

Risk-reducing and risk-sharing in our Monetary Union

Speech by Mario Draghi, President of the ECB,
at the European University Institute, Florence, 11 May 2018

It is a great pleasure for me to be invited by the European University Institute, which in many ways mirrors what the European project is for. It was founded to encourage exchange, cooperation and a common European vision.

Since then, the university has made countless contributions in the fields of economics, law, political science and history. It has often been the meeting point where academic research helps answer the urgent policy questions of the EU.

A decade after the great financial crisis, the euro area looks set to exit more resilient than it entered it. Much of the harm caused by the economic downturn has now been reversed by a consistent period of growth. And some of the institutional and structural factors that exacerbated the crisis have been addressed.

But we know that our Monetary Union is not complete. The crisis revealed some specific fragilities in the euro area's construction that so far have not been resolved.

To make our Monetary Union more robust against future challenges, we need to address these fragilities.

1. The history of the crisis in the euro area

The crisis took place in five main phases.

The first phase was similar across advanced economies. Most had a financial sector characterised by poor risk management, low capital and liquidity, inadequate corporate governance, and weak supervision and regulation – diluted by many years of excessive optimism in the self-repairing power of markets.

When the Lehman shock hit, banks exposed to toxic US assets ran into difficulties and some were bailed out by their governments.

In the euro area, these banks were mostly located in Germany, France and the Netherlands. Bank bailouts took place on a staggering scale. In 2009, they totalled around 8% of GDP in Germany, 5% in France and 12% in the Netherlands.^[1] These bailouts did not greatly affect sovereign borrowing costs, however, thanks largely to the relatively strong fiscal positions of the governments implementing them.

In the second phase, the crisis spread to banks in Spain and Ireland that had similar weaknesses, but were instead overexposed to the collapsing domestic real estate market. Another wave of bank bailouts followed, and some signs of tensions in sovereign debt markets began to appear.

Those tensions were compounded by the third phase, which began when the Greek crisis shattered the impression that public debt was risk-free, triggering a rapid repricing of sovereign risk. To those who saw the crisis as a consequence of moral hazard, this represented a required return of market discipline vis-à-vis sovereigns – a view that was reflected in the Deauville agreement in October 2010.

These events spread contagion to all sovereigns now perceived as vulnerable by financial markets. But they affected most of all those with high public debt levels, a lack of fiscal space, fragile market access and, especially, low growth. Sovereign risk was then transmitted into the domestic banking sector through two channels.

The first was through banks' direct exposures to their own governments' bonds.

Between January 2010 and July 2012, banks in Greece, Italy and Portugal incurred aggregate losses on sovereign bonds of vulnerable countries^[2] amounting respectively to 161%, 22% and 36% of their Core Tier 1 capital.^[3] Regardless of whether these losses directly affected regulatory capital^[4], they had an adverse effect on perceptions of solvency in those national banking systems.

The second channel was via negative confidence effects.

Because the public sector makes up roughly half the economy in many euro area countries, and because of credit rating dynamics, the fear of possible sovereign defaults had a dramatic effect on confidence in the domestic private sector. Any distinction between firms and banks, and between banks with and without high sovereign exposures, disappeared. The general loss of confidence in these countries' prospects reverberated through the banking sector via a further fall in growth.^[5]

In this way, the crisis spread to banks that did not have significant exposures either to US sub-prime assets or to domestic real estate, and therefore had not until then needed to be bailed out. However, governments in these countries found themselves unable to substantially respond to the emerging crisis with public money for the banking sector and countercyclical fiscal policy, due to lack of fiscal space and high debt.

Financial markets then began to fragment along national lines and cross-border funding dried up, exacerbated by defensive risk management by banks and ring-

fencing of liquidity by supervisors in the core countries. Lack of liquidity, coupled with capital depletion from domestic losses, precipitated a renewed credit crunch.

Countries were trapped in a “bad equilibrium” caused by the three-way link between sovereigns, banks and domestic firms and households.

Falling credit aggravated the ongoing recession, increased loan losses and further weakened bank balance sheets, which in turn pushed sovereign borrowing costs higher. Fiscal policy, under the pressure of losing market access altogether, took mainly the more expedient route of higher taxes, which led instead to lower growth and therefore renewed market jitters, somewhat defeating its original purpose.

The fourth stage of the crisis was triggered by investors in both Europe and the rest of the world. Faced with a downward growth spiral, many investors reached the conclusion that the only way out for crisis-hit countries, given the institutional design of the euro area, was for them to exit from it. This would, it was believed, allow them to depreciate their currencies and regain monetary sovereignty.

Fearing redenomination into lower-value currencies, investors sold off domestic public and private debt, further widening spreads and exacerbating bad equilibria within vulnerable economies. In 2012, spreads vis-à-vis German ten-year government bonds reached 500 basis points in Italy and 600 basis points in Spain, with even wider spreads in Greece, Portugal and Ireland.

The fifth stage of the crisis then followed: the breakdown in monetary policy transmission across the euro area. Interest rates faced by firms and households in vulnerable countries became increasingly divorced from short-term central bank rates. As those economies represented a third of euro area GDP, this posed a profound threat to price stability.

The ECB responded with its announcement of Outright Monetary Transactions (OMTs), which restored confidence in sovereign bond markets, helped to repair the monetary policy transmission mechanism, and broke the downward spiral. With less of a direct market impact, but fundamental in confirming to the world the strength of our leaders’ commitment to the euro, was the earlier decision to create the banking union and the European Stability Mechanism (ESM).

The long trip back to growth had begun.

The unfolding of the euro area crisis yielded lessons for the financial sector, for individual countries and for the union as a whole. But the unifying theme was the inability of each of these actors to effectively absorb shocks. In some cases, because of their weaknesses, they even amplified those shocks.

Indeed, banks fuelled the build-up of imbalances and then exacerbated the resulting crash. Countries had too low growth potential, limited flexibility to bounce back from the crisis and too little fiscal space to stabilise their economies. And the euro area as a whole was shown to have no public and very little private risk-sharing.

2. Risk-sharing within monetary unions

In the classical optimum currency area (OCA) literature, what makes membership of a monetary union work for all its members is a trade-off: what they lose in terms of national stabilisation tools is counterbalanced by new adjustment mechanisms within the currency area. These mechanisms are typically held to be labour and capital mobility, as well as fiscal transfers between different parts of the union.^[6]

In other words, they are ex post and take place after a recession has set in.

In the United States, which is a relatively well-functioning monetary union, ex post adjustment plays an important role. Fiscal transfers through the US federal budget are estimated to absorb around 10% of shocks^[7], while about half of the long-run response to a rise in unemployment takes place through labour mobility.^[8] But the outcomes achieved in the US are not substantially different to those in the euro area.

Though the euro area does not have a large central budget, national fiscal policies can still provide significant stabilisation, so long as countries can use fiscal policy freely. It is estimated that 49% of an unemployment shock is absorbed by the automatic stabilisers in the euro area, whereas the figure for the US is 32%.^[9]

And studies have found a gradual convergence in labour mobility between Europe and the US, reflecting both a fall in interstate migration in the US and a rise in the role of migration in Europe.^[10]

Where the euro area and the US differ more is in terms of ex ante risk-sharing – that is, insuring against shocks through financial markets. This was a concept that only appeared later in the literature on Optimal Currency Areas.^[11] But it plays a key role in stabilising local economies in a monetary union, in two ways.^[12]

The first is by de-linking consumption and income at the local level, which happens through integrated capital markets.

If labour income falls during a recession, but the private sector holds a diversified financial portfolio, people can smooth their consumption with the financial returns they receive on assets in better performing parts of the union.

The second way is by de-linking the capital of local banks from the volume of local credit supply, which happens through retail banking integration.

Because local banks are typically heavily exposed to the local economy, a downturn in their home region will lead to large losses and prompt them to cut lending to all sectors. But if there are cross-border banks that operate in all parts of the union, they can offset any losses made in the recession-hit region with gains in another, and can continue to provide credit to sound borrowers.

In the US, both credit and capital market integration have played an increasingly important role in smoothing local shocks over the past decades.^[13]

For example, following the oil price collapse in the mid-1980s, almost every bank in Texas failed, creating a state-wide credit crunch. One reason for this was that out-of-state banks were banned from the Texas market, so the balance sheets of local banks were completely concentrated on their home state.^[14]

But since then there has been major integration in the retail banking sector, with the number of multi-state banks increasing from around 100 in the early 1990s to more than 700 today.^[15] This has significantly weakened the relationship between local capital and local credit supply.^[16] And as a result, the volatility of business cycle shocks among US states has become smaller.^[17]

Overall, it is estimated that around 70% of local shocks are smoothed through financial markets in the US, with capital markets absorbing around 45% and credit markets 25%. In the euro area, by contrast, the total figure is just 25%.^[18]

Private risk-sharing of course has its limits. Faced with large common shocks that affect the whole monetary union, the benefits of diversification can break down, as happened to some extent in the US during the crisis. One study finds that capital market risk-sharing in the US dropped by almost half in the crisis period.^[19]

But this does not alter the conclusion that deepening private risk-sharing in the euro area would be beneficial for macroeconomic stability. So how can we achieve it?

The experience of other monetary unions, and our own up to now, suggests that it does not happen by itself. Rather, private risk-sharing has to be enabled by public sector policies at both the national and union levels.

In this sense, private risk-sharing cannot be seen as a substitute for the further development of EMU. It is a complement to it and follows from it.

The policies we need fall into two main categories.

3. Creating a more stable financial sector

First of all, we need policies that make the financial system more stable, both by increasing the resilience of banks and by completing the banking union and the capital markets union.

The euro area has already made good progress on these fronts. The post-crisis regulatory reforms have significantly strengthened the banking sector. The Common Equity Tier 1 ratios of significant banks have risen from 8.7% in 2008 to 14.5% today. In the same period leverage ratios have risen from 3.7% to 5.8%.^[20] And banks have much more stable liquidity and funding.

The creation of European banking supervision has also brought about a more uniform approach to how banks are supervised. And the new EU resolution framework has shifted the cost of bank failures away from sovereigns and onto the financial sector, which creates another channel of private risk-sharing.

Without entering into the discussion on which further regulations may be necessary for the shadow banking sector, we have to acknowledge that the banking union and the capital markets union are not yet complete.

We lack a truly level playing field for cross-border banks and investors, and this stands in the way of deep financial integration. A single financial market should have one set of rules and all market participants should be able to operate freely within it. Yet that is not the case at present.

For capital markets, there are differing rules and market practices for financial products across countries, and insolvency and judicial systems vary widely.

This matters because a consistent and efficient framework for pursuing failed contracts is vital to reduce uncertainty for cross-border investors. ECB analysis finds that where insolvency and judicial frameworks are more efficient, risk-sharing through both capital and credit markets is higher.^[21]

For banks, the Single Market is still fragmented along national lines. First, discrepancies in the regulatory framework reduce the economies of scale for banks operating across borders.^[22]

Second, an incomplete framework for bank resolution also deters cross-border integration. When resolution is not fully credible, it can create incentives for national authorities to limit capital and liquidity flows so as to advantage their depositors in

the event of a bank failing. But when the new EU resolution framework is completed and working properly, such concerns about depositors should be allayed.

The Bank Recovery and Resolution Directive already places depositors at the top of the creditor hierarchy in resolution. And the new minimum requirements for own funds and eligible liabilities should ensure that there is a sufficient buffer of loss-absorbing capacity to make depositor bail-in extremely unlikely.^[23]

What is still missing, however, is a backstop for the Single Resolution Fund.

Resolution needs financing^[24], and the Resolution Fund, which is funded by banks, will ensure that it is paid for by the private sector. But in a very deep crisis, the resources of such funds can be depleted. That is why in all the other large jurisdictions, such as the US, the UK and Japan, resolution funds are backstopped by the fiscal authority.

The aim of such backstops is not to bail banks out: any funds borrowed are repaid by the private sector over time. Rather, the aim is to create confidence that bank resolution can always be enacted efficiently, which has a stabilising effect in a crisis and prevents more banks from being dragged into difficulties.

In other words, policies that reduce risks for the banking system as a whole will also lead to larger risk-reduction for individual banks.

A good example of this is the Federal Deposit Insurance Corporation (FDIC) in the US, which is also the resolution authority, and is backstopped by a credit line with the US Treasury. During the crisis, around 500 banks were resolved in the US without triggering financial instability. In contrast, one estimate puts the total number of banks resolved in the euro area in that period at around 50.^[25]

An orderly resolution of this magnitude was possible in the US because of confidence in a well-functioning resolution framework. And the presence of the Treasury backstop was fundamental in creating this confidence.

Indeed, the FDIC ultimately did not have to draw on its credit line, but it was clearly reassuring to markets and to depositors that it had that option as a last resort. In fact, the FDIC has only borrowed from the Treasury once, during the savings and loans crisis in the early 1990s, and it repaid in full a few years later.^[26]

This example underlines that the dichotomy between risk-reduction and risk-sharing that characterises the debate today is, in many ways, artificial. With the right policy framework, these two goals are mutually reinforcing.

Public risk-sharing through backstops helps reduce risks across the system by containing market panics when a crisis hits. And a strong resolution framework ensures that, when bank failures do happen, very little public risk-sharing is actually needed as the costs are fully borne by the private sector.^[27]

So we need to put first things first and complete the resolution framework in all its dimensions. And creating a properly designed European deposit insurance scheme would be an additional element that could further reduce the risk of bank runs.

All in all, a consistent framework of regulations, laws, judicial enforcement and resolution is essential for deep and resilient financial integration. Completing the banking union and the capital markets union is therefore a necessary condition for the expansion of private risk-sharing in the euro area.

Yet it is not a sufficient condition. And this brings me to the second area where public sector policies can complement private risk-sharing: by increasing economic convergence and thereby building trust among cross-border investors.

4. Increasing economic convergence

The crisis showed clearly the potential of some euro area economies to become trapped in bad equilibria. And plainly, as long as this risk exists, it will act as a deterrent to cross-border integration, especially for retail banks that cannot “cut and run” as soon as a recession hits.^[28] Put simply, we will not be able to foster private risk-sharing in our union if crises can call its very integrity into question.

So, if we are to deepen private risk-sharing, the tail risk of bad equilibria needs to be removed, and replaced by policies that lead to sustainable convergence. This requires action at both the national and euro area levels.

In the eyes of many observers, three features made countries vulnerable to downward spirals: weak banks, lack of fiscal space and low growth. Stabilising the financial sector in the ways I have just described would address one part of the problem. But the common factor uniting all three was growth. Very low growth rates reduced fiscal space and harmed bank balance sheets.

At the national level, structural reforms therefore remain a priority.

We know that structural reforms boost growth: looking at the last 15 to 20 years, euro area countries with sound economic structures at the outset have shown much higher long-term real growth. And we know that they help countries recover more quickly from shocks, which prevents recessions from leaving lasting scars.^[29]

That said, while sound domestic policies are key to protect countries from market pressure, the crisis showed that, in certain conditions, they may not be enough. Markets tend to be procyclical and can penalise sovereigns that are perceived to be vulnerable, over and above what may be needed to restore a sustainable fiscal path. And this overshooting can harm growth and ultimately worsen fiscal sustainability.

This creates a need for some form of common stabilisation function to prevent countries from diverging too much during crises, as has already been acknowledged with the creation of two European facilities to tackle bad equilibria.

One is the ECB's OMTs, which can be used when there is a threat to euro area price stability and comes with an ESM programme. The other is the ESM itself. But the conditionality attached to its programmes in general also implies procyclical fiscal tightening.

So, we need an additional fiscal instrument to maintain convergence during large shocks, without having to over-burden monetary policy. Its aim would be to provide an extra layer of stabilisation, thereby reinforcing confidence in national policies.

It is not conceptually simple to design such an instrument as it should not, among many other complexities, compensate for weaknesses that can and should be addressed by policies and reforms. It is not legally simple because such an instrument should be consistent with the Treaty.

And, as we have seen from our longstanding discussions, it is certainly not politically simple, regardless of the shape that such an instrument could take: from the provision of supranational public goods – like security, defence or migration – to a fully-fledged fiscal capacity.

But the argument whereby risk-sharing may help to greatly reduce risk, or whereby solidarity, in some specific circumstances, contributes to efficient risk-reduction, is compelling in this case as well, and our work on the design and proper timeframe for such an instrument should continue.

This year the ECB is celebrating its 20th birthday, and next year we will be able to mark twenty years of the euro. In those two decades the euro has become a feature of our lives and a symbol of our European identity.

Three-quarters of euro area citizens now support the single currency.^[30] And when people are asked to name the most important elements of European identity, the euro is the second element cited, after the values of democracy and freedom.^[31]

The people of Europe have come to know the euro and trust the euro. But they also expect the euro to deliver the stability and prosperity it promised.

So our duty, as policymakers, is to return their trust and to address the areas of our union that we all know are incomplete.

[1] Figures include recapitalisation measures, guarantees, asset relief interventions, and liquidity measures other than guarantees. See [Financial Crisis Aid amounts](#) for a more detailed breakdown.

[2] This calculation assumes all exposures had been subject to fair valuation, and applies to bonds of Cyprus, Greece, Ireland, Italy, Portugal, Slovenia and Spain.

[3] Based on end-2010 Core Tier 1 capital.

[4] A significant share of government bonds were held by banks at amortised cost.

[5] In fact, internal ECB analysis finds that the relationship between sovereign and corporate CDSs in this period was as strong as that between sovereign and bank CDSs. And banks that had larger sovereign exposures had a similar correlation with sovereign CDSs as banks with smaller exposures.

[6] See Mundell, R. (1961), “A Theory of Optimum Currency Areas”, *American Economic Review*, 51 (4), pp. 657-665; McKinnon, R. (1963), “Optimum Currency Areas,” *American Economic Review*, 53, pp. 717-724; Kenen, P. (1969), “The Theory of Optimum Currency Areas: An Eclectic View,” in Mundell, R.A. and Swoboda, A.K. (eds), *Monetary Problems of the International Economy*, Chicago University Press.

[7] European Commission estimates. See Nikolov, P. (2016), “Cross-border risk sharing after asymmetric shocks: evidence from the euro area and the United States”, *Quarterly Report on the Euro Area*, Vol. 15, No 2.

[8] Beyer, R. and Smets, F. (2015), “Labour market adjustments and migration in Europe and the United States: how different?”, *Economic Policy*, Vol. 30, Issue 84.

[9] Dolls, M., Fuest, C., Kock, J., Peichl, A., Wehrhöfer, N. and Wittneben, C. (2015), “Automatic Stabilizers in the Eurozone: Analysis of their Effectiveness at the Member State and Euro Area Level and in International Comparison”, *Centre for European Economic Research*, Mannheim.

- [10] Beyer, R. and Smets, F. (2015), op. cit.
- [11] For a review of the development of this literature see Mongelli, F. (2002), “New views on optimum currency area theory: what is EMU telling us?”, ECB Working Paper No. 138.
- [12] For a fuller explanation of financial risk-sharing within monetary unions, see ECB (2016), “Special Feature A: Financial integration and risk sharing in a monetary union”, Financial Integration in Europe, May.
- [13] Asdrubali et al. find that financial risk-sharing in the United States increased monotonically each decade from the 1960s to the 1990s. See Asdrubali, P., Sorensen, B. and Yosha, O., “Channels of Interstate Risk Sharing: United States 1963–1990”, *The Quarterly Journal of Economics*, Vol. 111, Issue 4, 1 November 1996.
- [14] See Hane, G. (1998), “The Banking Crises of the 1980s and Early 1990s: Summary and Implications”, in *FDIC Banking Review*, Vol. 11, No 1.
- [15] ECB calculations based on FDIC data. The term “institution” refers to a separately chartered commercial bank or savings institution.
- [16] See Krozner, R. and Strahan, P. (2014), “[Regulation and Deregulation of the U.S. Banking Industry: Causes, Consequences, and Implications for the Future](#)”, in *Economic Regulation and Its Reform: What Have We Learned?*, National Bureau of Economic Research.
- [17] See Morgan, P., Rime, B. and Strahan, P. (2004), “Bank Integration and State Business Cycles”, *The Quarterly Journal of Economics*, Vol. 119, Issue 4,
- [18] European Commission estimates. See Nikolov, P. (2016), op. cit.
- [19] See Milano, V. and Reichlin, P. (2017), “Risk-sharing across the US and EMU: the Role of Public Institutions”, Policy Brief, LUISS School of Political Economy.
- [20] Tier 1 capital to total assets.
- [21] ECB (2018), “Box A: What could enhance private financial risk sharing in the euro area?”, *Financial Integration in Europe*.
- [22] For a more detailed explanation, see ECB (2017), “Special feature: Cross-border bank consolidation in the euro area”, in *Financial Integration in Europe*.

[23] See Carmassi, J. et al. (2018), “Completing the Banking Union with a European Deposit Insurance Scheme: who is afraid of cross-subsidisation?”, Occasional Paper Series, No 208, ECB.

[24] This includes guaranteeing the assets or the liabilities of the institution under resolution; making loans to or purchasing assets from the institution under resolution; and making contributions to a bridge institution and an asset management vehicle. See <https://srb.europa.eu/en/content/single-resolution-fund>.

[25] Sapir, A. and Wolff, G. (2013), “[The neglected side of banking union: reshaping Europe’s financial system](#)”, note presented at the informal ECOFIN on 14 September 2013, Vilnius.

[26] Ellis, D. (2013), “Deposit Insurance Funding: Assuring Confidence”, FDIC Staff Paper.

[27] For a review of the interactions between public and private risk-sharing, see Ioannou, D. and Schäfer, D. (2017), “Risk sharing in EMU: key insights from a literature review”, SUEFR Policy Note, Issue No 21.

[28] For example, cross-border banking mergers and acquisitions in the euro area have been on a declining trend since 2007.

[29] See Draghi, M. (2017), “[Structural reforms in the euro area](#)”, introductory remarks at the ECB conference “Structural reforms in the euro area”, 18 October 2017.

[30] Eurobarometer 88.

[31] [Parlemeter 2016](#), Special Eurobarometer of the European Parliament, November 2016.