Stabilization and shock absorption instruments in the EU and the euro area – the status quo

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In Europe, the global financial crisis had triggered an almost decade-long economic crisis, which – amplified by structural problems in a number of EU/euro area countries – has resulted in exceptionally high macroeconomic costs. Coping with this crisis has put the economic policy strategies of the EU and its Member States, as well as the institutional decision-making structures, to the test and has prompted adjustments in the existing economic and legal framework. EU governance was reformed and new measures were introduced to combat crises. As financial market integration is vital for the effective transmission of the common monetary policy, it was decided to create both a banking union and a capital markets union, and macroprudential supervision was established. At the same time, the economic policy debate about whether to introduce additional risk-sharing instruments in the EU/euro area has intensified in the wake of the crisis. We examine whether this is actually necessary. In light of the existing shock prevention and absorption measures, we find that, in principle, there are already sufficient fiscal and macroeconomic buffers in place. That presupposes, however, that sound fiscal policies are pursued, already agreed banking union measures are implemented, the capital markets union becomes a reality, macroprudential supervision is effective, and the Member States shape their economic and structural policies in line with the basic principles of the EU and European monetary union. Since it is, however, not possible to prevent all future crises, neither through compliance with the fiscal governance framework nor through compliance with all the regulatory requirements in the financial sector, it is of particular importance to ensure that national and EU/euro area institutions can take targeted action as needed.

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Cyclical fluctuations in economic activity are regarded as a normal occurrence in modern economies – i.e. those based on market economy principles – even aside from wars and exogenous shocks such as oil price rises and natural disasters. In normal economic cycles, economies recover from a downturn relatively quickly.

However, not only did the financial crisis lead to an exceptionally sharp global decline in growth, giving rise to fears of a (second) global depression, it also caused an almost decade-long crisis in Europe, which was exacerbated by structural problems in a number of EU/euro area countries. These problems had, in the years prior to the outbreak of the crisis, led to the buildup of internal and external imbalances that were not sustainable in the long term. The crisis therefore resulted in high macroeconomic costs. Real GDP in the euro area fell by 4.5% in 2009 (4.3% in the EU as a whole) and it was not until 2015 (2014 in the EU as a whole) that this decline in real terms was made up for. A return to the normal cyclical situation (i.e. when realized GDP equals potential output) is expected for 2018. According to Eurostat, the unemployment rate in the euro area went up from 7.6% in 2008 (7% in the EU as a whole) to 12% in 2013 (10.9% in the EU as a whole). In addition,

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the financial crisis and subsequent economic crisis caused far-reaching problems for the European financial sector, in particular the banking sector. In the pre-crisis years, the banking sector had, in a search for yield, taken on increased balance sheet risk, while being insufficiently capitalized and faced with governance problems. Not only did the outbreak of the crisis present banks – particularly in the countries on the periphery of the euro area – with serious financing/refinancing problems, it also presented them with the problem of a sharp rise in the volume of nonperforming loans. Therefore, extensive packages to stabilize and support banks were adopted (acceptances of liability/guarantee commitments, recapitalization measures), banks underwent emergency nationalizations and/or "bad banks" were formed. In the euro area alone, the support measures for banks in the period 2007–2016 implied a cumulative increase in the deficit of around EUR 205 billion and an increase in the government debt of EUR 488 billion in 2016 (see Holler and Reiss, 2017).[2] For some countries, such as Ireland, the bailout of banks led to a sovereign debt crisis. Interest rates were cut as part of the Eurosystem's monetary policy. The Eurosystem also reacted with a wide range of nonstandard measures in order to stabilize inflation and financial markets, as well as to counteract financial market fragmentation and stabilize the European monetary union. As some euro area countries lost access to capital markets, specific emergency financing facilities were created (bilateral loans between countries, the European Financial Stability Facility (EFSF) and the European Stability Mechanism (ESM)).

The cascade of economic events resulting from the outbreak of the global financial crisis in turn entailed a cascade of monetary and economic policy decisions in the EU/euro area, such as reform of EU governance and the rapid implementation of new measures to combat crises. At the same time, the economic policy debate about whether to introduce other – additional – risk-sharing instruments in the EU/euro area intensified in the wake of the crisis, with the rationale centering on strengthening resilience in order to respond better to future shocks. These instruments would be better suited to prevent crises and improve shock absorption. The proposals on common risk-sharing mechanisms among euro area countries for when there are shocks, in particular asymmetric shocks, are receiving a great deal of attention. In December 2017, the European Commission presented concrete proposals for the future development of the EU/European monetary union.[3]

The discussion on the future development of the EU/European monetary union continues to range from, on the one hand, strengthening the principle of individual national responsibility and market discipline, as laid out in the Maastricht Treaty, to, on the other, stronger fiscal integration, solidarity and a reduction in the influence of the market.

To answer the question of whether there is a need for further risk-sharing mechanisms in the EU/euro area, we will first analyze the status quo of the existing shock prevention and absorption mechanisms. This article therefore provides an overview of the mechanisms that already existed before the outbreak of the global financial and economic crisis, as well as of the new mechanisms that have been implemented since 2008 or are still being implemented to stabilize the real economy

[2] *In Austria, the measures taken by the government to stabilize the banking sector ("Bankenpaket") resulted in a (cumulative) increase in the deficit of EUR 13.8 billion in this period.*

[3] *See European Commission (2017a, 2017e, 2017f).*

and to safeguard sound financial markets, together with an assessment of their effectiveness. However, the latter depends on whether Member States are willing to align their policies to the governing principles of the EU/monetary union and on how committed they feel to the common objectives.

Section 1 of this article is therefore dedicated to the governance framework of the EU/euro area and hence the principles governing fiscal and economic policies. Section 2 discusses the fiscal shock prevention and absorption mechanisms. These comprise the fiscal policies that are decided at national level but aligned to the requirements of the Stability and Growth Pact (SGP) and the European Stability Mechanism (ESM), the newly created crisis mechanism as the lender of last resort for the euro area countries and the EU budget. Section 3 is dedicated to European financial union, which was initiated – at EU level – following the outbreak of the financial crisis, with the setting up of the banking union, a capital markets union and the establishment of macroprudential supervision. The final section concludes, inter alia by answering whether additional common risk-sharing instruments are necessary in the euro area.

1 The EU governance framework and its challenges

Coping with the global financial and economic crisis and the European debt crisis has been a tough test for the economic policy strategies of the EU and its Member States, as well as the institutional decision-making structures, and has prompted adjustments in the existing economic and legal framework. This framework contains provisions aimed at preventing crises and improving shock absorption, thereby increasing the resilience of Member States and the euro area/EU as a whole.

Box 1

What characterizes a resilient economic system?

Resilience comprises two characteristics of an economic system: a low susceptibility to adverse shocks and a high degree of flexibility when absorbing shocks in order to keep adjustment costs low. Sound financial and fiscal policies, as well as structural policies that are geared toward improving the growth potential in the long run, tie in with the objective of making Member States and thus the EU/euro area as a whole less vulnerable to shocks. The governance framework of the EU/euro area is committed to this objective. This framework comprises the European fiscal rules and the macroeconomic imbalance procedure (MIP) – a mechanism which was implemented in 2011 to prevent internal and external imbalances within the EU/euro area. It also includes banking union, the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM); both set up in 2014. Moreover, macroprudential supervision was transferred to the European Systemic Risk Board[1] (ESRB), which is located at the European Central Bank (ECB). In the same vein, national policy instruments for preventing boom-and-bust cycles for asset prices and loans aim to reduce an economy's vulnerability to crisis.

However, not only does compliance of financial, fiscal and economic policy with this wide-ranging regulatory system reduce vulnerability to shocks, it also improves the ability of economic systems to absorb shocks, as they are required to build up fiscal or regulatory buffers that help reduce the amplitudes of shocks. Member States' tax systems that are matters of

[1] This is composed of representatives of the ECB, national central banks (NCBs), national supervisory authorities and the relevant EU institutions (European Commission, the European Banking Authority, the European Insurance and Occupational Pensions Authority, the European Securities and Markets Authority).

national sovereignty are also of considerable importance in this context. For example, the income tax and transfer systems exert a profound influence on the strength of the automatic stabilizers in an economy. The fiscal treatment of debt versus equity capital has an impact on the degree of leverage of banks, enterprises and also households (in particular for real estate financing) and thereby on these entities' risk-bearing capacity and ability to absorb shocks.

In addition, shock absorption capacity is heavily influenced by the institutional setup of the individual countries. This is reflected in particular by the nature/degree of flexibility of the factor markets (labor and capital) and product markets (goods and services). Rigid factor markets and competition restrictions for the product and services markets reduce the ability to adjust to shocks and, as a result, increase the associated macroeconomic costs of shocks. Rigidities in the labor markets (tight provisions on protecting against termination of employment and dismissal, inefficient unemployment insurance systems, dual labor markets) and rigid wages hamper or prevent an efficiency-increasing reallocation of the factor "labor" when there are shocks.[2] *It is precisely in the design of the current monetary union that – besides fiscal policy – the flexibility of wages and prices and the mobility of the factors of production are especially important for coping with shocks, as the exchange rate is no longer available as an adjustment mechanism.*

In addition, an efficient and well-functioning national legal system influences the resilience of an economic system, as legal and contractual certainty and the safeguarding of property rights are essential preconditions for the readiness to assume corporate risk.[3] *Corruption and inefficiencies in public administration result in an inefficient allocation of resources and increase the macroeconomic costs of adjusting to shocks. International governance rankings*[4] *show that some EU/euro area countries still have considerable institutional deficits, with, inter alia, the quality of the regulatory environment, the effectiveness of the state institutions and the size of the shadow economy going into the ratings.*[5]

[2] *See Sanchez et al. (2015).*

[3] *See Fischer and Stiglbauer (2018) in this issue.*

[4] *See World Bank. Reports on Worldwide Governance Indicators (WGI).*

[5] *Problems or deficits in the institutional setup in a broader sense that conflict with a sustainable long-term alignment to fiscal and economic policies justify financial aid by the IMF or ESM being accompanied by adjustment programs.*

European monetary union rests on an independent, stability-oriented monetary policy whose primary objective is to maintain the price stability of the euro – which is reflected in the independent institutions of the ECB, the Eurosystem and the European System of Central Banks (ESCB). When monetary union was established, it was agreed that fiscal and economic policy would remain a national responsibility. In accordance with Articles 119 and 121, as well as Article 136, of the Treaty on the Functioning of the European Union (TFEU) (in accordance with Article 5 of the Treaty on European Union (TEU)), the activity of the Member States and the EU is based on the coordination of the economic policies remaining under the responsibility of the Member States – building on the underlying principles of Economic and Monetary Union, i.e. on an open market economy with free competition, price stability, healthy public finances, stable general monetary conditions and sustainable external balances. These principles essentially include the macrofinancial conditions or restrictions for the economic and budgetary policies of Member States and the EU in order to ensure a monetary union that is oriented toward (price) stability.

The principles shaping this macrocoordination include applying market discipline to Member States' budgetary policies, expressed through the no bailout clause (Article 125 TFEU), the prohibition of monetary financing of countries by

central banks (Article 123 TFEU) and the prohibition of privileged access to the financial market for the public sector (Article 124 TFEU).[4]

As the designers of European monetary union did not solely rely on the financial markets penalizing unsound fiscal policies, they considered a straitjacket indispensable. A stricter regime of regulation and control of national budgetary policy making to ensure sound policies and the long-term sustainability of public finances represents another principle shaping macrocoordination. Article 126 TFEU obliges EU Member States to avoid excessive deficits and lays down provisions to counteract the occurrence of excessive deficits; in the event that excessive deficits do occur, it provides for a procedure to correct them. Second, Member States committed themselves to aim for debt ratios of below 60% of GDP.[5] The SGP, which was adopted in 1997,[6] followed the remit to strengthen the fiscal policy framework defined in the Treaty by determining differentiated rules and procedures for budget surveillance and by accelerating and clarifying the deficit procedure.

To preserve its stabilizing function – and to prevent moral hazard and the associated negative spillovers to other Member States and to the common monetary policy – fiscal policy making, which remains the responsibility of the Member States, was therefore embedded in a tight regulatory framework, which de facto represents national governments' self-commitment to sound fiscal policies. However, since its implementation and despite the reforms carried out, this governance framework has the problem of a lack of enforceability and ultimately an arguable lack of commitment from EU/euro area Member States.[7] The nonfulfillment of the rules, in particular the requirements of the preventive arm in the years prior to the crisis – but also (and especially) since the outbreak of the crisis in 2008 – makes it clear that European political bodies (i.e. European Commission, European Council) would not implement and/or enforce the rules.[8]

Before the reform of EU governance in 2011, however, there was also a lack of suitable common instruments/mechanisms to prevent the buildup of macroeconomic internal and external imbalances in some euro area countries in the years prior to the outbreak of the global financial and economic crisis, which then intensified the crisis. As a reaction to this, the EU attempted to strengthen the rules of economic governance in the EU/euro area by means of several legislative packages.[9]

[4] *Even so, however, when some euro area countries lost access to the capital markets as their public debt ratios increased rapidly in the course of the global financial and economic crisis, solidarity mechanisms (bilateral loans, the European Financial Stability Facility (EFSF) and the ESM) were created – albeit outside the EU's regulatory framework – and market mechanisms were suspended. As part of the conditional adjustment programs, basic freedoms laid down in the governance framework of the EU/euro area such as the free movement of capital were – temporarily – restricted.*

[5] *The financial markets should act as a watchdog and sanction unsound fiscal policies through rising risk premiums on their government debt.*

[6] *The SGP was adopted in 1997 on the basis of secondary law (Regulation (EC) Nos.1466/97 and 1467/97) and has since been reformed a number of times. Major reforms were implemented in 2005, 2011 and 2013. See Diebalek et al. (2006), Holler and Reiss (2011), Prammer and Reiss (2016).*

[7] *Controversial decisions made by the European Commission have also contributed to the fiscal rules having credibility problems.*

[8] *See Prammer and Reiss (2016) as well as Holler and Reiss (2011).*

[9] *These comprise Regulation (EU) Nos.1175/2011, 1177/2011, 1173/2011, 1176/2011 and 1174/2011.*

The intention of the EU governance reform of 2011 was to monitor national public budgets more closely, to design the budgetary policy framework more robustly by anchoring national fiscal rules[10] and to pay more attention to the development of public debt. In particular, the preventive arm of the SGP was to be strengthened. Furthermore, a macroeconomic imbalance procedure was introduced as a new tool to prevent or reduce internal and external macroeconomic imbalances.[11] Another two regulations (the so-called two-pack) were adopted in 2013 to complement the SGP.[12] The European fiscal framework and the imbalance mechanism form key parts of the governance framework for the EU/euro area.

2 Fiscal shock prevention and absorption mechanisms in the EU/euro area

2.1 Sound fiscal policy – the most important instrument for stabilizing asymmetric shocks in the euro area

In signing the Maastricht Treaty, EU/euro area Member States did not just agree on the principle of national sovereignty in economic and fiscal policy, they also committed themselves to rules-based budgetary discipline. The fiscal rules aim, on the one hand, to prevent crises in the euro area that are motivated by fiscal policy (shock prevention) by requiring governments to operate fiscal policies that are sustainable in the long term (i.e. moderate public debt).[13] On the other hand, they aim to orient the fiscal policies of Member States in such a way as to be able to fulfill their stabilizing function in the economic cycle (shock absorption) and not have to act procyclically in certain circumstances (shock intensifying). This is made possible by the fact that at least the automatic stabilizers can have an effect in normal cyclical downturns, combined with the buildup of (cyclical) deficits in recessions and the achievement of (cyclical) surpluses in booms. With particularly deep recessions or crises, exceptions to these requirements are appropriate, provided that the increase in the debt ratios caused by the recession or crisis is reversed once it has ended. The long-term sustainability of fiscal policies is secured through the fact that, although the cyclical fluctuations may be cushioned through deficit financing, permanent structural deficits associated with a swift increase in the debt ratio are prevented. The danger of rapidly increasing public debt ratios is that countries lose access to the capital markets and pressure is subsequently exerted on monetary policy and thereby on the central bank to act as the lender of last resort, which could put the stability of monetary policy at risk.

The SGP establishes a regulatory straitjacket for fiscal policy to the extent that it stipulates upper limits for the current general government deficit and public debt as a percentage of GDP, and defines and quantifies the medium-term/structural budget objective that the individual Member States have to achieve and comply with. But it also defines the requirements in respect of the development path for

[10] *As part of the fiscal compact, which was adopted in 2012.*

[11] *The coordination of structural policies in the broader sense received comparatively little attention in the years prior to that with the "open coordination" approach based on the Lisbon Strategy. There was therefore barely any response in the economic policy discussions to the internal (public and private debt) and external (loss of competitiveness as well as current account deficits) imbalances that were building up in some EU/euro area countries in the pre-crisis years.*

[12] *Regulation (EU) Nos. 472/2013 and 473/2013.*

[13] *The financial markets in particular should be able to regard the sustainability as being safeguarded by virtue of credible rules.*

public expenditure and the public debt ratios, as well as determining the procedures that should lead to the requested objectives being met/met again. Furthermore, the responsibilities of Member States, the European Commission and ECOFIN are regulated.

However, the SGP does not contain any requirements for the amount, structure or composition of the public revenue or expenditure of Member States. But the size of the public sector and the formulation of the tax and transfer system are important parameters for the strength of the automatic stabilizers, as they determine the responsiveness of the budget to the underlying developments in the real economy and influence the multiplier effect of the individual budget aggregates on the real economy. The automatic stabilizers are therefore a by-product of other national agendas, such as a country's distributive and allocative objectives.[14] It is therefore not surprising that the automatic stabilizers differ considerably between euro area countries in their ability to absorb shocks.[15]

In order that the automatic stabilizers can be effective in downturns, Member States are obliged as a matter of principle to align their budget policies to a structural budget objective (the so-called medium-term objective, or MTO) – as stipulated in the preventive arm of the SGP. A large number of country-specific factors go into calculating the MTO. The more cyclically sensitive a national budget and the greater the output volatility of a Member State, and the higher the costs of aging in connection with demographic developments and the greater the deviation from the public debt ratio of 60% of GDP reference value, the stricter are the requirements concerning a country's MTO. In addition, the signatory countries of the fiscal compact have committed themselves to comply with an MTO of –0.5% of GDP for as long as they have a public debt ratio of greater than 60% of GDP.[16]

The preventive arm of the SGP determines the extent of the structural improvement (i.e. consolidation) that a Member State has to produce if it has not yet met its MTO or if it has missed it. In principle, a Member State should generally improve its structural balance by 0.5% of GDP in such cases until it meets/returns to its MTO.[17] In accordance with the European Commission's flexibility note (2015), the cyclical position in which a country finds itself and the level of the public debt ratio are particularly decisive for setting the actual structural consolidation requirements.[18] In "exceptionally bad times" and in some circumstances in "bad times," a structural improvement may even be foregone completely,[19] with the approach selected by the European Commission being asymmetrically in favor of

[14] *As automatic stabilization is of great importance, the question arises as to how effective the automatic stabilizers are in absorbing shocks. The quantification regarding this is not trivial, as both the budget sensitivity and the size of the multipliers, as well as the type of shocks that hit an economy, are important. See Brunila et al. (2003), Scharnagl and Tödter (2004), Dolls et al. (2009), European Commission (2005), In't Veld et al. (2012) and Price et al. (2014).*

[15] *There is no disguising the fact that various structural reforms have definitely reduced the strength of the automatic stabilizers since the 1990s. If Member States assess the extent of the automatic stabilization as insufficient, the national stabilizers should be strengthened by targeted reforms.*

[16] *See Prammer and Reiss (2016, p. 35).*

[17] *In good times, however, the structural improvement requirement amounts to 0.6% of GDP or 0.75% of GDP if the public debt ratio is less than 60% of GDP, and 0.75% or 1% if the debt ratio is greater than 60% of GDP.*

[18] *Prammer and Reiss (2016), p. 36.*

[19] *See European Commission (2015, 2017c).*

more limited consolidation. A deviation from this adjustment path to the MTO may also be excused by recourse to one or more exemptions. These exemptions became more and more numerous over time.[20] With the governance reform of 2011, the preventive arm of the SGP was also expanded to include an expenditure rule, meaning that maximum allowable growth (= benchmark) rates of expenditure were defined alongside the required improvements in the structural balance. Member States have to comply with these upper limits on government spending as long as they do not meet the MTO. Overshooting these expenditure benchmarks is only allowed if any excess expenditure growth is matched by discretionary measures yielding additional revenues. However, the calculations under the expenditure rule are also complex and difficult to understand. If a country has met its MTO, it should pursue a cyclically neutral budget policy.

Respecting or returning to the 3% or 60% upper limit for the general government deficit ratio/public debt ratio is at the heart of the corrective arm of the SGP. A debt ratio of more than 60% of GDP is also regarded as conforming to the rules as long as it is diminishing sufficiently and therefore moving in the direction of the reference value at a satisfactory pace.[21] If an excessive deficit procedure (EDP) has been initiated and the deficit is deemed to be excessive, the breach normally has to be corrected in the following year and the structural deficit ratio reduced by at least 0.5 percentage points. In principle, financial sanctions can be imposed if the breach continues. However, the procedural steps leading up to this are now characterized by numerous factors, methods and exemptions with considerable discretionary scope for decision making.[22] Given the potential exemptions, special features and scope for decision making in the EDP, persistently high deficits above the 3% limit are also possible while still conforming to the rules and/or consolidation may be considerably delayed.[23]

Since the introduction of the European Semester in 2010, the European Commission assesses Member States' compliance with the fiscal rules in the preventive and corrective arms over the first six months of every year. Owing to the complexity and the many discretionary powers that the European Commission

[20] *Possible exemptions are structural reforms that improve the long-term growth potential and are therefore advisable in terms of the long-term sustainability of public finances, and/or the investment clause via which various potential expenditure may be temporarily exempted from restrictive fiscal rules, provided that the expenditure was incurred in connection with projects co-financed by EU budget funds. The full allowed deviation with these exemptions may amount to up to 0.5% of GDP per clause or 0.75% of GDP if both clauses are applied. The deviation from the level of the structural balance without exemptions is currently limited to three years. Other expenditure may also be temporarily classified as an exemption, such as that on refugees and combating terrorism. In addition, there is also the "general escape clause" for cases when the euro area or the EU as a whole are affected by an exceptionally sharp economic downturn. This general escape clause may be activated both in the preventive and corrective arms. See Deutsche Bundesbank (2017).*

[21] *Not until the governance reform of 2011 was the exact adjustment requirement for a sufficient reduction in a debt ratio standing above the 60% benchmark specified – a decrease in the differential of the debt ratio over the previous three years at an average rate of 1/20 per year. However, a sufficient reduction also exists if this reduction arises for the last year and the following two years in accordance with the European Commission's budgetary forecasts. In addition, the influence of the economic cycle can be excluded in the numerator and in the denominator. Furthermore, in accordance with Council Regulation (EU) No. 1177/2011, numerous other relevant factors are taken into account in the assessment of whether a procedure is opened concerning an excessive debt ratio. See Prammer and Reiss (2016).*

[22] *With regard to the debt ratio, this means that the determination of an excessive debt ratio can be avoided in the first place.*

[23] *For the exact procedure, see Prammer and Reiss (2016) and Deutsche Bundesbank (2017).*

has, the effectiveness of the preventive arm of the SGP is very low, as there are numerous ways to permanently and significantly deviate from the budget objective while conforming to the rules. The MTO of an almost balanced structural budget has therefore rarely been achieved. Up to now, no euro area country has been assessed to deviate significantly from the adjustment path, even if the structural balance had worsened. The overall complexity and the European Commission's decision-making leeway in interpreting the rules also take a toll on how comprehensible, traceable and transparent the procedure is. As a result, the Member States have, in no small part, been released from their responsibility to actually achieve the objectives. As sanctions de facto have no meaning in actual budgetary surveillance, there is little incentive for the Member States to comply with the upper limits. The determination of an excessive deficit in respect of the debt criterion is also barely enforceable. In the case of Italy, for example, the European Commission's interpretation of the rules was particularly generous in 2016 and 2017, which in fact amounted to nullifying the debt rule as an autonomous criterion.[24] Therefore, even debt ratios rising over several years are possible in spite of the debt criterion without an excessive debt ratio being determined or an excessive debt procedure being initiated.

Since the establishment of European monetary union in 1999, the regular Maastricht ceilings have failed to be met on multiple occasions. To date, no financial sanctions (of up to 0.5% of GDP annually) owing to a breach of the rules in accordance with Article 126 TFEU have been imposed, despite some countries breaching them significantly.[25]

Overall, the European Commission has watered down the fiscal rules meant to be strengthened through the 2011 EU governance reform by ever more relaxing these rules and increasingly exploiting its discretionary powers in the area of budgetary surveillance.[26] It is similarly difficult, if not impossible, to enforce the structural reforms required under the MIP to prevent macroeconomic imbalances.[27] The attempt, by way of the fiscal compact, to create additional national fiscal rules (to safeguard the EU's fiscal framework) and national fiscal councils tasked with ensuring compliance with the EU rules has not been crowned with success either insofar as national commitment to rules-based EU governance has not become noticeably stronger,[28] but the regulatory system has become more complex.

Developments since 2008 have been heavily shaped by the financial and economic crisis. For example, the EU Member States took concerted, discretionary economic stimulus measures[29] in view of the sharp decline in GDP in 2008 and

[24] *Deutsche Bundesbank (2017, p. 41).*

[25] *See Prammer and Reiss (2016).*

[26] *This in turn shows that purely transferring responsibility to another institution does not guarantee that rules-based governance will be strengthened.*

[27] *See Fischer and Stiglbauer (2018) in this issue.*

[28] *One exception is Germany, where the national budgetary rules are much more binding than the European rules.*

[29] *However, some Member States, such as Italy, were not able to take part, as they were already too close to losing access to the capital markets.*

2009[30] and the heads of state and government agreed to de facto suspend the SGP for two years in fall 2008. Thus, most euro area countries did not begin consolidating their budgets until 2010 or 2011 even though their debt ratios were on the rise.

However, strict application of the SGP alone in the run-up to the financial and economic crisis probably would not have been able to prevent the sovereign debt crisis in every case. For one thing, because the trigger was an external shock to the European financial markets which, in connection with the problems that had accumulated in this sector in the preceding years (too little capital, increased financing via the interbank market, excessive risk taking, etc.), left no or hardly any room for maneuver to prevent or absorb shocks. And for another, because, in the case of Ireland, Spain and Cyprus, there was additionally credit-financed macroeconomic overheating associated with a sharp rise in private debt.[31] For the latter, the diagnostic instruments of the EU/euro area and the budgetary rules of the SGP were not enough to justifiably call for a more restrictive course.[32] In the case of Portugal and Greece, however, the adjustment problems and costs would have been significantly smaller if the SGP had been applied strictly.[33] The adjustment problems that Greece has had since 2009 can also be attributed to a national governance problem that it would not have been possible to solve through any euro area architecture – only by national legislators or through improved national institutional governance. The adjustment programs in the context of the financial aid were therefore accompanied by a limited temporary curtailment of national sovereignty. In every case, however, it is true that sounder national fiscal policies at the time of the outbreak of the crisis would have made shock absorption easier. In other words, if Member States had built up sufficient fiscal buffers in the previous good years, i.e. had they met their MTO, they would have been able to react much more strongly to the economic downturn in a fiscal sense. Here, it is worth discussing why Germany is called on time and again to reduce the fiscal buffers it has reaccumulated in the course of the upturn. This suggests a broad political preference for not building up national fiscal buffers in good times and seemingly calls into question euro area countries' commitment to the European fiscal framework and to the principles of macrocoordination in monetary union; along with

[30] *Real GDP of the EU-28 contracted by 4.3%, while that of the then 12 euro area countries (EA-12) contracted by 4.5%. Austria recorded a decline in GDP of 3.8%. The unemployment rate in the EU-28 went up from 7% in 2008 to 10.9% in 2013 as a result. However, the rise in the unemployment rate was even sharper in the EA-12, where it went up from 7.6% in 2007 to 12% in 2013. In Austria, too, unemployment increased by 1.2 percentage points to reach 5.3% in 2010.*

[31] *These were then transferred to the public sector.*

[32] *Prior to the outbreak of the crisis, Ireland and Spain performed comparatively well in fiscal terms, with low public deficit and debt ratios. At the start of the financial crisis, it was therefore still assumed that they would certainly be able to shoulder the fiscal costs of the bank rescues thanks to their comfortable public budgets and their low public debt. However, this assessment was based on a misjudgment of the underlying structural circumstances. For example, the potential growth had been overestimated in both cases and, as a result, so had the underlying structural budget balance. However, the bursting of the real estate price bubble in both countries led to a dramatic reassessment of the structural circumstances, as well as an explosion of nonperforming loans. If the government bond markets had initially remained calm in 2008 and 2009 – despite the bursting of the real estate price bubble – the situation changed drastically at the end of 2009 when the sharply rising deficit and debt ratios became apparent.*

[33] *Awareness of the actual scale of the Greek deficit developments at the start of 2010 led to a crisis of confidence among international investors and, as a result, to the outbreak of the European sovereign debt crisis which – beginning with Greece – rapidly spread to Ireland and Portugal. This went hand in hand with a sharp rise in risk premiums on these countries' government bonds, as well as to the de facto loss of access to the international capital markets.*

the fact of shifting their responsibility for stabilizing short-term cyclical shocks toward – ideally – shared responsibility (risk sharing), if not outsourcing it to the others completely (risk shifting). Against this backdrop, any further deepening measures in the sense of implementing common fiscal risk-sharing instruments in the euro area need to be combined with more stringent governance requirements on the Member States in order to prevent moral hazard and unintended permanent transfers from the outset.[34]

However, the flexibility applied by the European Commission from 2014 onward may also be interpreted as a backlash against the "toughness" shown previously. From 2011 to 2013, the average annual consolidation in the euro area amounted to 1 percentage point (peaking in 2012), while real GDP growth was negative throughout. However, the actual degree of consolidation was in effect more attributable to the expiry of the approved economic stimulus programs, as well as to the loss of confidence in the capital markets, than to the consolidation requirements resulting from the fiscal rules. The fact that no further structural improvements were pursued after 2014, while the output gap moved into positive territory, shows that the flexibility currently applied by the European Commission does not necessarily lead to countercyclical stabilization.

The problems in the application or implementation of the fiscal rules are, among other things, probably also attributable to the fact that the euro area countries have different economic policy models or traditions. Indeed, there are great differences in respect of their preference for more rules-based or more discretionary economic and fiscal policy making. Adherence to these country-specific traditions does not just mean that the euro area countries would not follow a uniform economic policy-making concept in a broader sense, even after two decades of common monetary policy. It also means that the enforcement problems will continue into the future – partly because there is little support in the European Council for strict, rules-based behavior.

However, even if significant improvements in the sense of a greater stabilization capacity and thereby better shock absorption through fiscal policies were associated with effective enforcement of the existing rules, there are limits to the effectiveness of governance built on ex ante rules. In such case, not all future challenges/shocks can be taken into consideration when defining the rules. This goes not just for the fiscal rules, but in particular also for the regulatory requirements applicable to the banking and financial systems. For a sound and resilient EU/euro area, it is therefore critical that national policy makers and both national and EU/euro area institutions are well equipped to take targeted action.

2.2 The European Stability Mechanism as lender of last resort

The original governance framework of the EU had already envisaged an EU community instrument, the European Financial Stabilisation Mechanism (EFSM), with a volume of around EUR 60 billion, to cushion against exceptionally strong

[34] *The deepening options so far put forward do not go far enough in this respect. In this context, the fundamental question arises as to whether, for the purpose of strengthening monetary union, an effective sharing of fiscal risk among the Member States would not have to be accompanied by a centralization of decision-making competencies and suitable decision-making structures.*

adjustment processes in the context of a balance of payments crisis. Prompted by the sovereign debt crisis, a new intergovernmental temporary crisis resolution mechanism was created in 2010, namely the European Financial Stability Facility (EFSF),[35] which was replaced in 2012 by the permanent European Stability Mechanism (ESM).

These financial facilities in the euro area became necessary because acute government financing difficulties and impending excessive debt entail the risk of disorderly developments and do not just limit the room for fiscal maneuver, but also put a strain on – if not threaten – the financial system and, in extreme cases, the functioning of the economy as a whole. Furthermore, owing to the close interdependence within a monetary union, spillover effects on the other member countries are foreseeable or, in extreme cases, a breakup of monetary union. It is therefore the role of the ESM to act as the lender of last resort for the euro area countries. It is designed as an intergovernmental institution which, subject to certain conditions, provides financial assistance to euro area countries that face crisis-induced liquidity problems and may no longer tap into capital markets.[36] Up to now, financial assistance amounting to EUR 273 billion has been made available to Greece, Ireland, Portugal, Spain and Cyprus.[37]

The total subscribed capital of the ESM amounts to EUR 704.8 billion.[38] As with other international financial institutions, the capital is made up of paid-in and callable capital. The paid-in capital currently equals EUR 80.55 billion, which is more than any other international financial institution has. The ESM has an effective lending capacity of EUR 500 billion.[39] As a result of this and the EFSF guarantees, the ESM can issue debt instruments on the capital markets on favorable terms (AAA rating). The ESM passes on assistance loans to program countries at the interest rate at which it borrows money from financial markets, as well as its de facto costs in funding the loans. Not only does this prevent the insolvency of the countries that can no longer tap the financial market, it also allows them to benefit from very favorable financing conditions. For Greece, this now means an interest rate saving of roughly EUR 10 billion per year (around 5.6% of Greece's GDP).[40]

In principle, the ESM counts on a lending toolkit that comprises several instruments, such as financial assistance in the form of loans, precautionary financial assistance in the form of a credit line, dedicated loans to recapitalize financial institutions of an ESM member and/or the purchase of government bonds of affected euro area countries in the primary or secondary market. ESM stability support is always conditional upon reform requirements. Depending on the choice of instrument, these may range from a comprehensive macroeconomic adjustment program to the continuous fulfillment of predetermined eligibility criteria. The

[35] *From May 2010 running until mid-2013, the EFSM as an EU community instrument and the EFSF as an intergovernmental facility formed financial backstop mechanisms for euro area countries that got into financial difficulties. These instruments were supplemented by IMF financing. In being superseded by the permanent ESM, the EFSM was abolished without being replaced; the EFSF was superseded by the ESM.*

[36] *Solvency problems would have to be addressed by making creditors participate in debt restructuring.*

[37] *See Regling (2018a).*

[38] *The Austrian share amounts to 2.8%, or EUR 19.5 billion. The Austrian share of the paid-in capital amounts to EUR 2.2 billion.*

[39] *In addition, the lending capacity of the ESM should be supplemented by the involvement of the IMF where possible.*

[40] *See Regling (2018b).*

European Commission negotiates economic policy requirements for the assistance with the ESM member concerned together with the European Central Bank (ECB) and – where appropriate – the International Monetary Fund (IMF). These are documented in a Memorandum of Understanding (MoU). The disbursement of subsequent tranches of the financial assistance depends on consistent compliance with the conditions attached to the financial assistance. This means that program countries have to resolve their structural problems, put their public budgets back on a solid footing, restore competitiveness and clean up the banking sector. Four of the five euro area program countries, namely Spain, Ireland, Cyprus and Portugal, ended their programs after three years and regained access to the capital markets; Ireland, Spain and Cyprus are currently again among the euro area countries experiencing strong growth. They have subsequently been subject to post-program surveillance, which has to be maintained until at least 75% of the financial assistance (EFSF, ESM, bilateral loans) is repaid. Greece is currently the only country that is still operating under a program. The third financial assistance program for Greece runs until August 20, 2018.

An extension of the ESM's areas of responsibility is currently being discussed.[41]

2.3 The EU budget – strengthening resilience and fostering real convergence in the EU/euro area

In the debates on the EU/euro area fiscal governance framework and the establishment of additional instruments for cyclical risk sharing among the Member States, the role that the EU budget has had up to now has been largely ignored. To date, the EU budget is the only "common" stabilization instrument in the EU – albeit with a more indirect effect and more limited in scale. Its focus is primarily directed toward redistribution and convergence efforts among the Member States and the direct provision of public goods. With a volume of around EUR 150 billion per year, or around 1% of EU GDP, it does have a certain amount of macroeconomic importance. However, it does not conform to the construction of a "traditional" federal entity where one task of central government is stabilization – accompanied by the authorization to deficit financing.[42]

The primary objective of the EU budget is to make the European economy, i.e. the national economies of all Member States, stronger and more resilient in a comprehensive sense, i.e. improve their ability to absorb shocks by strengthening the growth potential and fostering sustainable real convergence (aligning the GDP per capita of the lower-income countries in a sustainable manner with the level of the higher-income countries).

The EU's cohesion and regional policy in particular aims at permanently reducing the considerable economic and social differences between Member States or regions.[43] The cohesion policy, which – including the national cofinancing – amounts to around EUR 480 billion for the period 2014–2020, entails considerable

[41] *See Prammer and Reiss (2018) in this issue.*

[42] *Redistribution and stabilization are typically central government functions in a federal entity.*

[43] *The Common Agricultural Policy (CAP), on the other hand, in principle aims at maintaining an independent agricultural sector in Europe, i.e. in terms of food supply, keeping a high degree of self-sufficiency and independence in the EU and, by way of subsidies and transfers, achieving a balance of income conditions or promoting rural regions. Around EUR 420 billion is being paid through the CAP in the current budgetary period, of which EUR 300 billion is being paid to farmers as subsidies for market-related measures and as direct payments.*

Table 1

Member States' average operating budgetary balances (EU budget) 2007–2016

Net contributors	EUR billion	% of GNI	Net recipients	EUR billion	% of GNI
DE	–107	–0.4	PL	90	2.4
FR	–64	–0.3	EL	47	2.4
UK	–57	–0.3	HU	35	3.5
IT	–41	–0.3	ES	29	0.3
NL	–23	–0.4	RO	28	2.0
SE	–15	–0.3	PT	28	1.7
BE	–13	–0.3	CZ	25	1.7
DK	–8	–0.3	SK	13	1.9
AT	–8	–0.3	BG	12	3.0
FI	–5	–0.3	LT	12	3.9
LU	–1	–0.2	LV	7	3.0
			EE	5	2.9
			SI	4	1.1
			IE	4	0.2
			HR	2	0.4
			MT	1	0.9
			CY	0	0.1

Source: European Commission.

redistribution via permanent transfers among the Member States of the EU. The main beneficiaries are the least developed regions – especially the EU Member States in Central and Eastern Europe, on which approximately 70% of the funds are concentrated, but also a number of euro area countries on the periphery.

The net transfers from the richer countries of the EU to the poorer ones amount to up to 4% of the recipient countries' GDP (see table 1). The euro area program countries (Greece, Portugal, Spain, Ireland, Cyprus) were/are also net recipients. The countries on the periphery of the euro area were also net recipients during the boom years prior to the outbreak of the crisis.[44]

However, empirical studies[45] show that not only has the real convergence among the original euro area countries since 1999 not improved in a sustainable manner despite all the structural/investment and cohesion funding (see chart 1), it has actually worsened since the outbreak of the economic crisis.[46]

The structural, investment and cohesion funds also contribute to macrostabilization insofar as there is a continuous and foreseeable flow of financing to the Member States, which in principle ensures a constant level of investment that is relatively independent of the economic cycle. However, the way money from the structural and investment funds is absorbed is heavily influenced by specifics of the award

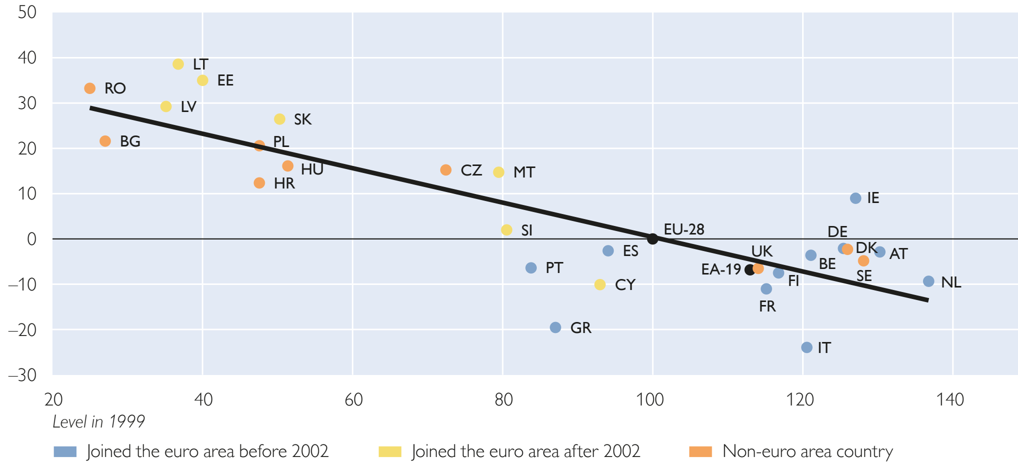
[44] *This had fueled their already buoyant demand even further.*

[45] *See the ECB (2015), Diaz del Hoyo et al. (2017) and the European Commission (2016 and 2017d).*

[46] *These studies also show that the estimates of the growth potential of the euro area countries on the periphery were biased upward prior to 2008 as a result of the credit-financed boom in demand/real estate prices and that the actual underlying long-term growth had been masked by the credit boom.*

Chart 1

GDP per capita relative to the EU-28 average, initial level in 1999 vs. cumulative change 1999–2016



Source: Eurostat, Diaz del Hoyo et al. (2017).

Box 2

EU budget

The EU budget, which has to be balanced,[1] is adopted annually in agreement between the Council of the European Union and the European Parliament. It must comply with the maximum spending limits for the EU's various areas of expenditure, which are laid down in the EU's multiannual financial framework. This framework reflects the policy priorities over the entire planning period. It is subject to unanimity on the Council. The current period for the multiannual financial framework is 2014–2020. In accordance with Article 318 TFEU, the EU budget is financed by the EU's own resources.[2]

The EU's own resources comprise (a) traditional own resources (customs duties on imports from outside the EU, and sugar levies), as well as financial contributions paid by its members, which in turn are made up of (b) VAT resources (based on the notional harmonized VAT base) and (c) gross national income (GNI)-based own resources (including the U.K. rebate). The revenue system is not just adopted unanimously by all Member States, but also ratified by national parliaments. The large number of complex correction mechanisms makes the entire system complicated and opaque. Up for discussion in the forthcoming renegotiation of the financial framework this year are the functions/objectives that are to be covered or are envisaged with the EU budget and thereby the volume of the EU budget and its future financing – with a particular focus on Brexit.

The largest budget expenditure is still on agricultural support – although this has become much less significant over the decades and the objectives have been adapted slightly – followed by support for sustainable growth and regional assistance through the European structural and cohesion funds (ESI funds).[3] In particular, expenditure on programs in the area of competitiveness have gained significantly in importance, compared with the previous multiannual financial framework.

[1] In practice, however, the actual revenue and expenditure often deviates from the estimates. There are normally surpluses, which are used to reduce the budget contributions of EU Member States for the following year.

[2] European Parliament (2014).

[3] Consisting of the European Regional Development Fund (ERDF), the European Agricultural Fund for Rural Development (EAFRD), the European Social Fund (ESF) and the Cohesion Fund (CF). The CF mainly supports projects in the areas of transport and the environment in countries whose GNI per inhabitant is less than 90% of the EU average.

procedure, the administrative modalities as well as shifting priorities underlying the EU budget, which then determine an (inherent) cycle of its own.[47]

The macroeconomic significance of the returns from the EU budget became apparent for the net recipient countries after the outbreak of the economic crisis in particular, when their national public budgets were severely restricted and the Cohesion Fund was important as a stable source of financing for investment that promoted growth.[48] In order to prevent a decline in investment demand – because of the national cofinancing requirement – the national financing share for Cyprus, Greece, Hungary, Ireland, Portugal and Romania was temporarily reduced following the outbreak of the crisis.[49] In some Member States, the structural funds (European Regional Development Fund (ERDF) and the European Social Fund (ESF)) are the main source for financing public investment.[50]

In addition, the EU budget – albeit without an EU central government – acts as a very moderate automatic stabilizer in the case of asymmetric shocks, since contributions to the EU budget fall in line with developments in the relevant levy-based schemes (a country's GNI growth declines relative to growth in the EU as a whole), but the return flows of funds remain the same, in line with the multiannual financial framework (and thanks to the system's inherent buffers).[51]

3 Euro area risk-sharing mechanisms and shock prevention outside fiscal policy

The global financial crisis and subsequent economic crisis caused far-reaching problems for the European financial sector, in particular the banking sector, which is critical for financing the real economy in Europe. The banking sector was insufficiently capitalized[52] and characterized by governance problems, as well as weak national supervisory systems marked by different standards and capacity.

The establishment of European monetary union had brought about a sharp fall in interest rates for a number of countries, which had then fueled credit-financed private and/or public demand and had led to a buildup of current account deficits, which, even in a monetary union, are unsustainable in the long term. Financial resources would flow from the banks of the core euro area countries to those of the countries in the periphery, but they dried up when the crisis began. This was due to the unsecured short-term interbank market grinding to a hold.[53] European banks had increasingly used the short-term interbank market to finance themselves

[47] "The projects identified and agreed on by the EU and recipient countries often take time to start and implement. EU funds absorption is therefore largely influenced by exogenous factors related to project implementation, as well as by changes in EU-wide policies." (IMF, 2014, p. 25).

[48] In the period 2007–2015, approximately 40% of EU return flows of funds went toward supporting the infrastructure of Member States, around 28% toward supporting the private sector and roughly 20% toward supporting human capital. Support for infrastructure is particularly important for the countries that joined in the 2000s, where some 50% of their respective return flows of funds is concentrated on infrastructure projects. Infrastructure support also dominates in Greece and Spain. See Monfort et al. (2017).

[49] See Matthews (2012) and Regulation (EU) No. 1303/2013.

[50] See European Commission (2017g).

[51] This stabilization effect does not exist if it is a symmetric shock that affects all Member States.

[52] Basel I/II was applied as minimum standard for capitalization.

[53] The ECB had to step in and largely take over the money market's role as an intermediary.

after the establishment of the monetary union. As a result, banks were faced with serious refinancing problems.[54]

Furthermore, the sharp economic downturn and the bursting of the credit-financed real estate price bubbles in several euro area countries caused nonperforming loans on banks' balance sheets to increase abruptly and rapidly. Therefore, extensive packages to stabilize and support banks were adopted, banks underwent emergency nationalizations and/or bad banks were formed. In addition, there was a vicious circle between banks and governments – a fundamental problem in overcoming the crisis and stabilizing the euro area. Banks that got into problems were rescued by governments if they were deemed systemically important. In other words, losses in the banking system were thus borne by the state ("taxpayers") as they were transferred from the private to the public sector. As a result, the risk of default and hence the risk premiums on the sovereign debt of some countries rose sharply (or the market value fell sharply). If, in turn, banks had large holdings of such bonds, the price losses for government bonds put their balance sheets under severe pressure – a move normally associated with a sharp rise in financing costs. In extreme cases, banks will even lose access to the monetary policy operations of central banks if they are no longer able to use such government bonds as collateral for these operations. The vicious circle ("bank-sovereign nexus") is that the bailout of banks may trigger a sovereign debt crisis that then turns into a banking crisis.[55] Establishing a European banking union has aimed at breaking this "doom loop."

3.1 European banking union and macroprudential policy

Creating a European banking union – with work on this beginning in 2011 – became a key undertaking at European level in light of the bank-sovereign nexus and given the importance a functioning, stable banking and financial sector has for both transmitting monetary policy and financing the real economy.[56] Common European banking supervision and resolution – based on the Single Supervisory Mechanism (SSM), the Bank Recovery and Resolution Directive (BRRD) and the Single Resolution Mechanism (SRM), whose resolution fund is to have EUR 55 billion available for pre-financing resolution costs when complete – will also help better protect countries from banking risks in future. The third pillar of the banking union, namely a European deposit insurance scheme (EDIS), is still pending and currently the subject of intense discussion, as this would naturally go hand in hand with risk sharing among the Member States.[57] Like the national deposit guarantee schemes, EDIS is meant to prevent bank runs by safeguarding deposits on the basis of a functioning European insurance fund and a binding European legal framework. EDIS is aimed in particular at those cases which a purely national deposit

[54] *Monetary union had considerably boosted the integration of the European interbank market. The interbank market has been of particular importance for monetary policy: the monetary stimulus is given to the banks via the interbank market and is then passed on to the other financial sectors and then, in turn, to the real economy. The interbank market is therefore the key transmission channel for the common monetary policy.*

[55] *The problem with the bank-sovereign nexus also exists if the original problem is a sovereign debt crisis, because investors lose confidence in the ability and/or willingness of a country to service its debt.*

[56] *Fragmented financial markets make lending more difficult in crises.*

[57] *It is important for both the resolution fund and the deposit insurance fund to have an adequate fiscal backstop when it comes to global systemically important banks. With respect to the deposit insurance fund, it is also a question of removing problematic legacy assets from banks' balance sheets, i.e. treating nonperforming exposures accumulated on the balance sheets.*

insurance system would not be able to resolve.[58] However, the question of how banks are to be better protected against the consequences of a loss of investor confidence in the sovereign debt issuer is also the subject of fierce debate. In this respect, preventing concentration risks – which result from the propensity to invest in government bonds of the home country (home bias) – on banks' balance sheets and the regulatory treatment of government bonds in relation to risk weighting are at the heart of the discussion.[59]

However, the crisis in the financial sector has also shown that microprudential supervision alone does not suffice to safeguard financial stability as a whole. Although it has become more effective and has been harmonized for significant credit institutions in banking union, microprudential supervision is geared solely toward maintaining the stability of individual financial institutions.[60] This is why central banks were put in charge of safeguarding the stability of the financial system as a whole through macroprudential supervision[61] – by means of regulatory and supervisory instruments.[62]

In the euro area, responsibility for macroprudential supervision is shared between the respective national authorities and the ECB. In principle, the Member States are in charge of conducting macroprudential policy. As of 2014, the necessary institutional structures for macroprudential supervision were set up both at the European and at the national level. At the ECB, the European Systemic Risk Board (ESRB) was created, with its key task being the early identification of risks in the European financial system. The national institutions are responsible for implementing macroprudential measures.[63]

The requirements of the Basel III regulatory framework are fundamental to safeguarding financial stability.[64] The framework obliges banks to now hold more and better-quality capital in order to become more resilient to crises.[65] It stipulates how much capital banks have to hold depending on their balance sheet risks and that the higher the risk on banks' balance sheets, the higher the minimum capital

[58] *From 2024 onward, a full European insurance scheme is supposed to be in place, according to the European Commission's original plans. It would fully fund all payouts in the participating countries in the event of bank failures. Implementation of the third pillar of banking union also depends, among other things, on whether it can be ensured that all members make an equal effort to limit the risks to this European deposit guarantee scheme, for example by implementing and complying with existing rules such as those for the restructuring and resolution of credit institutions and those for the harmonization of existing national deposit guarantee schemes.*

[59] *European Safe Bonds (ESBies) are being propagated as an alternative to removing preferential regulatory treatment of government bonds.*

[60] *As Janet Yellen (2015) put it, "We looked closely at the trees and not as intently as we should have at the forest" and the many different interdependencies between the trees (Weidmann, 2015).*

[61] *Opinions diverge on the extent to which the two tasks of maintaining price stability and safeguarding financial stability are compatible or conflict with each other. See also Gnan et al. (2018) in this issue.*

[62] *See Posch et al. (2018) in this issue.*

[63] *The ECB in its capacity as microprudential banking supervisor has the right to apply more stringent measures than adopted nationally (in the case of certain instruments defined in EU law).*

[64] *The CRD IV package (Capital Requirement Regulation and Capital Requirement Directive) transposes the global standards on bank capital (Basel III agreement) into EU law.*

[65] *Higher capital requirements improve banks' risk-bearing capacity and thereby their ability to absorb shocks. The banking sector becomes more resilient as a result.*

has to be.[66] Furthermore, banks have to hold additional capital buffers if this is necessary from the point of view of financial stability.[67]

The requirements are aimed at increasing the resilience of and reducing the systemic risks in the financial system so that it can bear the effects of significant exogenous or endogenous shocks independently – without support from the taxpayer. In particular, excessive credit growth and the associated excessive debt (leverage) should be mitigated or prevented so as not to give rise to asset price bubbles. Empirical studies show that, in particular, banking crises that follow excessive credit growth are associated with much higher real economic and fiscal costs.[68] In addition, mitigating and preventing excessive maturity mismatches between financial companies' assets and liabilities as well as liquidity shortages in the markets should avert the excessive use in the future of short-term and volatile refinancing sources which may in some circumstances make fire sales of assets unavoidable and thus lead to illiquidity spirals and contagion effects. When there is a high degree of interconnectedness, limiting direct and indirect risk concentrations should in turn prevent shocks at individual financial institutions or in segments of the financial system from spreading rapidly in the financial system and to other parts of the economy via direct links or correlated exposures. The focus is also on limiting systemic effects of misaligned incentives in the financial system which arise from implicit and explicit government guarantees – resulting from the fact that the probability of implicit state guarantees increases with the size/significance of an institution.[69] However, as it is not possible to prevent banks from failing in the future – despite the more stringent regulation – functioning resolution mechanisms are key, as are requirements concerning those liabilities that can be "cut" if there is a problem (bail-in) (minimum requirement for own funds and eligible liabilities, or MREL). The orderly restructuring or resolution of systemically important institutions in the context of the elements of the banking union that have so far been implemented should in particular help permanently weaken the bank-sovereign nexus. To this end, the SSM is to prevent undesirable developments as far as possible and, notably, the need for any fiscal support measures in a crisis must be kept to a minimum – also by applying the rules on the orderly bail-in of creditors.[70]

3.2 A European capital markets union – private sector risk sharing across countries

However, a European financial union comprises not just the banking sector, but also the capital markets. The goal of the capital markets union is therefore to transform

[66] *The calculation of risk-weighted assets determining the minimum level of regulatory capital banks must maintain is meant to deter banks from making riskier-than-average investments.*

[67] *The countercyclical capital buffer can be used to require banks to hold additional capital if excessive aggregate credit growth may contribute to the buildup of systemic risk.*

[68] *See Claessens and Kose (2013) and Laeven and Valencia (2012).*

[69] *Implementation of the BRRD should also help get the "too big to fail" problem and the associated incentive problems under control. See also Posch et al. (2018) in this issue.*

[70] *In principle, a predetermined decision-making process based on a predefined creditor hierarchy (liability cascade) begins when a bank becomes insolvent, in accordance with the intentions of the SRM, in which the owners and creditors of the bank initially bear the losses that arise. Subsequently, assistance comes from the resolution fund that the banks themselves have financed. The government and thus the taxpayer do not feature in this liability cascade until right at the end. See Bertelsmann Stiftung and Jacques Delors Institut – Berlin (2017).*

the – currently 28 – national capital markets into an integrated capital market.[71] One key element of this plan is to reduce investors' "home bias" in order to activate a further channel in monetary union to smooth out cyclical fluctuations among euro area countries. This would reduce the necessity of risk sharing via new fiscal instruments.[72] In line with the empirical literature, private sector risk sharing via integrated capital markets and credit markets is of considerable importance in other federal structures, in particular the United States, Canada and Germany, in the event of asymmetric shocks. This type of risk sharing implies that the economic risk of investments is jointly borne by lenders in various federal states. Profits and/or losses are thereby not concentrated in the federal state in which an enterprise is based. Cross-border borrowing cushions further against economic downturns if banks in other federal states are better able to bridge the gap than domestic banks during a tough economic period. Private risk sharing through loans that are taken out in a downturn for consumption smoothing cushions against around 25% of an economic shock in the United States. The figure is far higher (40%) when cushioning against an economic shock via the capital markets.[73] In contrast, the fiscal risk-sharing channel absorbs a comparatively small percentage of a shock.[74]

Milano and Reichlin (2017) have found that the scale of fiscal and private risk sharing is smaller in the EU/euro area than in the United States and than in Germany on its own. According to their estimates, however, the scale of fiscal risk sharing increased significantly in the EU following the outbreak of the crisis as a result of the actions of the EFSM, EFSF and ESM (from approximately 23% prior to the crisis to approximately 31% following the outbreak of the crisis) and is thereby higher than for the fiscal risk-sharing mechanism in the U.S.A. But they also conclude that, in the U.S.A., a more integrated capital and credit market represents the most important channel for risk sharing in the event of idiosyncratic national shocks.[75]

As the euro area is not a federal state, but a common currency area for sovereign states, an increase in the significance of cross-border financing of enterprises, in particular via capital, is desirable in order to cushion against national/regional/sectoral shocks in the euro area more effectively. However, forming a single European capital market is an extremely complex undertaking. To make cross-border holdings more attractive, harmonizing tax and insolvency law in particular is of key importance, as investors need reliable conditions and as level a playing field as possible.[76]

Cross-border bank loans are a second channel for private risk sharing. This mechanism, however, failed in the euro area in the course of the economic crisis because confidence in the banking systems of the countries in the periphery that were under stress was lost and interbank market trade virtually broke down. To

[71] *See Beer and Waschiczek (2018) in this issue.*

[72] *See Constâncio (2017).*

[73] *See Asdrubali et al. (1996). For Canada, see Balli et al. (2012).*

[74] *Although various empirical estimates on the scale of shock absorption diverge in respect of the individual channels, all are agreed that private risk sharing is the most important channel in other federal entities.*

[75] *However, it is interesting that not only has the expectation of cost sharing through factor income flows, in particular in the course of the crisis, not been fulfilled, the smoothing capacity of this channel has even fallen – both in the U.S.A. and in the euro area.*

[76] *In other words, the envisaged harmonization of the corporate tax base at EU level also plays a role in this context and not just in the context of combating tax avoidance or evasion. See Weidmann (2017).*

reduce their risks, banks subsequently scaled back their cross-border activities, which resulted in this private risk-sharing channel failing. Banking union therefore aims at preventing a loss of confidence in the national banking systems of the euro area countries. This would also improve the effectiveness of the private risk-sharing channel via cross-border lending.

4 Summary and conclusions

The global financial and economic crisis presented the EU and the euro area with the biggest challenges since their inception. Monetary, fiscal and economic policy makers deployed a wide range of instruments in order to prevent a second major global depression. Moreover, extensive bank stabilization measures were taken to support the financial – and in particular the banking – sector. The crisis in Europe was further amplified by internal and external imbalances that had built up in a number of Member States in the pre-crisis years and that reflected national structural problems and ineffective economic and structural policy coordination in the euro area. Some euro area countries were stretched to their financing limits and lost access to the capital markets. Because fiscal policy had been too lax and the European fiscal framework had not been respected in the "good" economic years prior to the outbreak of the crisis, there were no fiscal buffers in some countries to counteract or cushion against this exceptionally strong shock.

The huge economic challenges triggered a cascade of monetary and economic policy decisions, such as reform of EU governance, the rapid implementation of new measures to combat crises and the creation of a European financial union, including banking union and capital markets union. Besides, the question whether monetary union needs further – new – common instruments for risk/cost sharing among its members in the event of strong (asymmetric) shocks is the subject of an intensive economic policy debate (see also Prammer and Reiss, 2018, in this issue).

To safeguard the cyclical stabilization function of fiscal policy, as well as to prevent moral hazard and fiscal policies in euro area countries that are unsustainable in the long term, monetary union relies on a framework of tight fiscal rules, given that fiscal policy continues to be under national sovereignty, and a supranational, independent surveillance body. This complements the common monetary policy and the mandate to maintain price stability in the euro area. However, the developments before and particularly since the outbreak of the crisis in 2008 have shown that policy makers within the EU have not been in a position or willing to enforce these rules, even though compliance with the existing rules would imply significantly better absorption of cyclical shocks. Compliance would also make the system as a whole more resilient because the rules aim at fiscal policies that are sustainable in the long term (shock prevention).

This article shows that, in principle, there are already enough fiscal and macroeconomic buffers in the euro area provided the banking union measures – which are agreed in principle – are implemented, capital markets union becomes a reality and macroprudential policies are effective. Still, the effectiveness of the instruments depends on Member States' willingness to align their policies to the "ground rules" of the EU and of monetary union and on how committed they are to these objectives. Enforcing compliance with said existing and agreed rules and regulations would help both prevent risks and crises and better absorb future short-term/cyclical shocks.

Nevertheless, neither strict compliance with the fiscal regulatory framework nor all the regulatory efforts in the financial sector are likely to prevent all potential crises in the future. Hence, the resilience of the EU and the euro area will continue to be determined mainly by the respective institutions' ability to take effective action. This also calls for strengthening the economic structures, i.e. product and factor markets, in such a way that enables them to react flexibly enough in the event of unpredictable adverse shocks without economic or social crises coming about.

This applies all the more as there is currently no sign of political majorities for further comprehensive deepening measures or giving up national sovereignty. It is not just the ability of the European institutions to take effective action that is of particular importance for coping with future crises, but also – and especially – that of the national institutions. In relation to fiscal policies, this could also mean that Member States specifically strengthen their national automatic stabilizers or consider setting up a national rainy day fund.

Furthermore, in discussions on deepening monetary union, we should bear in mind that functioning markets are a cornerstone of the EU and the euro area. Macroeconomic fluctuations are an inevitable byproduct of market dynamics. Recent research shows that fiscal risk sharing in the euro area has already improved, owing to measures taken in the wake of the crisis, such as the ESM. In this respect, there is, however, still considerable potential in implementing the capital markets union and completing the banking union.

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