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Happy Birthday? The Euro at 20

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Berlin, February 2019

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Abstract

We analyse the first twenty years of the euro both from an economic and an institutional perspective. We find that in particular during the period since the financial crisis, convergence as measured by a variety of indicators has not improved. Design flaws in the Eurozone institutional architecture have contributed importantly to this lack of convergence. This is why further reforms are urgently needed.

List of Abbreviations

BRRD	Bank Recovery and Resolution Directive
DSM	Debt Sustainability Monitoring
ECB	European Central Bank
ECJ	European Court of Justice
EIOPA	European Insurance and Occupational Pensions Authority
ELA	Emergency Liquidity Assistance
EMU	European Monetary Union
ESCB	European System of Central Banks
ESM	European Stability Mechanism
ESMA	European Securities and Market Authorities
FDI	Foreign Direct Investments
GDP	Gross Domestic Product
GFC	Global Financial Crisis
HICP	Harmonized Index of Consumer Prices
IGA	Intergovernmental Agreement
LOLR	Lender of Last Resort
MIP	Macroeconomic Imbalance Procedure
NEER	Nominal Effective Exchange Rate
OMT	Outright Monetary Transactions
SRF	Single Resolution Fund
SSM	Single Supervisory Mechanism
TFEU	Treaty on the Functioning of the European Union
US	United States

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Executive Summary

- With the introduction of the new currency, the euro was established next to the US Dollar as the second most important currency on international capital markets and the nominal value of the euro remained stable over the last 20 years.
- Business cycles and inflation dynamics for the core countries of the eurozone have converged and financial market integration further increased after the introduction of the common currency.
- Especially after the financial crisis, the differences in inflation dynamics and business cycles between core and periphery countries became more pronounced and financial market structures remain dispersed across eurozone member countries.
- Already at the start of the euro the fiscal space across member states differed strongly. The divergence of business cycles and the asymmetric impact of the GFC led to a further increase in these differences.
- While some of the economic and financial developments in the euro area are very encouraging; others point the weaknesses in the institutional setup, which turned out to be incomplete. It did not acknowledge a whole host of potential risks, i.e. financial stability risks, the build-up of macroeconomic imbalances and a potential loss of market access by member states.
- The original Maastricht framework is no longer alive. The institutional architecture has changed considerably over the last twenty years in four main areas, i.e. fiscal and economic policy, financial policies and crisis management. But we do not yet have a new comprehensive narrative for the post-Maastricht world that would logically tie together the steps taken in recent years.
- The status quo remains far from perfect. The crisis let the spectre of a euro exit emerge – and we have not yet been able to fully make it disappear again. Member states have not settled the question whether they are willing once and for all to forego exit as a policy option and to solve all problems within the family. Until this is the case, the euro is at risk. To make the eurozone fit for the next 20 years, we have to continue with institutional reforms.
- The reform package adopted by the Euro Summit in December 2018 is clearly not enough. It contains some steps in the right direction, but fails to respond to the main underlying challenges because many of the main elements largely consist in window-dressing.

1 Introduction

The euro has turned 20. It is thus time to take stock and assess how the euro itself has functioned as well as how it has contributed to economic and financial developments in Europe and in the euro area. By and large, the euro is a success story that has delivered on its promises. Yet also critics have emerged who feel that their prejudices before the introduction of the euro have been confirmed. More worrisome is the observation that the rising nationalism in many parts of Europe means that many are abusing European institutions and in particular the euro as scapegoats for national political and policy mistakes. What is needed therefore is an honest and open debate on what the euro has accomplished and what reforms are needed to complete monetary union in order to tap the full potential of the euro.

The euro has contributed in making integration and peace in Europe irreversible, as the euro's founders had intended. The euro enjoys broad and – after difficult years during the European crisis – an increasing support from its citizens. A majority of Europeans cannot imagine a Europe without the euro as the common currency and see the euro as a symbol of European unity.

The euro also has been an economic success and has contributed to welfare and stability in its member states. Yet it is also important to look at the institutional shortcomings and the need to reform economic and monetary union (EMU) in the coming years. One essential shortcoming is that the euro was introduced without the aid of many important institutional features, such as a common or at least better coordinated fiscal policy across member states, such as a banking union and a capital market union, and such as safeguards and stabilisation mechanisms that could help countries in crisis. This has led to an imbalance across institutions and policies in the euro area, with a high burden on the European Central Bank to stabilise the euro area during the crisis without the needed support from other policy areas.

This paper offers a systematic assessment of the achievements of the euro as the common currency. Specifically, it assesses to what extent the euro has been accompanied by and contributed to the convergence of member states along a number of dimensions, in particular economic growth, the business cycle and inflation. The paper analyses the role of fiscal policy and risk-sharing as well as the international role of the euro, which has been essential for member states to reap important benefits from the common currency, such as through facilitated trade, lower borrowing costs and enhanced stability. Finally, the paper discusses the institutional features of EMU and what needs to be done to complete the euro.

2 The first 20 Years of EMU – An Assessment

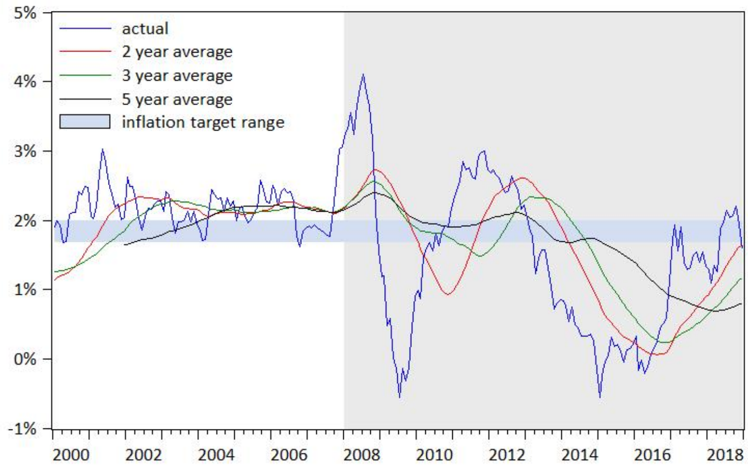
In this chapter, we provide an overview about the status of the EMU. How well did EMU perform with respect to price stability, inflation and business cycle convergence, fiscal sustainability, and – last but not least – the development and integration of financial markets?

2.1 Price stability and inflation convergence

Maintaining price stability in the euro area is the mandate of the European Central Bank (ECB). The ECB's monetary policy strategy defines price stability in terms of year-on-year aggregated EMU Harmonized Index of Consumer Prices (HICP) growth that is to be maintained at below, but close to, two percent over the medium term (ECB, 2019). From the beginning of the EMU through 2008, the ECB was quite successful in achieving its inflation target. The actual EMU inflation rate and its two- to five-year average fluctuated narrowly – albeit slightly above – the two percent target (see Figure 1). Since the outbreak of the Global Financial Crisis (GFC), the ECB has had trouble achieving its inflation target. Inflation dynamics changed substantially, with consumer price growth shown to be less stable, experiencing larger and more persistent swings. Thereby, headline inflation dynamics were mainly driven by the large fluctuations of external factors, like global demand in the course of the global financial crisis, and mainly by domestic factors, like unemployment from 2011 to 2016 (Bobeica and Jarocinski, 2017; Dany-Knedlik and Holtemöller, 2017).

Despite the implementation of a variety of unconventional monetary policy measures to counteract disinflationary pressures, actual and average inflation continuously declined in the period following the outbreak of the sovereign debt crisis. As a result, consumer price growth significantly deviated between 2011 and 2016 from the ECBs inflation target (see Figure 1). Although this decline coincided with a decrease of oil prices, recent empirical research emphasizes that the fall in oil prices explains the period of low inflation to a very limited extent (Bobeica and Jarocinski, 2017; Dany-Knedlik and Holtemöller, 2017; Nautz et al., 2017; Riggi and Venditti; 2015). The studies find that it is mainly domestic factors, particularly the slow recovery of economic activity and employment as well as a possible de-anchoring of inflation expectations to the ECB inflation target, that contributed to the low inflation rate in the aftermath of the sovereign debt crisis. Both factors imply that during the period of low inflation, monetary policy measures might not have exerted enough upward price pressure.

Figure 1: Actual and averaged HICP inflation rates (year-on-year)

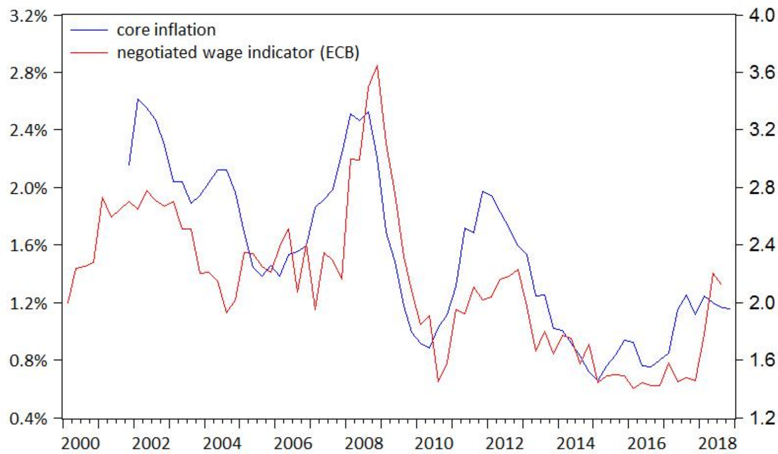


Source: Eurostat, own calculations.

Despite the implementation of a variety of unconventional monetary policy measures to counteract disinflationary pressures, actual and average inflation continuously declined in the period following the outbreak of the sovereign debt crisis. As a result, consumer price growth significantly deviated between 2011 and 2016 from the ECBs inflation target (see Figure 1). Although this decline coincided with a decrease of oil prices, recent empirical research emphasizes that the fall in oil prices explains the period of low inflation to a very limited extent (Bobeica and Jarocinski, 2017; Dany-Knedlik and Holtemöller, 2017; Nautz et al., 2017; Riggi and Venditti; 2015). The studies find that it is mainly domestic factors, particularly the slow recovery of economic activity and employment as well as a possible de-anchoring of inflation expectations to the ECB inflation target, that contributed to the low inflation rate in the aftermath of the sovereign debt crisis. Both factors imply that during the period of low inflation, monetary policy measures might not have exerted enough upward price pressure.

Since 2017 inflation rates returned to levels close to two percent. However, this development is mainly driven by a rise in oil prices. As energy and food prices are particularly volatile components of the aggregate HICP, the recent rise of the overall HICP inflation rate does not necessarily imply that consumer price growth has stabilized around the target. Looking just at the core inflation rate, which excludes the volatile components, reveals that the development of consumer price growth – other than energy and food prices – is still subdue. One reason why the core inflation rate has not reached pre-crisis levels might be that wages and salaries have grown at a modest pace until recently, despite continuously tighter labour market conditions (Figure 2).

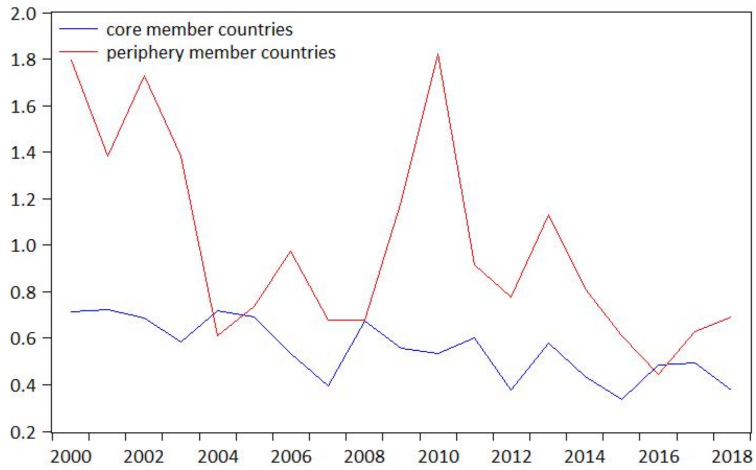
Figure 2: Core inflation and negotiated wage indicator



Source: Eurostat, ECB Statistical Data Warehouse, own calculations

Homogenous inflation rates across member states of a currency union like the euro area are essential to minimize potential welfare losses due to a common monetary policy. Since the introduction of the euro, the EMU has seen further inflation rate convergence (see figure 3). This is particularly valid for core countries, namely Austria, Belgium, Finland, France, Germany, Luxembourg and the Netherlands, where business cycle synchronization has been experienced. For the periphery countries, including Ireland, Italy, Greece, Portugal and Spain, the standard deviation to the EMU aggregate inflation rate was high in the first years after the introduction of the euro and throughout the double dip recession. The high level of inflation differentials can be related to an increase of unit labour costs and a rise of current account imbalances in the periphery countries, due to the misallocation of capital across the EMU that led to persistent real exchange rate misalignments (Coudert et al., 2013, and references therein). Together with some adjustment of cyclical macroeconomic imbalances, inflation rates of the periphery countries converged again thereafter.

Figure 3: Standard deviation from EMU aggregate inflation rate (in p.p.)



Source: Eurostat, own calculations

In summary, EMU countries have shown convergence of inflation rates over the past 20 years, which facilitates a common monetary policy. Before the GFC, the ECB was very successful at maintaining price stability. However, due to largely extraordinary international conditions, monetary policy has not been able to meet the target range for the inflation rate since the financial crisis despite the additional implementation of unconventional monetary policy tools. Recent movements of inflation back to target levels cannot yet be regarded as sustainable.

2.2 Business cycle convergence

In this section we turn to question whether the introduction of the Euro has further fostered European integration by synchronizing the business cycles of EMU member states. Business cycles are defined as deviations of output from its long-term trend. The question of business cycle synchronization is of special importance for the conduct of monetary policy in a monetary union. Monetary policy is one tool to reduce the business cycle fluctuations around the long-term trend. A synchronized business cycle across the member states allows the monetary authority to stabilize business cycles efficiently within the EMU. If business cycles of member states differ substantially, the consequence is that monetary policy is relatively loose for some member countries and relatively tight for others. If not corrected, this leads to divergence instead of convergence. The prominent role of business cycle convergence in the EMU has is analysed in the 2018 report "Convergence in the EMU: what and how" by Dolls et al. (2018). Therefore, we only provide an overview and a discussion of the literature in this briefing report.

The literature analysing the business cycle in the Euro Area agrees that there are distinct convergence groups within the euro area. The first group consists of some periphery countries, i.e. Portugal, Greece, and Spain. The second group comprises the remaining countries, i.e. the core area countries. Studies finding convergence of the business cycles for the core area countries include Carvalho et al. (2005), Belke et al. (2017), Ferroni and Klaus (2015) and Borsi and Metiu (2015). In particular, Carvalho et al. (2005) even find different growth trends for each group. When looking at the cyclical movements, coherence among the core countries is high, while they observe less coherence among the periphery group. This finding is corroborated by Belke et al. (2017), who examine the business cycle synchronization in the EMU but set a special focus on the difference between the core and periphery countries after the GFC. Overall, they show that the co-movement of output between core and peripheral countries decreased markedly in the wake of the financial crisis. Additionally, they find that core countries experienced an increase in their synchronization in the aftermath of the GFC. In contrast, at the same time the synchronization of peripheral countries among themselves decreased. Ferroni and Klaus (2015) as well as Borsi and Metiu (2015) confirm the results in their studies, which consider different set countries. A policy report by Dolls et al. (2018) illustrates the convergence of the business cycles for the different groups of countries, thus supporting the findings of the scientific studies.

An open debate remains the question whether the convergence of the business cycles within the two groups of countries can be attributed to the introduction of the Euro. After all, the common experience of World War II, the strong episodes of growth in the following two decades, and the oil crises in the 1970's led to the insight that the European economies are strongly linked and further economic integration can be beneficial. Studies by Canova et al.

(2008), Giannone et al. (2008) and Camacho et al. (2006) take up this argument and reject a causal relationship between the introduction of the euro and business cycle synchronization. For instance, Canova et al. (2008) examine the effect of the Maastricht Treaty and the creation of the ECB on the dynamics of the European business cycles. Although they find a clear convergence of the EMU countries' business cycles in the 1990s, this cannot be explained through these two events, but rather from a general European convergence and synchronization process. Similar results are obtained by Giannone et al. (2008) and Camacho et al. (2006), detecting no significant difference in the business cycle synchronization of euro area countries before and after the introduction of the EMU.

On the other hand, newer studies provide evidence showing that the EMU indeed impacted business cycle synchronization. Lee and Mercurelli (2014) provide evidence showing how the adoption of the euro accelerated the convergence process for France, Germany, and Italy, despite the 2007 global financial crisis. Schiavo (2008), examining the role of financial integration on business cycle synchronization, shows that monetary integration enhanced the capital market integration of euro area countries, which results in closer business cycle synchronization. Crespo-Cuaresma and Fernández-Amador (2013) show that the synchronization of fiscal policy initiated by the implementation of the Maastricht Treaty led to stronger business cycle convergence.

In summary, business cycle convergence is important for the optimal conduct of monetary policy. While the core countries of the EMU experience synchronization of the business cycle, countries at the periphery are not part of this convergence. Whether or not the business cycle convergence of the core countries is due to the introduction of the Euro and the corresponding treaties is not answered conclusively.

2.3 Fiscal policy as a stabilization mechanism

In this section, we investigate the fiscal performance of EMU member states over the past 20 years and assess the potential of national fiscal policy as a stabilizing tool in case of asymmetric shocks hitting EMU member states. Membership in a monetary union, such as the EMU, entails a loss of autonomy over domestic monetary policy and of exchange rate flexibility. Therefore, a counter cyclical fiscal policy is the only instrument left that - next to a high degree of factor and labour mobility amongst member states - could potentially dampen country specific shocks to facilitate a single monetary policy and to avoid business cycle divergences among member states. The idea is that countries exercise a fiscal stimulus in recessions and a fiscal contraction in booms.[1]

The most important precondition that needs to be fulfilled to be able to use fiscal policy as a stabilization tool is that governments have enough fiscal space to counteract economic contraction in a crisis, i.e. though an increase government spending.[2] When financial markets start casting doubt about an individual country's fiscal sustainability, the risk is high that these countries will lose access to financial markets and that risk premia on government bonds rise, which could end up in a market driven spiral into debt unsustainability. Moreover, Nickel and Tudyka (2014) show that the effectiveness of fiscal stimulus may be impaired when debt is already high. Thus, fiscal space can be defined as the room for undertaking discretionary fiscal policy without endangering market access and debt sustainability.

During the GFC and the sovereign debt crisis in the euro area, the banking sector in several EMU countries struggled with either liquidity or solvency problems. Governments had to intervene, supporting their banks with various measures like e.g. capital injections, the acquisition of financial assets, and state guarantees. The financial support measures had significant fiscal effects. Figure 4 shows the debt-to-GDP ratio of the current 19 EMU member states. According a study by the ECB (2018), for eight EMU member states, the debt-to-GDP ratio increased between 2008 and 2015 by more than 10% due to financial sector support measures. In Ireland, these measures increased the debt-to-GDP ratio by almost 50%-points, in Greece and Cyprus by more than 20%-points. At the end of 2018, the debt ratio of 11 out of the 19 countries exceeds the debt limit of 60 percent, which was set by the Stability and Growth pact.

However, the debt-to-GDP ratio does not necessarily measure fiscal space. Fiscal space is determined by multiple factors, such as e.g. the availability of favourable financing conditions,

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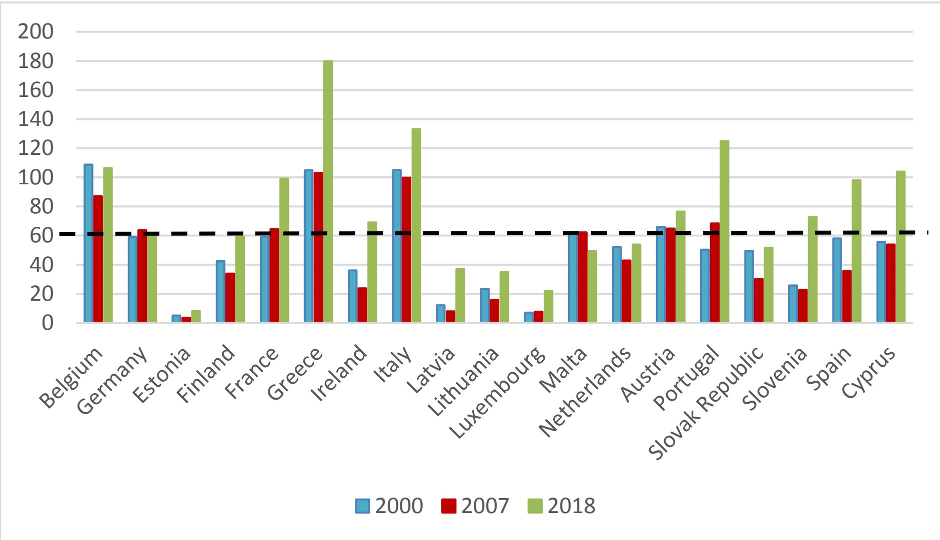
[1] There is a broad literature showing that fiscal stimulus can be valuable in a recession. For instance. Auerbach and Gorodnichenko (2017) provided empirical evidence that a debt-financed fiscal expansion in a crisis can sufficiently stimulate GDP to lead to a lower debt-to-GDP ratio.

[2] Another precondition to implement a *discretionary* fiscal policy next to automatic fiscal stabilizers is that policymakers have to have reliable information on a country's cyclical stance in real-time at hand. In view of substantive time lags and data revisions in the publication of official national account statistics, this condition is rather challenging (see Bernoth et al. (2015) for a more detailed discussion).

the trajectory of public financing needs, market perceptions, and interest-growth differentials. Moreover, as argued by the IMF (2018), one also needs to take into account the dynamic impact that discretionary fiscal policy could have on financing availability and debt sustainability. Therefore, to measure fiscal space, one needs to adopt a rather forward-looking and dynamic concept. Since starting a pilot project to assess fiscal space in a large sample of countries, the IMF (2018) finds that "despite elevated levels of public debt, most countries had at least some space. This reflected generally low financing needs, extended debt maturities, a greater share of local currency borrowing, and favourable interest rate-growth differentials" (p. 5). However, for the five euro area countries contained in their sample, they claim that only Germany and the Netherlands have substantial fiscal space. For France, Italy, and Spain they see the ability to use discretionary fiscal policy as constrained.

Figure 4: Debt to GDP ratio



Source: Bloomberg and own calculations.

The latest edition of the Debt Sustainability Monitor (DSM 2017) of the EU Commission evaluates the sustainability challenges faced by EMU member states.[3] This framework combines results on debt sustainability analysis and a broad set of fiscal sustainability indicators, which allows gaining a consistent overview of fiscal sustainability challenges across different time horizons. Relying on 2017 data, the DSM concludes that no EMU member country appears to

[3] For more detail see https://ec.europa.eu/info/sites/info/files/economy-finance/ip071_en.pdf.

be at risk of fiscal stress in the short-term. However, in the medium-term, which is the relevant time horizon to focus on when assessing the potential for fiscal stabilization, the picture is different. As shown in Table 1, seven out of 19 EMU countries show high fiscal sustainability risk in the medium-term. These identified high-risk countries broadly conform to the sample of EMU members, whose current debt-to-GDP level exceeds the Treaty's debt limit of 60 percent shown in Figure 1. In four additional countries, namely Lithuania, Austria, Slovenia and Cyprus, medium-term fiscal sustainability risks are ranked as medium.

Table 1: Medium-term Fiscal Risk in 2017

High	Belgium, Finland, France, Greece, Italy, Portugal, Spain
Medium	Lithuania, Austria, Slovenia, Cyprus
Low	Germany, Estonia, Ireland, Latvia, Luxembourg, Malta, Netherlands, Slovak Republic

Source: EU Commission, Debt Sustainability Monitor (DSM 2017).

We can summarize, that several indicators suggest that a substantial number of EMU member states have constrained possibilities to use discretionary fiscal policy as a cyclical stabilization instrument. This means that a further aggravation of business cycle convergence would be the consequence and that the highly indebted countries have especially limited capacities to react to future crises. This hinders a single monetary policy and poses a threat for financial stability.

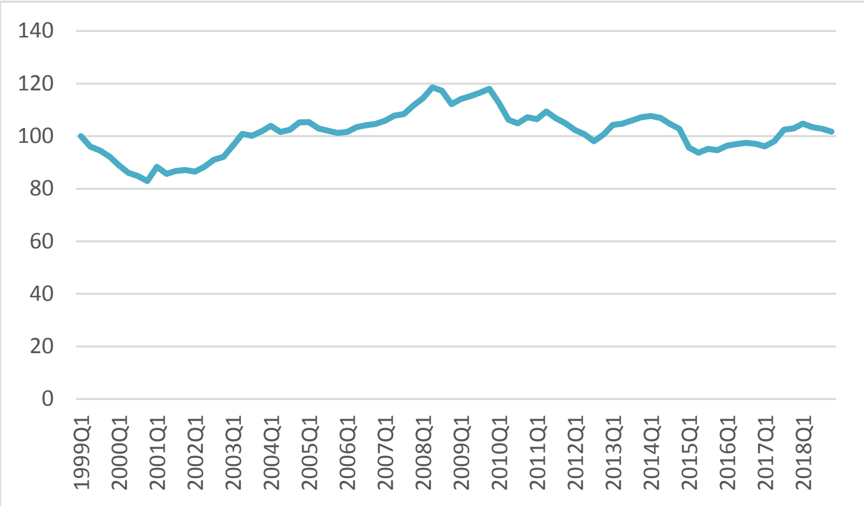
2.4 The euro as an international currency

It is important not to confuse the terms `crisis in the euro area' and `euro crisis'. Despite the numerous problems that the current crises reveal, the euro itself has crystallized as a stable currency that has gained worldwide acceptance on international capital markets. Figure 5 shows the nominal effective exchange rate (NEER) of the euro against the currencies of the euro area's 12 most important trading partners.[4] The value of the euro proofed to be relatively stable. In the first year after the introduction of the euro, the European currency depreciated by about 20 percent. In the following ten years, however, the euro gained competitiveness

[4] These are Austria, Canada, Denmark, Hong-Kong, Japan, Norway, Singapore, Korea, Sweden, Switzerland, the United Kingdom, and the United States. This group of countries account for roughly 60 percent of total euro area manufacturing trade in 1999-2001.

and appreciated by about 40 percent. This appreciation process has stopped with the outbreak of the global financial crisis and the crisis in the Eurozone beginning 2008. It followed two years of depreciation of around 20 percent, but since 2012, the value of the euro has been relatively stable and hoovers around the NEER measured at the start of EMU.

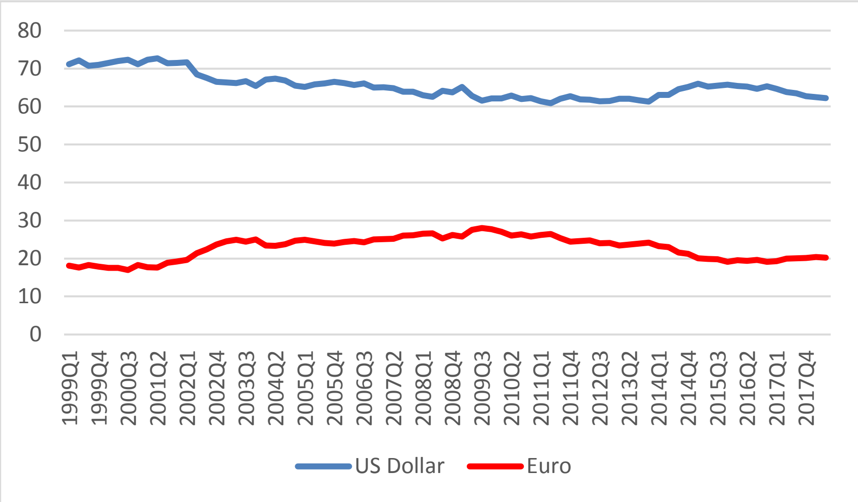
Figure 5: Nominal effective exchange rate of the euro



Source: European Central Bank.

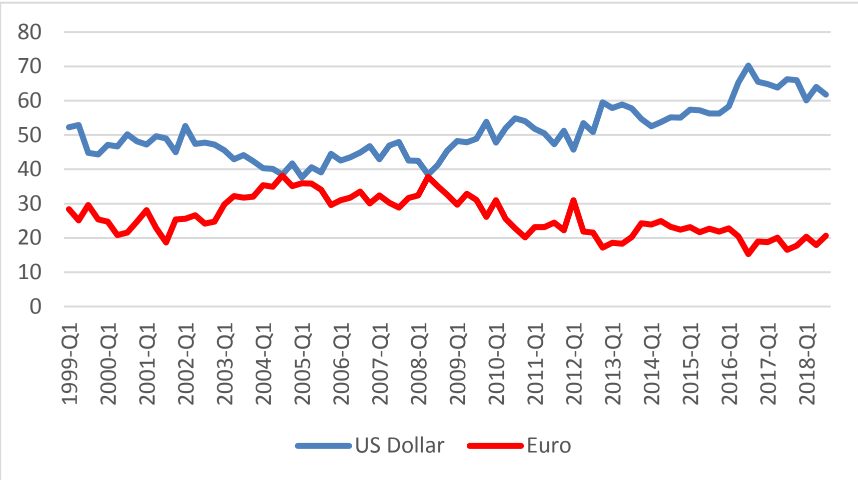
Following its introduction, the euro rapidly became the second most important currency on international capital markets following the US Dollar. Together, these two currencies account for around 80 percent of foreign currency reserves as well foreign currency denominated debt issuance. Despite the crisis in the euro area, the share of the euro in global holdings of foreign exchange reserves was relatively stable over the past 20 years, hovering between 20 and 30 percent (Figure 6). The US Dollar's share, in comparison, accounts for about 60 to 70 percent. The share of the euro in the gross issuance of foreign denominated debt securities showed much more variation over time. In the first years of EMU, the euro increased its acceptance on international capital markets and its share increased at expense of the US Dollar share, rising from about 30 percent in 1999 to 40 percent in 2008 (Figure 7). With the outbreak of the global financial crisis, the spirit of success of the euro came to a stop and the US Dollar again regained its dominant role in international debt markets. Since the peak of 2008, the share of the euro has declined by about twenty percentage points, while that of the US dollar has increased by about 20 percentage points.

Figure 6: Share of official foreign reserves (in %)



Source: International Monetary Fund.

Figure 7: Share of gross issuance of int. debt securities (in %)



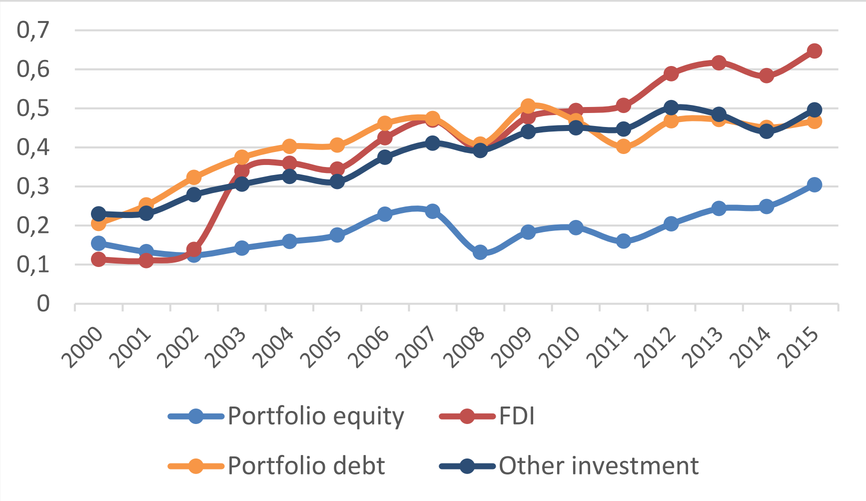
Source: Bank of International Settlement and own calculations.

Despite this latest decline, we can summarize that the euro is the second-most important currency after the US Dollar in international capital markets, whether in the private or in the official domain. All other currencies cover only minimal shares in international capital markets. This should be viewed as a big success of the EMU and the euro itself.

2.5 Integration and development of financial markets

Highly integrated financial markets are favourable in a currency union, as the free movement of capital across borders facilitates consumption smoothing and income insurance in case of local shocks (e.g. Sørensen et al. 1998).[5] Moreover, better integrated and deeper financial markets contribute to the welfare gains of a monetary union in terms of the growth benefits of financial development (Levine 2005). Therefore, in this section, we analyse the progress of financial integration and development within EMU.

Figure 8: Intra-euro area external assets (relative to GDP)



Source: External Wealth of Nations Database by Lane & Milesi-Ferretti (2018), own illustration.

With the introduction of the euro, transaction costs of investing abroad declined. Consequently, cross-border capital flows significantly increased.[6] The literature documents positive effects of the introduction of the euro on financial integration both in the banking sector (Blank and Buch 2007, Kalemli-Ozcan et al. 2010) and in equity and bond markets (Coeurdacier and Martin 2009). Figure 8 plots the evolution of external asset holdings within the euro area; that is, external assets held by euro area countries that are issued by other euro area countries.[7] It confirms that financial integration between the euro area countries has significantly increased since the beginning of the 2000s. Given the dominant role of banking in the European financial system as reflected by a high bank-to-market ratio (Langfield and Pagano 2016), the increase in cross-border portfolio debt positions and other investments (including bank loans) was particularly pronounced until the onset of the GFC. However, since then, euro area

[5] For a short survey on capital market integration and international risk sharing, see Bremus and Stelten (2017).

[6] For a review of the related literature, see for example Lane (2009).

[7] Following Lane and Milesi-Ferretti (2017), intra-euro area asset holdings are computed as the difference between the sum of external assets of the individual euro area countries (i.e. including both external assets issued by euro area countries and the rest of the world) and the external asset holdings of the euro area as a whole (i.e. all external assets issued outside of the euro area).

banks have significantly reduced their cross-border activities, such that financial integration has come to a halt in this financial market segment in subsequent years (ECB 2015). In contrast, foreign direct investment (FDI) and portfolio equity investments show a continued upward trend, even in the post-crisis period.[8]

Starting from the observation that financial markets have become more closely connected since the introduction of the euro, how has financial development evolved in the euro area countries? Regarding the size of financial markets relative to GDP – an indicator for financial market depth – Figure 9 reveals considerable heterogeneity across the EA-12 countries.[9] While the capitalization of domestic debt and equity markets was less than 50 percent of GDP in Greece in 2016, Irish market capitalization stood at more than twice its GDP at that time. Having a look at the evolution of market capitalisation across time, it appears that the size of capital markets (relative to GDP) fell in one half of the considered countries and increased in the other between 2000 and 2016. While equity market size converged over this period, as measured by the variance in equity market size across countries in 2000 versus 2016, debt market size diverged. When taking also domestic banking sector assets into account (not reported), the data reveal that, since the GFC, the euro area banking sector has lost importance, so that overall financial market size (relative to GDP) has broadly declined since 2008/09 across the member countries considered here.

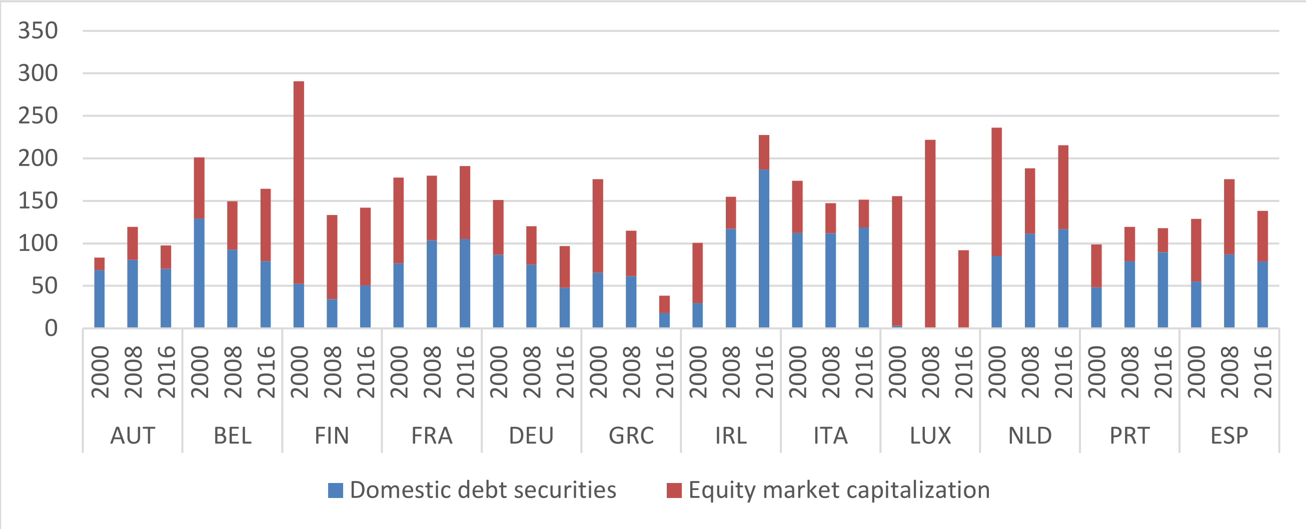
Apart from market size, the development of financial markets relates to further aspects. In order to summarize the multidimensional nature of financial market development, Svirydzenka (2016) provides a set of indices that capture the depth, efficiency, as well as access to financial markets and institutions (banks, insurances, mutual and pension funds).[10] Figures 10 and 11 plot average values of the different indicators for the period 1990 to 1999 against average values for the period 2000 to 2016. In general, euro area financial markets tend to be less developed than financial institutions, as illustrated by the Financial Markets and Financial Institutions Index.

[8] For further details on the evolution of FDI, see Lane and Milesi-Ferretti (2018).

[9] We focus on the 12 countries that have been members of the euro area since the beginning of the 2000s due to data availability and in order to show evolutions over time.

[10] For detailed information on how the indexes are constructed based on different data sources, see Svirydzenka (2016), Table 1.

Figure 9: Capital market size (percent of GDP)



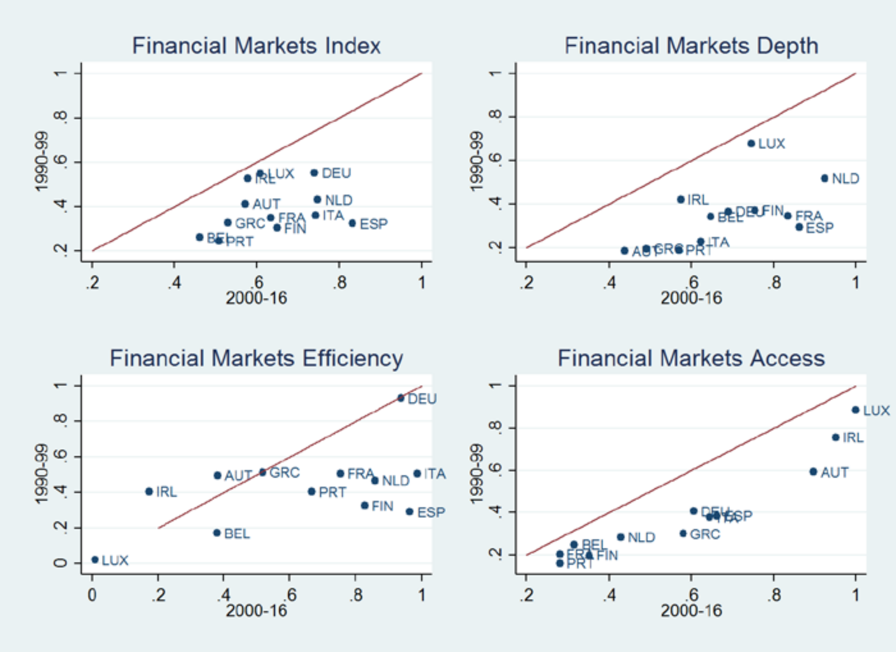
Source: International Financial Statistics, Global Financial Development Database, own calculations.

Since the introduction of the euro, financial market development has increased – mostly driven by a significant deepening of and better access to financial markets (Figure 10). Regarding the efficiency of financial markets, measured by the stock market turnover ratio, the results are somewhat mixed. Starting from a higher level to begin with, the depth of and access to financial institutions have also increased in the large majority of the countries (Figure 11). Yet, the development of financial institutions has improved less than that of financial markets since the introduction of the euro. With respect to the convergence of financial development across countries, the range in "depth" and "access" for both financial markets and institutions has increased after the introduction of the euro.

Summing up, while financial integration and development have broadly increased since the introduction of the euro,[11] financial market structures remain dispersed across the members of the currency union and show no clear pattern of convergence.

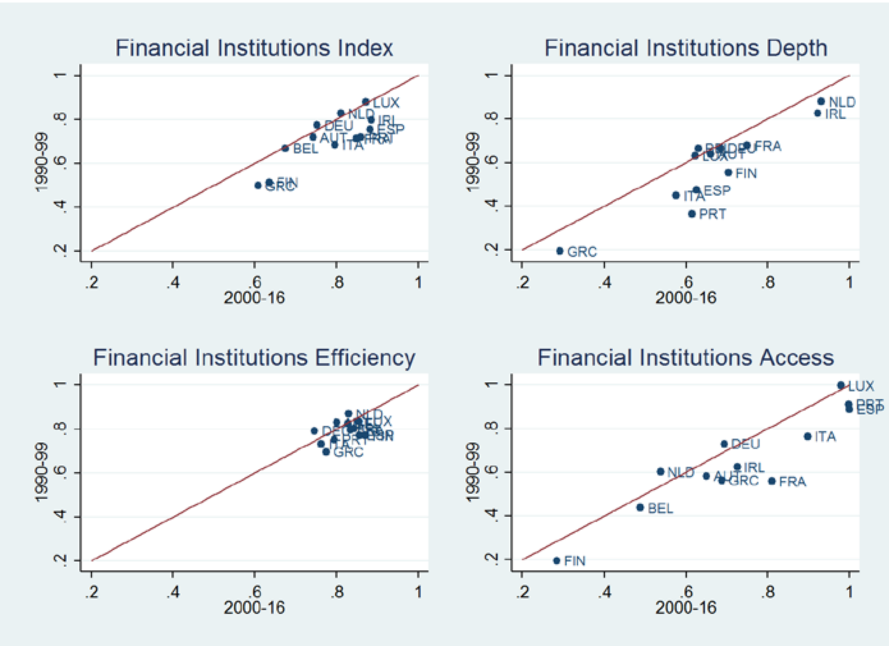
[11] Of course, the improvements in financial integration and development that are illustrated in the Figures shown here are not only attributable to the introduction of the euro, but also to various other factors like efforts at the EU-level to promote a single capital market also outside the euro area.

Figure 10: Financial market development before and after the introduction of the euro



Source: International Monetary Fund, Svirydzenka (2016), own calculations.

Figure 11: Financial institutions development before and after the introduction of the euro



Source: International Monetary Fund, Svirydzenka (2016), own calculations.

2.6 Summary of the economic development in the EMU

Where does the EMU stand at the age of 20? Following the introduction of the common currency, business cycles and inflation dynamics for the core countries of the Eurozone have converged and financial market integration further increased. At the same time, the differences in inflation dynamics and business cycles between core and periphery countries became more pronounced, especially after the GFC. Financial market structures remain dispersed across EMU member countries. Even at the start of the EMU, the fiscal capacities across member states differed strongly. The divergence of business cycles and the asymmetric impact of the GFC led to a further increase in these differences. Consequently, the range for classification of fiscal risk of EMU member countries is between low and high risk. With the introduction of the new currency, the Euro became, following the US Dollar, the second most important currency on international capital markets. The nominal value of the Euro has remained stable over the last 20 years. Furthermore, the ECB was able to fulfil its mandate of price stability up to the GFC. Following the GFC and in light of the deep and prolonged economic crisis, the ECB is struggling to achieve its inflation target.

Some of these economic and financial developments in the euro area are very encouraging; others highlight the weaknesses in the institutional setup, which turned out to be incomplete. The crisis in the Eurozone has painfully demonstrated that maintaining price stability does not also guarantee financial stability. No attention was given to potentially disastrous spillovers throughout the euro area of a banking system collapsing in one or several member states. Thus, banking regulation, supervision, and resolution remained national. In a currency union with free movement of capital, this was an invitation to engage in supervisory competition and regulatory arbitrage. The credit crunch and the retrenchment of European banks from their cross-border business in the realm of the GFC have highlighted the importance of alternative, non-bank, financing sources for firms, as well as the limited role of European capital markets in international risk sharing. Moreover, the Eurozone lacks a mechanism to account for asynchronous business cycles and the large fiscal impact of financial sector support measures during the GFC underlines the importance of further reinforcing the institutional framework in the euro area to reduce the tax payers burden of public interventions in case of banking sector stress. Finally, the founders of the euro did not account for the possibility that a country could lose the confidence of markets and, hence, access to funding. In a world where avoiding unsustainable national fiscal policies was the main objective, preparing for such a scenario would have raised moral hazard concerns.

3 The eurozone's institutions at 20

Chapter 2 shows how the Eurozone's economy has fared according to a number of quantitative benchmarks. But how well have its institutions worked? And how should they evolve in the future t0 achieve a stable macroeconomic environment for all its members?

In this chapter, we shed light on three stages of the Eurozone's institutional development: First, we review the Maastricht setup as it was originally intended. Second, we show how this setup has evolved into a new institutional framework during the crisis. Third, we argue that the Eurozone is – institutionally speaking – not in a safe space, neither politically nor economically.

3.1 How it was planned – The main pillars of Maastricht

When the common currency was founded, its institutional architecture was supposed to rest on three fundamental principles:

- A clear division of labour: Monetary policy should be set at the European level while economic policy-making should remain under the responsibility of each member state, but as Article 121 TFEU states, be conducted at as a "matter of common concern".
- Monetary policy should be decided by an independent central bank, the ECB, with a clear price-stability-focused mandate.
- To avoid fiscal dominance and spillovers from one member state to the next, national fiscal policies should be subject to three constraints: First, the stability and growth pact set common rules for the conduct of policy. Second, the monetary financing prohibition was established. Third, the no-bailout clause should make clear to markets that they better take a good look at individual governments before lending to them as they would not be bailed out.

This setup had an internal consistency to it; yet it reduced the acknowledged risks to eurozone stability to only two factors, inflation and irresponsible fiscal policies. However, as mentioned above, it did not acknowledge a whole host of other potential risks, i.e. financial stability risks, the build-up of macroeconomic imbalances, and loss of market access.

In addition to these institutional features, the common currency was also based on two very fundamental assumptions, which initially sounded like truisms, but triggered considerably more debate during the first 20 years than initially foreseen.

- First, the assumption that the Euro was irreversible. Exit was not foreseen as an option and, hence, also neither as a policy tool neither for member states to alleviate adjustment pressures nor for the Union to discipline individual countries. However, exit became a real option twice, in 2012 and in 2015. The ECB referred to "redenomination risk" in justifying some of its policies, thus explicitly reacting to market pressure related to a possible euro-area break-up.
- Second, the assumption that the Euro would not put into question national democratic sovereignty, beyond the limits defined in the Treaty. Indeed, the Eurozone was built on the idea that it could work without major competence shifts on core economic policy matters besides monetary policy proper. However, the discussion about the adjustment programs in both the donor and the recipient countries was only one example of how the rule-based fiscal surveillance framework was transformed into an exercise of whether and how to adapt the sovereign conduct of domestic policies to the requirements of a currency union.

As we argue below, the ultimate status of these two key assumptions still remains fundamentally unclear.

3.2 How it turned out – institutional developments in the last 20 years

The combination of the GFC and then the crisis in the euro area between 2008 and 2015 was the ultimate test of the euro's architecture. Ultimately, if the Euro passed that test quite successfully, then clearly it was not because the crisis response worked as originally intended, but because the euro-area architecture proved to be sufficiently adaptable. What saved the euro during the crisis was not the sophistication of its institutional setup – it was the political resolve of those involved and the insight that a breakup would have disastrous consequences.

The steps taken over the last years have one very important but simple implication: the original Maastricht framework is no longer alive. The institutional architecture has changed over the last twenty years in four main areas:

Fiscal policy: Over the last twenty years, the three constraints on national fiscal policies have morphed from generalized but ambiguous principles into workable arrangements: The monetary financing prohibition is alive and well, but the European Court of Justice (ECJ) has made clear that it does not prevent the ECB from engaging in large-scale sovereign bond purchases as long as it follows certain principles. The fiscal rules have evolved in an interesting fashion: While the 3%-deficit bar has become an important consideration in all national budget debates, the rules and their enforcement have become so detailed and complex in an attempt to account for all possible states of the world that they hardly serve their purpose of inducing sound fiscal policies anymore (see Chapter 2.2). Further, the no-bailout clause has also been clarified by the courts: As long as they attach conditionality to it, member states can provide loan-based financial assistance to their peers when they lose market access.

But the most important insight in eurozone fiscal policymaking in the last 20 years came from a different corner: The crisis demonstrated forcefully that fiscal policy is more than the budget. Indeed, the health of a banking sector and the overall sustainability of the economy are as important to look at as the budget itself – and they can crash budgets in a very short timeframe even when fiscal policy looks very sound at the outset. That is why arguably the most important institutional innovations to protect fiscal policies in the future from getting overwhelmed come from non-fiscal reforms: Banking union and the Macroeconomic Imbalances Procedure (MIP).

Economic policy: As explained above, one important lesson from the crisis was that economic policymaking in its broad sense, as well as the impact of a common monetary policy on convergence and divergence, cannot be overlooked when it comes to the stability of the common currency. Labour market policies and outcomes matter. Price competitiveness matters. Current account (im)balances matter. Private debt matters. Yet all these factors were not even monitored centrally prior to the crisis, let alone dealt with collectively. This is why the introduction of the Macroeconomic Imbalances Procedure and more generally the European Semester have been, at least in theory, such an important step in the right direction. However, the enforcement of these new rules and procedures remains meagre (Efstathiou and Wolff (2018)).

Financial policies: As explained in Box 1, the banking union was the most momentous change in the architecture of the euro area since the start of the common currency. Its promise was twofold: First, it makes sure that taxpayers do not shoulder the burden of financial crises. Second, it breaks the link between sovereigns and their financial sectors. Moving the responsibility for supervision and resolution to the European level was the first real shift of power from capitals to Frankfurt and Brussels since the start of the common currency, effectively ending the Maastricht division of labour described above.

Crisis management: Out of sheer necessity, the Eurozone has developed a fully-fledged crisis management toolbox to deal with the once unthinkable: Member states coming under pressure from markets to an extent that market access is in peril or even lost. The ESM Treaty and the Two-Pack now clearly describe the steps for a country to receive "financial assistance", i.e. loans. In parallel to this technocratic process, a political consensus was forged: Once a country receives financial assistance, it also moves away from the original Maastricht division of labour: fiscal and economic policies of that member state become not only subject to the scrutiny of European institutions, but to the political influence of the country's peers. Thus, in addition to the banking union, crisis management is the second major post-Maastricht innovation: Temporary responsibility sharing in exchange for temporary financial assistance. This arrangement is underpinned by the ECB's Outright Monetary Transaction (OMT) announcement to fight against any disturbance of the monetary transmission mechanism deriving from redenomination risk.

The institutional reforms in these four areas have ensured that we are now thoroughly in a post-Maastricht world. While the adopted reforms have corrected some of the main design flaws of the Euro's original setup, they have not yet led to a new, internally consistent institutional framework that provides a stable equilibrium. It is still unclear, how these reforms fit together with the elements that have survived the first twenty years largely intact – e.g. the ECB, the Single Market – and how they are compatible with each other. Furthermore, important pieces are clearly still missing as we outline below. It therefore remains essential to carry on with the work of making the euro's architecture sustainable at last.

Box 1: The Banking Union: A legal perspective (R. Lastra, Queen Mary University)

The Banking union is the most important development in the EU since the launch of the Euro (See generally Lastra, 2015). While the Draft Statute of the ESCB had included prudential supervision amongst the basic tasks of the ESCB, the opposition of some countries (notably Germany) to such an inclusion meant that the final version of the ESCB Statute and of the Treaty only referred to supervision in a limited way. However, a compromise solution was found with the inclusion of an enabling clause, Article 127(6) TFEU, which left the door open for a possible future expansion of supervisory responsibilities following a simplified procedure (see Lastra, 2000). This clause was the legal basis for the establishment of the SSM, the first pillar of banking union.

The rationale of European supervision is rooted in the confluence of four factors: (1) a flawed institutional EMU design combining a strong monetary pillar with weak economic and supervisory pillars, (2) the 'vicious link' between banking debt and sovereign debt (3) the need for independent supervision (Veron, 2014, pp.18) and adequate conditionality and the (4) the so-called financial 'trilemma' developed by Thygessen (2003) and Schoenmaker (2003), namely that it is difficult to achieve simultaneously a single financial market and financial stability while preserving a high degree of nationally based supervision.

The 'banking union' that the European Commission advocated in September 2012 is based upon three pillars: micro-prudential supervision, single resolution, and deposit protection. The first pillar is now fully operational since the entry into force in 2014 of the SSM Regulation. 'The second pillar of 'single resolution' with a Single Resolution Mechanism (SRM) - which should be aligned with the EU BRRD - and a Single Resolution Fund can be characterised as an evolving pillar or 'work in progress', given the time that will be required to build adequate funding. The SRM Regulation is complemented by an Intergovernmental Agreement (IGA) between Member States that participate in the SSM on the transfer and mutualisation of contributions into the SRF. A fully operational SRF should act as a common financial backstop. However, during the build-up period of this Fund, bridge financing is available from national sources, backed by bank levies, or from the European Stability Mechanism, in accordance with agreed procedures.

In its December 2018 Euro summit statement, EU leaders agreed to endorse the reform of the ESM reform and asked the Eurogroup to prepare the necessary amendments to the ESM Treaty (including the common backstop to the Single Resolution Fund) by June 2019. The third pillar, a European Deposit Insurance Scheme remains at the level of proposals, with no concrete commitment for making it a reality any time soon, despite common deposit protection being a fundamental part of the banking union, since in order to prevent a flight of deposits from troubled countries to countries perceived to be 'safe', one needs to convince ordinary citizens that a Euro in a bank account in one Euro area Member State is the worth the same and is as secure as a Euro in a bank account in another Euro area Member State.

A 'broader' banking union should encompass all these elements plus a clear lender of last resort role for the ECB (the 'missing pillar') and a fiscal backstop outside the ECB (Russo and Lastra, 2018). Indeed, notwithstanding the major achievement of banking union, a number of challenges remains, from (1) incomplete pillars to (2) missing pillar/s to (3) issues of jurisdictional design and coordination and, of course, (4) the fundamental cornerstone of accountability.

Coordination amongst numerous authorities and entities can both frustrate accountability and render crisis management ineffective. The creation of the SSM and the SRM coexists with the architecture for competition and state aid in the single market (EU/EEA). The European Commission (Directorate-General for Competition) remains in charge of watching over the compliance of State aid with EU rules. The banking union, as the name indicates, centralizes banking policy, but responsibility for other sectors of the financial system (securities, insurance) remains decentralized, albeit subject to increasing 'federalisation' through ESMA (which deals with many conduct of business type of rules that are not part of the remit of the SSM/ECB) and EIOPA. The coordination with the ESM - which provides a limited fiscal backstop in the case of banking crises - must be further clarified as resolution policy evolves and the needs for assistance could potentially increase significantly.

The missing pillar of banking union is the lender of last resort role (LOLR) or Emergency Liquidity Assistance (ELA) of the ECB. It is worth recalling that ELA/LOLR comes in two forms. The 1st is market liquidity assistance typically in the form of Open Market Operations, which is, according the ruling of the ECJ in the *Gauweiler* case (see Case C-62/14 Peter Gauweiler and Others [2014] OJ C129/11), the competence of the ECB (thus centralized) and forms part of its monetary policy responsibilities in accordance with Article 18 of the ESCB Statute and Article 127 TFEU (the 'monetary approach').[1] The 2nd is individual liquidity assistance (the 'credit approach'). Though the ECB is competent to provide liquidity assistance to "financially sound" banks as part of its regular discount policies, the provision of ELA to troubled illiquid but solvent banks in an emergency situation is a national competence of the National Central Banks (thus decentralized), performed on their own responsibility and liability, in accordance with Article 14.4 of the ESCB Statute and a Governing Council decision of 1999, though subject to the fiat of the ECB's Governing Council. While it might have made sense to keep LOLR at the national level, while supervision was still national, it does not really make sense now that supervision is European (and note issue and monetary policy are ECB competences, not national competences).

In order to have the ECB in charge of both market liquidity assistance and individual liquidity assistance, no treaty revision is needed. Article 18 ESCB Statute, Article 127 TFEU and the principle of subsidiarity provide sufficient legal basis, in particular in the context of the SSM/Banking Union since 2014 (Lastra, 2015; Gorstos, 2015).

LOLR/ELA links monetary policy, supervision and financial stability. The restrictive interpretation by the ECB of the ESCB Statute preventing it from acting as a lender of last resort to individual banks should be revisited, in particular for those significant credit institutions (banking groups) that are now supervised by the ECB.

3.3 How we should proceed – Eurozone institutions and the next 20 years

The remainder of this chapter will look at the underlying political questions and how the deal found by the Euro Summit in December 2018 has or has not contributed to answering them. We will not again discuss the detailed agenda of how the euro area should be reformed. The proposals made by 14 French and German economists at the beginning of last year (Bénassy-Quéré et al. 2018) offers an exhaustive list and remains valid to this day. Instead we want to look at the underlying fundamental questions: As discussed at the beginning of the chapter, there are two fundamental questions that the Maastricht architecture tried to answer but could not successfully.

First, it tried to ensure that a country would never leave the Euro. But the crisis let the spectre of a Euro exit emerge – and we have not yet been able to fully make it disappear again. There are three technical reasons for this: Banking union remains unfinished and the sovereign-bank nexus, hence, remains alive and well; it is still not clear if and how a country with an unsustainable debt burden can default orderly inside the Euro and can remain there; and the toolbox of the ESM is not fit for purpose to avoid liquidity crises due to contagion for countries that have otherwise sound policies.

In our view, there is also a fundamental political reason: Member states have not settled the question whether they are willing once and for all to forego exit as a policy option and to solve all problems within the family. This is, by the way, symmetric – it applies to both governments that play with the idea of leaving as well as for governments that would like to preserve the threat of kicking out other countries. At the same time, markets are well aware of this continuing political discussion and, thus, act rationally when pricing-in a possible redenomination risk, which in turn can trigger an intervention by the ECB as deriving from the OMT announcement. In sum: as long as the spectre of Euro-exit remains present, the Euro is at risk. A single currency with an exit option is not much different from a fixed, but adjustable exchange rate regime. For this reason the Treaty absolutely rightly made the Euro irreversible. Yet as the first 20 years have shown, the political implications of this irreversibility are not yet sufficiently taken into account both at European and national levels.

Second, the crisis and subsequent policy moves have made clear that the old division of labour no longer holds – but it is not yet clear what the new division of labour should look like. With the European Semester and the MIP, member states have opened up to European institutions and peers scrutinizing their national policies in core areas like labour market institutions – but it is not clear to what extent this is coupled with the willingness to actually change course if such a change were in the interest of the Union as a whole. In banking matters, resolution and supervision are now European tasks – but we will only really see whether this de jure division of labour holds in practice if a big institution in a large member state must undergo treatment. Finally, the crisis has made clear that fiscal policy cannot remain a purely national task if lasting imbalances are to be avoided; yet it is profoundly unclear what fiscal responsibilities member states would be ready to pool. In our view, the question of the new division of labour is the one that needs to be answered comprehensively before new institutional steps, such as a European finance minister, make sense.

How does the reform package adopted by the Euro Summit fare in responding to these two questions? In short: Not well. As we argue above, there are still some fundamental political and strategic questions that need to be addressed. The package mentions them, but does not foresee further in-depth work to address them.

In some areas, the compromise goes in the right direction. It brings the Euro area closer to a real banking union by establishing a backstop for the Single Resolution Fund (SRF). It clarifies the roles of the Commission and ESM staff in crisis management. It establishes for the first time the principle of common fiscal policy in the Eurozone. And it makes orderly debt restructuring a bit more achievable.

All these elements can be important pieces leading to a logical overall architecture. However, as long as there is no comprehensive blueprint, it is unclear whether these elements really fulfill their planned task. For example, orderly debt restructuring can be a beneficial component of a fully-fledged architecture, as long as there are strong protective elements against contagion (e.g. a euro-area safe asset or limitation to concentrations of sovereign bond holdings in individual banks). If such elements are missing, a discussion about orderly debt restructuring can have the exact opposite effect.

This leads directly to the most important downside of the current package. There is too much window-dressing. Most areas are covered, but only superficially. For many challenges, this implies that, although it presents broad measures, these may not actually resolve issues. At the same time, these partial or superficial measures will take a number of issues off the agenda for now as they are considered settled, thus making it almost impossible to review them in the near future.

Two examples: The summit agreed to change the rules for ESM precautionary assistance. However, rather than designing useful instruments that prevent liquidity shortages for countries with sound fundamentals, the summit turned precautionary assistance into an instrument that is very unlikely to be ever used – it is a paper tiger. At the same time, the topic of precautionary assistance will now disappear from the Eurozone debate as it is settled for now, thus increasing the likelihood of needing to make ad-hoc changes to the framework when a real crisis occurs. So instead of presenting workable long-term solutions, the package's window dressing approach will contribute to further political uncertainty.

Second example: The summit agreed to a budgetary instrument for the Eurozone – so to enter a new division of labour between the national and the European levels. However, upfront, it implicitly excludes the area where the euro area could have benefitted the most: cyclical stabilization. Instead of triggering a real discussion about a real euro-area fiscal capacity, the package now recommends a small-scale and, content-wise, highly limited solution that is unlikely to help rebalance the allocation of competencies between the EU/EMU and its member states.

To make the Eurozone fit for the next 20 years, policymakers will have to answer the underlying political questions – technical fixes will not solve problems that are ultimately political in nature.

4 Conclusions

This paper has discussed the achievements of the euro during its first 20 years of existence. It is argued that the euro by and large has been a success story, with many important contributions to economic welfare and stability for all of its member states, including the economically strongest and the weakest. The euro played an important role in helping economic and financial convergence during the first 10 years. But the paper also shows that this convergence process was only partial and temporary as economic and financial divergences increased massively during the European financial crisis after 2010.

Yet it is not the euro to blame for this divergence, but rather the absence of other institutions and policy instruments which are important for every monetary union. The paper has discussed the role of fiscal policy in relation to monetary policy and has highlighted the lack of sufficient risk-sharing within the euro area, both through private capital markets and through coordinated fiscal policy across member states. In fact, such a risk-sharing and stabilisation mechanism was weakened during the financial crisis as financial fragmentation increased massively, making it more difficult for the euro and the ECB’s monetary policy to function symmetrically for the entire euro area.

The paper also has highlighted an often ignored benefit from the euro, namely its international role which has seen many central banks holding substantial amounts of their reserves denominated in euros, companies also outside the euro area issuing debt in euros and the euro as a transaction currency for goods and services. The ECB’s credibility and track record have been crucial in generating trust in the euro, both within and outside of the euro area. Households, companies and governments in all euro area countries have benefited from such credibility through lower borrowing rates, better financial intermediation and improved financial stability.

Finally, the paper has discussed the institutional features of the euro and has argued that EMU remains incomplete, even if important additional reforms have been partly implemented over the past 10 years. The reform of the SGP, the commitment to banking union and capital market union, the introduction of the ESM have all been important intermediate steps for the completion of EMU. Yet it is important to acknowledge that these reforms are incomplete and additional steps are required to make the euro a lasting, permanent success.

There is a sense of urgency to complete these reforms as the euro area is not yet equipped to manage another crisis or strong economic downturn. Policymakers all over Europe, in its member states and in European institutions therefore would act wisely to develop an agenda to complete EMU and do so swiftly.

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