

The Resilience of the Euro

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The euro launched in 1999, with the euro area initially consisting of eleven member countries of the European Union. The replacement of individual national currencies with a single transnational currency was a significant innovation in international monetary economics and involved the establishment of the European Central Bank to set the monetary policy and operate the new monetary system (together with the national central banks, collectively known as the Eurosystem) for the euro area.

As a monetary system, the euro area looked to have worked reasonably well in its first decade—perhaps better than expected, given the magnitude of the transition. But the euro area then experienced a prolonged crisis during the 2007–2013 period, which raised many questions about its resilience. It seems like a good time to revisit the experience of the euro area: in particular, the post-crisis record over 2014–2019 and the response to the pandemic shock in 2020 provide important new evidence in examining the resilience of the single European currency.

A standard approach for economists analyzing the euro has been to focus on the “optimum currency area” literature pioneered by Mundell (1961): for discussion, see O’Rourke and Taylor (2013 in this journal) and Corsetti et al. (2020). If shocks are mainly common and symmetric among the member countries, a common

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monetary policy may be collectively preferable to setting national monetary policies, especially if there is a high degree of economic and financial interdependence among the member countries. For instance, in the context of the highly open EU economy, a common currency might provide valuable insulation from externally driven fluctuations in the world economy and the global financial system.

Alternatively, if asymmetric shocks among the member countries are prevalent, a geographic area will be better suited to have a single currency (and will not require the flexibility of exchange rates between national currencies) if it has other internal mechanisms for facilitating adjustments between countries, including well-integrated product and labor markets, a fully integrated financial system, and a substantial federal fiscal system. In providing a benchmark for these criteria, this line of argument often compares the euro area to the United States and identifies a significant shortfall for the euro area. However, such an assessment cannot be static: after all, the US economy did not fit the optimum currency criteria especially well for the first 100–150 years of its history. Similarly, the institutional framework for the euro area has been reworked in recent years, precisely in reaction to the emergence of costly gaps in the original institutional framework of the euro area.

In any event, a realistic evaluation of the coherence of the euro area as a monetary union should not only refer to the optimum currency area criteria as a checklist, as if the euro was concocted in an academic seminar by a group of technocrats. Rather, the creation of the euro and the ongoing evolution of euro area institutions have been driven by political choices. Any real-world assessment must be weighed in the context of the political economy underpinning the euro and the European Union.

This paper will discuss some central issues in understanding the resilience of the euro area. First, rather than only comparing the euro area to unobservable counterfactual scenarios (how Europe might have fared with the retention of national currencies), a basic criterion is whether the euro delivers reasonable macroeconomic outcomes. After all, member states would find it hard to stand behind the single currency if it manifestly failed to deliver macro-financial stability and/or was universally dominated by alternative monetary regimes. In assessing macroeconomic outcomes, it is necessary to take account of the differences across the three phases of the euro's history, which can be broadly characterized as the initial years of 1999–2007; the extended crisis period of 2008–2013; and the recovery phase of 2014–2019. The onset of the pandemic in 2020 in effect constitutes a fourth phase in the evolution of the euro area.

In relation to the recovery phase since 2014, the costly lessons of the crisis period (including the retrospective diagnosis of the shocks and policy errors that contributed to pre-crisis imbalances) may have contributed to better national and EU-level policymaking in the post-crisis period. In particular, there was a significant stabilization of macro-financial conditions over 2014–2019, albeit with meaningful differences across the member countries. In understanding the post-crisis stability of the euro area, it is also essential to acknowledge that, as a result of the global

trend decline in the equilibrium real interest rate, the high outstanding (public and private) debt stocks in some European countries have been much less salient than feared, because low interest rates have kept debt servicing burdens lower than might have been expected.¹

Second, while macroeconomic performance did generally improve in the euro area over 2014–2019, this was a relatively benign period in terms of global economic and financial conditions. Accordingly, the current pandemic crisis provides a more severe test of the resilience of the euro. In particular, I will discuss the reforms of the euro area institutional architecture launched in 2012. The pandemic shock represents an important initial test of whether these institutional reforms have improved the stability and sustainability of the euro area.

Third, I revisit the political economy foundations of the euro. It is sometimes underappreciated that the euro is closely intertwined with the broader institutional framework of the European Union: the deep commitment by the member states to the European Union is an extremely strong source of political backing for the euro (Whelan 2019). Indeed, much of the debate concerning the resilience of the euro ultimately turns on the status of the European Union as a shared institutional commitment among the member countries (for an excellent guide to the political economy of the European Union in this journal, see Spolaore 2013). The intertwining of the euro area and the European Union is even stronger now that the United Kingdom has left the European Union in the “Brexit” process: the 19-member euro area now constitutes 85.4 percent of the GDP of the 27-member European Union compared to 71.6 percent of the GDP of the 28-member pre-Brexit EU composition.

In overall terms, my assessment is that there has been an increase in the relative importance of common shocks versus asymmetric shocks in the EU economy in recent years, which has improved the relative attractiveness of a common currency and has acted to strengthen the coherence and stability of the euro area. While the resolution of the 2008–2013 crisis was very costly (especially in the most indebted countries), the set of post-crisis reforms to the euro area institutional architecture means that it is less likely that such destabilizing dynamics can take hold in the future. Taken together, the increase in the relative importance of common shocks, the strengthened capacity to manage asymmetries among the member countries, and the permanent introduction of crisis management tools mean that the euro is likely to prove far more resilient than was predicted by many commentators during the 1990s debate on the formation of the monetary union and during the 2010–2012 debate on the capacity of the euro area to overcome the forbidding challenges it faced at that time.

¹The trend decline in the equilibrium real rate has also transformed central banking, with the European Central Bank joining other central banks in using large-scale asset purchases as a monetary policy tool, in addition to setting the short-term policy rate.

Macro-Financial Outcomes in the Euro Area

As noted above, the first 20 years of the euro should be sub-divided into three broad phases: the pre-crisis period (1999–2007); the twin crises (global financial crisis and euro sovereign debt crisis) period (2008–2013); and the recovery period (2014–2019).² Of course, the pandemic shock of 2020 constitutes a recent stark break in the data.

The pre-crisis and crisis phases have been much studied (Lane 2006, 2012, 2019b; Bastasin 2012; Sandbu 2015; Brunnermeier, James, and Landau 2016; Schelkle 2017; Mody 2018).³ While my primary focus in this article is on the post-crisis recovery period, it is perhaps useful to provide a quick recap of the 2010–2012 euro sovereign debt crisis that sharply differentiated the euro area from other advanced economies. In particular, many elements of the pre-2010 period were shared across all advanced economies, with the structure of the world economy reshaped by the twin forces of globalization and technological advances, while there was a significant easing in international financial conditions (especially during 2003–2007). In turn, this fostered significant construction booms and surges in property prices in some countries (and an expansion in fiscal deficits in some other countries), which were associated with an amplification of current account imbalances and funded by a surge in cross-border lending. The dynamics underlying these imbalances came to a painful sudden stop during the 2008–2009 global financial crisis.

In terms of the contribution of the euro to the pre-crisis imbalances, the launch of the euro in and of itself constituted a major asymmetric shock, in view of the very different initial positions of the member countries. In particular, adopting the euro meant a sharp drop in nominal interest rates in the lower-income member countries, with attendant implications for asset prices and credit markets. In combination with the global forces listed above and the lack of sufficient countervailing policy responses at national and EU levels, this euro-specific shock contributed to the increase in the magnitude and persistence of imbalances in the euro area in the run up to the global financial crisis.

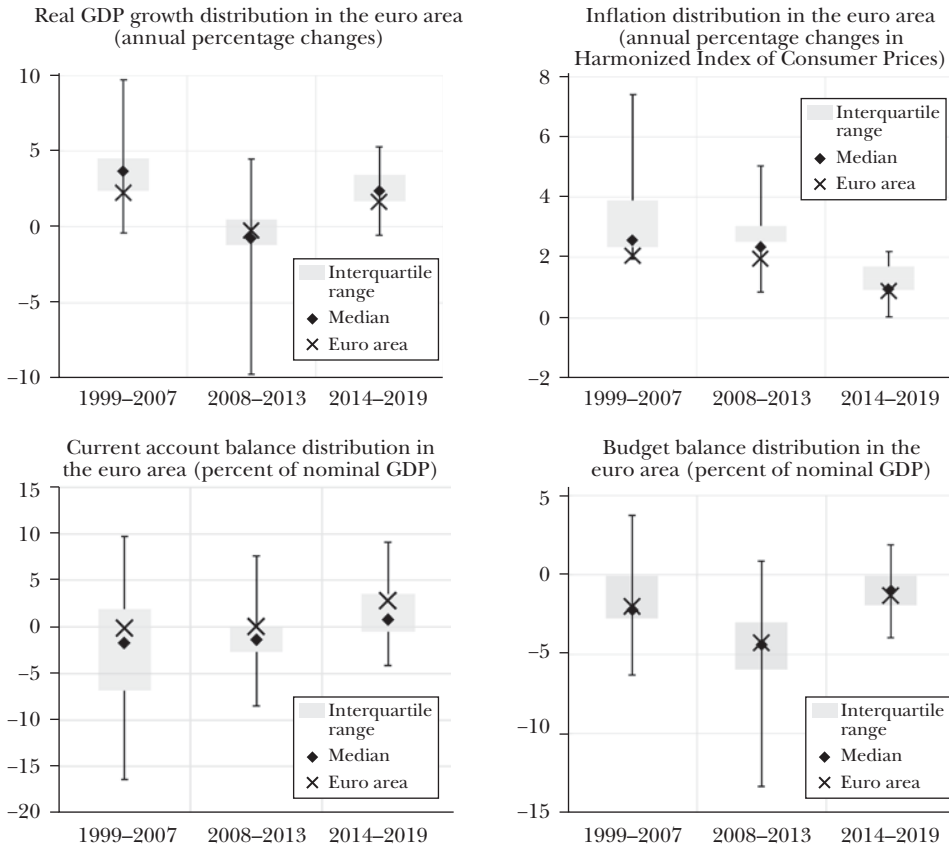
Most fundamentally, the euro area lacked collective crisis management tools in relation to banking crises or fiscal crises: this deficiency was a major factor in converting the 2008–2009 global financial crisis into the euro area sovereign debt crisis during 2010–2012. I return to the topics of crisis prevention and crisis management later; for now, I shift forward to focus on macroeconomic performance during the 2014–2019 post-crisis period.

Figure 1 shows the distribution across the member countries of the main macroeconomic variables that dominate the policy debate: output, inflation, the current

²These timeframes should be regarded as schematic; for example, the initial phases of the financial crisis can be traced to August 2007; similarly, although 2014–2019 was a period of improved performance, it did include some major risk episodes, most prominently the tensions over an official funding program for Greece in spring 2015.

³Comprehensive analyses of the first two decades of the euro from a monetary policy perspective are provided by Hartmann and Smets (2018) and Rostagno et al (2019).

Figure 1
Macroeconomic Indicators in the Euro Area



Note: Upper left panel: Data for Ireland is excluded.

Source: Upper left panel: Eurostat, December 2020 BMPE and European Central Bank calculations. Upper right panel: Eurostat and European Central Bank calculations. Lower left panel: Eurostat and European Central Bank. Lower right panel: European Commission and European Central Bank calculations.

account balance and the fiscal balance. Whereas output and inflation capture aggregate macroeconomic performance in many models, the current account balance and the fiscal balance are also tracked in order to assess the underlying sustainability of macroeconomic performance.

The upper left panel shows a sustained output recovery over 2014-2019, which is also reflected in the decline in the euro area unemployment rate from its peak annual rate of 12.0 percent in 2013 to 7.5 percent in 2019. In relation to the upper right panel, there had been a gradual pickup in inflation in recent years relative to

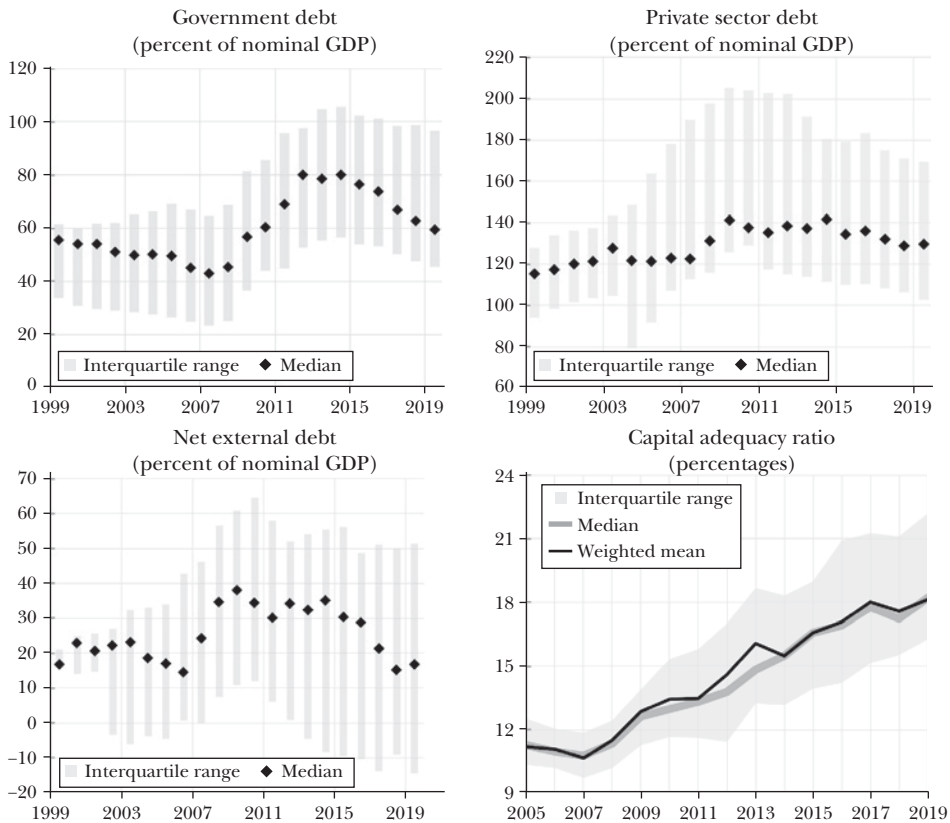
the very low post-crisis levels, even if inflation has remained below the inflation aim of the European Central Bank of “below, but close to, two per cent.”

Across the range of indicators, the clear pattern is that cross-country dispersion has been much lower in the post-crisis period compared to the pre-crisis period (in capturing dispersion across the member countries, my primary focus is on the inter-quartile range, because the extreme values are distorted by well-documented quirks in the macroeconomic accounts of small countries). In particular, the incidence of very poor macroeconomic outcomes has declined and the risk-amplifying configuration of high fiscal deficits and high current account deficits was virtually eliminated during this period. These changes went a long way to defusing the widespread concerns about the future of the euro that were prevalent during the worst of the crisis period. While the resilience of a monetary union is enhanced by less cross-country heterogeneity in macroeconomic dynamics and lower macroeconomic tail risk, the rebalancing episodes were predominantly asymmetric, mainly taking the form of expenditure reduction in the excessive-deficit countries rather than expenditure expansion in the excessive-surplus countries. The overall patterns during the post-crisis period of a persistent aggregate current account surplus and a marked reduction in the aggregate fiscal deficit also reflected the absence of a coordinated or joint approach to ensuring that the area-wide fiscal stance was aligned with overall macroeconomic conditions, given that monetary policy was the only policy instrument calibrated for the euro area as a whole.

Even if the “flow” imbalances—the current account imbalance and the fiscal imbalance—had become less negative, the “stock” imbalances embedded in balance sheets also represent sources of macro-financial risk. Figure 2 plots the stocks of public debt, private-sector debt, and net external debt, together with the distribution of capital-asset ratios for the banking system. Debt stocks rose substantially during the crisis, especially public debt, and remained quite high at the end of 2019. However, there was some gradual general decline in debt ratios since the earlier euro crisis. Moreover, the vulnerabilities embedded in high debt stocks have been partly mitigated by the sustained increase in capital-asset ratios in the banking system in the post-crisis period, shown in the lower right panel of the figure. This has improved the loss-absorbing capacity of the banking system, which was so lacking during the 2008–2013 period. Still, the remaining high dispersion in debt stocks represented a significant source of heterogeneity across the euro area.

As it turned out, the pervasive post-crisis concerns about the sustainability of high legacy debt levels were substantially attenuated by the remarkable shift in interest rates, as shown in Figure 3. Very low debt servicing costs did much to improve the dynamics of highly-indebted countries and sectors. In addition, sovereign risk premia have narrowed substantially, even if there was a temporary spike during the initial stages of the current pandemic shock. Very low risk-free rates and low risk premia mean that the differences in outstanding debt stocks across the member countries do not map into substantial differences in debt servicing burdens and also limit the self-feeding impact of high interest rates on debt dynamics.

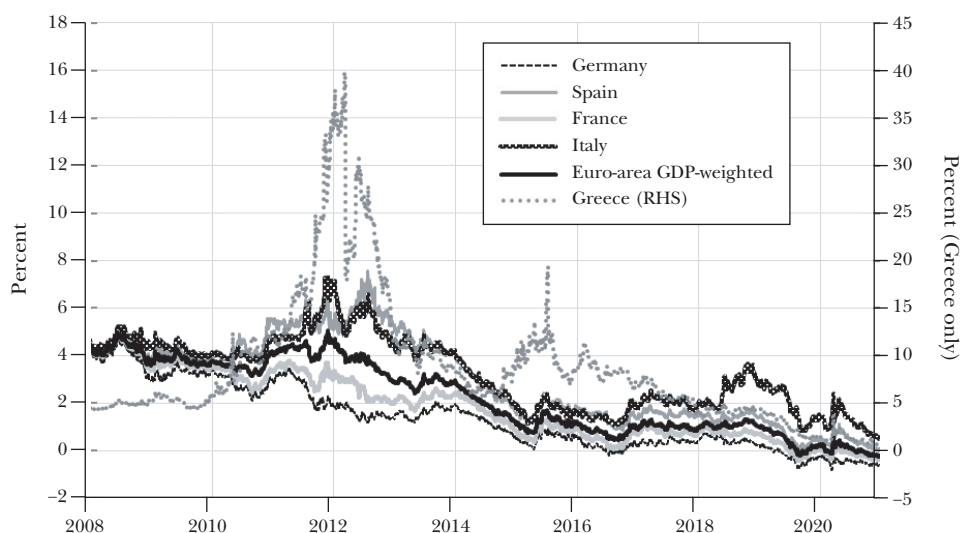
Figure 2

Balance Sheet Indicators for the Euro Area

Note: Panel B: Private sector gross debt refers to the consolidated definition and is the sum of NFC and household consolidated gross debt. NFC consolidated gross debt is defined as the sum of total loans granted to NFCs net of intra-sectoral lending, debt securities issued and pension liabilities. Household consolidated gross debt includes total loans granted to households net of intra-sectoral lending. Panel C: The interquartile ranges are calculated based on incomplete country data. Data are only available as of 2000 for Latvia, 2002 for Ireland and Luxembourg, 2003 for Greece and the Netherlands, 2004 for Lithuania, Slovakia and Malta, 2005 for Belgium and, 2008 for Cyprus and France. For all other countries data are available as of 1999. Euro area net external debt prior to 2008 is proxied as the sum of net liabilities of direct investment debt instruments, portfolio investment debt instruments and other investment minus reserve assets excluding monetary gold. Panel D: The capital adequacy ratio is computed as total capital over risk-weighted assets. It is based on an unbalanced sample of banks located in one of the 19 euro area countries, irrespective of the time of adoption of the euro. The sample encompasses 50 entities in 2005 and 113 in 2019.

Source: Upper left panel: European Commission and European Central Bank calculations. Upper right panel: Eurostat and European Central Bank calculations. Lower left panel: European Central Bank (Balance of Payments) and Eurostat. Lower right panel: S&P Market Intelligence (SNL Financial) and European Central Bank calculations.

Figure 3

Ten-year Euro Area Bond Yields: GDP-weighted and Selected Countries

Source: Refinitiv, Bloomberg, and European Central Bank calculations. Latest observation: December 31, 2020.

In large part, this radical shift in the interest rate environment reflects the worldwide decline in the underlying equilibrium real interest rate that can be linked to trends in demographic, productivity, and risk preferences (Lane 2019c). At a cyclical level, it also reflects the accommodative monetary policy stance since 2014 that has been required by the persistence of below-target inflation.

In the context of the euro area, the compression in sovereign yields can also be attributed to a reassessment of the risks associated with holding euro-denominated sovereign bonds. During 2010–2012 especially, the precedent of the Greek sovereign debt restructuring and the severe imbalances in some member countries had prompted a sharp increase in sovereign risk premia, with global investors pricing in that sovereign debt restructuring was a possible outcome for euro area member states. Furthermore, default risk was compounded by the lack of euro area crisis management tools and unanswered questions about the collective and country-by-country commitment to the integrity of the monetary union under all scenarios.

The accumulated track record during the relative calm of the 2014–2019 period served to reduce risk premia by providing some evidence that the imbalances that emerged in the first decade of the euro were not intrinsic to the design of the monetary union. Instead, better policies at national and European levels helped to deliver improved macro-financial stability for the euro area and the individual member countries. In particular, 2014–2019 might be viewed as a more typical period in

terms of what should be expected on an ongoing basis: under this reading, the initial years of the euro could be interpreted as a one-off “learning” phase, with a too-slow policy adjustment to the realities of living with a single currency.⁴

The completion of the EU-IMF adjustment programs, in the member countries that ultimately had to seek official-sector funding support, provided important evidence of the willingness of member countries to undertake costly adjustments rather than turn to sovereign default or exit from the euro as methods to resolve excessive imbalances. Greece (2010–2018), Ireland (2010–2013), Portugal (2011–2014), and Cyprus (2013–2016) all undertook adjustment programs, financed by an official funding mix of EU and IMF sources. In addition to significant fiscal corrections and the restructuring of the banking system in all of these cases, both Cyprus and Greece introduced capital controls, and Cyprus imposed haircuts on bank depositors (in excess of €100,000). In addition, Spain received EU official funding to finance the restructuring of its banking system in 2012–2013. In all cases, the official funders continue to monitor these economies on an enhanced basis, because the payback period for the official funds extends into the distant future. This experience indicated that all member states were highly committed to the euro and ultimately willing to take tough measures in order to ensure compatibility with euro area membership. While the greatest test was for those countries that had to implement difficult adjustment measures, the willingness of the other member countries to back official loans to this group was also significant, highlighting both the high potential spillovers inside a monetary union and the significant political interdependence across all the member countries.

In addition, a fundamental source of euro resilience is that it remains a forbidding prospect for any stressed country to consider exiting the euro area, in view of the substantial disruption likely to be associated with such a move (Eichengreen 2010). This also holds true for the general membership of the euro area: if any individual country were to seek to exit the euro, there would be a considerably heightened risk of contagion forces and even of a collective break-up of the monetary union.

This recovery phase for the European economy from 2014–2019 was also supported by the steps taken to improve the institutional design of the euro area (including measures to reduce the likelihood of future crises and improve crisis management tools), which will be discussed in the next section. The foundations of the political commitment to the euro are analyzed in the following section.

The Institutional Architecture of the Euro Area

The 2008–2013 twin crises in the euro area induced a series of reforms of the institutional setup of the euro area (for an analytical overview of main elements

⁴Accounts of the policy errors made in the first decade of the euro include Shambaugh (2012), Fernández-Villaverde, Garicano, and Santos (in this journal, 2013), and Honohan (2019).

of the euro crisis, see Brunnermeier and Reis 2019). During this period, the most urgent task was to develop an effective crisis management framework. But it was also essential to reduce the likelihood of future crises by implementing crisis prevention measures, improving the resilience of the euro area, and establishing safeguards against the re-emergence of the macro-financial imbalances that proved to be the key drivers of the twin crises.

Crisis Prevention Measures

In relation to crisis management, the initial design of the euro area architecture had not envisaged any need for non-market funding of member states. Implicit in this setup was that, in the unlikely event that a member country needed to restructure its debt, it would do so on its own. But in spring 2010, the Greek government was no longer able to tap private capital markets. In this situation, the case for official funding (as opposed to just relying on sovereign debt restructuring) in the euro area was broadly the same as for other countries (typically emerging or developing countries) facing a funding crisis: a temporary phase of non-market funding could provide the time to execute a macro-financial adjustment program that could restore market confidence. Indeed, it was conjectured that contagion risk might be even more severe inside a monetary union, which further tilted the argument in favor of official funding.

These factors led to the European Union designing an ad hoc official funding rescue package (in combination with the International Monetary Fund). Ultimately, the scale of the Greek fiscal imbalance was so severe that an extensive sovereign debt restructuring also proved necessary in spring 2012.

By 2012, it was clear that a systemic approach to providing official funding would be necessary to safeguard financial stability, and a permanent mechanism called the European Stability Mechanism (ESM) was established. By providing certainty that official funding would be available under specified conditions if needed, the very existence of the ESM calmed markets. By providing a backstop funding source, it deterred speculative attacks and thereby reduced the risk to private investors of rolling over sovereign debt.⁵ The euro area member countries committed paid-in capital of €80 billion to the ESM: this equity allows it to issue highly rated bonds, with the proceeds lent to those countries requiring official assistance. The total lending capacity of the ESM was set at €500 billion.

There was one way in which the European Stability Mechanism deviated from standard doctrine. The usual rule is that an official lender-of-last-resort should set a penalty interest rate in order to deter excessive use of the facility, but the ESM ultimately decided to provide low-cost, long-duration official loans (conditional on adopting policies that provided a pathway to more stable public finances). The decision to set a low interest rate and a long horizon for the repayment of ESM loans

⁵As analyzed by Bianchi and Mondragon (2019), it might be argued that rollover risk is higher inside a monetary union, in view of the tougher adjustment path in the absence of a national currency devaluation option (see also Corsetti et al. 2014).

acted to reduce the present value of the debt owed by program countries, which significantly alleviated the adjustment challenges they faced.

In turn, with solvency concerns addressed by the availability of conditional official loans from the European Stability Mechanism, the European Central Bank could then commit to ensuring liquidity in the sovereign debt market for program countries. In July 2012, the President of the European Central Bank, Mario Draghi, made his famous “whatever it takes” declaration. The speech had an immediate calming impact in sovereign debt markets, since investors took reassurance that the European Central Bank would not permit a self-fulfilling “bad” equilibrium by which a loss of investor confidence could trigger default by a solvent-but-illiquid sovereign. Soon after, the European Central Bank formalized this commitment with its Outright Monetary Transactions (OMT) program.

The European Central Bank has never had to activate the OMT program: it has primarily worked by eliminating self-fulfilling liquidity runs in euro area sovereign debt markets. However, the “double protection” provided by the ESM and the OMT programs were decisive in calling a halt to the intense phase of the euro area sovereign debt crisis in autumn 2012.

Improving the Resilience of the Euro

Turning to the prevention of future crises, the global financial crisis and the euro crisis from 2008–2013 taught (at least) three crucial lessons.

First, macroprudential policy should play a significant role in preventing imbalances and safeguarding financial stability. By limiting the leverage of households, firms, and banks through a mix of borrower-based and lender-based restrictions, boom-bust dynamics are muted, making it less likely that large imbalances can accumulate and improving the capacity to absorb adverse shocks (useful starting points include Farhi and Werning 2016; Martin and Philippon 2017).⁶ The potential value of macroprudential policy has become mainstream in the global macro-financial policy community and is part of the “integrated policy framework” currently under development at the IMF.

Second, the resilience of the banking system should be improved by a combination of increasing capital-asset ratios and new laws governing the resolution of failing banks, complemented by a more intrusive approach to banking supervision. Several steps were taken along these lines. In line with the global adoption of higher capital buffers for banking systems, the capital asset ratio of euro area banks climbed in the post-crisis period (as shown in Figure 2 earlier). The European Union established the Single Supervisory Mechanism by which the European Central Bank would become responsible for area-wide banking supervision. This serves to distance bank supervisors from national pressures and establish an area-wide level playing field. Most importantly, a common set of banking regulations is a key step in establishing the

⁶The pan-European monitoring of systemic risks and incipient macro-financial imbalances was also enhanced by the creation of the European Systemic Risk Board (ESRB) and the introduction of the Macroeconomic Imbalance Procedure (MIP) system.

conditions under which an area-wide banking union could properly develop. A full banking union would act to insulate the banking system from national fiscal shocks, in turn attenuating the fiscal-bank “doom loop” that was so damaging during 2008–2013.

The bank reform agenda also included additional steps with their own euro-acronyms. A Bank Recovery and Resolution Directive (BRRD) made it easier to resolve or shut down failing banks. An area-wide Single Resolution Mechanism (SRM) was established, with a new Single Resolution Board (SRB) charged with acting as the area-wide central resolution authority, and banks across the euro area making contributions to the Single Resolution Fund (SRF) that can be deployed as a funding source for the resolution of systemically-important banks. The increased coordination and centralization of financial supervision was further supported by the creation of the EU supervisory agencies: the European Banking Authority (EBA), European Securities and Markets Authority (ESMA), and the European Insurance and Occupational Pensions Authority (EIOPA).

One item still lacking is area-wide protection of small depositors through a common European Deposit Insurance System (EDIS). Risk exposures significantly declined during 2014–2019 through the reduction in non-performing loans, the increase in capital buffers in banking systems, the implementation of macro-prudential policy frameworks, and the stabilization of fiscal ratios and improved macroeconomic performance (for discussion, see Carmassi et al. 2018). However, the balancing between risk reduction and risk sharing in determining the transition to European-wide deposit insurance remains a live policy debate. The remaining reform agenda has also included efforts to develop larger and more integrated markets for equity and debt securities (capital markets union), which would improve the resilience of the financial system by reducing dependence on banks and facilitating pan-European risk sharing, including sharing the risks embedded in the financing of the banking system.

The third element in the crisis prevention framework was to improve the conduct of national fiscal policies (for additional discussion, see the essay by Bilbiie, Monacelli, and Perotti in this symposium). The crisis-induced surge in public debt ratios illustrated the value of fiscal buffers in managing tail shocks and conversely showed how excessively high debt reduced resilience. In order to add to the technical quality of fiscal debates, the plan was that national fiscal councils would issue independent opinions on the annual budget plans, and EU-level probing of national fiscal plans would be stepped up by the European Commission and through the advisory European Fiscal Board (EFB).

To underpin fiscal sustainability, there was a concentrated effort from 2010 onwards to unwind the large deficits that had emerged during the global financial crisis. There is by now broad agreement that the collective post-crisis pace of fiscal correction across the European Union was too severe in terms of its macroeconomic impact. Nonetheless, a reset of the European fiscal framework seemed to be a political precondition for the other measures (like the European Stability Mechanism) that required an increase in joint contingent fiscal liabilities. Fiscal stabilization also facilitated the initiation of quantitative easing by the European

Central Bank, which has been a significant purchaser of national sovereign bonds since 2015. More recently, the role of national fiscal policies in area-wide macroeconomic stabilization has been increasingly acknowledged, with the European fiscal framework implemented in a flexible manner to avoid clashes between the fiscal rules and macroeconomic objectives.

In addition to safeguarding the sustainability of national fiscal positions, the post-crisis EU reform agenda has also included a debate on deepening the extent of fiscal union by introducing a “central fiscal capacity” to foster area-wide fiscal risk sharing and reflect the area-wide macroeconomic situation. In addition, a deeper fiscal union would also copperfasten the EU banking union by providing a truly common fiscal backstop for the financial system (Marzinotto, Sapir, and Wolff 2011). A larger EU-level budget could also be an efficient approach to funding shared public goods.

It is not straightforward to design a fiscal union that balances European-wide risk sharing while preserving incentives for prudence in national policy decisions (Farhi and Werning 2017; Bénassy-Quéré et al. 2018). Among other reasons, it is not straightforward to analyze the relative contributions of “bad luck” versus “bad policy choices” in driving asymmetric budgetary outcomes across countries. In addition, simulations indicate that the size of a risk-sharing program would have to be quite large in order to have a macroeconomic impact (for examples, see Arnold et al. 2018; Berger, Dell’Ariccia, and Obstfeld 2018).

The coronavirus crisis of 2020 provides a test case on whether a monetary union can be resilient with only national fiscal policies (as also discussed by Bilbiie et al. in this symposium). The initial EU-level fiscal response in April 2020 had three elements. First, the European Union would collectively borrow up to €100 billion (about 0.7 percent of EU GDP) to provide low-cost loans to national governments to support employment-preservation policies, under the new SURE initiative (which stands for Support to mitigate Unemployment Rising in an Emergency). Second, the European Stability Mechanism (ESM) would provide contingent credit lines up to a ceiling of €240 billion (about 1.7 percent of EU GDP) to member states, with no country allowed to draw more than 2 percent of its own GDP. Third, the member states would provide guarantees of €25 billion to enable the European Investment Bank (the EU public bank) to scale up lending to small and medium enterprises by €200 billion (about 1.4 percent of EU GDP).

While these EU-level initiatives were welcome, they were relatively small in scale and were essentially designed as mechanisms to support national fiscal actions. It was soon evident that a more ambitious EU-level fiscal response was needed.

A State-Contingent Fiscal Union?

In July 2020, a new joint fiscal initiative was agreed upon: the NGEU (Next Generation EU) recovery instrument. This is quantitatively and qualitatively different than the other programs (for details on the NGEU, see <https://www.consilium.europa.eu/media/45109/210720-euco-final-conclusions-en.pdf>). At a total size of €750 billion, it corresponds to about 5.3 percent of EU GDP. It is

divided roughly in half, with €360 billion for low-cost loans to national governments (in a similar vein to the SURE program to support employment preservation) and €390 billion allocated to EU grants to support a range of spending programs. These grants are equivalent to federal-level spending programs in the US system, with no direct connection between the level of spending in a given state and the fiscal obligations of that state. The plan is designed to concentrate NGEU spending in lower-income economies and those that suffered most from the pandemic shock.

The Next Generation EU program builds on the long-standing EU common budget. However, the common budget has been stable at around 1 percent of Europe's GDP for many years on essentially a balanced budget basis, with no countercyclical component. In contrast, the NGEU will support a temporary but significant increase in spending deployed over 2020–2026. Moreover, the NGEU will be financed by EU-level debt issuance that will be repaid over a long horizon up to 2058. Taken together, the SURE and NGEU programs envisage new debt issuance by the European Union to the tune of €850 billion (about 6.0 percent of EU GDP): this corresponds to a sixteen-fold increase in the stock of EU debt, which stood at only €53 billion at the end of 2019. In short, the NGEU constitutes an EU-level macroeconomic stabilization instrument, by enabling a debt-financed increase in the EU budget in response to the pandemic shock.

The European Union does not have a central tax collection agency: all taxes are collected by the member states. Since EU-level debt is commonly backed by the member states, the grant component of the Next Generation EU program will not raise the national debt level of the member states, while its loan component will enable those member states with higher borrowing costs to fund national deficits at a cheaper rate. Just as the standard EU budget is financed by a mix of EU-dedicated funding streams (equivalent to federal taxes) and national contributions, the servicing of the NGEU debt will involve a mix of new EU-level dedicated revenue streams and extra national contributions. The expansion of EU-level dedicated taxes is another fundamental characteristic of a deeper EU-level fiscal union.

The Next Generation EU instrument was designed as a temporary initiative in response to the pandemic shock. However, it suggests that joint EU-level fiscal initiatives can be envisaged for large future common shocks. Through these various initiatives—the European Stability Mechanism, the SURE employment preservation loans, and the Next Generation EU initiatives—the stock of commonly-backed euro bonds could increase by about 9.6 percent of euro-area GDP. One can imagine a hybrid response emerging in the future: national fiscal policies *de facto* would be assigned the lead countercyclical role in relation to asymmetric and/or minor shocks, with a scaled-up EU-level fiscal capacity standing ready to address tail risks. The alternative interpretation is that the pandemic is a truly exceptional event, with the vast bulk of debt issuance likely to remain at the national level.

A large stock of jointly backed debt would improve the resilience of the European monetary union through several mechanisms. In particular, it would reduce the likelihood of national financial instability within the euro area, by which an adverse shock is amplified by an increase in the sovereign risk premium. This

pro-cyclicality can be especially acute in a monetary union, because investors can easily switch to other sovereign bonds without taking on currency risk. An area-wide safe asset would facilitate a more integrated financial system by providing a common benchmark for asset pricing and liquidity management by banks; it would also make the euro more popular as an international reserve currency.

A permanent increase in the size of the EU-level budget (going beyond the temporary Next Generation EU initiative) is not the only route to expand the stock of area-wide safe assets (for an overview, see Leandro and Zettelmeyer 2018). There are also a range of proposals by which the stock of commonly backed debt would be expanded even if spending and taxation decisions remain at the national level, with the commonly backed debt used to make loans to the member countries. To ensure that the commonly backed debt is highly rated, these schemes typically require that national sovereign bonds would de facto be treated as subordinated to the common bonds. An alternative option in expanding the stock of area-wide safe assets would be to assemble pooled portfolios of national sovereign bonds in order to issue tranches of area-wide bonds, with the lowest-risk senior tranche constituting European Safe Bonds (ESBies) (for discussion, see Brunnermeier et al. 2016; Brunnermeier et al. 2017; High-Level Task Force on Safe Assets 2018). While securities backed by sovereign bonds would represent a significant financial innovation, it would be an effective device to improve the operation of a financial system that combines a single currency with 19 sovereign bond markets, especially if the prospects for greater commonly backed debt issuance are limited (Alogoskoufis and Langfield 2020).

The openness of the EU member countries to an expansion of area-wide borrowing remains an open question: after all, it would alter the status of their national sovereign bonds in financial markets. The challenge here may be to design a system that supports both more stable public finances at the national level while also embracing the complementary value of a joint liability as a shield against future asymmetric shocks.

Looking ahead, it is an open question whether the Next Generation EU initiative constitutes a case study of how a systemic shock can trigger a leap forward in fiscal integration. The full reform agenda for the euro area has been analyzed in a range of studies, including Juncker et al. (2015), Corsetti et al. (2015), Corsetti et al. (2016), and Bénassy-Quéré et al. (2018). The future pace of reform and the ultimate steady state for the euro area will turn on the evolving political economy of the euro area—which is the topic of the next section.

The Euro as a Political Project

The political foundations of the euro are extensively documented: the political leaders of the time intended to use the single currency as a mechanism to reinforce the integration process among the EU member countries, especially in the wake of German re-unification (Sandbu 2015; Brunnermeier, James, and Landau 2016; Mody 2018). As discussed by Eichengreen (1996), the political economy case for

monetary union could also be motivated as a mechanism to strengthen the political sustainability of deep economic integration in the European Union. However, the corresponding risk that a single currency would raise political tensions among the member states, rather than reducing them, was clearly identified in the 1990s debate on the desirability of a European monetary union (in this journal, Feldstein 1997). Indeed, Guiso et al. (2019) find that the constraints of the single currency have added to the rise of populism in some member countries.

Since banking systems and fiscal policies remained at the national level in the original institutional framework for the euro, the resilience of the euro depended on the willingness of the member states to commit to deeper area-wide integration if (or when) it turned out that the original design proved insufficiently comprehensive to protect macro-financial stability (James 2012; Spolaore 2013; Guiso, Sapienza, and Zingales 2016). Accordingly, from the beginning, the resilience of the euro has been ultimately underpinned by the intertwined nature of the support among the member states for the monetary union and the wider EU institutional framework.

The codependence between the resilience of the euro and the resilience of the European Union may not be fully visible to a casual observer, even if the euro is defined as the “currency of the European Union” in the Treaty of Europe. A basic reminder of the interlinked prospects for the euro and the European Union is the steady entry of new EU member states into the euro: it is planned that the euro area will expand in the coming years to 21 members (with the entry of Bulgaria and Croatia), up from the original eleven members. Accordingly, the political calculus about providing institutional backing for the euro reflects the strong joint political commitment to the European Union.

By design, the European Union is far less integrated than a federal system of national government like the United States. At the same time, the extent of shared sovereignty in many policy spheres among the EU member states is far more extensive than any other regional political grouping. In terms of economic integration, the EU single market is underpinned by the “four freedoms” governing the unrestricted movement of goods, persons, services, and capital (discussed further in this symposium by Head and Mayer). The single currency constitutes the most advanced type of shared sovereignty among the member countries—the analytical headaches arise in assessing how a single currency operates when other policy instruments remain primarily in the control of the member states.

This hybrid arrangement is inherently fuzzy. It represents a unique approach to address the various policy trilemmas that characterize international economic activity. For example, the “international monetary policy trilemma” refers to the impossibility of having all three these policies: fixed exchange rates, international capital mobility, and independent monetary policies (Obstfeld, Shambaugh, and Taylor 2005).⁷ The “financial trilemma” refers to the impossibility of combining

⁷:In the European context, the international monetary trilemma is sometimes extended to refer to an “inconsistent policy quartet” whereby the political sustainability of high levels of free trade is also called into doubt by exchange rate volatility (Padoa-Schioppa 2004).

the three policies of integrated financial systems, international capital mobility, and independent financial stability policies (Schoenmaker 2011). The “international political economy trilemma” refers to the incompatibility of international economic and financial integration, transnational governance, and autonomous national democratic systems (as discussed in this journal by Rodrik 2000). The euro, the “four freedoms,” and the overall EU project can be viewed as trying to find a middle path between full transnational governance and restricting the boundaries of policy regimes just to nation states (as discussed in Lane 2019a).

Compared to other regions, the European historical context, geographic proximity, and the scope for a high degree of economic and financial integration means that a hybrid governance system has evolved. It is composed of a mix of shared sovereignty in some areas and national autonomy in other areas, which does not fit neatly into either the category of a federal system or a loose alliance of nation states. The continuous testing of the perimeters of shared sovereignty defines the cut and thrust of European political debate.

Moreover, the codependence between the euro and the European Union is more binding now than before the euro was created, because an unravelling of the euro would almost surely have an adverse impact on the wider scope for political cooperation across the full spectrum of EU activities. The interconnectedness of the euro and the European Union has been further reinforced by Brexit. The United Kingdom was a member of the European Union but not of the euro zone, and thus Brexit means that the overlap between EU and euro area membership is now greater than ever (and will further expand with the planned entry of Bulgaria and Croatia to the euro area in the near future).

Even more directly, the strengthening of the euro’s institutional framework since 2012 means that the economic and financial systems of the member states are far more intertwined today than in the first decade of the euro (including a greater role for shared public backstops), which strengthens the common interest in the ongoing success of the single currency. The level of fiscal integration has been further expanded in response to the pandemic emergency, through a scaling up of the issuance of EU-level debt and a greater role for EU-level spending programs.

The current pandemic shock is an important test case for the euro, given the greater scope for a common monetary policy to manage effectively a common shock, compared to solely national-level policies. The pandemic can be interpreted as a blend of a common shock and an asymmetric shock (because it has affected the EU member states in a non-uniform way). The common component of the pandemic shock triggered a significant monetary policy response from the European Central Bank and innovative fiscal measures at the EU level. The capacity of the euro area to absorb purely asymmetric shocks will surely be tested again in the future.

Conclusion

Perspectives on the euro inevitably require periodic updating: the capacity of the monetary union to withstand the severe challenges posed by the 2008–2013 crises (including through considerable reforms of its institutional architecture) and the relative stability of the euro area in recent years suggests that the euro has proven to be more resilient than was feared by many analysts during the darkest phases of the crisis period. The improvement in the euro area economy has been accompanied by a rise in the popularity of the euro in opinion surveys: 76 percent of respondents supported the euro in November 2019, which is a substantial improvement compared to the 67 percent support in the trough of the crisis in 2012 (see European Commission Eurobarometer and Bergbauer et al. 2020).

At the same time, the pandemic crisis poses new challenges for the euro area. The initial monetary and fiscal responses across the euro zone have been vigorous, and there has been a step increase in the extent of fiscal integration. However, building the consensus required to greenlight the further reforms that would enhance the resilience of the euro remains an ongoing challenge.

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