CENTRE FOR ECONOMIC POLICY RESEARCH

CEPR

February 2024

The first 25 years of the euro

Marco Buti[a] and Giancarlo Corsetti[ab1]

[a]European University Institute; [b]CEPR

1 INTRODUCTION

One quarter of a century is an important milestone for the euro. The 'greatest monetary experiment' in recent memory has developed despite its teething problems in the first few years, the deep crisis that marked its adolescence in the 2010s, the impact of the pandemic and a war on its doorstep in its 20s. It is currently recovering from a destabilising inflation crisis. How can one envision an adulthood phase for Economic and Monetary Union (EMU) in the years to come? Can the euro area rely on a collective maturity of judgement of the type that can develop as a result of living through testing experiences?[2]

The euro was launched on expectations that a common currency would deliver on a number of promises. Some have come through, others have not (yet). Price stability has been ensured for a large part of the euro area's life. By ruling out competitive devaluations, the single currency broke the vicious cycle between inflation and exchange rate adjustment of the 1970s and 1980s. After a bumpy road leading to its introduction, a single banking supervisor has helped strengthen the stability of the banking system. Several (but by no means all) countries have carried out the necessary reforms to profit from the economic opportunities offered by the euro. Finally, a single currency has created the premises for increasing the weight and profile of Europe in global governance.

To keep the euro project in perspective, however, it is important to emphasise from the start that European monetary unification was envisioned as an element of a more general integration project ('*one market, one money*'), and in some sense as a means to an end. The generation of European leaders and citizens that pushed the project forward – starting with Jacques Delors, Commission President at the time – had long become convinced that the economic future of the continent was predicated on *real integration*, with the ambitious plan for the *Single Market*. The economic foundation for this political drive was, and still is today, analytical and fact-based. Demographically, technologically, and economically, the European continent has long been losing ground relative to other regions of the world. A large single market, governed by effective common policies in favour of innovation and competition, would enable European countries to prosper in democracy and peace, and respond to global

1 This paper is a contribution to the Economic and Monetary Union Laboratory (EMU Lab) that we have launched at the EUI. We thank Agnès Bénassy-Quéré and Moreno Bertoldi for insightful comments, and Michele Castegini and Diego Vila for excellent research assistance. All remaining errors are ours. Buti thanks Banque de France and Banca d'Italia for their generous support of the Tommaso Padoa-Schioppa Chair at the EUI and Corsetti thanks the government of Luxembourg for generous support of the Pierre Werner Chair Programme at the EUI.

2 Throughout the text, we use the terms EMU and euro area interchangeably, though the latter is, institutionally, the third and final stage of the former.

challenges much better than in a divided economic and financial space. Relative to this initial vision, the records of economic performance of euro area economies since the introduction of the euro are less shining than one would have hoped for. In some member states, productivity and income has stagnated. Overall, the technological gap with the US has remained substantial, and the lead over other regions of the world is narrowing fast, especially in most dynamic sectors. Yet, if anything, the argument for integration is even more compelling today. The goal of constructing a strong Single Market should be kept centre-stage in the current and future efforts to strengthen the euro area architecture. [3]

In this Policy Insight, we synthetically review the past 25 years drawing on evidence and debates, sketch an overall interpretative framework and attempt to identify the key policy issues that should be at the top of the agenda of EU policymakers. Throughout our text, we aim to pursue a fair assessment of the euro area's evolution and advances. But we will also be explicit in raising issues that need to be addressed to ensure the European common currency will live up to its promises and foster the development of an inclusive and resilient European economy. Tackling EMU's shortcomings is essential to completing its architecture.

The Policy Insight is organised as follows. Section 2 retraces the political steps and debates that have led to the launch of the euro in 1999, recalling its economic motivations. In Section 3, we break down the first 25 years of the euro into four sub-periods, each identified based on a distinct near-existential threats to the single currency. Based on our reading of these phases, in Section 4 we draw lessons offering a unified view on the evolution of the euro. In Section 5, we identify a number of policy and institutional areas where progress will be needed to make the euro area a resilient and successful construction. The final section concludes.

2 THE BEGINNING

On 1 January 1999, the exchange rates of the 11 founding member states of the euro area were fixed irrevocably against each other and the responsibility of conducting the monetary policy was given to a single authority, the ECB. The euro was introduced as a physically tangible currency on 1 January 2002. The decision to go ahead with monetary unification had been taken in December 1995, during the Madrid Summit.

The decision to introduce the euro ended a large crisis of European monetary cooperation

The Madrid summit in 1995 ended the major crisis of European monetary cooperation that shook the Exchange Rate Mechanism (ERM) of the European Monetary System (EMS), starting in September 1992. In the previous years, Europe had progressively freed cross-border capital mobility in the context of the Single Market. The crisis reminded European policymakers that free capital mobility and fixed exchange rates were not compatible with monetary autonomy at country level – according to the well-known open macro *trilemma*. While many imbalances had already been eroding the stability of European currencies for some time, the macroeconomic shock that eventually ignited the crisis was the German re-unification, which prompted the Bundesbank to pursue an uncompromising anti-inflationary contraction and brough an already fragile system to the tipping point (Eichengreen et al., 1993; Buiter et al., 1998). Currency markets became unstable, financial markets and banking systems were in turmoil, and the region entered a sizeable recession. Arguably, the specific features of the banking system and generous bailout programmes prevented a full-scale crisis of the type Europe experienced in the 2010s.[4] In 1995, European

3 For a reconsideration of the rationale of and benefits from 'one market, one money', see Draghi (2018).
4 It worth recalling that, for the EU15, the ratio of bank credit to deposits averaged about 1 over the period 1988-1992; over 2006-2010, the same ratio was 1.41 (Corsetti et al., 2020a).

policymakers ended the turmoil taking a gamble: pushing ahead with the project of a monetary union with a constitution that was clearly incomplete, leaving to future generations of policymakers the task of finishing the job.

The debate on whether the euro was or would become an 'optimal currency area'

The path to the political decision to introduce the new currency was marked by intense and passionate debates. Views polarised. Predictions that an ill-designed and ill-timed monetary unification would have deepened contrasts and attritions in the continent up to generating a "war" (Feldstein, 1997) coexisted with scenarios of "nirvana" for Europe (echoing European Commission, 1990). Among economists, the debate revolved around the body of models/reflections collectively known as 'optimum currency area' (OCA) theory and weighed on the side of pessimism, with some notable exceptions stressing the possibility that an evolution towards OCA could be endogenous (Frankel and Rose, 1998). OCA theory calls attention to structural and institutional characteristics of national economies that may magnify the macroeconomic costs of giving up the instrument(s) of national monetary policy and of a margin of adjustment (the exchange rate). The higher the degree of risk sharing attainable via capital market integration and common fiscal arrangements (which help stabilise country-specific shocks to income and demand), labour mobility (which redistributes productive factors across regions and sectors in response to shocks to demand) and price/wage flexibility (which reduces the need for monetary stabilisation), the lower these costs are. The body of OCA theory, however, did not go as far as to clarify the effects of deficiencies in these dimensions in terms of resilience and stability of a monetary union and has remained silent on how the design of a common central bank could make up, at least in part, for the loss of national central monetary policy. The need for theoretical and practical guidance on these issues became apparent during the crisis in the 2010s.

At the political level, there was diffused awareness that the EMU architecture was 'incomplete'. Implicitly or explicitly, two views on how to complete the architecture of the euro area coexisted: a 'French' and a 'German' view. Roughly, the former envisioned a 'top-down' approach where the initial minimal economic constitution of the euro would be supplemented by a euro area budget.[5] This was seen as the key missing pillar to ensure an adequate aggregate fiscal stance at union-wide level and address, when needed, national/regional shocks. The German view envisioned a 'bottom-up' approach, where euro area members were held responsible for 'putting and keeping their houses in order'. This required each state to implement the necessary structural reforms and fiscal adjustment, to be able to fend off shocks by national means alone.[6]

During the summit in Madrid, the high political capital invested by national authorities on the euro project prevailed over economists' overall scepticism. This does not mean that economists were not heard. The eclectic construction, with a single fiercely independent monetary policy and decentralised fiscal policies subject to rules, reflected an emerging line of thinking at the time – in Europe, presented in ordo-liberal clothes. This line of thinking combined the "unpleasant monetarist arithmetic" of Sargent and Wallace (1981); the ineffectiveness of fiscal policy (Ricardian equivalence) and the deep scepticism about fiscal fine tuning (tax smoothing) of Barro (1974, 1979); the costs of discretionary policy from Kydland and Prescott (1977), Calvo (1978) and Barro and Gordon (1983); the benefits of an independent conservative central banker from Rogoff (1985); as well as a generalised turn in the academic profession, viewing financial markets as able to self-regulate and deliver an efficient allocation of resources.

5 On the French side, there was also the expectation, expressed by President Mitterand, that the 'so-called' ECB independence would, when needed, bend to the requirements of politics.
6 This division matched the classic one between 'monetarists' and 'economists' on the approach to European integration.

Less attention was instead paid to those observers who kept doubting that member states were ready in terms of economic structure, governance, and readiness to adapt policy behaviours facing the stress of relinquishing monetary sovereignty. These reservations were dismissed with the argument that jumping into a single currency would force 'desirable' changes and reforms, in line with the so-called 'there is no alternative' (TINA) theory. Another view, widespread at the time, was that currency markets were the root of all evil – the Petri dish of destabilising beliefs-driven market dynamics. Eliminating intra-European exchange rates – the argument went – was tantamount to eliminating financial instability. Relatedly, many observers at the time were convinced that current account imbalances would be made irrelevant by the single currency. With hindsight, these views proved dramatically wrong.

Scepticism about the virtues of floating rates had marked the whole monetary history of Europe after Bretton Woods (see the Werner Plan and the experiment with the 'snake' in the 1970s; and the EMS from 1979 until the creation of the euro, from 1993 on in place with wider fluctuation bands for exchange rates). The same scepticism also marked the last mile in the choice for the common currency (Padoa-Schioppa, 1987), when the open economy trilemma came into full force to weigh on the capital liberalisation process, which was obviously incompatible with a fixed exchange rate system among countries with independent national monetary policies.[7]

It is fair to note that, historically, European countries had very limited experience with floating exchange rates. When opening up their capital account, it seemed natural for them to go for the corner solution of a single currency, which at the time appeared to offer the solution to burning problems in the policy debates – how to mitigate the monetary dominance of Germany that had proved to so disruptive at the beginning of the decade; and how to eliminate the market disruption that followed from frequent realignments of the exchange rate, often required to correct current account imbalances. At the time, there was also a widespread (but misguided) belief that these imbalances would become irrelevant for macro stabilisation in a single currency.

The incomplete monetary union sailed on with a three-legged economic constitution

With the political wind blowing hard in the direction of monetary unification, the euro area sailed on with a minimal, three-legged constitution: (i) the ECB law, granting strong institutional independence to Frankfurt and assigning to monetary policy an overriding price stability objective; (ii) the Stability and Growth Pact (SGP), meant to prevent fiscal imbalances at national level from weighing on the ECB decisions and more in general on the financial stability of the area; and (iii) the 'no bailout' clause, interpreted more extensively in relation to the principle of a 'no transfer' union. This three-legged constitution implicitly relied on 'negative policy coordination': should all members abide by the SGP and let automatic stabilisers work freely, and the ECB pursue price stability in the medium term, the aggregate fiscal stance and the policy mix would, under normal circumstances, prove adequate for the euro area as a whole and for its individual members (Buti and Sapir, 1998). Independently of an assessment of whether this constitution could provide stable foundations to EMU, however, note that the second and the third leg, to be effective, needed to be credible, a requirement that turned out to be a source of continuous political contention.

Among the key missing parts of the minimal constitution were any provision for introducing a euro area-wide safe asset, a union-wide stabilisation mechanism, and a framework to deal with sovereign and banking crisis, if and when these occurred (for instance, at the time of the launch of the euro a banking crisis would have required the coordination of more than 30 national institutions and authorities; see Corsetti

7 Through the EMS years, one argument in favour of monetary unification was to moderate the dominance of the Bundesbank in setting European monetary policy.

and Pesenti, 1999). The euro effectively sailed on with an incomplete constitution, prompting two key questions: Which reforms of the constitution would eventually be needed to support a stable and prosperous currency union among independent sovereign state? And from a different perspective, what would be the economic and social costs of an incomplete EMU? A first pass on these questions consists of looking at the historical records of the euro area.

3 A BIRD'S-EYE VIEW OF THE EURO AREA'S HISTORY: FOUR PHASES

We structure our narrative of the recent history of the euro in four phases: (1) the decade of over-optimism: 1999-2008; (2) the decade of crises and fragmentation: 2009-2019; (3) the test of a large exogenous shock (COVID-19): 2020-2021; and (4) the inflation surge: 2022-2023. In all of our figures below, vertical lines mark these four phases.

To accompany our discussion, we summarise key economic indicators for each of the four phases in Table 1. For each indicator, we report the euro area average together with the minimum and maximum values (in parentheses) during the period. In Table 2 we list key institutional developments, membership, reforms of rules and/or governance of the euro area.

3.1 The decade of over-optimism: 1999-2008

At the global level, the first decade of the euro coincided with a period that could be dubbed 'the end of monetary history'. The business cycle had seemingly disappeared, feeding a debate among scholars as to whether a Great Moderation was due to good policies, good practices or good luck (Ahmed et al., 2004). The records of the period seemed to substantiate the "divine coincidence" of Blanchard and Galí (2007): by maintaining price stability, a central bank could also ensure full employment (no output gap) and, according to a widespread view, also financial stability.

Table 1 Main macroeconomic indicators

	GDP	Inflation	Current account	Government balance
1999-2008	2.25% (0.5/3.8)	2.2% (1.2/3.3)	0.1% (-0.7/1)	-2.1% (-3.1/-0.7)
2009-2019	0.8% (-4.6/2.6)	1.3% (0.2/2.7)	2.4% (0.5/3.6)	-2.9% (-6.3/-0.4)
2020-2021	-0.1% (-6.3/6)	1.4% (0.3/2.6)	3.0% (2.3/3.6)	-6.2% (-7.1/-5.2)
2022-2023	2.0% (0.7/3.4)	7% (5.6/8.4)	1.8% (1/2.5)	-3.4% (-3.6/-3.2)

Source: European Commission.

Note: Columns refer to the year-on-year growth of real Gross Domestic Product, yearly HICP, current account balance (as % of Euro Area GDP) and government balance (as % of Euro Area GDP). Numbers in parenthesis refer to the minimum and maximum registered value for the period.

CEPR

Table 2 EU and euro area institutional reforms

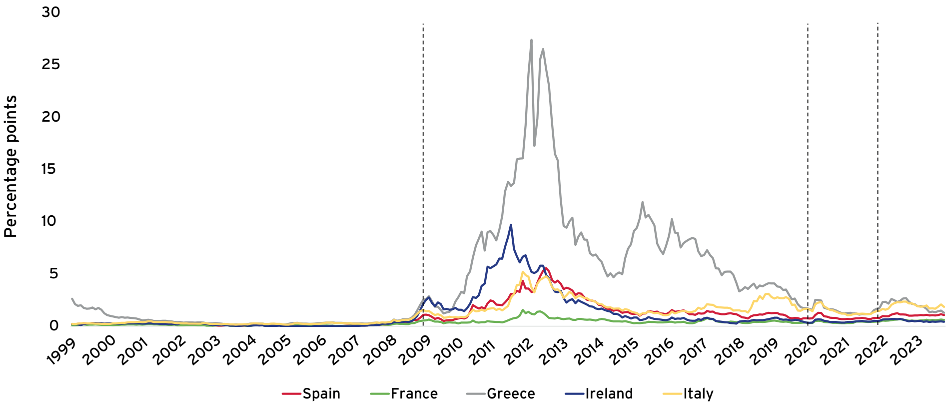
	1999-2008	2009-2019	2020-2021	2022 - 2023
Supranational	SGP reform	Six and Two Pack BU: Single Supervisory Mechanism (SSM) European Financial Stabilisation Mechanism (EFSM) Launch CMU	Triggering of the SGP General Escape Clause State Aid Temporary Framework NGEU Support to mitigate Unemployment Risks in an Emergency (SURE)	Economic governance reform (ongoing) State Aid Temporary Framework + RePower EU
Intergovernmental		ESM (successor of the temporary European Financial Stability Facility, EFSF) Fiscal Compact	ESM Pandemic Facility ESM Treaty reform (backstop Single Resolution Mechanism, SRM)	ESM Treaty ratification (ongoing)
Euro area accession (11 members in 1999)	EL (2001) SI (2007) CY, MT (2008)	SK (2009) EE (2011) LV (2014) LT (2015)		HR (2023)

Source: Authors' elaboration based on European Commission sources.

The Great Moderation: Under-pricing of risk

The microeconomic counterpart of the Great Moderation was not a drastic reduction in the idiosyncratic variability of households' incomes and firms' profits in line with the lower variability in aggregate economic activity. Rather, income and corporate risks remained significant. But at the global level and within the euro area, economic and financial systems seemed to settle on a path where these risks were priced at unprecedented low levels. As shown in Figure 1, credit spreads were minuscule, and access to loans was extended to categories of borrowers that used to be systematically excluded as unqualified. Private debt boomed worldwide, fuelling demand and also price inflation and bubbles in key markets, especially commercial and residential real estate. Financial innovation and diversification seemed to offer a solution to risk management well beyond the most optimistic expectations, progressively side-lining traditional prudential principles together with the supervisory and regulatory bodies in charge of their respect.

Figure 1 Spreads relative to the Bund



Source: European Central Bank

The Great Moderation and the global under-pricing of risk reflected in the euro area's early development. While the euro area had started with 11 members, Greece soon joined in 2001, Slovenia in 2004, Cyprus and Malta in 2008. It was the '2% decade' – in growth, inflation and budget deficits (see Table 1). Fast and lasting convergence in interest rates across borders gave a false feeling of security. Governments of traditionally vulnerable countries took advantage of the convergence bonus to postpone genuine fiscal adjustment and entered a state of structural reforms anaesthesia. The apparent stability gave them an opportunity for policy/reform 'relaxation', after the efforts exercised to fulfil the convergence criteria prior to the creation of the euro.

In this environment, there was no pressure to address the shortcomings of EMU's architecture. Somewhat paradoxically, the only noticeable institutional reform was that of the SGP in 2005 following the decision of the Commission to take the Council to court for failing to implement the Excessive Deficit Procedure for Germany and France (see Table 2). Under the reform, fiscal adjustments would take into account cyclical conditions and fiscal efforts would be assessed based on the structural balance. The initial simplicity of the SGP gave way to complexity, arguably injecting more intelligence (and economics) in the fiscal rules.

The Great Misallocation

In the real economy, imbalances were growing under a surface of stability. Inflation differentials remained persistent across borders, with an unexpected 'convergence' in non-tradeable prices to the level in the richest region of the union attributed to elusive Balassa-Samuelson effects reflecting high productivity growth differentials between tradeables and non-tradeables in low-income countries, for which there was scant evidence. Whilst the current account of the euro area balance of payments remained broadly balanced, cross-border current account deficits and surpluses inside the euro area ballooned (see Figure 2).

This macro-finance misallocation came back to haunt the euro area when the sovereign debt crisis erupted after the onset of the Global Financial Crisis (GFC) in the autumn of 2008. The different specialisations contributed to creating an economic divide in the euro area, with some countries better positioned to manage the consequences of the crisis by taking advantage of the sustained growth in the demand for manufacturing (especially from emerging markets, such as China) through the following decade. The crisis magnified this economic divide, adding a financial and fiscal dimension.

This development was at times welcomed as an indicator that the common currency was delivering on its promise of favouring economic and financial integration: capital was after all flowing 'downhill', from the high-income core to the low-income periphery of the euro area. But the large flows were going to the 'wrong' place (mostly real estate and protected non-tradeable sectors) and through the 'wrong' instrument (short-term banking positions).[8]

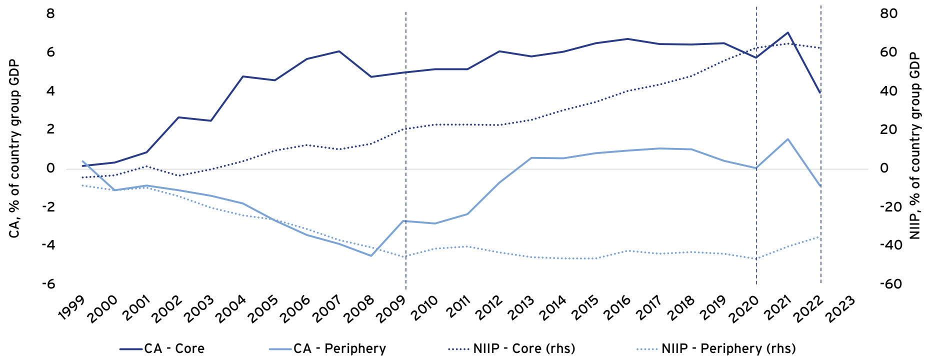
Not only did the interest rate convergence have an impact on demand (level and composition), feeding persistent inflation differentials, especially in non-tradeables (which boomed in periphery countries);[9] it also magnified the fragility of national banking and corporate systems, which became heavily exposed to core-country banks. Most of the flows took the form of non-contingent loans with short maturity that could be readily discontinued – causing a sudden stop in financing – at little or no loss for the creditors (via the Target 2 system).

8 For a granular analysis of misallocation, see Gopinath et al. (2017).
9 Non contingent short-term banking flows may contribute to consumption smoothing over time, but not to risk sharing.

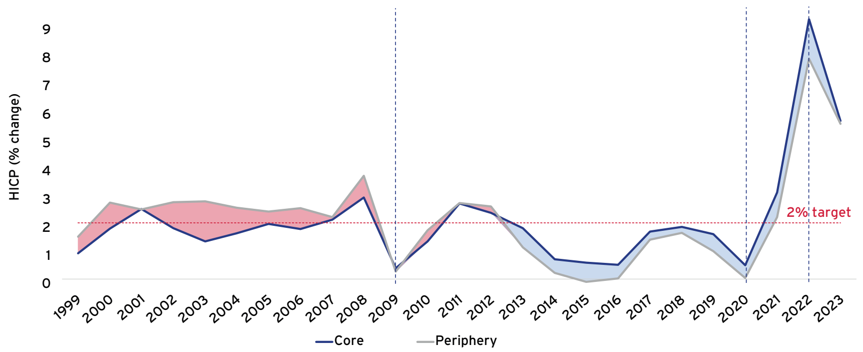
CEPR

Figure 2 The dynamics of intra-euro area imbalances

a) External imbalances



b) Inflation dynamics

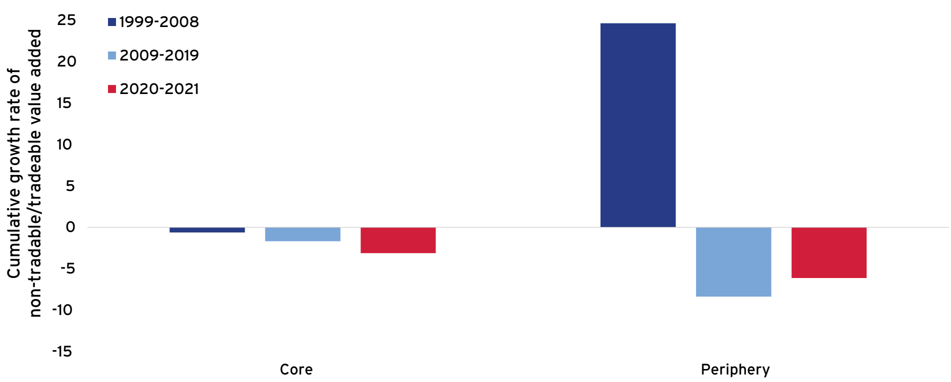


Source: Authors' elaboration based on European Commission data.

Note: Core countries include Belgium, Germany, Luxembourg, The Netherlands, Austria and Finland. Periphery countries include Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Lithuania, Malta, Portugal, Slovenia, Slovakia and Croatia.

At a fundamental level, the introduction of the euro ignited profound changes in national economic structures, eventually weighing on social preferences and attitudes towards structural reform.[10] By and large, as Figure 3 shows, the economies of the core countries became more intensive in tradeables; those of peripheral countries more intensive in non-tradeables (Buti and Turrini, 2015; Buti et al., 2020).

Figure 3 Structural divergence within the euro area



Source: Author's own elaboration based on European Commission data

10 The rapid growth of non-tradeable inflation in the periphery countries implied that, given nominal interest rate convergence, their real interest rates differed from those of the core countries. The so-called 'Walters effects' stress the potential for divergences in economic activity this may entail. While this ignores the implications of inflation differentials for real exchange rate dynamics and competitiveness, what was observed in the data was a sort of 'super-Walters effect', where divergence was written in the preference of policymakers for non-tradeable specialisation.

CEPR

3.2 The decade of crises and fragmentation: 2009-2019

At global level, the Great Recession and the trade collapse urged a systematic reconsideration of monetary policy strategies and instruments vis-à-vis the risks associated with secular stagnation and deflation, and the need to overcome the effective lower bound constraint on policy rates. It also urged a rethinking of the countercyclical effectiveness of fiscal policy and the importance of the policy mix ('lost in translation' during the years of the Great Moderation) to support economic activity. Academic and policy analyses substantiated the view that spending and tax multipliers are higher in a slump and/or when policy rates are constrained. A consensus emerged on the idea that, to be effective, fiscal interventions need to conform the 'three Ts' – timely, targeted, and temporary – so as to have the strongest effect without prejudice for debt sustainability (Summers, 2008). The scope and scale of fiscal policy expanded, to support both Wall Street and Main Street.

The euro area's economic constitution proved inadequate to manage the crisis

The three-legged economic constitution of the union was, however, inadequate for the euro area to tackle the crisis. Surprisingly, this problem did not surface through the first years of the GFC. Talk of 'Fortress Europe' articulated the view that the GFC was essentially a US issue, and that the common currency would insulate the region from financial and real spillovers from abroad. The ECB relied on the 'separation principle' to address the financial crisis via liquidity provision and inflation management via policy rates; it even raised rates in 2008. Fiscal policy remained constrained by the SGP (the General Escape Clause suspending the adjustment requirements of the SGP was triggered only years later, when the pandemic hit the EU economy).

Remarkably, the euro area crisis was not triggered by its fragile banking system. Rather, the fragility of the EMU became apparent soon after markets were hit with news of the deep revision of Greek deficits, casting serious doubts on the fiscal sustainability of that and other countries in the euro area and delivering a fatal blow to reciprocal trust among policymakers in different countries. Vis-à-vis the lack of an effective architecture, this lack of trust narrowed the room for cooperation to figure out a convincing institutional and policy response to the crisis, which rapidly spread across borders and in the financial system. In a confrontational environment, liquidity support was viewed with great suspicion. The 'moral hazard' paradigm dominated. It was only when European leaders stared into the abyss of the dissolution of the euro area that they found the courage to come to the rescue of vulnerable countries, but only as '*ultima ratio*'. This meant that help would come only at the very end, after all the possible actions at national level had been tried and the list of domestic policy options had been exhausted.[11] This '*ultima ratio*' approach could not reassure the markets that there was sufficient political determination to overcome the crisis.

The unstable EMU

Lack of cooperation was epitomised by the surprise announcement in Deauville in 2010, where Angela Merkel and Nicolas Sarkozy, without any consultation with other leaders, bluntly stated that investors in European bonds from then on would face the risk of losses. The endorsement of 'private sector involvement' at the beach walk in Deauville ended up crushing any residual beliefs in an implicit cross-border guarantee on sovereign debt in Europe (Buti, 2021). Spreads were immediately hiked, soon matching the dispersion during the 1992-93 crisis. Drawing on the title and the content of a well-known academic paper describing the currency crisis in the 1990s (Eichengreen et al., 1993), one could say that, after the Deauville walk, we had a period best described as the 'unstable EMU'.

11 '*Ultima ratio*' arose out of a spurious convergence between strong countries, that could present the EU decisions to their parliaments as necessary to avoid imminent euro implosion, and vulnerable countries who delayed till the last minute their request for EU (and IMF) support, given its domestic political cost.

In the subsequent quarters the ECB moved to stabilise markets, but only did so timidly and with confounding measures such as the decision to raise interest rates twice in 2011 in the midst of a recession (see Figure 4). Lacking both the instruments and the (external) political support/(internal) consensus to intervene with sufficient determination, for some time, the ECB was the bank of everyone and no one. [12] It seemed that, for a member state, borrowing in euros was akin to borrowing in a foreign currency. One of us even raised the issue of whether the euro could have introduced the 'original sin' in Europe (Corsetti, 2010; see also Krugman, 2011).

The high costs of beliefs-driven sovereign risk crises

With the genie of sovereign risk out of the bottle, markets set in motion dynamics that turned out to be extremely disruptive on real and financial grounds. In weaker countries, spreads and default risks shot up not only in the government bonds markets, but also for resident (financial and non-financial) corporates and households. Across the borders between 'crisis' and 'safe' countries, identical firms and households would face very different borrowing costs. The Single Market was no longer there 'on the liability side' of their residents, with far-reaching consequences for incomes, competitiveness and firms' survival.

It is worth spelling out the key problem of a monetary union where neither the fiscal nor the monetary authorities have the instruments and/or the mandate to rule out self-fulfilling expectations of default or break up of the union. Suppose that investors coordinate on a gloomy scenario of high spreads, financial crisis and economic downturn in a country. They would then charge high risk premia to all (private and public) borrowers residing in the country, which in turn would reduce demand and investment, discourage activity, and reduce the fiscal space. Output and incomes would tank, a financial and real 'doom loop' would link the banking with the sovereign risk crisis, and capital would flow out of the country. All of this would validate ex-post expectations that ex ante may have been largely arbitrary (Corsetti et. al., 2013; Reichlin, 2014; Brunnermeier et al., 2016; Fahri and Tirole, 2018). Note that in this situation, it would be nearly impossible to rule out the possibility that investors had initially moved on sound 'fundamental analysis', rather than based on their beliefs.

It is fair to say that neither the fathers and mothers of the euro, nor the scholars of OCA theory, had clearly spelled out these types of problems, inherent in a deficient architecture of 'incomplete' monetary unions. What defines an OCA is not only the degree to which its members can share fundamental risks, but also – and most crucially – the capacity of its institutions to prevent non-fundamental risk from ballooning, through policies that are effective in reigning in disruptive market dynamics.[13]

Institutional and policy response at last

The ball was in the ECB's court. In modern monetary systems, countries with their own currency have full monetary sovereignty when their central banks have the ability/capacity to avoid belief-driven sovereign crises, providing monetary backstop to government debt.[14] This means that central banks provide a credible threat to intervene on a sufficient scale in the government bond market, with the objective of

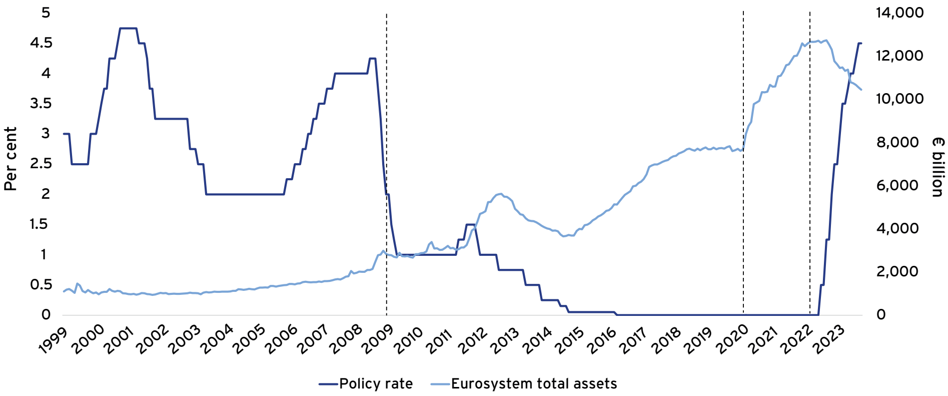
12 The debate inside the ECB reflected a long-standing divide concerning the moral hazard implications of liquidity provision and the role of crises in disciplining governments and strengthening incentives to implement structural reforms.

13 For insight on the academic debate on the crisis at the time, see Lane (2012). For extended analyses of the GFC and the euro area crisis, see Brunnermeier et al. (2016), Sandbu (2015), and Tooze (2018).

14 Opposition to the idea that the ECB should provide monetary backstop to government debt was rooted on the argument that addressing the threat of disruptive belief-driven crisis would take away a strong incentive for member states to address their fiscal and financial weakness through (costly) budget corrections and structural reforms. The counterargument is that eliminating vulnerability to self-fulfilling sovereign crises and downturn would actually strengthen these incentives, by raising the expected benefits from costly reforms (Corsetti et al., 2006; Morris and Shin, 2006).

maintaining prices in line with a country's *fundamentals*.[15] As the ECB explicitly stated at the launch of the Outright Monetary Transactions (OMT) programme in 2012, other central banks had offered such a backstop throughout the crisis.[16] By introducing the OMT programme, the ECB took a fundamental step in its development, moving closer to the international standards of good central banking in this particular and crucial dimension.

Figure 4 ECB policy rates and balance sheet



Source: ECB.

While the ball was in the ECB's court, however, the OMT programme and the strong initiatives that the central bank undertook in the following years (including various forms of quantitative easing (QE) and an inclusive 'collateral policy' facilitating access to own liquidity facilities by banks in the crisis countries) could not have been put in place and been effective without strong political and institutional developments. Even though moral hazard concerns kept being centre-stage in the debate, over time Europeans became increasingly aware of the high collective and systemic costs of the crisis, on economic, social and political grounds. This awareness generated enough political drive to restart cross-border cooperation and make the system receptive to the initiative of pro-European leaders. Somewhat laboriously, European policymakers converged on a 'road map', setting up facilities to assist crisis countries, initially in collaboration with the IMF, and reached consensus on the creation of the European Stability Mechanism (ESM), as a successor to the temporary European Financial Stability Facility (EFSF); the Fiscal Compact (together with the so-called 'six-pack and 'two-pack'), which strengthened the common fiscal rules; and the launch of the Banking Union project in June 2012, all instrumental in underpinning the monetary policy innovations. It was in this context that Mario Draghi could push the process forward, starting with the famous "whatever it takes" speech in July 2012 in London, a few months before introducing the OMT programme.

It is worth stressing the twin role played by the ESM. On the one hand, participating in a programme by the ESM was the precondition for benefitting from the OMT programme, as a way to address potential moral hazard issues created by liquidity support: the ECB would intervene only when solvency was ensured by an adjustment programme. On the other hand, the standards of official lending in Europe drastically deviated from the IMF standards in terms of the size, spreads and maturity of loans, offering generous terms and grace periods (Corsetti et al., 2020b; ESM, 2017). The ESM extended the scope of its assistance, with the idea that it would contribute to the

15 "The assessment of the Governing Council is that we are in [...] a `bad equilibrium', namely, an equilibrium where you may have self-fulfilling expectations that feed upon themselves and generate very adverse scenarios. So, there is a case for intervening, in a sense, to 'break' these expectations, which do not concern only the specific countries, but the euro area as a whole. And this would justify the intervention of the central bank." ECB Press Conference, Transcript from the Q&A, 6 September 2012.

16 "Public debt is in aggregate not higher in the euro area than in the US or Japan...The central bank in those countries could act and has acted as a backstop for government funding. This is an important reason why markets spared their fiscal authorities the loss of confidence that constrained many euro area governments' market access" (Draghi, 2014).

CEPR

second pillar of Banking Union. The objective of creating a Capital Markets Union (CMU) was launched in 2015 (in part motivated by the need to appease the UK in view of the 'Brexit' referendum to be held the following year).

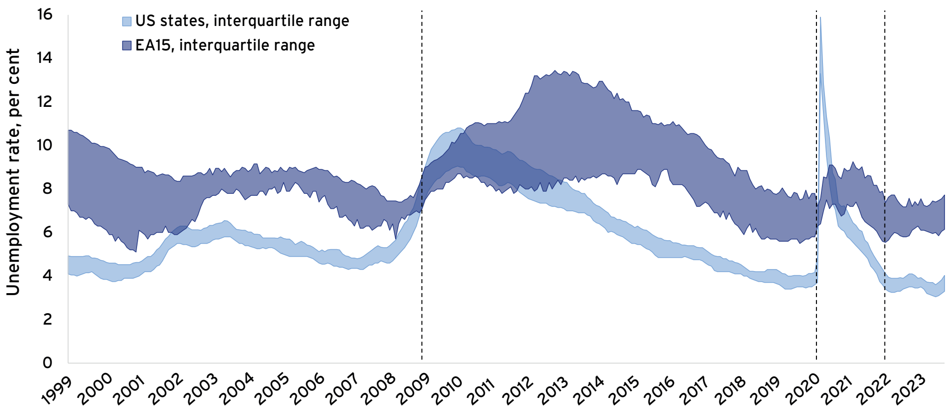
The importance of the institutional and policy developments in these years cannot be overemphasised. The euro area could hardly have survived (at least in its present form) without them – it was close to breaking point with the crisis of 2011, and 'Grexit' in 2010 and 2015. These developments, however, did not and could not undo the damage of the crisis. The crisis fragmented the euro area's economic and financial space, well beyond the heterogeneity that one can expect to characterise a monetary union among countries with different structural and institutional features (Schnabel, 2022).

The undesirable legacy of the crisis: Real and financial fragmentation

To provide a vivid visual representation of how the crisis led to fragmentation, Figure 5 plots unemployment rates by member state, comparing the US and the euro area.[17] The figure shows that, during the Great Recession, the two were comparable in terms of both the average level and the cross-state dispersion of unemployment rates. The years of the euro area debt crisis marks a striking divergence. In the US, unemployment started falling and its geographical dispersion narrowed. In the euro area, both the average level and the dispersion of unemployment were hiked further and remained persistently higher than in the US. Recovery in the euro area was much slower and timid, with income stagnation and rising unemployment and poverty in many countries.

Fragmentation constrained the macroeconomic stance at euro area level. With policy rates stuck at their effective lower bound, monetary policy could not deliver sufficient aggregate demand: the appropriate macro stance at euro area level required fiscal support. Through the euro area sovereign risk crisis, however, fragile countries were forced into austerity whilst stronger countries had no incentive to expand. On the contrary, the latter intentionally pursued precautionary budget policies to benefit from low or even negative risk premia in the area and avoid any contagion risk. As a result, the aggregate macroeconomic stance remained far from sufficient to close the euro area output gap. The OMT programme addressed this problem only in part. Countries could only benefit from the programme if participating in an ESM programme: the conditionality of these programmes *de facto* constrained the fiscal space that fragile countries were willing to use (Corsetti et al., 2019).

Figure 5 Unemployment rates by states, US versus EA15



Source: U.S. Bureau of Labour Statistics and Eurostat.

17 The figure shows the inter-quantile rate of state unemployment (excluding the 25% of states with extremely high and low rates).

Despite the crisis, progress in completing the EMU remains slow

Following a well-known pattern, the crisis spurred institutional and policy development. How far did the process go? For a long time, the ECB remained the only game in town - de facto left alone and 'overburdened' with the task of stabilisation. Progress in fiscal governance remained dramatically insufficient. Based on a fiscal interpretation of the origin of the crisis, the SGP constraint on national policies was actually tightened with the adoption of the 'six-pack', the 'two-pack' and the Fiscal Compact. Unsurprisingly, these rules could only produce strongly pro-cyclical budget austerity in crisis and a persistent current account surplus. It was only at the beginning of 2015, when the worst of the crisis was over, that the Commission put forward a more flexible interpretation of the SGP (European Commission, 2015).

Attempts to envision a form of *de jure* euro-bond or common 'safe asset' – even in the form of financially engineered portfolios – were met with strong opposition. *De facto*, the liabilities of the ESM were absorbed by the markets as EU bonds, and, through various balance sheet policies, the ECB became a major buyer in the government bond market. While it was clear that the euro area's architecture needed fundamental rethinking – see the *Five Presidents' Report* (Juncker, 2015) and the reflection paper by the Commission (European Commission, 2017) – attempts to make progress led nowhere.

We conclude with two positive notes. First, the GFC, the sovereign debt crisis and 'lowflation' notwithstanding, the role of the euro as a global reserve currency remained broadly stable, with a share at about 20% of the total stock, i.e., one third of the US dollar's share (ECB, 2023; Pisani-Ferry and Posen, 2009). Second, joining the euro area remained a political goal, as during this period the area expanded to the Baltics (Estonia in 2011, Latvia in 2014, Lithuania in 2015). The geo-political relevance of such a move would prove its value years later, during the fall out of the Russian war of aggression against Ukraine.

3.3 Crossing red lines in the response to the pandemic: The 'benign coincidence' in 2020-21

The pandemic hit during the slow recovery through which the euro area was eventually putting behind it the legacy of the GFC and the sovereign risk crisis. The unprecedented shock tested the euro area's resilience to the bones. Faced with a sudden large drop in both supply and demand, the economic policy response was swift and decisive at both national and EU-wide level. The immediate response aimed to maintain ample liquidity conditions through cash, loans and guarantees, ensuring that households could delay payments, workers receive pay cheques, and firms have the cash flow to pay workers and suppliers.

A different crisis

Whilst the bulk of the policy response came at national level, it was the initiative by the EU institutions that set the stage for a rapid rebound across the union. The ECB expanded its targeted and non-targeted refinancing operations, amended its collateral policy (to ensure ample access to bank reserves) and renewed and extended its asset purchase programme by adding the Pandemic Emergency Purchase Programme (PEPP), which introduced flexibility in the capital keys. For the first time the European Commission triggered the General Escape Clause of the SGP, thereby allowing Member States to proceed with large-scale fiscal relaxation. More fundamentally, the Commission launched a programme of concessional loans to shore up the labour market (the SURE programme), followed by the NextGenerationEU (NGEU), with the Recovery and Resilience Facility (RRF) at its core, financed by issuing common EU bonds. With SURE and, in particular, NGEU, the EU 'crossed deep red lines'. Thanks to the combined package of these programmes and national initiatives, households and corporates – financial and nonfinancial – maintained a reasonably high level of economic activity, avoiding another spell of 'dissipation of human and physical capital' as in the sovereign risk crisis. The markets were looking for a sign of collective leadership; the euro area-wide response gave an unequivocal one (see Table 3).

Table 3 Policy interventions during the pandemic (billion euros)

		Fiscal	Liquidity
National	2020-1 measures	1,500	4,400
EU	SURE, ESM, EIB		540
	NGEU	390+	360
ECB	PEPP		1,850

Source: IMF, European Commission, ECB

Blessed by electoral peace

The response to COVID-19 was radically different from the response to the GFC. Why? Clearly, the lessons from handling of the GFC, when EU countries declared victory and withdrew the fiscal support too early, played a role.[18] However, other factors are arguably more relevant. We bring forward a 'benign coincidence' hypothesis: the simultaneous presence of circumstances that reduce political resistance to act at European level. The first and probably the most important of these circumstances was the nature of the shock (Buti and Papacostantinou, 2021). Relative to the sovereign risk crisis, the political narrative was completely different. During the previous crisis, the prevailing narrative was one of moral hazard; many policy circles viewed the sovereign risk turmoil as self-inflicted by profligate governments and at the time resisted common policies as plagued by distorted incentives; common policies were intentionally designed and constrained, with the goal of demonstrating that policy mistakes at country level had consequences; creditors – operating mainly in the European Council – *de facto* dictated the rescue conditions. In a sign of manifest mistrust, several key policy innovations during the GFC took place as intergovernmental agreements. In contrast, during the pandemic, the narrative was a common exogenous threat requiring a common response and moral hazard considerations were quickly set aside. Moreover, the shock was clearly potentially disruptive for the supply side of the economy: policies were designed and targeted to keep the productive potential of Europe as intact as possible. This change in narrative and policy focus allowed policymakers to overcome the '*ultima ratio*' doctrine and brought back the so-called 'community method'.[19]

The second element of the benign coincidence was favourable electoral cycles. The leaders of France and Germany, for different reasons, were relatively free of pressing electoral concerns. Since for many months there was no election scheduled, leaders felt they could take decisions without the need to square them with their party campaign. Third, there was an alignment of policies and interests in support of both Main Street and Wall Street. All policies needed to have the same sign, and their success was predicated in putting together multiple instruments to reach many targets at once. The costs of mishandling crises experienced after the GFC stood as a warning against failing to provide a convincing policy response. Last but not least, at global level, advanced countries – especially the US – were acting with great resolve in support of their economies.

18 At the time, the work by Olivier Blanchard at the IMF on fiscal multipliers also played an important role in the policy debate (Blanchard and Leigh, 2013; Fatàs and Summers, 2018). The academic debate reconsidered asymmetries in the multipliers, with Auerbach and Gorodnichenko (2012) stressing their higher size in downturns (see Ben Zeev et al., 2023, for a critique).

19 A clear sign of the different stigma associated to community and intergovernmental instruments is the success of SURE, where 19 countries applied for support, compared to the ESM pandemic facility which, in spite of having virtually identical conditions, was not used by any country.

The difference between the response to the pandemic and that to the GFC was glaring: at last, monetary and fiscal policies drove in the same direction and there was a more balanced distribution of the response between the national level and the EU level (Bartsch et al., 2021; Buti and Papacostantinou, 2021). Investors and markets appreciated the collective leadership and, as a result, the risks of financial distress and further fragmentation of the euro area space receded. Redenomination risks that haunted the euro area during the financial crisis did not make a comeback.

Thanks to the strong policy response and the congruent policy mix, the euro area economy – in line with the global economy – was steered successfully away from systemic collapse.[20] Total output contracted sharply, but only for a limited time.

Public finances bore much of the weight of the stabilisation effort. Public debt increased by 9 points in average in the euro area between 2019 and 2021, accentuating the gap between high debt and low debt countries: whilst in Italy and France, debt increased by 13 and 15½ points, respectively, in Germany and the Netherlands it went up by 9½ and 3 points, respectively.

Among advanced countries, the strong policy response also had undesirable side effects. The outburst of the pandemic coincided with an unprecedented reallocation of demand and supply across sectors, creating imbalances in the market for goods relative to services, with a sharp hike in the relative price of goods exacerbated by supply chain bottlenecks. The labour market in the two sectors polarised correspondingly – tight in the goods sector and slumping in the services sector.[21] These dynamics planted the seed for the burst of inflation in 2022.

3.4 Taming inflation, the return of policy trade-offs: 2022-2024

After a period of stubbornly low inflation rates and 'low for long' interest rates, the threat to price stability came to the fore. During the pandemic, the demand for goods remained strong at global level. Goods are tradeable (hence cross-border prices tend to align) and relatively intense in energy and commodities. This meant that through the reopening period, the early swing in goods demand in each country compounded into a global driver of prices of intermediate goods and commodities. At this stage, the monetary and fiscal stance remained expansionary, accommodating the hikes in these prices and, later on, the catch-up of prices of services and eventually of wages. On top of this, the energy crisis, which for different reasons had been brewing since the late 2021, came to the fore following the Russian invasion of Ukraine, deepening a divide across the Atlantic, with a sharp terms of trade deterioration in Europe and other energy-dependent regions but not in the US.

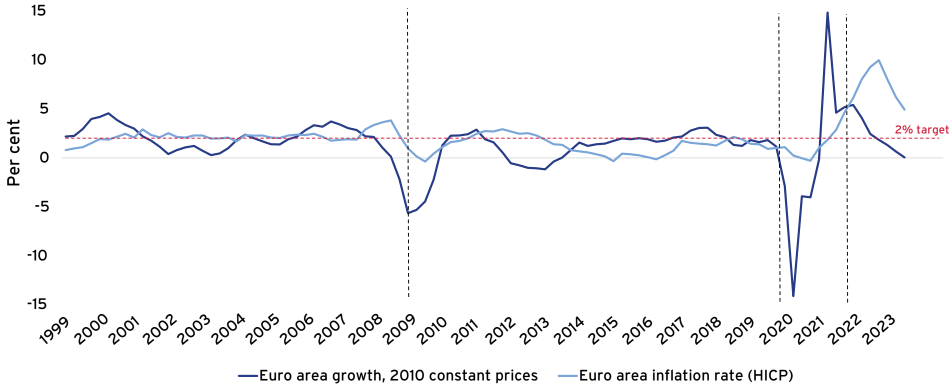
20 Monetary and fiscal policies had moved in the same direction at the very outset of the GFC, but the expansionary policies were reversed after the G20 Summit in June 2010 when the focus, especially in Europe, shifted from demand support to reining in budget deficits and debt (Buti, 2021, Chapter 38).

21 Because of these divergent developments, the traditional indicators of economic slack (output gap, unemployment and participation rates, employment, vacancy ratios) stopped moving together and started to give contrasting signals. This was one of the reasons why standard models of inflation underestimated the effects of the shocks and policies on price dynamics.

Supply-side bottlenecks hit the European economy more than others

The monetary and fiscal authorities could have opted early on to contain the average inflation rate, which would amount to targeting a lower price level around which the relative prices of goods and service would realign. Because of the different speed of price adjustment across sectors (and the considerable uncertainty on the evolution of the pandemic), however, acting on average inflation would have almost certainly reduced the dynamics of output and employment,[22] especially in the service sector, which was struggling through the reopening phase.[23]

Figure 6 Inflation and GDP growth



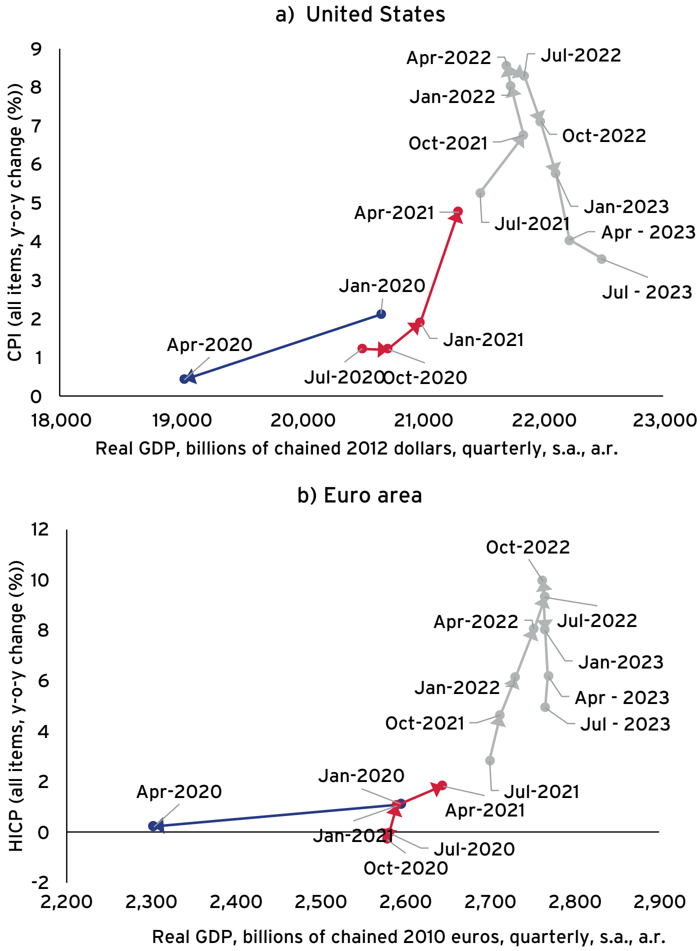
Source: European Commission.

What followed was a hike in headline inflation – the first in the history of the euro (as shown by Figure 6) – accommodating the realignment of relative prices and wages to a new level of overall prices. For central banks, managing this process amounted to a balancing act: keeping inflation expectations anchored, without curbing the economic recovery after the pandemic and the war. What complicated the process was that, overall, demand remained persistently expansionary, driven both by a lasting hike in private spending during the 'reopening' (after the removal of the lockdown measures and the vaccination campaign). Fiscal policies had an 'unconventional' nature: on the one hand, subsidies to gas storage and tax measures to contain energy prices had a clear inflation objective; on the other hand, untargeted income support, and the fact that these measures were financed in deficit in many countries, implied a strong fiscal stance, fuelling demand. Inflation thus marked the return of policy trade-offs (see Figure 7, comparing the euro area with the US), with fiscal and monetary policy pushing in opposite directions. Between July 2022 and December 2023, the ECB raised rates ten times, bringing the rate on Marginal Refinancing Operations (MROs) from 0% to 4.50%. Budget deficits nonetheless remained sustained, at 3.2% of GDP in 2023, according to the Autumn 2023 Commission forecast. The public debt-to-GDP ratio for the euro area was projected to fall to 90½%, from a peak of 99% in 2020, close to the pre-COVID-19 (2015-2019) average (90%), but two percentage points higher than in 2019.

22 Through 2021 and early 2022, there was still considerable residual uncertainty on the effect of the pandemic. A monetary contraction could have been seen politically inappropriate for its effects on activity and the fiscal space.

23 Keeping inflation low throughout the process requires monetary policy to implement a contractionary stance from the outburst of the shocks (essentially suppressing the nominal adjustment of service prices and wages). But since services prices and wages are sticky, a low average inflation comes at the cost of exacerbating the downturn caused by the shocks themselves. In contrast, keeping a sufficiently high level of employment and output requires policymakers to accommodate a sufficiently high level of inflation over the period required by the propagation mechanism to realign relative prices and real wages.

Figure 7 Inflation versus output, January 2020 to July 2023



Source: Updated version of Figure 7 in Corsetti et al. (2023).

Politics went into reverse

With the dramatic reversal of monetary policy stance in 2022, the 'benign coincidence' came to an end. To start with, the idea of a possible NGEU 2.0, refocused on central interventions to deal with the energy crisis and competitiveness pressures, did not take off. Proposals to create a minimum EU budget in response to the US Inflation Reduction Act, to support industrial policy at EU level, were turned down. By the same token, the ambitious proposals by the Commission to revamp the SGP (European Commission, 2023)[24] – aimed at simplifying its provision, improving national ownership, find a better balance between fiscal sustainability and growth support, and reduce procyclicality – were substantially downgraded with political compromises. The 'European momentum' faded away with the increasingly domestic focus of political debates, the fragility of the governments in Germany and France, and the rise in 'sovranism' across the EU. It was in this less auspicious political and institutional environment that Croatia joined the euro area on 1 January 2023, bringing its membership to 20.

4 "THE EURO IS STABLE AND HERE TO STAY"

Our four-phase narrative of the first 25 years of the euro highlights a number of critical passages, but has an overarching message: against all odds, EMU has proven to be resilient, a point emphasised by former ECB president Mario Draghi (e.g. Draghi, 2023). The political drive underlying its creation, which seemingly withers away in normal times, resurfaces powerfully, especially when crises threaten the survival of the common currency. Indeed, historical records confirm the *leitmotiv* in the EU

24 The main contributions that inspired the proposals by the Commission were Blanchard et al. (2021) and Martin et al. (2021).

narrative: the 'true reaction function' of Europeans emerges only in conditions of extreme distress. But the same records also show that steps forward only come at higher-than-necessary and social costs. Looking forward, to keep counting on the idea that the right decisions are (eventually) made only under distress is risky. At 25, the key challenge for the euro area is to learn to design and implement the necessary reforms in 'normal times'.

In this and the next section we first ask which takeaways from the recent history could help in this endeavour. We then build on these, to sketch a framework for thinking about what needs to be done.

Macroeconomic governance matters for real integration

The experience of the first decade of the euro shows that one cannot separate the macro governance from the structural dynamics of the Single Market. The interest rate convergence in the wider context of global underestimation of risk ignited large capital flows from relatively rich to relatively poor countries, but at the same time fostered a 'great misallocation'. Capital went to the wrong places (real estate and non-tradeables) through the wrong instruments (short term bank loans). This in turn led to inefficient sectoral specialisation across borders, to the point of shaping a divide in political preferences in the area, with the 'periphery' focusing on supporting protected non-tradeable sectors. Under a surface of apparent stability and prosperity, the indicators of the growing imbalances were either downplayed or misinterpreted, de facto ignored.

'Putting your house in order' is not enough

The takeaway from the second decade of the euro builds on the observation that the sovereign debt crisis was inherently home brewed: the lack of a convincing response to the GFC magnified many times its effects in the euro area, relative to other regions of the world. The crisis has shown that the 'negative coordination' paradigm underpinning the 'put your house in order' doctrine is not enough to ensure resilience and an adequate fiscal stance; that the ECB cannot be 'left alone' with the responsibility of economic and financial stabilisation of the euro area; and that disregarding the negative effect of shocks on economic convergence affects the economic performance of the area as a whole. Most crucially, reforms made under duress tend to be reversed when the economic and financial climate improves. During the second decade of the euro, the creation of the ESM and other institutional reforms were important innovations but did not lead to a permanent convergence of preferences amongst EA members. Clear evidence of this lack of convergence is the stalemate on BU where the North/South debate between risk reduction versus risk sharing has made progress exceedingly difficult.

Europe can learn…

The experience with COVID-19 suggests that the euro area can learn the lessons from the past crises and act with determination. However, looking closer at this experience, the strong policy response at EU level seemed to depend on a 'benign coincidence' of circumstances: the exogenous nature of the shock, a favourable electoral calendar leading to policy alignment.[25] This 'benign coincidence' may explain why, in the political debate, the institutional and policy response to COVID-19 is seen as a 'very large' one-off, rather than the milestone of a paradigm change (Buti and Fabbrini, 2022). A specific issue raised by the COVID-19 experience is whether the euro area can only respond to shocks to which the moral hazard narrative does not apply, as opposed to creating a governance that can manage moral hazard while at the same time guaranteeing a swift response to *any* potentially destabilising, large shocks.

25 One element that may have favoured agreement on NGEU and the RRF, to be implemented via national Recovery and Resilience Plans, was the similarity in the nature of these initiatives with the so-called Contractual Arrangements, originally proposed by Germany and taken up in the European Council conclusions in December 2012.

...but preference reversal is a present and real danger

The inflation crisis from 2022 onwards imparts another key lesson for the design of a central stabilisation capacity. A policy framework and governance that guarantee sufficient and effective expansion in the presence of large shocks (a fundamental building block for a resilient euro) needs to provide guidance on how to manage potential side effects (for example, a hike in inflation) and govern deleveraging/normalisation in the aftermath of the shock. The inflation crisis came about as a side effect of both the COVID-19 shock and the strong policies implemented to counteract the pandemic, leading to sectoral reallocation, relative price misalignment and the emergence of vast granular imbalances between demand and supply. The energy price shock accentuated these effects. With the return of a policy trade-off between inflation, economic activity and financial stability, fiscal and monetary policy diverged, and the area experienced a substantial increase in public and private (outstanding and implicit, contingent) liabilities. The current challenge is to find a common set of rules and policies through which the euro area economy can be reset on a path of sustainable growth with low inflation.

How should the reform of EMU's architecture be approached? In light of the experience of the first 25 years in the life of the euro, it seems appropriate to go back to the initial inspiration for the project of a single currency as a keystone of the Single Market project. Indeed, Tommaso Padoa-Schioppa proposed the 'inconsistent quartet', a European version of the open economy 'trilemma', adding free trade (essentially, the Single Market) among EU members as the fourth corner. A single currency would prevent the competitive devaluations that were incompatible with preserving a level-playing field and created political acrimony in the 1980s (Padoa-Schioppa, 1987).

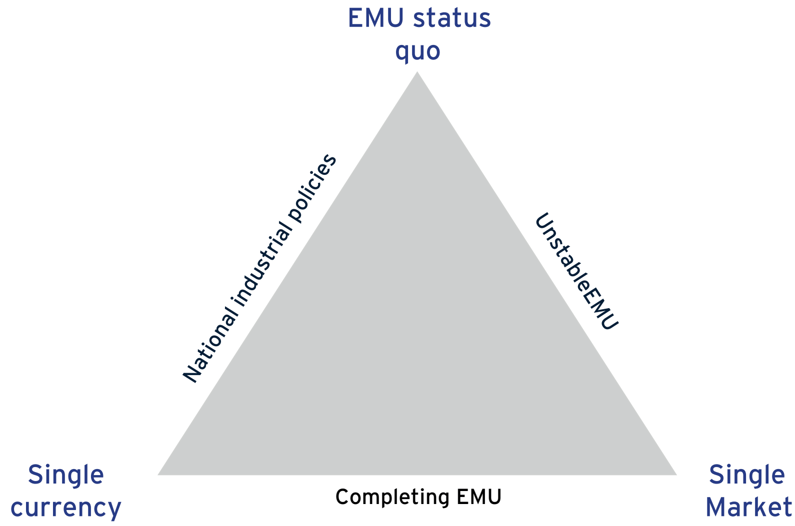
Back to the future: From the 'inconsistent quartet' to the 'euro trilemma'

The quartet clarifies that a deficit in macroeconomic stabilisation at euro area/EU level would create strong political and economic incentives for national governments to respond to shocks (domestic and external) resorting to national industrial policy, tax and regulatory initiatives and stealth subsidies, *de jure* or *de facto* incompatible with the Single Market. The experience during the energy crisis and the response to the American Inflation Reduction Act (IRA) is telling. A resilient euro area, with enough stabilisation tools in place, is essential to prevent Member States from going down a route that would lead to 'real' fragmentation, to the point of creating risks for the integrity, let alone the performance, of the Single Market.[26]

These considerations can be synthesised via a modern reformulation of the inconsistent quartet, in terms of a *euro trilemma* (see Figure 8). Currently, the incomplete union status quo (the upper corner of the triangle) is not simultaneously compatible with the Single Market (right lower corner) and a stable single currency (left corner). The need to maintain macro and financial stability conditional on the current architecture (along the left side of the triangle) creates strong incentives to resort to inward-looking national industrial policies and other measures undermining the foundations of the Single Market. Enforcing the Single Market rules without an adequate EMU architecture empowered with tools and competences to complement the Single Market (the right-hand side of the triangle) creates permanent risks of macro-end financial instability – which we synthesise with the idea of an 'unstable EMU'. The Single Market in an area of macro and financial stability (the bottom side of the triangle) is the constitutional goal of the reform of the euro area architecture. In the following section, we spell out what an effective economic constitution of the euro area to overcome the current status quo should comprise.

26 See also Balassone and Visco (2018).

Figure 8 The euro area trilemma



Source: Authors' elaboration

5 WHAT NEEDS TO BE DONE?

Drawing on the lessons from the recent history of the euro area and the euro trilemma discussed in the previous section, we conclude by sketching how the three legs of EMU – independent monetary policy, fiscal governance, and the 'no bailout' clause – could be revisited and made solid, so as to provide reliable foundations for an effective economic constitution of the euro area. We would like to state from the start that our proposals and analysis below are very much in line with the spirit of the 1993 White Paper on growth, competitiveness and employment, which is the prescient legacy of Jacques Delors in his final stint as Commission President (European Commission, 1994).

The first leg of the constitution, the ECB law, aims to ensure independence and credibility of its common central bank. We are now fully aware of the complexity of this goal, having experienced first-hand how the stabilisation of large shocks may require both monetary and fiscal policy to act together and rely on multiple instruments, thus raising fundamental issues around how to design a regime governing the interactions of the two policies. How can the boundaries between them be reconsidered without damage to the credibility of monetary policy? While this is a problem not only in the euro area, the specificities of the area complicate the solution.

ECB independence versus 'loneliness'

On this matter, it is worth going back to the early debate between Otmar Issing and Tommaso Padoa-Schioppa, both members of the first Board of the ECB. In Issing's view, a complete separation between the ECB and national fiscal authorities, and the diversity of interests and policies across euro area members, were key to guarantee the independence of the ECB. Governments with diverging views would not be able to coalesce and pressurise the ECB into monetising their debt; without this option, member states would have a strong incentive to consolidate their public finances and reform their economies. Therefore, monetary dominance would be ensured in the long run by building a wall between monetary and fiscal authorities. On the contrary, Padoa-Schioppa feared that, without a cooperative framework governing the interactions between monetary and fiscal authorities, independence would morph into 'loneliness' and the ECB would easily fall victim to public discontent whenever it had to take unpopular decisions. Hence, the effect of rigidly separating the ECB from other policy actors would actually be the opposite of what Issing thought – it would make it more likely for the ECB to become prey of fiscal and financial dominance.

While Issing's view was natural in the infancy of the euro, a new adulthood phase in the life of the common currency requires a long-term perspective, more in line with Padoa-Schioppa argument. The experience of the GFC and the pandemic shows that the ECB cannot be left alone to pursue price (and economic) stability. Moreover, at this point, it is difficult to envision a scenario in which the ECB simply reverts back to its 'pre-crisis self' (e.g., Lengwiler and Orphanides, 2023). For instance, it would be unwise (let alone impractical) to roll back the role of the ECB in ensuring financial stability (which was, after all, the historical *raison d'être* for the creation of central banks). The broader set of monetary instruments set up during the last several years will be part of the ECB strategy in the years to come. Balance sheet policy exposes a central bank to (calculated, tail) risk of losses: some understanding must be reached on the modalities of recapitalisation, if and when this becomes necessary. However, risk sharing 'by stealth' via the ECB's balance sheet, as happened at the height of the sovereign debt crisis, has to give way to explicit risk sharing by fiscal authorities, preferably via euro area-wide tools.[27]

The euro area-wide fiscal stance needs vertical coordination

Concerning the second leg of the constitution, the main issue in setting up fiscal rules is how to ensure enough stabilisation capacity and growth at EU level, without undermining monetary credibility. The SGP was focused on how to prevent 'excessive' debt accumulation. At least four lessons have been learned during the past several years: first, unenforceable rules are bound not to be enforced and fuel mistrust; second, positive incentives are more likely to be effective than the threat of (non-credible) punishment; third, the quality of public finances is as important as the path of debt and deficits;[28] finally, the appropriate fiscal stance at euro area level cannot be ensured solely via (horizontal) coordination of national fiscal policies, especially when this is most needed (i.e., during large downturns).

These lessons clarify the challenges in the reform of EMU's fiscal governance. At the core of the reform lies the creation of a union-wide 'central' fiscal capacity (CFC), *de facto* providing (vertical) coordination of and supplementing national fiscal policies (Draghi, 2023; Buti and Messori, 2022a). It is crucial to clarify that the CFC would not pursue fiscal fine tuning in 'normal times', when national automatic stabilisers and monetary policy have ample space to stabilise the economy.[29] Rather, it should be designed to engage only in the event of sizeable shocks. In line with recent macroeconomic literature, in extreme situations of deflationary downturn (with policy rates stuck at their effective lower bound), the CFC should complement the ECB effort to anchor inflation expectations and support employment (Corsetti et al., 2019; Tabellini, 2017; Bianchi and Melosi, 2022). In other words, dealing with large shocks requires a sizeable leverage capacity to be exercised in bad times, not a permanently large budget. This means a common framework able to (a) resort to the market at near risk-free rates, integrated with national fiscal authorities and in coordination with the ECB, to deliver timely, targeted and temporary stimulus on the required scale, conditional on a large disturbance;[30] and (b) manage the process of risk reduction after the shock has abated. In operational terms, one could build on the structure of the SURE programme, appropriately reformulated to take into account labour shortages and potential 'great reallocation of jobs' (such as the one plausibly implied by the double transition).

27 Clarity on the nature of risk sharing is key also to preserving the independence of the ECB. To avoid ECB policy spilling over to quasi-fiscal tasks, Micossi and coauthors (Micossi, 2024) have proposed to offload the sovereign debt bought during the pandemic from the balance sheet of the ECB onto the balance sheet of the ESM.
28 The need to improve the quality of public finances has been strongly emphasised by Villeroy de Galhau (2023).
29 The setting up of a CFC for stabilisation purposes should go hand-in-hand with reforms of the automatic stabilisers at national level to enhance their effectiveness. Several alternative proposals on how to strengthen national automatic stabilisers have been put forward by Buti and Gaspar (2015).
30 On the need of fiscal and monetary policies to work together in the event of large shocks, see Panetta (2023).

The devil is in two key interrelated passages. The first concerns the design of the ‘eligibility conditions’ for a Member State to benefit from the CFC. Clarifying these conditions is essential to avoid moral hazard and enhance the respect of the fiscal rules before and after the crisis, without cutting off Member States that may be in the direst need of fiscal support. As the experience of the US shows, credible fiscal rules are a pre-condition for setting up a CFC. Fiscal regulation and ‘fiscalisation’ go hand-in-hand and support each other (Buti and Fabbrini, 2023; Wozniakowski, 2022).

The second concerns ‘risk reduction’ after the shock has passed. The same common framework that defines the modalities of the response to a shock should also define the modalities of the deleveraging process, recognising the common interest in a smooth transition and the need to deal with potential liquidity and spillovers that may destabilise it. The goal of deleveraging is preparing for the next crisis/shocks, not prolonging the previous one or creating a new one.

This resonates with the current discussion on the reform of the SGP: given the current state of the euro area economy, the overriding concern in the redesign of the fiscal rules is how to frame a regime for effective deleveraging. The high stock of public and private debt – the legacy of the sequence of large crises the euro area went through – is weighing heavily on the future of the euro area. Debt overhang discourages investment by domestic and foreign firms in a country, encourages capital outflows and migration (reducing the human capital in the country), and magnifies uncertainty (which reduces household spending). The modalities and path of debt reduction should not exacerbate these problems.

Setting up a central stabilisation tool also has relevant implications for the ‘no bailout’ clause. This clause is meaningful only if the EU creates the conditions for its credibility. A ‘transfers union’ can be avoided by acknowledging that all members are exposed to the kind of tail risks (climate, energy and geopolitical) and endemic uncertainty the euro area is currently facing. In a way, the emerging patterns of risk have recreated Rawls’ ‘veil of ignorance’ (Rawls, 1999), strengthening the incentives to put in place two-way, insurance-based solidarity mechanisms, where the beneficiaries are not known in advance and are not always the same (Habermas, 2008; Marimon, 2022).

The supply of European public goods at the core of an EU industrial policy

The prevailing EU economic model is centred on manufacturing activities employing high, but mature, technologies; on services directly related to its manufacturing specialisation; and on high energy consumption. The model has a three-way dependency pattern: it depends on a small number of fossil energy suppliers, on the US for access to innovative technologies, and on a strong external demand. In the present and foreseeable geo-economic context, this model is severely threatened, and requires a common strategy.

NGEU represented a huge innovation in EU policymaking, but it focused mainly on transfers to Member States rather than on common investments acting on the supply side, lessening bottlenecks and reducing dependence. Industrial policy has remained a national prerogative and has been favoured by the weakening of the state aid regulation, thus raising the risk of further fragmentation of the Single Market.

The full potential of the unavoidable transformation of the EU ‘business model’ cannot materialise without a corresponding strong development of the Single Market. An industrial policy at European level, consistent with the Single Market, is needed. A first and fundamental step in this direction is the correct implementation of the National Recovery and Resilience Plans, directing the resources offered by NGEU to the realisation of reforms and investments underpinning the green and digital transitions. Successful use of the NGEU resources is key to motivating further progress at EU level (for example, setting up a CFC).

An effective change to the EU's business model, however, requires more. Integrating national initiatives with the production of European public goods (EPGs) requires an ambitious reform of the size, and especially the composition, of the EU budget, backed by credible own resources (Buti, 2023).[31] EPGs are projects tackling EU challenges, delivered and financed at EU level via a central fiscal policy that operates mainly on the supply side (Buti and Messori, 2022b). Given their investment nature, EPGs should be financed at least in part by borrowing. An adequate issuance of EU assets would also help reduce the liquidity premium of bonds issued for stabilisation purposes (see above). Guidance to the identification of EPGs could be derived from the theory of public goods and the economics of fiscal federalism, taking into account the specific features of the EU institutional system. This exercise would produce criteria to identify areas where EPGs are critically under-supplied (Buti et al., 2023).[32]

Examples of EPGs forming the backbone of a new EU industrial policy include a common digital infrastructure, green energy projects, an EU-level platform for skills acquisition and exchanges, and common purchase of critical raw materials. In non-economic areas, common defence and security are typical EPGs.[33] The launch of EPGs as part of a European industrial policy can ensure that the single European market, born 30 years ago, regains the function of driving a strong inclusive growth in the area, attenuated if not lost over time.

A new narrative for Financial Union

The decision to launch Banking Union by the European Council in June 2012 was hailed as a major breakthrough and helped create the conditions for a turning point in the management of the euro area sovereign debt crisis. The first pillar of Banking Union was implemented quickly and successfully, with the Single Supervisory Mechanism in place since 2013. The second pillar proved more challenging. The Single Resolution Mechanism (SRM) implementation is still pending (waiting for the ratification of the modified ESM Treaty, attributing to the ESM the provision of the financial backstop to the Single Resolution Fund). Most crucially, no progress has been made on the common deposit insurance (EDIS), in spite of several attempts by the Commission to put forward proposals attempting to reconcile different views. The crux of the matter is the controversy on risk reduction versus risk sharing (Bénassy et al., 2018, 2019). The 'Nordic camp', led by Germany, insists that risk reduction has to take place before risk sharing, namely, via a review of the regulatory treatment of sovereign exposures in the banks' portfolios. The 'Southern camp', most notably Italy, fears that, in the absence of risk sharing arrangements, such a move would be financially destabilising, i.e., it would end up raising instead of reducing risks. The decision process is at a standstill: during crisis times, any attempt to revisiting the safe asset nature of sovereign debt has been deemed too dangerous to pursue; during normal times, pressure to move on the issue subsides.

Progress on the ground is also slow regarding the Capital Markets Union, for different reasons. After numerous legislative proposals by the Commission, most of them adopted by the Council, and several action plans, CMU is still to make a substantial difference in practice. Here, the stumbling block is not ideological resistance and division (as is the case for Banking Union), but the complexity of the endeavour and the substantial differences across national legislative, governance and legal systems. Politically, national governments paid lip service to the 'imperative' of making CMU a success. *De facto*, CMU lacks political champions to lead the way to its effective implementation.

31 The main elements of such a reform were already sketched out twenty years ago in the Sapir Report (Sapir et al., 2004).
32 For a seminal contribution on EPGs, see, Fuest and Pisani-Ferry (2019).
33 These broadly correspond to the European priorities identified in the informal European Council in Versailles in March 2022.

For both Banking Union and CMU, a new approach and a new narrative are urgently needed. In the case of Banking Union, the accent could be put on its role in enhancing the geopolitical stance of the EU and in fostering its strategic autonomy: without a fully integrated banking market and a safe asset, the EU will remain vulnerable to shocks and unable to play an effective role in global governance. Also, the euro would continue to play second fiddle on international markets, leaving EU businesses more exposed to extra-territorial sanctions. Completing financial union with a safe asset is key to boost the role of the euro as a global currency and hence move from monetary independence to true monetary sovereignty.[34]

In the case of CMU, regaining momentum would require a new narrative emphasising its key role in the green and digital transitions. These transitions will require huge public investments, but will not be possible without simultaneously mobilising private capital. Decarbonisation and bridging the digital divide involve investment projects that are typically 'long in ideas and short in collateral', so they cannot be financed by ordinary banks. Unless Europe starts to move away from its bank-centric financial model, it will fail to deliver on the double transition.

6 CONCLUDING REMARKS

At the age of 25, the euro has proven to be stable and resilient to existential threats. The great monetary experiment has gone through and passed a set of defining tests concerning its role in fostering the Single Market and providing an area of stability and inclusive growth for the residents of the union. In this Policy Insight, we have reviewed achievements as well as the items for a reform agenda, stressing three points.

First, the initial architecture and constitution of the euro was a 'work in progress' and required a dynamic development. This development, so far fed by experience, is not over yet. However, there is increasing – though far from full – agreement amongst economists on the policy ingredients and the institutional reforms required for an effective euro area economic constitution. The challenge is to muster the political consensus without relying on 'benign coincidences'. This will require political leadership.

Second, leaving the euro area construction intentionally unfinished is dangerous and costly. The GFC and the ensuing sovereign debt crisis were arguably 'too big to swallow' for an incomplete union: an insufficient and incoherent response pushed the euro area into a painful existential crisis in 2010, much larger than in other regions of the world.[35] The euro area may not survive another round of dismal performance caused by its own institutional and policy deficiencies.[36] In the near future, climate change, the energy transition and geopolitical instability will bring more tail events to the plate of euro area policymakers. The sovereign debt crisis arguably produced winners and losers inside the euro area, along the dividing line of 'creditors' (Germany and the Nordic countries) and 'debtors' (the Southern and peripheral countries). The institutional reforms at the time – from the establishment of the ESM to the adoption of the Fiscal Compact – reflected the relative strength of these two groups. By the nature of the instability to come (caused by environment, health, or geo-political shocks), in the absence of a common response, welfare and activity may fall across all members.

34 See Coeuré (2019a and 2019b) and Acedo Montoya and Buti (2019). On the initial expectations of the role of the euro as an international currency, see Portes and Rey (1998).
35 Acting under duress may well be unavoidable under certain circumstances. However, reforms under duress may come too little too late and there are shocks for which there is no substitute for an area-wide common response: while the acting under stress approach can be expected to produce reasonable results in response to 'small' or idiosyncratic shocks, it may have destabilising effects when disturbances are large to start with, and become even larger because the policy response is insufficient and/or incoherent.
36 Acting under duress is not guaranteed that the policy response would satisfy the 'Monnet compatibility test' of economic, institutional, and political coherence. See Buti and Papacostantinou (2021). For a related analysis, see Truchlewski et al. (2021).

Third, revitalising debates that have come to a complete standstill will be possible only through a change in the 'narrative'. A swift and strong common policy response to the COVID-19 pandemic relied on the exogenous nature of the shock and the existential risks from lack of action. Responding to the geo-political imperatives and accomplishing the double transition appear key elements of a new narrative aiming at completing Banking Union, making a success of CMU and boosting the supply of EPGs.

Is this ambitious agenda politically feasible? Clearly, it will not happen overnight and its institutional implications will require difficult political choices. However, the history of European monetary cooperation may give reason for optimism. No European existential crisis has been resolved via purely national or short-term measures. The Euro-sclerosis of the 1970s and 1980s was overcome thanks to the '1992 Project' and monetary unification. Similar considerations apply to the "whatever it takes" turning point in 2012 and NGEU in 2020. Today, the existential threats to the EU economy come from the geo-political and economic impact of the war in Ukraine and the Middle East, the new 'cold war' between China and the US, and their consequences in terms of accelerated obsolescence of the EU business model. There is really no need to wait for the outburst of a new crisis to act. The end of the NGEU programme in 2026 and of the EU multi-annual budget cycle in 2027 provide important yardsticks and opportunities for changing gear.

In the end, the resilience of the euro rests on a political drive towards European integration which, despite everything, is still powerful. Its historical, social and economic roots provide the foundations for a discourse that can continuously adapt to the challenges of a changing geopolitical and physical environment and remind European citizens (and policymakers) about the reasons and the benefits of common solutions to their common problems.

REFERENCES

Acedo Montoya, L. and M. Buti (2019), "The international role of the euro: from monetary independence to monetary sovereignty", VoxEU.org, 1 February.

Ahmed, S., Levin, A. and B.A. Wilson (2004), "Recent U.S. macroeconomic stability: good policies, good practices, or good luck?", *The Review of Economics and Statistics* 86(3): 824-832.

Auerbach, A.J. and Y. Gorodnischenko (2012), "Fiscal multipliers in recession and expansion", in *Fiscal Policy after the Financial Crisis*, NBER, pp. 63-98.

Balassone, F. and I. Visco (2018), "The Economic and Monetary Union: time to break the deadlock", Banca d'Italia, November.

Barro, R.J. (1974), "Are Government Bonds Net Wealth?", *Journal of Political Economy* 82(6): 1095-1117.

Barro, R.J. (1979), "On the Determination of the Public Debt", *Journal of Political Economy* 87(5): 940-971.

Barro, R.J and D.B. Gordon (1983), "Rules Discretion and Reputation in Model of Monetary Policy", *Journal of Monetary Economics* 12(1): 101-121.

Bartsch, H., Bénassy-Quéré, A., Debrun, X. and G. Corsetti (2021), *It's all in the mix: How monetary and fiscal policies can work or fail together*, Geneva Reports on the World Economy 23, ICMB and CEPR.

Ben Zeev, N., Ramey, V. and S. Zubairy (2023), "Do Government Spending Multipliers Depend on the Sign of the Shock?", *AEA Papers and Proceedings* 113: 382-387.

CEPR

Bénassy-Quéré, A., Brunnermeier, M.K., Enderlein, H., Farhi, E., Fratzscher, M., Fuest, C., Gourinchas, P.O., Martin, P., Pisani-Ferry, J., Rey, H., Schnabel, I., Véron, Weder di Mauro, B. and J. Zettelmeyer (2018), "Reconciling risk sharing with market discipline: A constructive approach to euro area reform", CEPR Policy Insight No. 91.

Bénassy-Quéré, A., Brunnermeier, M.K., Enderlein, H., Farhi, E., Fratzscher, M., Fuest, C., Gourinchas, P.O., Martin, P., Pisani-Ferry, J., Rey, H., Schnabel, I., Véron, Weder di Mauro, B. and J. Zettelmeyer (2019), "Euro area architecture: What reforms are still needed, and why", VoxEU.org, 2 May.

Bianchi, F. and L. Melosi (2022), "Inflation as a fiscal limit", FRB of Chicago Working Paper 37, September.

Blanchard, O.J. and J. Galí (2007), "Real wage rigidities and the New Keynesian model", *Journal of Money, Credit and Banking* 39(1): 35-65.

Blanchard, O.J., Leandro, A. and J. Zettelmeyer (2021), "Redesigning EU fiscal rules: from rules to standards", *Economic Policy* 36(106): 195–236.

Blanchard, O.J. and D. Leigh (2013), "Growth forecast errors and fiscal multipliers", *American Economic Review* 103(3): 117-120.

Brunnermeier, M. K., Garicano, L., Lane, P., Pagano, M., Reis, R., Santos, T., Thesmar, D., Van Nieuwerburgh, S., and D. Vayanos (2016), "The sovereign-bank diabolic loop and ESBies", *American Economic Review Papers and Proceedings* 106(5): 508–512.

Brunnermeier, M.K., James, H. and J.-P. Landau (2016), *The euro and the battle of ideas*, Princeton University Press.

Buiter, W., Corsetti, G. and P. Pesenti (1998), *Financial Markets and European Monetary Cooperation. The lessons from the 92-93 crisis*, Cambridge University Press.

Buti, M. (2021), *The Man Inside – A European Journey through Two Crises*, Bocconi University Press.

Buti, M. (2023), "When will the European Union finally get the budget it needs?", Bruegel Analysis, 7 December.

Buti, M., Coloccia, A. and M. Messori (2023), "European public goods", VoxEU.org, 9 June.

Buti, M. and S. Fabbrini (2022), "Next generation EU and the future of economic governance: towards a paradigm change of just a big one-off?", *Journal of European Public Policy* 30(4): 676-695.

Buti, M. and S. Fabbrini (2023), "The political determinants of fiscal governance in the EU: towards a new equilibrium", *Politics and Governance* 11(4): 112-121.

Buti, M. and V. Gaspar (2015), "Designing fiscal policy for steady, enduring growth", VoxEU.org, 10 December.

Buti, M., Jollès, M., and M. Salto (2019), "The euro, a tale of 20 years: the priorities going forward", VoxEU.org, 19 February.

Buti, M. and M. Messori (2022a), "A central fiscal capacity to tackle stagflation", VoxEU.org, 3 October.

Buti, M. and M. Messori (2022b), "A central fiscal capacity in the EU policy mix", CEPR Discussion Paper 17577.

Buti, M. and G. Papacostantinou (2021), "The legacy of the pandemic: How COVID-19 is reshaping economic policy in the EU", CEPR Policy Insight 109.

Buti, M. and A. Sapir, eds. (1998), *Economic Policy in EMU – A Study of the European Commission Services*, Oxford University Press.

Buti, M. and A. Turrini (2015), "Three waves of convergence: can eurozone countries start growing together again?", VoxEU.org, 17 April.

CEPR

Calvo, G. A. (1978), "On the time consistency of optimal policy in a monetary economy", *Econometrica* 46(6): 1411–1428.

Coeuré, B. (2019a), "The euro's global role in a changing world: a monetary policy perspective", speech at the Council on Foreign Relations, New York, 15 February.

Coeuré, B. (2019b), "Should the ECB care about the euro's global role?", VoxEU.org, 25 February.

Corsetti, G. (2010), "The 'original sin' in the Eurozone", VoxEU.org, 9 May.

Corsetti, G., Dedola, L., Jarociński, M., Maćkowiak, B., and S. Schmidt (2019), "Macroeconomic stabilization, monetary-fiscal interactions, and Europe's monetary union", *European Journal of Political Economy* 57: 22-33.

Corsetti, G., Eichengreen, B., Hale, G. and E. Tallman (2020a), "The Euro Crisis in the Mirror of the EMS", *Open Economy Review* 31: 219–236.

Corsetti, G., Eichengreen, B., Vives, X. and J. Zettelmeyer (2023), *The International Economic and Financial Order after the Pandemic and War*, The Future of Banking 5, CEPR Press.

Corsetti, G., Erce, A. and T. Uy (2020b), "Official Sector Lending Strategies During the Euro Area Crisis", *Review of International Organizations* 15: 667–705.

Corsetti, G., Guimaraes, B. and N. Roubini (2006), "International lending of last resort and moral hazard: A model of IMF's catalytic finance," *Journal of Monetary Economics* 53(3): 441-471.

Corsetti, G., Kuester, K., Meier, A., and G. Mueller (2013), "Sovereign Risk, Fiscal Policy, and Macroeconomic Stability", *Economic Journal*, F99-F132.

Corsetti, G. and P. Pesenti (1999), "Stability, Asymmetry, and Discontinuity: The Launch of European Monetary Union", *Brooking Papers on Economic Activity* 30(2): 295-372.

Draghi, M. (2014), "Unemployment in the Eurozone", speech at the Annual Central Bank Symposium in Jackson Hole, 22 August.

Draghi, M. (2018), "Europe and the euro 20 years on", speech at the Laurea Honoris Causa in Economics, University of Sant'Anna, Pisa, 15 December.

Draghi, M. (2023), "The Next Flight of the Bumblebee: The Path to a Common Fiscal Policy in the Eurozone," 15th Annual Feldstein Lecture, NBER, 11 July.

Eichengreen, B., Wyplosz, C., Branson, R.W. and R. Dornbusch (1993), "The Unstable EMS", *Brookings Papers on Economic Activity* 1: 51-143

European Central Bank (various), *The international Role of the Euro*.

European Commission (1990), "One market, one money. An evaluation of the potential benefits and costs of forming an Economic and Monetary Union", *European Economy* 44.

European Commission (1994), "Growth, competitiveness and employment – The challenges and ways forward in the 21st century: White paper".

European Commission (2015), "Making the best use of the flexibility within the existing rules of the Stability and Growth Pact", COM (2015) 12 final.

European Commission (2017), "Reflection paper on deepening the economic and monetary union", COM(2017) 291, final.

European Commission (2023), "New economic governance rules fit for the future: legislative proposals", 26 April.

ESM – European Stability Mechanism (2017), *EFSF/ESM Financial Assistance Evaluation Report*, Independent Evaluator appointed by the ESM Board of Governors.

Farhi, E. and J. Tirole (2018), “Deadly Embrace: Sovereign and Financial Balance Sheets Doom Loops”, *The Review of Economic Studies* 85(3): 1781–1823.

Fahri, E. and I. Werning (2017), “Fiscal Unions”, *American Economic Review* 107(12): 3788-3834.

Fatàs, A. and L.H. Summers (2018), “The Permanent Effects of Fiscal Consolidations”, *Journal of International Economics* 112: 238-250.

Feldstein, M. (1997), “The political economy of the European Economic and Monetary Union: political sources of an economic liability”, *Journal of Economic Perspectives* 11(4): 23-42.

Frankel, J. and A.K. Rose (1998), “The endogeneity of the Optimum Currency Area criteria”, *Economic Journal* 108(149): 1009-10035.

Fuest, C. and J. Pisani-Ferry (2019), *A primer on developing European public goods*, EconPol Policy Report 3, 16 November.

Gopinath, G., Kalemli-Özcan, S., Karabarbounis, L., and C. Villegas-Sanchez (2017), “Capital Allocation and Productivity in South Europe”, *Quarterly Journal of Economics*, 132(4): 1915–1967.

Habermas, J. (2008), “European Union: are we still good European?”, interview in *Die Zeit*, 6 July.

Juncker, J.-C. (in cooperation with D. Tusk, J. Dijssembloem, M. Draghi and M. Schulz) (2015), *Completing Europe’s Economic and Monetary Union. Five Presidents’ Report*, European Commission.

Kydland, F.E. and E.C. Prescott (1977), “Rules Rather than Discretion: The Inconsistency of Optimal Plans”, *Journal of Political Economy* 85(3): 473-492

Krugman, P. (2011), “Original Sin and the Euro Crisis”, *New York Times*, 10 November.

Lane, P.L. (2012), “The European Sovereign Debt Crisis”, *The Journal of Economic Perspectives* 26(3): 49-67.

Lengwiler, Y. and A. Orphanides (2023), “Collateral framework: liquidity premia and multiple equilibria”, *Journal of Money, Credit and Banking*, forthcoming.

Marimon, R. and T. Cooley (2022), *The EMU after the euro crisis: Lessons and possibilities. Findings and proposals from the Horizon 2020 ADEMU project*, CEPR Press.

Martin, P., Pisani-Ferry, J. and X. Ragot (2021), "Reforming the European Fiscal Framework", Les notes du conseil d’analyse économique No. 63.

Micossi, S. (2023), “The ECB independence is under threat”, Policy Brief, IEP Bocconi, November.

Morris, S. and H.S. Shin (2006), “Catalytic finance: When does it work?”, *Journal of International Economics* 70(1): 161-177.

Padoa-Schioppa, T. (1987), *Efficiency, Stability and Equity: A strategy for the evolution of the economic system of the European Community. A report*, Oxford University Press.

Panetta, F. (2023), “Investing in tomorrow: Future-proofing fiscal policies and governance in Europe”, opening remarks at the workshop European fiscal policy and governance reform in uncertain times, Frankfurt, 20 September.

Pisani-Ferry, J. and A. Posen, eds. (2009), *The Euro at Ten: the Next Global Currency?*, PIIE-Bruegel, June.

Portes, R. and H. Rey (1998), “The emergence of the euro as an international currency”, *Economic Policy* 13(26): 306–343.

CEPR

Posen, A. (2005), *The euro at five: ready for a global role?*, PIIE Special Report 18, April.

Rawls, J. (1999), *The law of people*, Harvard University Press.

Reichlin, L. (2014), "Monetary Policy and Banks in the Euro Area: The Tale of Two Crises", *Journal of Macroeconomics* 39, Part B.

Rogoff, K. (1985), "The Optimal Degree of Commitment to an Intermediate Target", *Quarterly Journal of Economics* 100: 1169-90.

Sandbu, M. (2015), *Europe's Orphan: The future of the euro and the politics of debt*, Princeton University Press.

Sapir, A., Aghion, P., Bertola, G., Hellwig, M., Pisani-Ferry, J., Rosati, D., Vinals, J., and H. Wallace (2004), *An agenda for a growing Europe. Making the EU economic system deliver*, Oxford University Press.

Sargent, T. and N. Wallace (1981), "Some unpleasant monetary arithmetic", *Federal Reserve Bank of Minneapolis Quarterly Review* 5(3): 1-17.

Schnabel, I. (2022), "United in diversity – Challenges for monetary policy in a currency union", speech to the graduates of the Master Program in Money, Banking, Finance and Insurance of the Panthéon-Sorbonne University, Paris, 14 June.

Summers, L.H. (2008), "Why America must have a fiscal stimulus", *Financial Times*, 5 January.

Tabellini, G. (2017), "Which fiscal union?", IGIER, May (earlier version published in R. Baldwin and F. Giavazzi (eds) (2016), *How to fix the Eurozone*, CEPR Press).

Tooze, A. (2018), *Crashed: How a decade of financial crises changed the world*, Penguin.

Truchlewski, Z., Schelkle, W., and J. Ganderson (2021), "Buying time for democracies? European Union emergency politics in the time of Covid-19", *West European Politics* 44(5-6): 1353-1375.

Werner, P. (1970), *Report to the Council and the Commission on the realization by stages of economic and monetary union in the Community*, Luxembourg, 8 October.

Villeroy de Galhau, F. (2023), "Governance of public expenditure and public services: is there any hope left?", speech at the Conference at the Académie de sciences morale et politiques, 19 June.

Wozniakowski, T. (2022), *Fiscal Unions: Economic integration in Europe and the United States*, Oxford University Press.

CEPR

ABOUT THE AUTHORS

Marco Buti holds the Tommaso Padoa-Schioppa Chair of Economic and Monetary Integration at the European University Institute. Until May 2023, he was Head of Cabinet of Commissioner Paolo Gentiloni who is responsible in the European Commission for economic affairs and taxation. From December 2008 until November 2019, he was Director General for Economic and Financial Affairs at the European Commission. He was educated at the Universities of Florence and Oxford. Since 1987, when he joined the European Commission, he held various positions including that of economic advisor to the Commission President. He has been visiting professor at the Universitè Libre de Bruxelles, the University of Florence and at the European University Institute. He has published extensively on EMU, macroeconomic policies, structural reforms, welfare state, and unemployment.

Giancarlo Corsetti (Ph.D. Yale, 1992) is Pierre Werner Chair and joint Professor, Department of Economics and Robert Schuman Centre for Advanced Studies of the European University Institute. He is affiliated with the CEPR, the ESRC Centre for Macroeconomics, the Cambridge Janeway Institute, and the United Nations High-level Advisory Board on Economic and Social Affairs. He is an Academic Adviser at the Bank of England and the European Central Bank. He is a leading scholar in international economics and open macro with pioneering contributions on currency, financial and sovereign crises, monetary and fiscal policy in open economy, and the international transmission and global imbalances, published in top academic journals. He served as co-editor of the *Journal of International Economics* between 2005 and 2016. In 2015 he gave the Schumpeter Lecture at the Meetings of the European Economic Association in Manheim. In 2020, he was elected fellow of the British Academy.