemption. Jeromin Zettelmeyer put this point in the context of the secondary market theory of debt underlying the proposal, coupled with moral hazard on the side of the sovereign. Home bias reduces the scope to restructure sovereign debt as banks will require a bailout.

6 Bank crisis management and resolution: What is missing?

Nicolas Véron

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In any financial system, arrangements for bank crisis management and resolution are a critical part of the prudential framework – even though in most cases, bank crises are typically infrequent and most of the ongoing prudential activity is about crisis prevention, mainly through adequate regulation and supervision. In the euro area, the bank crisis management and resolution framework has gone through a major dual shift in less than a decade.

First, and as in the rest of the European Union (if not all other jurisdictions across the globe), the reference approach has shifted from 'bail-out' to 'bail-in'. In these widely used semantics, bail-out refers to the public rescue of failing banks and reimbursement of their claimants with public funds; and bail-in refers to the forced imposition of losses on creditors of failed banks, if necessary through an administrative process by exception to normal insolvency law, or 'resolution'. The reference legislation for this shift is the Bank Recovery and Resolution Directive (BRRD), which was proposed by the European Commission in early June 2012 following years of consultations, enacted in May 2014, and fully entered into force in January 2016.

Second, specifically in the euro area, and most unambiguously for the larger banks including all those with more than €30 billion in total assets, much (though not all) of the authority for crisis-time decision-making has shifted from the national level to the European level. This authority is shared between the European Central Bank (ECB) as prudential supervisor; the newly created Single Resolution Board (SRB) as resolution authority; and the European Commission, through its Directorate-General for Competition (DG COMP), for the vetting of any financial assistance measures under the EU state aid control framework.[1]

Each of these two shifts is momentous. Together, they represent nothing less than a regime change, with long-term structural impact for the euro-area banking sector and financial stability. In designing and implementing this massive policy transformation, the European Union has the basics broadly right. The new framework is much sounder than what it replaced. However, it is still incomplete, and a long learning path lies ahead.

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[1] The corresponding reference texts are the Single Supervisory Mechanism (SSM) Regulation, proposed in September 2012, enacted in October 2013, implemented in November 2014; the Single Resolution Mechanism Regulation (SRMR), proposed in July 2013, enacted in July 2014, implemented in January 2016; and the successive "Banking Communications" in which the European Commission has detailed its approach to state aid control in the banking sector from 2008 onwards, the latest of which was published in July 2013 and entered into force the following month.

A policy regime change

The policy regime during the first few years of the financial crisis was of implicit support to banks, going well beyond the explicit guarantee of insured deposits. Both the deposit insurance and the implicit guarantees took vastly different forms in different EU member states. The precise extent of support was left ambiguous, and was only revealed by reactions to individual crisis events. In some cases, it extended all the way to bank shareholders, namely, a bank that appeared to be failing or likely to fail would be purchased by national authorities for a positive (and in several cases significantly positive) price of total shareholder equity. Such cases included Fortis, Dexia, and RBS in September and October 2008.

In other cases, national authorities extended explicit guarantees on bank liabilities well beyond insured deposits. Such guarantees could be provided either on a bank-specific basis, e.g. to IKB in Germany in late July 2007 (the first case of bank failure and rescue in the entire crisis sequence), or on a nationwide basis, e.g. in Ireland in October 2008. On October 16, 2008, EU political leaders jointly issued a statement that "The European Council reaffirms its commitment that in all circumstances the necessary measures will be taken to preserve the stability of the financial system, to support the major financial institutions, to avoid bankruptcies and to protect savers' deposits". While this statement left some space for interpretation as to the specific underlying policy stance(s), it was widely interpreted as signalling that no bank would be allowed to fail.[2]

Cases of banks that appeared to be failing or likely to fail in 2007-09, and for which government financial intervention ensured that no creditor (even junior) would incur any losses, occurred in many EU member states including Belgium (Fortis and Dexia), Denmark (Roskilde Bank), France (Dexia), Germany (IKB, Sachsen LB, WestLB, Hypo Real Estate), Spain (Caixa Catalunya), the United Kingdom (Northern Rock, RBS) among others.

As a consequence, however, public outrage against "taxpayer-funded bail-outs" grew in several countries – not least the United States, whose policy debates often influence European ones. A consensus then gradually crystallised that such a stance was excessively generous to bank managers, shareholders and creditors, and a potentially unsustainable commitment of public money. That unsustainability became observable shortly after the panic in the early autumn of 2008. Ireland had a very large banking sector in proportion to its GDP, and had extended very generous guarantees. The resulting sovereign debt market tensions almost led to an IMF financial assistance program in early 2009, 18 months before an actual programme was requested and approved.[3] Several member states, including the United Kingdom, Denmark and Germany, adopted new legislation in 2009-10 to introduce a special bank resolution regime enabling various kinds of administrative bail-in of creditors, taking inspiration largely from longstanding US arrangements. The European Commission initiated consultations in 2009 on EU legislation to that effect, but though it took about three years before publishing an actual

[2] See e.g. Andrew Hurst, "Left or right, European governments don't let banks go bust," *New York Times*, November 8, 2008.

[3] Donal Donovan, "The IMF's Role in Ireland," Background Paper BP/16-02/04, Independent Evaluation Office of the International Monetary Fund, July 2016, paragraph 53.

proposal for the BRRD (on June 6, 2012), it did signal its intentions with gradually increasing specificity in the meantime. On October 20, 2009, the Communication "An EU Framework for Cross-Border Crisis Management in the Banking Sector" stated that "A European framework for bank resolution must therefore be based on agreed and common objectives which should ensure that losses fall primarily on shareholders and junior and unsecured creditors rather than on governments and taxpayers. (…) The overriding policy objective is to ensure that it should always be possible – politically and economically – to allow banks to fail, whatever their size". Exactly a year later, another Communication, "An EU Framework for Crisis Management in the Financial Sector", added that "The overriding objective of a European resolution framework should be that ailing institutions of any type and size, and in particular systemically important institutions, can be allowed to fail without risk to financial stability whilst avoiding costs to taxpayers. (…) In spite of the technical challenges presented by the design of a debt write-down mechanism, the Commission considers that it offers an additional resolution tool that would significantly enhance the ability of authorities to resolve LCFIs".[4]

Barely a few weeks after the Commission published its BRRD proposal on June 29, 2012, the euro-area countries launched the banking union project with a pledge "to break the vicious circle between banks and sovereigns" and to establish the SSM. Later in the same year, in December 2012, they decided to create a Single Resolution Mechanism, which further took shape in policy discussions throughout 2013 with the eventual agreement to create the SRB as a central hub for crisis management decision-making. The parallel legislative work on the BRRD and the SRMR eventually shaped the current regime.

The new regime: theory and practice

This regime can be summarised simply for the larger banks (or significant institutions) that together represent about four-fifths of the euro area's banking system.[5] The ECB, under its supervisory authority, may deem a bank to be "failing or likely to fail" (FOLTF) if its criteria for viability are not met. The SRB can also declare a bank FOLTF. Once a bank has been declared FOLTF, the SRB decides whether public-interest (i.e. financial stability) considerations justify triggering a resolution process. If so, the SRB decides on a resolution scheme, which is then executed by the relevant national authorities. If not, the bank is liquidated in a court-ordered process under national law(s). If a resolution process is undertaken, the SRB must ensure that no creditor ends up worse off than would have been the case in a court-ordered liquidation. If a bank is weak but not FOLTF, the BRRD allows national authorities to inject public capital into it under a process labelled "precautionary recapitalisation", even though this must be done in compliance with applicable state aid control constraints (which currently entail loss-taking by shareholders and junior creditors).[6]

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[4] LCFIs refer to large and complex financial institutions.

[5] This analysis leaves aside the discussion of smaller banks, or less significant institutions in the banking union jargon, for which national variations are even greater, and public information is generally less complete.

[6] This chain of decision-making is summarised on the ECB's website.

That is the theory. The practice is still at a very early stage, with barely more than two years since the regime fully entered into force in January 2016, and only a handful of cases. Even so, several issues have emerged. The SRB has had a somewhat challenging start.[7] Its ability to form its own opinion on FOLTF status was not evident in the case of Italy's Monte dei Paschi di Siena, which eventually benefited from a precautionary recapitalisation by the Italian state. The alternative between administrative resolution and court-ordered liquidation has been blurred by the cases of Banca Popolare di Vicenza and Veneto Banca. After both these banks were declared FOLTF by the ECB in June 2017, the SRB decided not to take resolution action, but Italian law allowed the Bank of Italy to lead the liquidation process (under some judicial control) through a special regime of *liquidazione coatta amministrativa*, which suspiciously resembles resolution but without the BRRD constraints. In the case of Latvia's ABLV, the SRB similarly decided not to go for resolution following the ECB's FOLTF determination in February 2018. However, a complication arose as ABLV's subsidiary in Luxembourg, despite being FOLTF in the ECB's assessment, was not liquidated as the conditions for that were not found to be met under national law.[8] Only one case, the resolution of Spain's Banco Popular Español in early June 2017, has appeared to be broadly in line with the intent of BRRD legislators; but even there, many questions remain unanswered, and the decision-making process was marred by harmful leaks and miscommunications, leading to numerous ongoing lawsuits against both the SRB and the relevant Spanish authorities.

It is to be expected that future cases will reveal other challenges or unintended effects of the new regime, including in countries such as France and Germany, where no significant case of bail-in has ever occurred since the start of the crisis, even of junior creditors. Such discrepancies between theory and practice can be viewed as largely inevitable given the magnitude of the policy shift. They are made potentially more problematic by the slow pace of EU legislative processes, which implies that even those shortcomings that have been clearly identified cannot be addressed swiftly.

Reform prospects

Realistically, legislative reform can be envisaged at the earliest only after the European Parliament election of May 2019. This is because of the clogged pipeline of ongoing legislative processes until the end of the current European parliamentary term, and despite the BRRD provision that calls for a legislative review by 2018.

The main lesson of the early experience of the combined BRRD and SRMR is actually not about either legislation: namely, that the aim of a single bank crisis management and resolution regime requires harmonisation of national bank insolvency law. This is a logical and necessary implication of the very concept of a Single Resolution Mechanism: given the principle of "no creditor worse off", the harmonisation of the resolution process under BRRD is not sufficient

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[7] See European Court of Auditors, "Single Resolution Board: Work on a challenging Banking Union task started, but still a long way to go", Special Report 23/2017, December 2017; and also Nicolas Véron, "Bad News and Good News for the Single Resolution Board", Bruegel Blog, 15 January 2018.

[8] See e.g. Roxana Mironescu, "ABLV takes ECB to court over 'liquidation' decisions," *Luxembourg Times*, 7 May 2018.

to harmonise resolution outcomes, and a harmonisation of the alternative (namely, liquidation) is needed as well. This inescapable reality, however, was omitted by policymakers during the 2012-14 wave of legislation, possibly because harmonising insolvency law is immensely complex and difficult. A first attempt has been made by the European Commission, namely a limited harmonisation of the hierarchy of bank liabilities as part of a broader banking legislation package proposed in late 2015 (and still under discussion at the time of writing). The above-mentioned early experience, particularly the cases of the two Veneto banks and of ABLV, suggest phasing out administratively-led national liquidation regimes such as Italy's *liquidazione coatta amministrativa*, and separately, a provision that would force liquidation of a bank that has been declared FOLTF and for which no resolution action has been undertaken. It remains to be seen whether other future challenges can be addressed with *ad hoc* patches, or whether fuller harmonisation will eventually be needed in this area, possibly extending all the way to a single EU bank liquidation regime that may be adjudicated by a specialised EU-level jurisdiction.

BRRD itself will surely call for revision in the future, but the practice so far has not revealed obvious flaws requiring urgent correction. In particular, any shortcomings in past cases of precautionary recapitalisation, one of the most contentious BRRD provisions, can and should be addressed through improved supervisory and state aid control practices, without legislative change.[9] As for the SRMR, it is likely that the current, somewhat awkward division of labour between the SRB (in charge of deciding on the resolution scheme) and national competent authorities (in charge of the scheme's 'execution') may lead to conflicts or dysfunction in the future. The fact that no such problems arose in the case of Banco Popular, the only one so far in which the SRB has taken resolution action, provides no reassurance, and that case has also shown that the division of labour does not inherently protect the SRB against judicial risk. A revision of SRMR that would entrust the SRB with full authority over the execution of resolution schemes appears advisable.

Outside of the legislative realm, the European Commission will also need to adjust its state aid control framework to the changed financial context. The currently applicable Banking Communication was issued in 2013 in an environment of systemic financial fragility, which now no longer exists. This justifies consideration of a new Banking Communication, which may be published in 2018.

Last, but evidently not least, the bank crisis management and resolution framework would be greatly improved by further euro-area-level pooling of public intervention tools that remain justified in the new context created by BRRD. This calls in particular for two reforms. First and most important, EU legislation should establish a genuine European Deposit Insurance Scheme (EDIS) for countries participating in the banking union, that would protect all covered deposits equally and unconditionally. Second, the 2014 guidelines for the use of the European Stability Mechanism (ESM)'s bank recapitalisation instrument should be revised to allow the ESM to participate in precautionary recapitalisations if justified by European public-interest considerations, and also possibly to extend guarantees on bank liabilities if needed. Such steps

[9] This point has been developed in further detail by the author in a study for the European Parliament: Nicolas Véron, "Precautionary recapitalisation: time for a review?", republished as Bruegel Policy Contribution 2017/21, July 2017.

are certainly controversial, but are also necessary to reach the level of euro-area resilience that political leaders have called for.

Conclusion

The radical reform of bank crisis management and resolution in the euro area through the introduction of BRRD and the SRMR has withstood its first contacts with reality, but has not emerged entirely unscathed. At this point, the most glaring missing piece appears to be the lack of harmonisation in bank insolvency law, which, even under optimistic assumptions, will take a long time to remedy. Further lessons will be learned in future cases, and further legislative adjustments will be needed to make the framework more effective, efficient, and predictable.

Annex: Notes from Virtual Meeting – 23 August 2017

Presentation by Nicolas Véron, discussion led by Isabel Schnabel

Participants (alphabetical)

Jochen Andritzky	German Council of Economic Experts
Mathias Dolls	Ifo Institute
Augustin Landier	Toulouse School of Economics
José-Luis Peydró	Barcelona GSE
Jörg Rocholl	ESMT Berlin
Isabel Schnabel	University of Bonn, German Council of Economic Experts
Dirk Schoenmaker	Rotterdam School of Management, Bruegel
Nicolas Véron	Bruegel and Peterson Institute for International Economics
Jeromin Zettelmeyer	Peterson Institute for International Economics

Isabel Schnabel highlighted five areas where the European resolution regime needs further improvements to become fully credible. First, the conditions for resolution tools are too vague and in part too weak, such as for the definition of "failing or likely to fail" or for precautionary recapitalisation. Second, an update of the Banking Communication is necessary to remove the misleading notion that bail-in of senior debt is not required. Third, the role of the Single Resolution Board (SRB) needs to be strengthened. Fourth, differences in national insolvency laws impede resolution, and harmonised tools such as a moratorium and out-of-court-settlement tool could be helpful. Fifth, too-big-to-fail considerations should become part of merger control procedures, as the resolution regime could lead to the creation of even larger banks.

In his response to Isabel Schnabel, Nicolas Véron emphasised that too-big-to-fail was first raised as an issue in the US, at a time when Europe was not even able to handle the failure of small banks. This has now changed. He also clarified that bail-in is an administrative decision and hence different to an absence of a bail-out. Overall, despite the shortcomings pointed out, he reiterated his view that the system works.

Dirk Schoenmaker pointed out that many issues with the current resolution framework are due to the coexistence of European and national legislation: "The system is walking on two legs." A true banking union would require a single legislation for banks that are supervised, resolved and recapitalised by European institutions, and which participate in deposit insurance at European level.

Jeromin Zettelmeyer agreed that too-big-to-fail is not an issue for the Commission's DG Competition, while he shared the concern that large banks can become even bigger through takeovers of small ones in resolution. He also agreed that differences within national insolvency law pose a problem regarding the 'no creditor worse off'-principle.

In a short discussion on lending of last resort, Nicolas Véron clarified the difference between the recent cases in Italy and Spain. Since Italy provided guarantees to allow banks to access ECB refinancing, liquidity was not an issue. In contrast, in Spain, the Bank of Spain decided to tighten conditions for ELA, which posed a problem for Banco Popular.

Isabel Schnabel raised the point of credibility of bail-ins, offering the criticism that the bail-in of senior debt is not required by the current banking communication as it is widely assumed that senior debt is secured. Furthermore, the compensation for retail investors owning bail-in-able instruments also undermines the severing of the bank-sovereign nexus. With regard to state aid, Nicolas Véron thought that – in the context of the crisis – DG Competition was right to distinguish between junior and senior debt. Now that the system is much less fragile, DG Competition should proceed to the next step and correct the perception that senior debt is protected. However, he warns against too hasty changes, pointing to the case of the US where the current system is the result of many decades of development. While echoing Isabel Schnabel on her critique on compensation for retail investors, he maintained it is not the European framework but the domestic authorities that failed in the area of consumer protection and should be criticised more vocally.

Jochen Andritzky took up the criticism of the very tight conditions for ESM direct recapitalisation and noted that there are good reasons for them. Nicolas Véron recalled the history of the commitment to create such a facility and the apparent backtracking, mainly by Germany. He argued that the ESM has a banking department and suggested that, in cases such as that of Monte dei Paschi di Siena, the ESM should be able to offer banks a precautionary recapitalisation, without the many preconditions that are currently contained in the direct recapitalisation facility. Isabel Schnabel recalled the influence on banks of national authorities, especially with regard to domestic legislation, whereby the possibility of direct recapitalisation by the ESM would create the opportunity to shift the burden onto the European level. Jeromin Zettelmeyer agreed and thinks precautionary recapitalisation should initially be in the hands of national authorities. He also added that the possibility of direct recapitalisation was created to deal with the doom loop, and thus it is not reasonable to exclude using the instrument to deal with legacy problems. Dirk Schoenmaker took up this point, saying that only in a very few cases would a bank be too big to be recapitalised by the national authority of a large country, so this means that the ESM direct recapitalisation instrument would mostly serve as a backstop for small countries. He recalled the conditionality that is there to manage moral hazard issues, but also highlighted cross-border issues in rescues of international banks, notably the thorny question that may arise as to which national authority is in charge.

José Luis Peydró thought the current framework presents progress, but also underlined the critique of takeovers of small banks by large banks. He pointed out more needs to be done to improve the current framework.

Concluding the session, Nicolas Véron defended his view that precautionary recapitalisation is needed. The current way the conditions are drafted makes it difficult to assess the criteria. While the success of the case of Monte dei Paschi di Siena remains to be seen, he insisted the different treatment of the Greek banks and the Venetian banks is evidence that the current framework is broadly effective.

7 How should the euro area build a stable deposit insurance scheme?

Dirk Schoenmaker

Bruegel and Rotterdam School of Management, Erasmus University [1]

A key function of deposit insurance is to provide a credible safety net for depositors, one that is beyond doubt even in times of crisis. At the same time, as for any insurance scheme, there is an element of moral hazard: when depositors are protected by a supranational deposit insurance scheme, participating countries may be less strict about national banking policies. It is important to address these moral hazard concerns (which we do below).

However, current proposals for a European Deposit Insurance Scheme (EDIS) with national compartments to address moral hazard (e.g. Gros, 2015; Bénassy-Quéré et al., 2018, further explained in Schnabel and Véron, 2018) may defeat the purpose of EDIS. The idea of national compartments is that the first part of the loss is borne at the national level, and only above a certain threshold are losses shared at the supranational level. The viability of particular national compartments may be questioned during a crisis and thereby worsen the crisis dynamics. A good deposit insurance should be a beacon of stability during a crisis, not a source of lingering doubts.

Moreover, the euro area should maintain the rationale of Banking Union by designing a fully functional supervisory and crisis management system at the euro-area level (including Emergency Liquidity Assistance (ELA) by the ECB and EDIS), as highlighted in the 'Five Presidents Report' in 2015. Deviations from the Banking Union principle of euro-area level banking policies would preserve the current practices of ring-fencing of capital and liquidity at the national level by national supervisors within the Banking Union. Furthermore, the euro area could simplify its crisis management framework by integrating resolution and deposit insurance in a Single Resolution and Deposit Insurance Board operating a Single Resolution and Deposit Insurance Fund (Gros and Schoenmaker, 2014).

Gaining the trust of depositors

In their seminal article, Diamond and Dybvig (1983) show how bank runs occur in a fractional reserve banking system, whereby banks hold only a fraction of demand deposits in liquid funds and the remainder in illiquid loans. If rumours about a bank's quality of assets start circulating, depositors will rush to the bank as withdrawals are on a first come, first served basis. A credible deposit insurance scheme prevents banks runs, as depositors can rest assured that their deposit is guaranteed up to a certain amount.

[1] The author would like to thank Michel Heijdra and Nicolas Véron as well as seminar participants at LUISS Guido Carli University for their useful comments on an earlier draft of this contribution.

A deposit insurance scheme only works if it is enjoys the full trust of depositors. Ultimately, that trust is dependent on the provision of a credible fiscal backstop by the government (Schoenmaker, 2018). Once the market starts to question a country's capacity (not only fiscal capacity but also political willingness) to support its banking system and related safety nets, then a deposit flight is difficult to stop. This was witnessed during the euro-sovereign crisis, for example in the cases of Ireland, Portugal and Spain. The same happened during the Great Depression in the United States: state-level deposit insurance funds went bankrupt through lack of geographic diversification and size, thereby intensifying the banking crisis. One of the first actions of the then incoming President Franklin Roosevelt was the establishment of a deposit insurance system at the federal level, the Federal Deposit Insurance Corporation (FDIC), as part of the New Deal legislation in 1933 (Golembe, 1960).

Regarding banks, it is important to contain the impact of the failure of one or more bank(s) with subsequent deposit insurance payouts on the remaining banks. Such payouts can weaken the banking sector, as banks fund the scheme both *ex ante* and *ex post*. A large failure with uncertain payouts (the exact losses at the failing bank(s) are not directly known because of fluctuating asset values in times of crises) can set up a negative trust spiral in the case of smaller deposit insurance funds. A case in point is the failure of the medium-sized bank SNS in the Netherlands in February 2013. While the preferred option was a closure with bail-in and deposit insurance payouts, this created potentially large *ex post* contributions from the surviving banks to the deposit insurance fund as the value of SNS's commercial real estate portfolio was difficult to establish. That was seen as possibly weakening the surviving banks, still in the midst of the crisis. The government therefore decided to nationalise SNS and imposed a one-off levy on banks to co-fund the rescue. This bank levy was a fixed amount and created no uncertainty for the surviving banks.

Finally, the adverse selection and moral hazard aspects of deposit insurance should be addressed to minimise the exposure of the government as fiscal backstop for deposit insurance. To counter adverse selection, weak banks should not be allowed in. Existing banks need to be cleaned up through the removal, or full provisioning, of non-performing loans. New entrants should be checked before a licence is granted. Once banks are in, supervisors should monitor them in day-to-day supervision. These licencing and supervisory powers are now in the hands of the ECB as the central banking supervisor in the Banking Union.

Therefore, smaller deposit insurance funds are more vulnerable, as witnessed in the early 1930s in the US and more recently in Europe, while a large fund with a credible fiscal backstop stabilises the banking system (Schoenmaker, 2018).

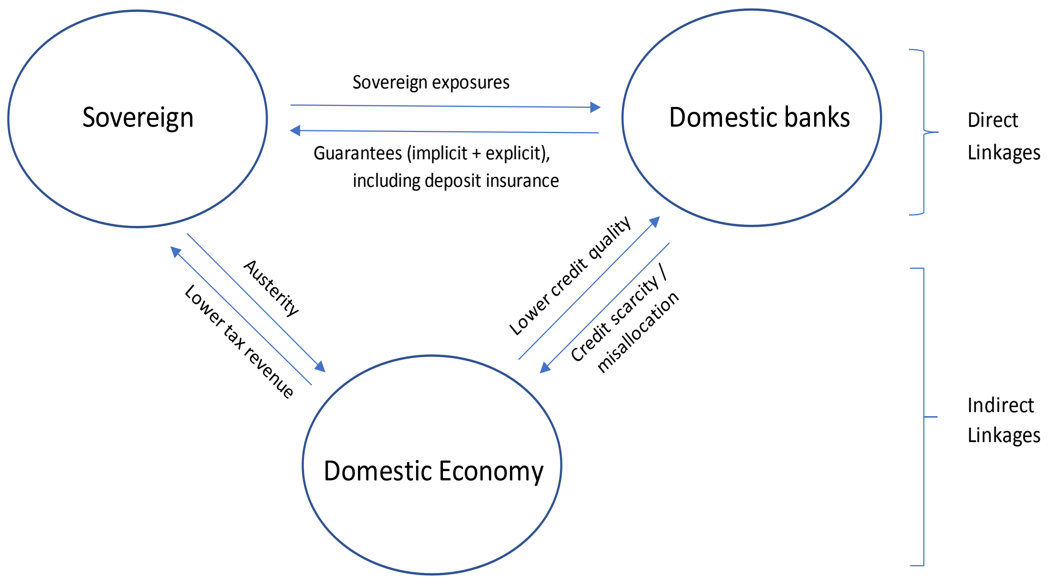
National compartments may weaken the structure

Notwithstanding the weakness of smaller funds, several authors propose to keep either national deposit insurance systems (Gros, 2015) or national compartments (Bénassy-Quéré *et al.*, 2018) in EDIS. The idea of national systems or compartments is to limit cross-border solidarity, because of lack of political support for a full EDIS. It means that the first part of the loss is borne at the national level, including partial clawback (Gros, 2015) or *ex post* fees (Bénassy-Quéré *et al.*, 2018).

As banks often fail in times of recession, payouts typically occur when the surviving banks are also not in very good shape. If they are obliged to refill the national compartment through future contributions (regular contributions and *ex post* contributions), this could destabilise the national banking system. These national banks will also become weaker in comparison with banks from other countries in the eurozone. In this way, a national compartment may be self-defeating and reduce the stability of a national banking system.

A second-round effect may be that the credit function of banks is hampered as they become capital constrained (credit crunch). This has a negative impact on the economy. Figure 1 shows the vicious cycle between a national banking system and the domestic economy (Véron, 2017).

Figure 1. Bank – sovereign linkages



Source: Véron (2017)

A final consequence of national compartments (and the current provision of ELA by national central banks) is that national supervisors would see the need for national banking supervision to remain in place. Bénassy-Quéré *et al.* (2018) argue the opposite. As EDIS with national compartments would operate under a single authority in their proposal, there would be no need for national requirements. However, the national compartments would continue to rely on *ex ante* and *ex post* contributions of the respective national banks. National supervisors could therefore (informally) require that 'adequate' liquidity and solvency is available at these national banks (including national banks that are a subsidiary of banks headquartered in another – euro-area – country) to fulfil their potential obligation to the national compartment.

The result is that ring-fencing practices, such as local liquidity and capital requirements, would continue to hamper full integration, with cross-border banking flows, of the Banking Union. The gaming between banks and national supervisors – banks threaten to convert cross-border subsidiaries into branches when local requirements become too burdensome – would not end (see Schoenmaker and Véron, 2016). Schnabel and Véron (2018) propose new EU legislation to eliminate geographical ring-fencing, but ring-fencing is a supervisory practice, which is difficult to erase (fully) by legislation.

Addressing moral hazard

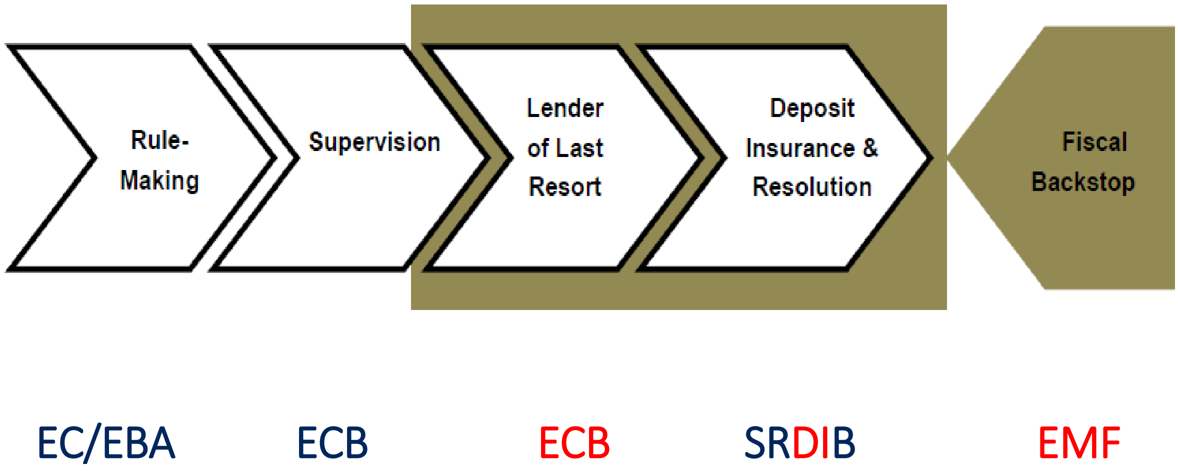
Moral hazard can be addressed in several ways. First, concentration limits on sovereign bond holdings at banks are crucial in order to reduce the sovereign risk in bank balance sheets (Véron, 2017). Second, the current efforts of the ECB and European Commission to reduce the share of non-performing loans (NPLs) should be pursued with vigour. Banks should be cleaned up before they enter a fully mutualised EDIS. A transition period is necessary for reducing sovereign concentrations and NPLs while building up the mutualisation of risks in EDIS. Third, the ECB as central supervisor in the Single Supervisory Mechanism should be tough in their licensing and supervision of banks (*ex ante* prevention). For future NPLs, the ECB should, for example, lay down strict provisioning rules (with mandatory write downs after a few years).

A final mechanism for mitigating moral hazard concerns is the introduction of a country component in the risk-based premium for deposit insurance, as proposed by Bénassy-Quéré *et al.* (2018). If a country has weak banking policies, such as weak creditor rights, lengthy insolvency procedures, lax provisioning policies or permissive housing finance, the country risk premium can be higher for that country (providing an incentive to improve banking policies and phase out differences). The risk-based premium, which was already foreseen in the Commission's original EDIS proposal, would then have a bank-specific risk component and a country-specific risk component. Importantly, the risk premium should be set by the integrated Single Resolution and Deposit Insurance Board, outside the political arena. Moreover, the range for risk differentiation, from 0.5 to 2 times the calculated premium, should be widened. The European Banking Authority (2015) currently determines the risk range, based on powers delegated under Articles 10 and 13 of the European Deposit Guarantee Directive (2014/49/EU).

EDIS integrated within Banking Union

EDIS should become an integral part of a completed Banking Union. Figure 2 provides a schematic view of such a completed Banking Union. In earlier work (Sapir and Schoenmaker, 2017), we propose that the ECB should become the lender of last resort providing ELA and the European Stability Mechanism (ESM) should become a European Monetary Fund (EMF), providing a credit line to the new Single Resolution and Deposit Insurance Fund when needed (in addition to its main task of backstopping countries in need).

Figure 2. European institutions for financial supervision and stability in a Banking Union.



Note: The framework illustrates the five stages from rulemaking to the fiscal backstop. The bottom line shows the agency for each function.
Source: Schoenmaker (2013).

Here, we elaborate on the idea of integrating the Single Resolution Board (SRB) and EDIS into a Single Resolution and Deposit Insurance Board (SRDIB). Moreover, in line with our earlier proposal (Gros and Schoenmaker, 2014), we also recommend integrating the two funds, the Single Resolution Fund (SRF) and the European Deposit Insurance Fund (EDIF), into a Single Resolution and Deposit Insurance Fund (SRDIF). This would follow the practice of the FDIC in the United States and the Deposit Insurance Corporation of Japan (DICJ), which combine the resolution and deposit insurance functions and manage one fund.

A first advantage is that this simplifies crisis management. There are currently too many players, which makes crisis management more difficult. Experienced crisis managers know that crisis management complexity increases exponentially with the number of players and the speed of action slows down accordingly. The SRDIB could apply the least cost principle, which requires the resolution authority to choose the resolution method in which the total amount of the expenditures and (contingent) liabilities incurred has the lowest cost to the resolution and deposit insurance fund (Gros and Schoenmaker, 2014). The three basic resolution methods for failing banks to choose from are liquidation with a deposit payout, a take-over with public support and direct public support. The lowest cost solution can be selected within the SRDIB instead of in a protracted fight between the SRB and EDIS. In most cases, this would result in liquidation with deposit insurance payout (as the Banking Recovery and Resolution Directive created preference for claims on bank assets of the deposit insurance funds over other creditors – except for covered-creditors), unless there is a public interest in preserving certain critical functions of a troubled bank (resolution funding is then allowed under state aid rules).

A second advantage is that an integrated fund fully exploits the pooling potential of insurance. Not only national funds, but also resolution and deposit insurance funds are pooled into one fund. After a transition period, the euro area should have a proper functioning Banking Union with a fully funded Single Resolution and Deposit Insurance Fund. We propose a 2% target fund ratio for the joint fund of SRDIF, similar to the FDIC. The current target fund ratios are 1 per cent for SRF and 1.5 per cent for EDIF (see Table 1).

Table 1. *Target size of the Single Resolution and Deposit Insurance Fund (end-2017).*

	SRF	**EDIF**	**Total**	**SRDIF**
Target fund ratio (as % of covered deposits)	1%	1.5%	2.5%	2%
Target size (in € billions)	54.6	81.8	136.4	109.1
Available funds (in € billions)	17.4	20.1	37.5	37.5
Available as % of target size	32%	25%	28%	34%

Note: Covered deposits of eurozone banks amount €5,456.6 billion at end-2017 (end-2016 for available funds at EDIF). Some countries have only recently converted their *ex post* funded deposit insurance scheme into an *ex ante* funded scheme, which explains the limited available funds. During the build-up of the *ex ante* schemes, these countries can still impose *ex post* contributions on the participating banks.
Source: Author calculations based on EBA (2017) and SRB (2017).

While current national funds are typically too small to deal with one large bank failure, the new fund, once fully up and running at €109 billion (Table 1), could handle up to two large bank failures (or multiple smaller failures) in the euro-area without problems. A conservative assumption is that equity capital needs to be replenished in a rescue operation (Schoenmaker, 2018). The average equity of the top 10 euro-area banks amounts to around €60 billion (updated from Schoenmaker and Véron, 2016). These estimates are based on the upper range of support operations during the Global Financial Crisis. The (partial) application of the new bail-in regime would reduce the potential size of public support, allowing the fund to deal with more large failures.

Focusing on EDIS only, Carmassi *et al.* (2018) also find that a euro area deposit insurance scheme is more stable than national compartments or national systems under different stress and bail-in scenarios. In their simulations, risk-based contributions can internalise specificities of banks and banking systems. There would be no unwarranted systematic cross-subsidisation within EDIS in the sense of some banking systems systematically contributing less than they would benefit from EDIF.

A final point is the scope of the SRDIF. The less significant institutions (LSIs) are already covered by the Single Resolution Mechanism (all euro-area banks) and the Single Supervisory Mechanism (the ECB is in the end responsible for all euro-area banks). We suggest incorporating the LSIs in the SRDIF, as separate funds for LSIs in each country will tend to be small and thus unstable, as argued in the earlier sections of this contribution (see Bénassy-Quéré *et al.* (2018) for a similar view). A different and politically contentious issue is what to do with the current institutional protection schemes (IPS), which imply mutual risk sharing among its members (small savings banks or cooperatives).

Conclusions

The eurozone needs to address moral hazard concerns arising from European deposit insurance. These justified concerns can be alleviated through a country-specific component in the risk-based premium for deposit insurance and limits on sovereign bond exposures on bank balance sheets. But proposals to maintain (permanently) national compartments in a new European Deposit Insurance Scheme are self-defeating, as such compartments can be destabilising in times of crisis.

This paper proposes to integrate not only the two agencies for resolution and deposit insurance into a Single Resolution and Deposit Insurance Board, but also the underlying funds into a Single Resolution and Deposit Insurance Fund. This would simplify crisis management procedures and reduce the required funding.

Finally, we argue for maintaining the Banking Union rationale throughout the framework. The bonus would be a fully integrated Banking Union market, in which current ring-fencing practices are phased out.

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Annex: Notes from Virtual Meeting – 19 March 2018

Presentation by **Dirk Schoenmaker**, discussion led by **Nicolas Véron**

Participants *(alphabetical)*

Jochen Andritzky	German Council of Economic Experts
Daniel Gros	Centre for European Policy Studies
Sam Langfield	European Central Bank
Jörg Rocholl	ESMT Berlin
Dirk Schoenmaker	Rotterdam School of Management, Bruegel
Nicolas Véron	Bruegel and Peterson Institute for International Economics

In this discussion, **Nicolas Véron** first emphasised his agreement with Dirk Schoenmaker on many issues, such as on the need for a European deposit insurance system (EDIS) in general, rules to address sovereign concentration risk, a credible European backstop, and levies based on the quality of creditor protection policies.

He then contrasted Schoenmaker's concerns to the actual proposal in the Franco-German euro report (Bénassy-Quéré *et al*., 2018; further explained in Schnabel and Véron, 2018). In the report, national insurers are phased out and all money is managed centrally. No distinction is made between an idiosyncratic bank failure and a systemic banking crisis, as mutualisation kicks in automatically when the national compartment is depleted. Hence, no national supervision is needed and there is no reason for national ring-fencing. The pace of replenishing the compartments can be fine-tuned in order not to put the recovery at risk. **Daniel Gros** emphasised that in his proposal of a reinsurance system (Gros, 2015), the sovereign feedback loop would similarly be severed as the national deposit insurers are not connected to the national sovereign.

Referring again to the Franco-German report, **Nicolas Véron** argued in favour of national compartments. Besides any political considerations, the economic rationale for national compartments is to account for persistent national differences and better align incentives. He further argued that national compartments would not reinforce the 'vicious circle' between banks and sovereigns, as they would be fully managed by the Single Resolution Board (SRB) and remain completely disconnected from sovereign governments.

Nicolas Véron agreed with the presenter that deposit insurance should be integrated with bank resolution under the roof of the SRB. Yet, even if the SRB managed both the Single Resolution Fund (SRF) and the European Deposit Insurance Fund (EDIF), tensions could arise over which of the funds to use in a crisis. **Dirk Schoenmaker** pointed to calculations that the joint amount of the funds would need to be less than their sum if managed separately, and that joint management would also ease governance complications. **Nicolas Véron** agreed, but warned that a full merger of the two funds (resolution and deposit insurance) may not be politically achievable.

Daniel Gros raised the question of the supplementary role of (private) deposit insurance systems as risk mitigators. At least in Germany, the Bundesverband deutscher Banken (BDB) as well as the deposit insurance system of the Sparkassen-Finanzgruppe may have pushed their member banks towards de-risking. He wondered whether deposit insurance systems in other countries could play a similar role. Nicolas Véron agreed but warned that at least some of these systems are perceived to enjoy implicit government guarantees, reinforcing the bank-sovereign feedback loop. In the proposal in the Franco-German report, BDB could definitely keep its present top-up scheme, and could also conceivably open it up for non-German banks to become members.

Jochen Andritzky questioned whether a European deposit insurance system could do anything against capital flight in presence of exit risk. If a crisis were to lead to a country trying to leave the euro, EDIS could hardly be credible enough to contain a deposit flight to banks in other member states. He hence doubted EDIS could prevent destabilising capital flight so long as exit risk remains. In the case of an exit, Dirk Schoenmaker thought that in a fully funded state, EDIS funds would be paid to the exiting country following some allocation rule, e.g. based on bank contributions or the ECB capital key. Nicolas Véron recalled that the possibility of euro exit is not enshrined in the Treaties and an exit would therefore trigger a highly political ad hoc negotiation. However, the existence of EDIS would reduce the risk of scenarios in which a government decides to exit, for instance in response to a retail bank run, to safeguard the payment system. It would also create a “common good” that, all things equal, raises the political price of exit, at least for weaker countries.

All participants agreed that *ex ante* rules for an exit from the euro area would be counterproductive. Daniel Gros raised the possibility of a country exiting the euro but staying in the Banking Union. In the subsequent discussion, participants disagreed on the extent to which a government trying to exit from the euro could exploit a joint deposit insurance, and whether this is a relevant scenario.

Dirk Schoenmaker raised the issue of replenishment of the fund through increased premia which may pour oil onto the fire of a crisis-shaken banking system. Nicolas Véron emphasised that from the depositor’s point of view, the proposed system would be country-blind. Jochen Andritzky doubted whether varying contributions between countries are politically acceptable and sufficient to address differences in national settings, such as creditor rights.

Jörg Rocholl, Dirk Schoenmaker and Nicolas Véron then discussed data sources for a comparative analysis of deposit insurance systems. While there is some data and descriptions available (e.g. from the EBA), a detailed overview, including private sector schemes, maintained by a competent EU authority (Commission, EBA or SRB) would be helpful.

8 A Euro Zone Basket as stabiliser for the euro area?

Dietrich Matthes

Quantic Risk Solutions

Jörg Rocholl

ESMT Berlin

The causes of the European debt crisis – as seemingly diverse as the member states of the European Union itself – had one thing in common. Regulators and policy-makers alike did not anticipate the degree to which liberties in sovereign debt management could become an existential threat to the entire EU financial system. Indeed, as subsequent analysis and debate has revealed, regulatory systems even acted as enablers. The 2015 European Systemic Risk Board (ESRB) report on the regulatory treatment of sovereign exposures, for example, noted that, despite numerous historic examples of sovereign defaults, regulatory treatment routinely ignored the possibility of sovereign default and risk.[1]

The cost of such negligence on the European body politic is more than financial. As recent elections across the European Union have shown, the management of the European debt crisis became a strong factor in spreading political instability. Voters who suffered through austerity measures imposed thereafter by the European Central Bank (ECB) and International Monetary Fund (IMF) on their countries rallied against the government leaders whom they perceived as capitulating to external interests at their expense. As recently as May, a Reuters headline on political turmoil in Italy called it a "referendum on the euro" and quoted a far-right political leader as saying "Italy is not free; it is occupied financially by Germans, French and eurocrats".[2]

Understanding and challenging (poor) sovereign debt practices – and their enabling regulatory frameworks – are imperative to strengthening the European Union against threats, both fiscal and political. The Euro Zone Basket (EZB) proposal – which we first detailed in a white paper entitled "Breaking the Doom Loop"[3] – aims to achieve this. It acknowledges the critical impact that the sovereign-bank nexus has in national and European financial (in)stability. It offers a simple formula for regulating sovereign debt that embraces already tried-and-true private-sector approaches to risk management via capital and liquidity assessments.

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[1] ESRB Report on the Regulatory Treatment of Sovereign Exposures. European Systemic Risk Board, Mar. 2015. EU catalogue number QB-02-15-139-EN-N, http://www.esrb.europa.eu/pub/pdf/other/esrbreportregulatorytreatmentsovereignexposures032015.en.pdf

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[3] Matthes, Dietrich, and Jörg Rocholl. Breaking the Doom Loop: The Euro Zone Basket. ESMT White Paper, 2017, http://static.esmt.org/publications/whitepapers/WP-17-01.pdf

The sovereign-bank nexus and the doom loop

Among the critical flaws revealed in the post-crisis scrutiny of the eurozone's financial infrastructure and processes was the sovereign-bank nexus, the dominant financial relationship between domestic commercial banks and their sovereigns. The nexus is grounded in two major phenomena.

First, as hinted at above, regulatory frameworks privilege sovereign debt over others, granting zero capital requirements. Commercial banks are assumed to otherwise practice their due diligence in assessing and covering the risks of their assets and investments, and thusly regulated. Similar levels of scrutiny are wholly absent in the sovereign-banking nexus. That is, where regulators require commercial banks to mitigate their risks, purchases of sovereign bonds carry no such requirements. As the 2015 ESRB report noted, regulators in the EU as elsewhere routinely categorise government bonds as high-quality and highly liquid assets. This zero-risk assumption flies in the face of years of historic examples, analysis, theory, and best practices in financial risk management – effectively a loophole for sovereigns in the regulatory treatment of debt.

Second, while foreign lenders and credit rating agencies may reject sovereign debt holdings based on their own risk assessments, research has shown that domestic banks have a sovereign debt home bias. While partly the perception of domestic banks and their sovereigns as 'natural allies', analysis published by the Centre for Economic Policy Research, for example, points to other voluntary and involuntary choices.[4] These can be driven by the regulatory advantages described above, on the one hand, or government pressure on domestic banks to hold sovereign debt, on the other, among others.

As a 2017 Bloomberg article succinctly described, these two phenomena are both part of the sovereign debt doom loop, "whereby weak banks can destabilise governments that support them and over-indebted governments can push banks holding their bonds over the precipice."[5] Despite the evidence of its critical role in the European debt crisis, the sovereign-bank nexus has yet to be sufficiently challenged at either national or EU levels. In fact, according to a recent brief published by the Economic Governance Support Unit (EGOV) of the European Parliament, commercial banks throughout the European Union and the European Economic Area continue to hold significant ratios of domestic sovereign debt.[6] While the report acknowledges the ideal that this represents – an ideal in which sovereign debt is truly safe and highly liquid – the reality, according to the report's authors, is that inattentiveness to these ratios can also result in costly bank bailouts, vulnerability to rating downgrades, and overall financial economic instability. Indeed, in the vortex of an economic crisis – represented by the fierce competition of interests

[4] Horváth, Bálint, et al. "European Banks' Sovereign Debt Home Bias: Voluntary or Involuntary?" VoxEU.Org, 31 July 2015, https://voxeu.org/article/determinants-bank-s-sovereign-debt-home-bias

[5] "Europe's Sovereign-Bank 'Doom Loop' Can't Be Broken." Bloomberg.Com, 15 Dec. 2017. www.bloomberg.com, https://www.bloomberg.com/view/articles/2017-12-15/europe-s-sovereign-bank-doom-loop-can-t-be-broken

[6] Banks' Exposures to Home Sovereign Bonds. European Parliament, Economic Governance Support Unit, Feb. 2018, http://www.europarl.europa.eu/RegData/etudes/ATAG/2016/574391/IPOL_ATA(2016)574391_EN.pdf

between commercial and domestic banks, regulators, credit rating agencies, private investors, and the greater public – the sovereign-bank nexus could deal the critical blow.

The EZB solution

As economists and policymakers have increasingly (and critically) noted, the debt-driven ties that exist between sovereigns and their domestic banks have been shown to make sovereigns uniquely vulnerable to financial crises and – in the case of the European Union – deeply threatening to a stable monetary union. However, whether due to regulatory privilege or home bias, sovereigns and their domestic banks have seen little incentive to change. Regulatory reform proposals that include cross-border asset pooling and tranching of government debt securities – and that continue to promote those debts as 'low-risk and high-rated assets' – may not foster efforts to stimulate higher levels of cross-border investment by banks.

Here is where the Euro Zone Basket (EZB) aims to offer a solution.

The EZB method starts with the acknowledgement that any approach that increases regulatory complexity or imposes inflexible limits – especially for the most-likely-affected sovereigns and their domestic banks – would face resistance from private players and contribute to the political pressures and instability results previously described. In the case of proposals that include pooling or tranching, for example, anything that requires commercial banks to commit to risks not of their own choosing (e.g. by being offered sovereign debt assets '*en bloc*' only) may be perceived as threats to their independence. That is, the regulatory path ahead must be illuminated by a commitment to simplicity, transparency, and cooperation.

The EZB offers a far simpler approach. It is a straight-forward mathematical formula to reduce the privilege of/bias for domestic sovereign debt by requiring appropriate, grade-rated capital provisions for domestically concentrated sovereign debt holdings (based on a rating-grade-based calculation akin to the Basel 2 IRB formula). Simultaneously, it reduces capital provision requirements on *foreign* sovereign debt holdings – again, compared to risk-based capital requirement computation. Thereby the EZB stimulates interest in cross-border sovereign debt investment by commercial banks and hence leads to more diversified sovereign debt portfolios and better-integrated European capital markets.

Best, the EZB method does not require the formation of another EU agency, does not prescribe asset portfolios, nor does it overestimate the willingness of sovereigns to institute limitations for themselves. Not only is it manageable, it truly supports the ideals of a functioning and fully integrated monetary union.

Leveraging ECB capital keys

National central banks (NCBs) each have shares in the European Central Bank (ECB). These are weighted equally by the EU member state's share of the EU's GDP and total population. The country's share – its capital key – is expressed by a percentage that is adjusted every five years and with the entry of every new country into the Union.

For the purposes of the EZB calculation, the member state is $\boldsymbol{i}$ and its capital key is $\boldsymbol{CK_i}$ and it would determine what percentage of a bank's total sovereign bonds would be permissible without requiring capital provisions. This capitalisation-free amount is expressed in the EZB calculation as a sum ($\boldsymbol{s_i}$).

Of course, any commercial bank remains free to determine for itself what its total position of sovereign debt is, with respect to corresponding supervisory bodies. It is that total amount (expressed as $\boldsymbol{S}$ in the EZB calculation) from which the capitalisation-free amount would be calculated.

That is, a capitalisation-free sum ($\boldsymbol{s_i}$) equals the bank's total available sovereign debt sum ($\boldsymbol{S}$) multiplied by the capital key percentage ($\boldsymbol{CK_i}$) or

$$s_i = S * CK_i$$

Any commercial bank that wishes to hold an excess of sovereign bonds – that is, any sovereign debt, domestic or foreign, above the corresponding, capital-key-determined amount available for that country – would require capital provision corresponding to standard formulas for associated risk weights, such as those provided by the Bank for International Settlements (i.e. as per the Basel 2 IRB formulae).

That is, what is to be capitalised ($\boldsymbol{c_i}$) equals the larger amount of total sovereign debt of country i ($\boldsymbol{a_i}$) less the capitalisation-free sum ($\boldsymbol{s_i}$), or

$$c_i = a_i - s_i$$

There are, of course, some caveats. One, this would apply only to those sovereign debts that have investment grade ratings. Where this is not the case, those sovereign debts would be subject to appropriate risk-based capitalisation requirements regardless of whether concentrated or not in the portfolio of any commercial bank. Secondly, limitations on capitalisation-free ($\boldsymbol{s_i}$) and capitalised ($\boldsymbol{c_i}$) concentrations of sovereign debt may also have to be applied.

Conclusion

The assumption of risk-free sovereign bonds has underpinned the financial systems of the EU and others. Regulatory treatments thus have had low or zero capital requirements for sovereign debt.

The sovereign-bank nexus – which has been supported by this regulatory privilege in risk assessment and a sovereign debt home bias – contributed mightily to the European debt crisis and subsequent political instability throughout the European Union. Economic and political experts have increasingly agreed that the doom loop of crises between weak banks and over-indebted governments can only be broken by regulatory reform that appropriately assesses sovereign debt risks and directly challenges the sovereign-bank home bias by incentivising cross-border sovereign debt holdings by banks.

Unlike pooling, tranching, and other reform proposals, the proposal of a Euro Zone Basket (EZB) avoids the tendency toward institutional complexity by embracing conceptual consistency and mathematical simplicity. By leveraging the capital keys of the European Central Bank, regulators can use the EZB's simple, transparent, and fair formula for calculating a capitalisation-free sum that any commercial bank can hold of a sovereign debt and reinsert standard risk assessment and capital requirements for additional holdings.

The EZB method is consistent with the standards of international credit rating agencies and applications of risk weights, and is also respectful of sovereignty concerns for public and private interests. The EZB offers a model for financial reform that is also reflected in the ideals of the European Union itself – encouraging investment and cooperation for the mutual benefit of all its member states.

Annex: Notes from Virtual Meeting – 29 November 2017

Presentation by Jörg Rocholl, discussion led by Sam Langfield

Participants (alphabetical)

Jochen Andritzky	German Council of Economic Experts
Roel Beetsma	University of Amsterdam
Mathias Dolls	ifo Institute
Daniel Gros	Centre for European Policy Studies
Sam Langfield	European Central Bank
Álvaro Leandro	Peterson Institute for International Economics
Dietrich Matthes	Quantic Risk Solutions
Pietro Reichlin	LUISS Guido Carli University
Jörg Rocholl	ESMT Berlin
Nicolas Véron	Bruegel and Peterson Institute for International Economics
Jeromin Zettelmeyer	Peterson Institute for International Economics

Sam Langfield agreed it is imperative to break the doom loop and to reinvigorate the process with fresh ideas. The proposal by Dietrich Matthes and Jörg Rocholl included several nice features such as its simplicity, its use of the ECB capital key, and the recognition that there are genuine prudential reasons for banks to hold sovereign bonds. However, the proposal has limitations such as achieving only limited diversification, since sovereign bonds rated AA- or better retain a zero risk weight. If the framework had been in place in 2007, many banks would have held sovereign bonds that later turned out to be risky, without any incentive to diversify those holdings *ex ante*.

Sam Langfield also emphasised that the proposal would only achieve incomplete de-risking, as the response of banks to the proposal depends on the elasticity to capital charges of their demand for sovereign bonds. Their risk profile may increase, as they may reallocate their portfolio from components subject to non-zero risk weight into other sovereign bonds, and in all likelihood buying the highest yielding and most risky sovereign bond conditional on receiving a 0% risk weight. In his view, reforms that induce banks to reduce their exposure to domestic risk, but increase that to foreign risk could therefore be counterproductive. This motivates the search for the 'holy grail' of a safe euro asset, which banks could use to both diversify and de-risk their sovereign bond portfolios.

In his response, Jörg Rocholl emphasised that the proposal follows the internal rating based (IRB) approach and thus does include risk charges even for bonds rated AA- or better. Dietrich Matthes agreed that the risk may increase for low-risk banks diversifying their holdings. However, the proposal includes a tolerance for excess holdings subject to an individual limit. The paper has not fully calibrated this, and those parameters could be adapted over time.

Jeromin Zettelmeyer agreed with the Sam Langfield's comments but thought the argument of limited de-risking was taken too far: whether expected losses go up or down for particular banks is unlikely to serve as a good guide to whether a doom loop is in effect. Rather, the concern is with non-linear effects that are hard to gauge. Therefore, the proposal probably makes the system much safer despite not fully addressing the doom loop concern. Diversification should reduce overall risk. **Nicolas Véron** also wondered whether the median expected loss is a proper way to reflect systemic risk and recalled that home bias, not investment in public debt, is the salient European issue. **Sam Langfield** responded that in his view, even a state of partial diversification could increase the risk of contagion, hence incomplete diversification should remain a concern.

Jeromin Zettelmeyer also asked how the authors view the risk that the introduction of such a scheme could trigger a crisis. **Jörg Rocholl** responded that Italy is the weakest link. However, there are three counterarguments. First, the share of Italy in the basket would also be large, so demand from other countries could be significant. Second, the buffer leaves some room for banks to retain some larger exposure to the sovereign bonds of their home countries. Third, the proposal would phase in over time, e.g. over seven to ten years. But a close look is warranted in order to avoid additional risk in the system. **Dietrich Matthes** added that the regulatory incentives of the proposal would make it attractive, for example, for Spanish banks to reinvest capital-free in other countries, such as Italy.

Pietro Reichlin asked why Spanish banks do not buy Italian bank obligations already. **Dietrich Matthes** suggested one reason is the segmentation of primary markets. **Nicolas Véron** pointed out recent work by Altavilla *et al.* (RoF, 2017), which presents a great literature review and empirical analysis of the origins of home bias. **Jochen Andritzky** added that it is far from clear how portfolio re-allocations induced by regulatory changes affect pricing, see for instance Andritzky (2012).

Roel Beetsma pointed out that diversification has declined and market segmentation has increased since the start of the crisis. For the attractiveness of the proposal, it is important to understand the drivers behind this trend. If governments try to persuade local banks to buy their debt, any proposal limiting this may be politically unworkable. **Jörg Rocholl** argues that the regulation actually provides banks with incentives to withstand pressure from the government.

Jochen Andritzky recalled the GCEE proposal putting an emphasis on hard exposure limits, given that without them you would not achieve the necessary diversification. With limited granularity in the euro area – a few large countries and highly correlated shocks – the benefit of diversification is limited. **Nicolas Véron** added that redenomination risk played a major role in the past crisis. In his view, a regime with smooth restructuring that can credibly reduce redenomination dangers would reduce overall risk.

9 Risk sharing and financial integration: How can the Capital Markets Union deliver?

Diego Valiante

European Commission[1]

Since 2008, Europe has been hit by multiple structural shocks, which led to a significant increase in unemployment rates, negative growth and widespread losses across the financial system. The following credit crunch created uneven access to finance across the EU, especially for small and medium enterprises (SMEs) operating in countries relying on non-domestic capital flows. Following the introduction of the euro, the rapid expansion of the interbank market boosted price convergence, especially in those markets such as the one for government bonds that relied on the activism of wholesale liquidity operators. When the shocks hit, market reaction and disorderly government interventions led to massive retrenchment in capital flows and ring-fencing of liquidity by national supervisors. This plunged Europe into financial fragmentation: what had hitherto appeared as a shiny example of financial integration quickly became an area where interest rate differentials were increasingly reflecting country risk over credit risk.

The missing link: private risk sharing

The lack of diversification in capital flows[2] quickly became the obvious culprit behind the growth of financial instability and was seen as a major constraint on Europe's economic recovery. This was particularly true for euro area countries that could rely less on their fiscal capacity to absorb risk by acting countercyclically (Kalemli-Ozcan *et al.* 2014, Alcidi *et al.* 2017). Overall, private risk sharing mechanisms are the biggest risk absorption component in more complete monetary unions than the European Monetary Union (EMU), e.g. the United States (see chart below). The methodology developed by Asdrubali *et al.* (1996) defines the biggest private risk sharing component as 'international factor income'. It includes both cross-border credit and capital markets activities.[3]

Interestingly, public risk sharing components (e.g. fiscal transfers) become much more important when crises hit, but only part of this public risk sharing works *ex ante*. In fact, the greater relative importance of fiscal transfers is higher after the crisis (as Figure 1 suggests). This could also be due to the depletion of the absorption capacity of cross-border credit and capital markets, which are *de facto* automatic stabilisers (i.e. working *ex ante*).

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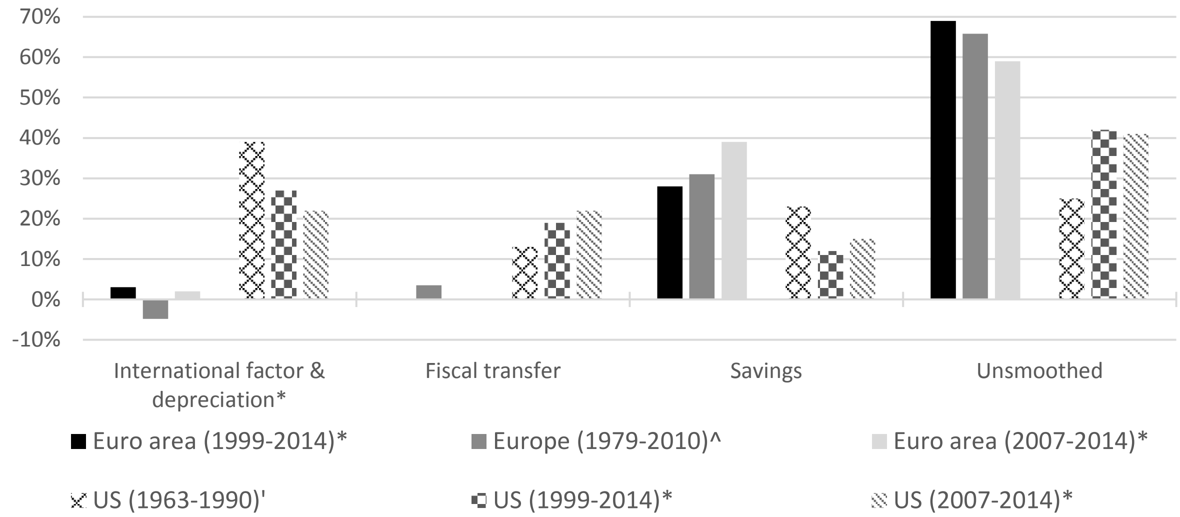
[1] The author's views are personal and do not necessarily reflect those of the European Commission.

[2] For an overview of the state of Europe's financial structure and its capital markets; see Valiante (2016), Chapters 2 and 3.

[3] What is called 'credit channel' in Asdrubali *et al.* (1996) is de facto public and private savings. Balli *et al.* (2012) have also measured the 'capital gain' component of holdings (including foreign assets), which would be implicitly caught by savings, in order to have a more complete picture of the impact of financial integration.

Figure 1. Risk sharing in Europe and the United States



Source: Based on Furceri & Zdzienicka (2013)^, Asdrubali *et al.* (1996)' and Milano & Reichlin (2017)*.

Intertemporal and cross-sectional private risk sharing

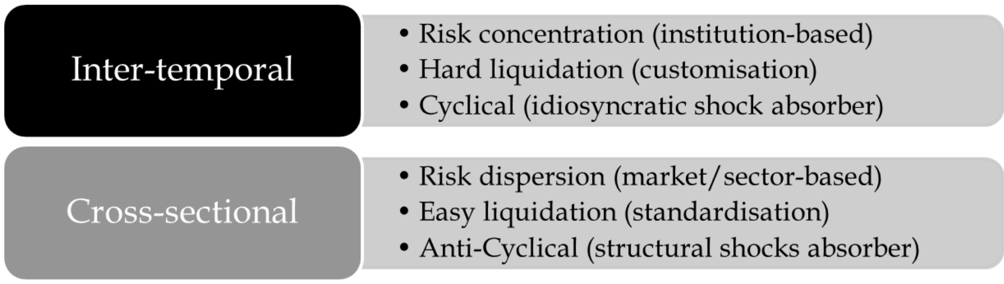
While the discussion on the private risk sharing function of financial markets (Arrow 1964, Allen & Gale 1995, 2000) and its relationship with financial integration (Obstfeld 1994) is not new, private risk sharing mechanisms are an essential complement to price convergence indicators in measuring the quality of a financial integration process, which also influences further financial development (Valiante 2016, 2018). Policy intervention is thus focusing on those private risk sharing mechanisms (financial structure) with greater impact on risk absorption and ability to complement (or even replace) more ambitious actions on public risk sharing.

However, our private risk sharing target (international factor income, IFI) is an indicator that captures both intertemporal and cross-sectional risk sharing. In terms of financial structure policies, these are two completely different policy targets. Intertemporal risk sharing includes institution-based finance, intergenerational solidarity and asset accumulation. While asset accumulation and intergenerational solidarity are either captured by public risk sharing components or savings, the intertemporal absorption capacity generated by cross-border entity-based (traditional bank) finance is part of IFI.

Intertemporal risk sharing is very effective in absorbing temporary sectoral shocks, rather than permanent ones (due to its concentrated and illiquid nature). Relationship banking has the virtue of being a stable funding source over time, but with high switching costs (mostly embedded in the type of relationship).

On the contrary, cross-sectional risk sharing (i.e. market-based finance) is much more able to absorb structural shocks due to its risk dispersion and subsequent higher liquidity (led by standardisation). Risk is split and spread across a large number of agents. Listing on public markets to raise equity at a specific point in time (i.e. when the discounted value of future of earnings is the highest) can result in a much larger injection of funds than entity-based funding tools can ever provide. Market-based finance is thus more suitable for illiquid projects, as the propensity to take risk by fund providers is structurally higher than institution-based finance, due to risk dispersion.[4]

Figure 2. Intertemporal & Cross-Sectional Risk Sharing characteristics



Source: Author.

Cross-sectional risk sharing policies: The Capital Markets Union

Developing policies for private risk sharing mechanisms is very complex. A minimum level of public risk sharing is often necessary to make the private leg work, such as in the case of Banking Union's backstop to resolution. Currently, two long-term European projects are explicitly working on private risk sharing channels.

The Banking Union aims to sever the link between member states and their local banking system in order to open the way for an EU-wide market in banking services, along with the support of new technological advances. The project will strengthen the cross-border intertemporal private risk sharing channel in the euro area.

The Capital Markets Union (CMU), instead, aims at building up cross border cross-sectional risk sharing capacity, i.e. fostering capital market integration across the EU. The complexity of the policy intervention here arises from the dispersed nature of market-based funding. To simplify the issue, we can go back to a financial contracting approach (Valiante 2016). There are two fundamental stages in financial contracting: contracting itself and renegotiation. Contracting has to deal with specification costs – the costs of being unable to foresee all circumstances related to a future project. The higher the uncertainty about future outcomes, the greater the specification costs. Renegotiation, instead, is mainly affected by monitoring costs – the costs of being unable to monitor how the contract is performed and eventually exit the contract (typically on secondary markets) as a form of renegotiation. Specification costs tend to lead to adverse selection, while monitoring costs to moral hazard.

On the one hand, reducing specification costs in market-based financial contracting implies more efficient (informed) pricing mechanisms and better third-party risk signal mechanisms (e.g. ratings). Availability and comparability of data are key to achieving an efficient pricing mechanism (price discovery) that could unleash market-based private risk sharing at the

[4] Recent empirical evidence suggests a relationship between development of market-based finance and improvements in Total Factor Productivity; see Giordano & Guagliano (2016).

European level. The current situation is far from ideal.[5] For instance, the supervision of accounting standards and auditing companies, a federal prerogative in the United States since the introduction of accounting standards and the establishment of the Securities and Exchange Commission in 1933, is left to national supervisors that often leave a lot of discretion to local companies (and also exploit the discretion given by the accounting principle being applied). Basic company data, stored in business registries, are not standardised and pooled together at EU level. Credit reporting is hardly accessible and comparable across member states. This lack of data availability and comparability creates insurmountable obstacles for third-party gatekeepers, like credit rating agencies and auditing companies, in offering important tools like high yield bond ratings or EU-wide market research.

On the other hand, reducing monitoring costs for renegotiation in a dispersed environment implies strong enforcement powers, including sanctions, fiduciary duties and an efficient judicial system, as well as effective third-party monitoring, including an active market for corporate control. For instance, the judicial system in most European countries is under-resourced and inefficient, including when it comes to insolvency procedures. Taking many years to perform a contract or liquidate a company is a major obstacle for renegotiation through exit. Enforcing a contract or liquidating a company is a less liquid form of secondary market, but it is still a fundamental renegotiation phase. A weak enforcement mechanism leads to uncertainty about the loss given default (LGD) that an investor can factor into pricing, when considering the investment in the first place. Liquidation and insolvency procedures are largely different across Member States. The United States introduced a Bankruptcy Code at the end of the 19th century from which individual States could deviate, but it gave the default rule for deviations to be more easily priced when defining the LGD. Currently, there is no common framework in the EU, but an attempt to coordinate via a regulation that only deals with a narrow set of aspects of insolvency procedures.[6] Other reforms are key for cross-border market-based risk sharing, such as a stronger European supervisory framework, higher sanctions (e.g. illicit profits restitution) and redress procedures.

Moreover, pricing in cross-border capital markets can internalise, in terms of higher or lower prices, divergences among member states that are known and predictable *ex ante*, including different tax rates. Nonetheless, they fail to do so when uncertainty affects predictability. For instance, this is the case for some discretionary insolvency decisions, among others, on secondary proceedings in cross-border insolvency, where the judge is left to decide with no objective criteria that can be easily identified *ex ante*. While some level of discretion is always necessary in insolvency proceedings, these situations should be limited to the minimum necessary to allow the smooth liquidation of the company.

Finally, the history of the United States suggests that it is unlikely there will be higher cross-border capital market activities if there is no greater trade activity in goods and services, which currently remains barely above 25% of GDP within the EU, a smaller proportion than trade

[5] For a comprehensive review, see Valiante (2016), Chapter 4. For the comparative analysis with the United States, see Valiante (2018).

[6] Regulation (EU) 2015/848 of the European Parliament and of the Council of 20 May 2015 on insolvency proceedings.

activity with non-EU countries (Valiante 2018). An active market for corporate control, combined with strong antitrust powers that create *ex ante* deterrence, are essential features for single market activities. Among others, Europe's competition powers are well used in cross-border situations, but less so when it comes to policing national markets.[7] This has major implications, especially when the national market is worth more than 20% of Europe's economy. More invasive competition policies are key for greater cross-border trade and, with it, capital movement (including capital markets activities).

Conclusions

The CMU is an important tool to rebalance 'overbanked' Europe's financial structure (ESRB 2014) with more cross-sectional private risk sharing. But capital markets are complex legal and economic structures that, compared to institution-based private risk sharing, rely on public information flows (e.g. accounting standards and credit reporting) and strong enforcement tools (e.g. areas of common supervision and insolvency proceedings). These are areas that have been historically left to the legal prerogatives of member states due to their limited importance for institution-based private risk sharing, such as traditional relationship lending, which is the dominant funding source for the European economy. Post-crisis financial reforms have undoubtedly improved information flows, but much still remains to be done on cross-border comparability and private/public enforcement tools to reduce specification and monitoring costs.

Moreover, there is an important underlying question that concerns the role of trade. If intra-EU trade in goods and services remains stagnant, capital will not follow and policies will not have sufficient political strength to overcome the significant vested interests that rely on the almost irrelevant size of cross-border flows to preserve their national rents. Stronger competition policies at national level across the EU is probably a necessary pre-condition.

Finally, a successful CMU is not a big-bang project that can deliver its benefits with concentrated action on few clear levers. It is rather a long-term project that needs to move step-by-step and gradually raise its level of ambition, with constant reviews, to adapt to evolving circumstances. A measure of success for the CMU will be how much of the liability side of non-financial corporations will remain reliant on bank funding and unlisted equity, as well as what proportion of household financial assets will be sufficiently diversified through capital markets instruments. It is not obvious what the optimal threshold should be, but there will be time to assess this on Europe's long journey reducing overreliance on local institution-based funding.

[7] See, *inter alia*, European Commission, "Ten Years of Antitrust Enforcement under Regulation 1/2003: Achievements and Future Perspectives", COM(2014) 453 final (hereafter European Commission 2014).

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Annex: Notes from Virtual Meeting – 23 April 2018

Presentation by **Diego Valiante**, discussion led by **Jochen Andritzky**

Participants *(alphabetical)*

Jochen Andritzky	German Council of Economic Experts
Daniel Gros	Centre for European Policy Studies
Jörg Rocholl	ESMT Berlin
Diego Valiante	European Commission

In his discussion of the paper, **Jochen Andritzky** raised three issues. First, the European financial system is predominantly bank-based which in part reflects its economic structure (GCEE Annual Report 2015, paragraphs 440ff). While the Capital Market Union (CMU) can improve financing opportunities and risk diversification, it is unlikely to replace the dominance of bank financing. Better risk sharing through banks, including through completing the Banking Union and facilitating the formation of pan-European banks, is therefore an equally important element.

Second, to overcome home bias, more forceful measures may be required. While it is important to address issues such as differences in accounting and reporting practices or taxation, these measures will not suffice. In some areas, for instance on insolvency frameworks, differences reflect strong voter preferences or vested interests. Measures, such as concentration limits for sovereign exposures, may be needed. **Diego Valiante** recalled the importance of trade integration in facilitating close financial integration: trade drives financial integration, not the other way around.

Third, **Jochen Andritzky** noted that obstacles to deeper integration are multi-faceted and prioritisation is needed. Policymakers should focus on those measures that enhance shock absorption. Some evidence (such as EC 2017) does not provide clear evidence of strong risk sharing even when home bias is low. To justify why more capital market integration (and no fiscal capacity) is needed for shock absorption, a better understanding is necessary of what fosters shock absorption and does not generate undesirable contagion. In response, **Diego Valiante** recalled that negative risk sharing mostly originates from procyclical capital flows. In banking, long-term cross-border loans offer more risk sharing than overnight interbank lending.

Jochen Andritzky furthermore raised the issue of debt bias in corporate financing related to the tax deductibility of interest expenditures. To this end, the GCEE introduced a concrete proposal for transition to a neutral tax treatment in Germany (GCEE Annual Report 2012, paragraphs 402ff). **Daniel Gros** mentioned the experience in Belgium, where the introduction of tax rules to allow a deduction of notional interest rates on capital did not produce an effect. Currently, low interest rates reduce the relevance of this issue.

Diego Valiante agreed on the relevance of harmonising insolvency frameworks. The European Commission's proposal for early restructuring could be a preliminary step towards harmonisation. **Jochen Andritzky** pointed out that in normal times, investors tend to pay little attention to insolvency frameworks. Diego Valiante disagreed and noted that investors are not deterred by higher costs if known *ex ante*, but by leeway for discretion that cannot be priced, in particular regarding stays in proceedings that are often at the discretion of courts. Insolvency laws provide the loss given default (LGD) of a capital market exposure.

Jörg Rocholl asked whether a conclusive list of barriers to capital market integration had been identified. Diego Valiante replied that there is no conclusive list, but that there are important areas where action could be considered. For instance, insolvency proceedings, where the possibility of opening secondary proceedings in another member state creates uncertainty, is one of them. Furthermore, different interpretations of accounting standards are a barrier, for instance with regard to adjusted profits or lifetime losses. He recalled that from the outset the US harmonised accounting standards and supervision under the Securities and Exchange Commission (SEC) at the federal level.

Jochen Andritzky questioned whether price convergence is a relevant measure as price differentiation is a sign of functional market discipline. Diego Valiante agreed that the convergence of sovereign bond yields may be misleading as indicator of financial integration, if there is no convergence in risk sharing across the region. Generally, the convergence of prices is not a good indicator for capital market integration, as long as the investor base remains domestically concentrated.

Jochen Andritzky also raised the issue that national authorities may have a preference to maintain the current fragmented market structure, as demonstrated by the opposition of debt management offices to Sovereign Bond-Backed Securities (SBBS). Diego Valiante agreed that national interests are strongly in play, especially when it comes to promoting more supervisory convergence, for instance, via passing more responsibility to European Securities and Markets Authority (ESMA).

Daniel Gros recalled that securitisations make up a large part of capital markets. Diego Valiante noted that large-scale guarantees helped to create deep markets for mortgage-backed securities in the US. In his view, creating equally deep markets in Europe would also require some level of support through public guarantees, even if they create distortions. Daniel Gros remarked that in total, the US did not incur losses on such guarantees. Jochen Andritzky and Jörg Rocholl pointed out that several European countries feature sizable markets for mortgage securitisations subject to particular regulations, such as the German Pfandbriefe.

10 Enhancing the ESM?

Jochen Andritzky

Bruegel[1]

The European Stability Mechanism (ESM) was created as a crisis mechanism for the euro area as a means of preventing and resolving the coordination failures in financial markets that can lead to a financial crisis. It complements the existing euro area architecture built around national responsibility for fiscal policies, whereby common fiscal rules safeguard fiscal sustainability, and (predominantly) euro area responsibility for banking and capital markets as well as monetary policy.

A stronger financial safety net helps prevent financial crises and minimise welfare losses if they occur. As a regional financial arrangement, the ESM complements existing institutions such as the IMF (Weder and Zettelmeyer, 2017). IMF (2016) describes the objectives of the global financial safety net as (i) providing insurance against idiosyncratic and systemic shocks, including contagion; (ii) supplying temporary financing to support smooth policy adjustment; and (iii) incentivising strong macroeconomic policies to prevent crises and make economies more resilient.

Recent discussions on how to strengthen the euro area have brought vastly different concepts of how to enhance its crisis mechanism to the surface. Although the term 'European Monetary Fund' dominates the debate, the ESM is a fiscal, not a monetary backstop. Many proposals for a European Monetary Fund – such as Sapir and Schoenmaker (2017) – address a broader range of issues. Notably, some contributions aim at more ambitious objectives, such as a deepening of political union or as a lever for large-scale fiscal risk sharing. This contribution focuses narrowly on how to enhance the ESM's lending toolkit in order to improve the euro area's financial safety net within the ESM's current legal statute and its current envelope of available resources.

Cornerstones of an effective crisis mechanism

Enhancing the ESM should not lead to a transfer union. Instead of fiscal transfers, other channels of shock absorption – in particular cross-border investments – are the bedrock of a stable euro area. By preventing liquidity crises, a credible crisis mechanism facilitates private risk sharing as investors can have confidence that there will be fewer crisis situations or that crises will cause less disruption. The ESM therefore complements the Banking and Capital Markets Unions. To determine the ESM's optimal design it is important to ask how crises occur

[1] The author would like to thank the ESM, the 'Future Europe' forum, and the German Council of Economic Experts for helpful discussions and comments. The views expressed herein should only be attributed to the author and to none of these institutions.

and how can they be prevented or mitigated. For brevity, the following discussion focuses on sovereign debt and not banking crises.

Sovereign debt crises typically start with a loss of access to market financing. Such losses of market access may arise from an (irrational) financial panic unrelated to a country's long-run solvency or policies. For example, a country may be hit by contagion from crises elsewhere. In the case of such a 'liquidity crisis', the ESM is clearly welfare enhancing (Mussa et al., 2000; Jeanne et al., 2004). In practice, however, pure liquidity crises unrelated to solvency concerns are the exception (Weder and Zettelmeyer, 2017). Most such crises are related to concerns about a country's solvency, albeit sometimes not obvious at the outset.

To prevent the official lending mechanism from lending to insolvent countries, crisis lending requires strong policy conditionality. Strict conditionality represents an important element of ESM lending anchored in the ESM Treaty. Its key role was confirmed by the EU Court of Justice judgement in the Pringle case. Policy conditionality strives to address solvency concerns by conditioning access to financing on implementing appropriate economic reforms.

Crisis lending may cause severe problems down the road if policy conditionality is not observed. This can result in credit losses for the ESM and hence moral hazard at the expense of the European taxpayers. Therefore, in addition to conditionality, the ESM requires a credible framework to restore public debt sustainability, such as through the restructuring of sovereign debt. Today, this element is not yet sufficiently clearly laid out in the euro area's official lending mechanism (see Chapter 4).

As crises are rarely unrelated to policies, it is important to consider the incentive effects of a financial safety net. Just as air bags might induce less-careful driving, a crisis mechanism may induce politicians to adopt unsound policies, or financial markets to continue to finance misconceived policies. Avoiding adverse incentives is even more important in the euro area, where member states retain substantial sovereignty in economic and fiscal policymaking. This often thwarts initiatives for more risk sharing in the euro area, as some member states fear they will be forced to pay for others' policy actions. For example, the showdown in 2015, resulting from Greece's uncooperative negotiation tactics, created concern in creditor countries of being taken hostage by debtor countries. A similar theme may be at play in Italy today. Therefore, adverse incentives deserve to be a main consideration in the ESM's design.

Policy conditionality can be applied ex ante in the form of preventive policies and ex post, ensuring conditional debt sustainability as discussed above. While much attention is paid to ex-post conditionality – the policies agreed upon for crisis programmes – ex-ante conditionality offers a very powerful way to provide positive incentives for strong policies. Since ex-ante conditionality can help to prevent crises, it can improve welfare compared to a purely ex-post approach (Jeanne et al., 2001). Currently, the ESM relies on ex-ante conditionality only for its precautionary facilities, which remain unused. The following focuses therefore on a proposal for a precautionary credit line and discusses selected facilities that should be at the centre of ESM reform.

Prequalification facility

Currently, the ESM offers two types of precautionary credit lines, the Precautionary Conditioned Credit Line (PCCL) and the Enhanced Conditions Credit Line (ECCL). To date, no member state has yet requested a credit line. This mirrors the experience of the IMF, for which two key reasons have been identified. First, signing up to a precautionary facility is seen as sending a negative signal that a country believes it may become a victim of crisis. Second, while the idea is that a subscribing country is prequalified for emergency lending, access may be limited or additional conditionality may apply. This may induce policymakers to remain unconstrained by ex-ante conditionality, and negotiate conditionality only once in need of emergency lending (Enderlein and Haas, 2015).

Generally, the situation of the euro area is ideally suited for a wider use of precautionary instruments. In many areas, common policies such as fiscal rules already bind national policymaking. Ex-ante conditionality can very easily be fitted to common policies and provide an additional incentive for compliance. Instead of signalling a vulnerability, countries signing up for such a credit line receive a stamp of approval. Given that the credit line provides positive incentives, it could be labelled the prequalification facility, available to all member states that undergo regular check-ups. While participating in the facility is welcome, reliance on it as a regular source of funding is not the intent of this proposal. Hence, strong institutional safeguards are needed to ensure the credit line is only drawn on under exceptional and unintended circumstances.

The choice of prequalifying criteria should be limited to those relevant for preventing economic crises, limiting their scope, and ensuring debt sustainability. Overloading the criteria with too many issues should be avoided, much like conditionality for crisis programmes (Tumpel-Gugerell, 2017; Wyplosz, 2017). Yet, compliance with a clearly defined set of rules – as in the proposal of a "discount window" by Enderlein and Haas (2015) – may be too automatic and too weak to prevent the ESM from lending to insolvent member states.

The ESM could conduct annual surveillance in close liaison with the European Commission, guided by principled criteria similar to what exists for the current PCCL. Based on this, the ESM's top decision-making body would take a decision, possibly with additional qualifying elements, such as a discount on access or conditions on drawing on the prequalification facility. In addition, continuous monitoring would ascertain whether any policies are being implemented that could severely alter the qualification assessment. In this case, access to the credit line would be suspended. A requirement to reapply for the facility (rather than an automatic extension) could reduce political pressure to soften ex-ante conditionality and overcome the challenge of withdrawing access to the credit line during difficult times.

When a shock hits, the prequalified member state could draw on the credit line within limits necessary to safeguard the ESM's funds. Maximum access should be restricted to about one year's gross financing need, and full repayment is required.

Member states that satisfied the prequalification criteria could also be granted higher access, longer maturities, or lower interest rates under other facilities. In other words, if more crisis funds are needed and the country decides to apply for other facilities (with ex-post conditionality), a more comprehensive backstop and more gradual adjustment could be offered depending on the country's track record of strong policies as demonstrated under the prequalification facility.

In addition, rules for creditor participation could be designed in a way to limit debt restructuring for crises in countries with a prequalification facility. In this case, prequalification would send a positive signal to markets. However, limiting creditor participation must be weighed against the credit risk possibly incurred by the ESM.

Crisis facility

The ESM facility of macroeconomic adjustment programmes deserves strengthening in two aspects. First, a framework for creditor participation should be more firmly embedded as a condition for accessing the facility, as is discussed in Chapter 4 of this publication. Second, macroeconomic adjustment programmes could be more explicitly tailored towards achieving growth-enhancing structural reforms.

Both elements go hand in hand. Given that first-stage sovereign debt restructuring to extend maturities would markedly reduce financing needs, part of the funds preserved could be used for programme designs with longer adjustment periods and more gradual fiscal consolidation (Andritzky et al., forthcoming). Adjustments in the euro area are harder to achieve given internal devaluation, which relies on domestic price adjustment, is hampered by price rigidities common across the euro area (IMF, 2015). Accordingly, programme design should reflect the need to phase fiscal adjustment in respect of the delays with which some structural reforms bear fruit. This could improve programme ownership by the countries requesting assistance. Furthermore, such design squares well with the current approach of providing loans with long maturities and lending terms that support solvency.

In contrast to the proposal by Gros and Mayer (2017), access under macroeconomic adjustment programmes should not have an explicit pre-set cap as long as the borrower fulfils certain criteria. This mirrors the policy for IMF Standby Agreements and boosts the credibility of the ESM crisis backstop. To make this work given the current resources of the ESM, Creditor Participation Clauses (as discussed in Chapter 4) are essential in order to limit financing needs for highly indebted countries.

Backstop facilities

In addition to offering facilities to member states, the ESM could backstop the Single Resolution Fund (SRF) and possibly a European Deposit Insurance Scheme (EDIS, see Chapter 7). This paper will not discuss the economic case for the SRF or EDIS but acknowledges the necessity of a common backstop to enhance their effectiveness. Using the ESM as a fiscal backstop would be a pragmatic solution given its readily available funding operation and its ability to take decisions relatively swiftly.

Given the Banking Union is key to severing the sovereign-bank nexus and reducing the likelihood that a banking crisis spills over into a broader economic crisis, it would be consistent with the purpose of the ESM to backstop the SRF and EDIS. However, appropriate assurances should be given to safeguard ESM funds, given the ESM does not have direct powers to enforce the replenishment of SRF or EDIS through levies on the respective banking systems of member countries. This could be done, for instance by conditioning the SRF's access to the ESM backstop on bank repayment capacity, similar to the requirement set for the borrowing arrangement between the FDIC and US Treasury, or a requirement to treat the ESM as a senior creditor.

Conclusion

This contribution proposes enhancing the ESM through small but powerful reforms of its lending toolkit. Other aspects, such as improving ESM governance or its instruments to deal with banking crises are not part of this contribution. However, enhancing the ESM's credibility as a backstop in a sovereign debt crisis through reforms to its lending toolkit should be more conducive to euro area financial stability than changing its legal statute, a contentious and misleading focus of the current discussion.

By exploiting the power of ex-ante conditionality and a credible framework for creditor participation, the current resources of the ESM could provide a more credible crisis backstop. A prequalification facility subject to ex-ante conditionality suits the current framework of common policies well, and could strengthen incentives to comply with good policies while overuse of this credit line must be avoided. A framework for maturity extensions and, if needed, deeper debt restructuring, limits credit risk for the ESM and reduces funding needs. These savings, in turn, could be used to grant longer programmes and a more gradual adjustment that is more suitable to achieving structural reforms. In addition, by assuming the role of backstop for the Banking Union, the ESM could contribute to reducing risks from banking crises.

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Annex: Notes from Virtual Meeting – 18 December 2017

Presentation by **Jochen Andritzky**, discussion led by **Dirk Schoenmaker**

Participants *(alphabetical)*

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Daniel Gros	Centre for European Policy Studies
Sam Langfield	European Central Bank
Álvaro Leandro	Peterson Institute for International Economics
Roberto Perotti	Bocconi University
Pietro Reichlin	LUISS Guido Carli University
Dirk Schoenmaker	Rotterdam School of Management, Bruegel

Dirk Schoenmaker pointed out first that if countries lose market access and turn to the ESM, then doubts about solvency cannot be excluded. This may make (*ex post*) conditionality necessary for precautionary instruments. Second, the safety net provided to banks at national level should also be mirrored at the euro area level. If banks are subject to European supervision, a 'lender of last resort' function at the euro area level and ESM direct recapitalisation have to be available. Current conditions for direct recapitalisation are too restrictive to make the instrument useful. As the funding needs for bank recapitalisations are typically limited (e.g. €20 billion in the case of ABN Amro), this instrument is not a major strain on ESM resources (a recapitalisation amounts to some 4.5% of assets). While the bail-in regime is welcome, it may not be realistic to achieve a full bail-in of 8%, especially for G-SIBs. Proper concentration limits for sovereign bonds are important, but risk reduction and risk sharing need to move together. Finally, unanimity gives small countries veto powers and can prevent decisions being taken swiftly - the case of Slovakia serves as reminder. Sapir and Schoenmaker (2017) propose an 85% supermajority (although the threshold is not decisive) to prevent small countries holding up decisions.

Jochen Andritzky responded that in the case of ESM involvement, the two-stage sovereign debt restructuring process developed by the GCEE could apply (see Chapter 4). It foresees first a maturity extension when debt is high and, in a second step, resolves any solvency concerns with a restructuring during the course of the ESM program. Regarding bank recapitalisation, a strong framework needs to be in place to insulate bank management from political influence. Majority voting may raise constitutional issues not just in Germany, but also in other (possibly small) member states.

Daniel Gros agreed with the latter point and highlighted an update of his recent work with Thomas Mayer (Gros and Mayer, 2017). A key difference between the IMF and ESM is the magnitude of fiscal risk at stake. In addition, lending conditions differ. The IMF's preferred creditor status and penalty interest rates are only feasible for relatively low lending volumes, not for financing as much of the public debt stock as the ESM does, for instance, in Greece. Therefore, ESM lending should be limited to about five times the ESM quota. The ESM would then avoid having to provide solvency support. It would also limit political frictions from the mutual dependence of the debtor country and the ESM. Jochen Andritzky argued that limiting assistance may undermine the power of ESM to prevent crises. Daniel Gros agreed it is a difficult to solve conundrum. In his proposal, support would be unlimited for 'innocent bystanders', but limited for countries with high debt burdens, although the distinction may be difficult to make. A key indicator should be the rollover need, not the debt stock. Jochen Andritzky recalled that the idea of a maturity extension at the onset of an ESM program for highly indebted countries would achieve a very similar effect.

Roberto Perotti pointed out the large amounts of funding required by Italy, despite its long maturity structure. While it is hard to imagine creditor countries would be willing to finance this, a proposal such as the automatic debt restructuring proposed by Germany is not acceptable to Italy and other member states.

Daniel Gros recalled that Italy's public debt is mostly held domestically and asked – if domestic investors do not trust the Italian government and trigger a crisis – why the ESM should step in. It may be more appropriate for the ESM to focus on limiting damage from contagion to other countries. Jochen Andritzky pointed out that a maturity extension would keep all creditors involved, and an ESM macroeconomic stabilisation programme would provide political leverage to unblock the necessary reforms to restore solvency. Roberto Perotti highlighted the importance of avoiding a collapse of the euro. Pietro Reichlin recalled that the Italian economy is sufficiently large and fiscal flows are stable. Therefore, a crisis in Italy would be a liquidity crisis, thereby constituting a case for a European intervention.

Participants agreed that the firepower of the ESM is sufficient to address banking crises, but banks remain intertwined with sovereigns. Roberto Perotti argued that the ESM's firepower and procedures are not sufficient to deal with sovereign debt problems. Dirk Schoenmaker recalled that crisis prevention should aim to separate banking and sovereign issues, which would make crisis arrangements more robust. Tough supervision remains essential in preventing moral hazard in banking. Daniel Gros agreed that the ESM has an important role to address crises in smaller countries and reduce contagion, contributing to overall stability.

Asked about governance, Dirk Schoenmaker explained that in his proposal, a euro finance minister was not meant to run a big budget, but form a political counterpart, for instance vis-à-vis the ECB and the SSM, who would be accountable to the European Parliament. Jochen Andritzky recalled the privilege the ESM currently enjoys of holding discussions at the level of euro area finance ministers in the Eurogroup, which lends it a lot of attention and legitimacy.

11 A euro finance minister?

Guntram Wolff

Bruegel

In the vision European Commission President Jean-Claude Juncker outlined in his September 2017 'state of the union' address, the role of a European finance minister would unite those of Commission Vice President, chair of the Eurogroup and head of the euro-area portion of the EU budget. But this proposal is ill-designed and will create more problems than it solves.

Such a position is not that of a finance minister and the misnomer could create mistaken expectations and confusion. A finance minister can raise taxes, set priorities for spending and go to the markets to issue debt. In federal systems, the federal finance minister typically also plays a role in overseeing and controlling the fiscal affairs of the different regions. Accordingly, a European finance minister will raise great expectations. Some will hope that this 'finance minister' will be a strict budget enforcer, finally bringing fiscal discipline. Others will look forward to tapping new EU fiscal resources. The reality is that Juncker's finance minister will have the power to do neither.

The proposal is institutionally problematic, as it unduly mixes the role of the Commission with that of the Council. The European Union is built on a fine balance between community interests and national interests. Essentially, this balance gives the European Commission primacy in initiating legislation and in issuing recommendations in the context of Europe's fiscal rules. Meanwhile member states have supremacy in taking final decisions on the rules, and the Council of the European Union and the European Parliament have the final say on legislation.

There are practical considerations, too. The chair of the Eurogroup needs to be accepted by the national ministers in order to exercise authority. An appointment by the Eurogroup is therefore preferable to imposing a chair from an outside institution.

Nonetheless, the current set-up is problematic and requires change. Beyond the long-overdue reform of Europe's fiscal rules, institutional reform is needed. The Eurogroup lacks transparency. Its president is a national minister, which leads to impossible conflicts; the preparation of the Eurogroup president is done by three different institutions; the time devoted to chairing such an important gathering requires a full-time position, and there are conflicts of interest between the national mandate of the minister and the interests of the euro area as a whole.

Instead of creating an ill-designed European finance minister role, the European Commission should therefore propose to make the Eurogroup president a full-time position with a clear European mandate. A full-time president should defend European interests in the gathering of national ministers. Moreover, she would be the person defending jointly-taken decisions in national contexts such as national parliamentary debates. Last but not least, such a full-time president should regularly report and explain Eurogroup decisions to the European Parliament – perhaps back-to-back with the President of the European Central Bank, for example.

Juncker and French President Macron still have a point – Europe needs a discussion on budget. The obvious starting point is the EU budget, which should be reformed to reflect European priorities in the 21st century. Emmanuel Macron's list of priorities for common initiatives – such as security and defence; border control and migration; research and common climate policies – are sensible and widely shared. A reform that would redirect resources from the spending of the 20th century, such as the common agricultural policy, to these new priorities is sensible.

President Juncker's idea to create specific mechanisms within the EU budget for the euro area also deserves serious consideration. It would be unwise to create totally new euro area institutions beyond the ESM that would only aggravate the division between countries inside the euro area and those outside. Instead, the EU budget itself can provide some useful elements towards stabilisation. Some of the EU budget lines could be made more contingent on shocks to provide meaningful support. For example, in case of a large inflow of immigrants, a member state like Italy should receive support from the EU budget. It is also a good idea to create some form of a 'rainy day' fund within the EU budget that would be available to help countries hit by a strong shock.

The Commission should focus its energy on reforming the EU budget and making it more useful for citizens. It should move away from the creation of an institutionally and politically ill-conceived finance minister role. Increasing the importance of the position of the Eurogroup chair and establishing accountability to the European Parliament will also improve fiscal governance of the euro area.

None of this is an answer to the larger questions on the future of the euro area. To survive and prosper, Europe will need to eventually agree on a fiscal union to share risk and complement private risk sharing. And above all, the euro area will need to find ways to overcome its deep divisions among member states. A union without trust will not be sustainable. Ill-designed proposals for a finance minister will not solve any of the underlying issues.

Annex: Notes from Virtual Meeting – 19 February 2018

Presentation by **Guntram Wolff**, discussion led by **Mark Hallerberg**

Participants *(alphabetical)*

Jochen Andritzky	German Council of Economic Experts
Mathias Dolls	ifo Institute
Daniel Gros	Centre for European Policy Studies
Mark Hallerberg	Hertie School of Governance
Sam Langfield	European Central Bank
Jörg Rocholl	ESMT Berlin
Guntram Wolff	Bruegel
Jeromin Zettelmeyer	Peterson Institute for International Economics

Mark Hallerberg introduced findings from a text analysis comparison of European Commission reports on stability/convergence programmes and the final versions the Council approved (Baerg and Hallerberg, 2016). Results available through 2013 show that more member states received weakened final texts from the Council prior to the financial crisis. By country, in the period 1998 to 2009, the Council weakened reports covering France, Greece, Portugal, and Italy the most. He interpreted this period as one where the Commission served as a watchdog, but the member states used the Council to water down the most critical comments.

In his view, the reforms of 2011/12, which introduced reverse qualified majority voting among other modifications, changed the nature of the game. The Commission has become more political. If the previous model was that the Commission was a watchdog and the member states added the political element, the question today is who should be the watchdog. Finding a more effective watchdog was the gist of the ‘Schäuble proposal’. **Mark Hallerberg** agreed that the ESM is not a good option. He also agreed that one should simplify the rules the Commission has to enforce. However, he questioned whether an elevated president of the Eurogroup, being inherently political, could deliver the more ‘technocratic’ decisions that are now mostly lacking. Instead, he favours another body to serve as watchdog. The European Fiscal Board (EFB) could be elevated to take that role as it already looks at European aggregates concerning the fiscal stance of member states. But there may be other institutional problems, and he agreed that distance from the Commission would be one of them.

Guntram Wolff reiterated that it would be inconceivable that a Commissioner could also serve as a president of the Eurogroup, mixing the Commission’s role in developing judgment proposals with the Eurogroup’s (or the Council’s) role as a decision-maker. In that sense, a third institution could play an important role, although in the current setup, the EFB remains too close to the Commission. A suitable combination could be a Eurogroup chair, appointed from within and confirmed by the European Parliament, with fiscal surveillance resting with the Commission or the EFB.

Jeromin Zettelmeyer wondered whether a Eurogroup president without a euro area budget or borrowing capacity stands any chance of bringing about an optimal fiscal stance across the euro area. Guntram Wolff responded that the best solution would consist of a federal body with the power to tax and spend. The second best option would be improved coordination of national fiscal policies.

Participants discussed how helpful a borrowing capacity would be in achieving a more optimal fiscal stance for the euro area as a whole. Daniel Gros asked whether such a mechanism would not simply distribute previous contributions *pro rata*. Guntram Wolff emphasised that a borrowing capacity could ease budget (or funding) constraints of member states with little fiscal space. However, this would still require national coordination, as other member states might adjust their fiscal stance in response. Having a full-time Eurogroup president would just be a small step towards improved coordination without any guarantee of an improved fiscal outcome.

Jeromin Zettelmeyer added that a common borrowing capacity would allow a euro finance minister to send cheques to member states and this might help somewhat in achieving a more optimal fiscal stance for the euro area as a whole. However, this approach crosses a red line. Sam Langfield agreed that a borrowing capacity would make much more of an impact than establishing a full-time Eurogroup chair. Guntram Wolff pointed out that a common borrowing capacity would only help countries with funding constraints, creating an asymmetry. Jeromin Zettelmeyer recalled an idea, raised in the recent Franco-German proposal (*Bénassy-Quéré et al.*, 2018), that a reform of fiscal rules alongside instruments such as a rainy day fund or easier ESM access to lessen funding constraints could facilitate a more optimal fiscal stance. While the proposal sees a full-time chair of the Eurogroup as one way to improve coordination, it does not envision the establishment of a common borrowing capacity.

Jochen Andritzky recalled that some member states – like France – strongly believe in the need for a strong authority to preside over the Eurogroup, with political leverage to forge compromises. To enhance its standing, the position would be called finance minister. While he doubts whether this would work, he also points out that negotiating a more optimal fiscal stance for the euro area will always be contentious: member states may not wish to diverge from their nationally optimal fiscal stance to compensate for other member states lacking fiscal space. Guntram Wolff emphasised that without appropriate powers to raise taxes and make spending decisions, the head of the Eurogroup should not be called a finance minister. However, the chairperson can influence the outcome of decisions. To elevate the standing of the Eurogroup chair, they could be elected by the Eurogroup, confirmed by the European Parliament, and appear in Parliament regularly for hearings.

In further discussion, Jeromin Zettelmeyer noted that for the no-bailout rule to become credible, the ESM requires institutional strengthening. This includes separating it more clearly from political influence, providing it with more independence, and strengthening its accountability vis-à-vis agreed rules and structures. Guntram Wolff agreed to these governance issues, but also alluded to the changes introduced in the IMF's lending policies in the case of Greece. The DSA should be technical, but typically becomes very political. In his view, only by reducing its consequences can the credibility of the no-bailout clause be improved. Institutionally, it is sensible to foresee the bundling of functions like programme design and monitoring as well as financial support at the ESM. The current setup consisting of ESM, European Commission, ECB, and the IMF can only agree on the lowest common denominator. Yet, keeping the IMF on board also makes sense.

Biographies of contributors

Jochen Andritzky is a visiting fellow at Bruegel. From June 2015 to April 2018 he was Secretary General of the German Council of Economic Experts. Previously, he served for nine years at the International Monetary Fund, working on the euro area crisis among other topics. From 2008 to 2010 he was seconded as adviser to the National Bank of Ukraine in Kiev. Andritzky obtained degrees in economics and politics from the University of St. Gallen, Switzerland. Following a visiting scholarship at the University of California UCSC, he completed his dissertation on debt crises at the University of St. Gallen in 2006.

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Lars P. Feld holds the chair for Economic Policy and Constitutional Economics at Albert-Ludwigs-University of Freiburg since 2010 and is the current president of the Walter Eucken

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Augustin Landier's research focuses on corporate finance and governance. His publications have appeared in, among others, the *Quarterly Journal of Economics*, the *Journal of Finance*, and the *Review of Economic Studies*. He has been a Professor of Finance at HEC Paris since September 2017, and from 2009 to 2017 at the Toulouse School of Economics. He graduated from Ecole Normale Supérieure, received a Ph.D. in Economics from MIT, was an Assistant Professor of Finance at NYU (Stern) and at the University of Chicago (GSB). He has published several books, including *Investing for Change* (2009) and *Le Grand Méchant Marché* (2007).

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