

Regling, Klaus; Deroose, Servaas; Felke, Reinhard; Kutos, Paul

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The euro after its first decade: Weathering the financial storm and enlarging the euro area

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ADB Working Paper Series

The Euro After Its First Decade: Weathering the Financial Storm and Enlarging the Euro Area

Klaus Regling, Servaas
Deroose, Reinhard Felke,
and Paul Kutos

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Please contact the author(s) for information about this paper.

Richard Felke: Reinhard.FELKE@ec.europa.eu

Paul Kutos: Paul.KUTOS@ec.europa.eu

Asian Development Bank Institute
Kasumigaseki Building 8F
3-2-5 Kasumigaseki, Chiyoda-ku
Tokyo 100-6008, Japan

Tel: +81-3-3593-5500
Fax: +81-3-3593-5571
URL: www.adbi.org
E-mail: info@adbi.org

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Abstract

The first decade of economic and monetary union in Europe (EMU) has been a huge success. EMU has significantly benefited its member countries and accelerated the European integration process. Imbalances within EMU—differences in growth, inflation, competitiveness, current account and budget balances—have, however, increased in the last 10 years and, with their economic implications, have become more evident in the global economic crisis. The euro has served as a shield during the crisis, and arguments that the crisis would lead to a breakup of the monetary union are neither new nor convincing. But there are lessons to be learned. Policies should be better coordinated among EMU members and structural reforms accelerated, the framework for the supervision of financial markets strengthened, and external representation streamlined. The crisis has also made the euro more attractive, and most EU countries that are not yet members of EMU are expected to join during the next decade.

JEL Classification: E6, F15, F3, F42, G01

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1. INTRODUCTION

The first decade of economic and monetary union in Europe (EMU) has been a resounding success. EMU has brought significant benefits to its member countries: it has led to remarkable macroeconomic stability and accelerated trade and, in particular, financial integration in the euro area. However, imbalances within EMU—differences in growth, inflation, competitiveness, current account and budget balances—have also increased during the last 10 years, and the global economic crisis has made these imbalances and their economic implications more visible and challenging.

The crisis may be seen as the acid test for EMU. Much like other major industrialized economies, the euro area is living through the most severe recession in our lifetime. Thanks to the successful first decade of EMU, the euro area and its Member States are today in a much better shape to weather these truly testing times than ever before. The euro has protected EMU members during the crisis, and arguments that the crisis would lead to a breakup of the monetary union are neither new nor convincing. In fact, the crisis has made EMU even more, not less, attractive, and most EU countries that are not yet members of EMU are keen to join in the foreseeable future. However, for the Member States in the euro area, the introduction of the euro is no panacea.

There are important policy lessons to be learned from the crisis. Policy coordination among the EMU members should be improved and structural reforms accelerated, the framework for the supervision of financial markets strengthened, and external representation streamlined. With the necessary political will, the crisis can be a catalyst for deeper and broader economic coordination and surveillance in the euro area.

Section 2, drawing extensively on the European Commission's seminal report "EMU@10: Successes and Challenges after 10 Years of Economic and Monetary Union,"¹ reviews the main achievements and shortcomings of EMU in the first decade and highlights the main challenges to its smooth functioning, which were identified well before the crisis broke out. The third section tries to answer the question whether the euro facilitated the spread of the crisis in Europe or whether and to what extent it provided protection. Section 4 recalls recent euro-area accessions and explores the prospects for the further enlargement of the euro area. Section 5 draws lessons from the analysis for the further functioning and development of the euro area.

2. THE FIRST 10 YEARS OF THE EURO: SUCCESS, YES; PANACEA, NO

On 1 January 1999, 11 Member States of the European Union (EU)² irrevocably fixed their bilateral exchange rates. At that moment the euro came into existence for all noncash transactions. The euro fully replaced the national currencies in the euro-area member states 3 years later, when euro coins and notes were introduced. Since 1999, five more EU Member States have fulfilled the conditions for euro adoption and joined the euro area: Greece in 2001, Slovenia in 2007, Cyprus and Malta in 2008, and Slovakia at the start of 2009. Today, the euro is the single currency for more than 320 million European citizens.

The creation of EMU and the launch of the euro was a historic leap forward in the process of European integration. The final decision was preceded by a lively and at times controversial academic and political debate on the viability or desirability of the single currency. Proponents of the euro saw it as a vital complement to Europe's Single Market; others

¹ European Commission (2008).

² Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain.

pointed to the euro area's failure to fulfill the conditions for an "optimal currency area." The first decade of the single currency defied all skeptics, but also disappointed some of the most optimistic advocates. The following subsections give a brief overview of major expectations before the launch of the euro and a review of the euro's impact across several key policy dimensions in its first 10 years.

2.1 Expectations before the launch of the euro

EMU was a response to macroeconomic instability. When the EU was founded in 1957, Member States set about building a "common market" for trade. Over time, however, it became clear that, for the internal market to develop further, and the European economy to do better, closer economic and monetary cooperation was needed. The economic and exchange rate turbulence of the 1970s and 1980s pushed European policy makers to take concrete steps that would ensure macroeconomic stability and avoid disruptions of the Single Market. The political decision to achieve full monetary integration with its own single currency was enshrined in the Treaty on the European Union (Maastricht Treaty) of 1992.

Advocates of a single currency argued that removing exchange rate risks would cut transaction costs and increase planning security for transborder trade and investment, thereby boosting the Single Market and economic welfare through economies of scale and more competition. If coupled with an appropriate stability-oriented macroeconomic policy framework, the euro would promote macroeconomic stability throughout the euro area. Moreover, intensified competition throughout the area, combined with the removal of currency devaluation as an emergency exit from economic misalignments, would induce structural reform to improve domestic productivity, competitiveness, and growth. What was less appreciated at the outset was that a single currency and reduced macroeconomic volatility might produce other growth effects by lowering the cost of capital and bringing about closer financial market integration. Finally, a single currency was expected to give the European Union a stronger presence in the global economy.

However, many academics remained rather skeptical about the euro's prospects.³ They wondered about the ability of the single monetary policy to address country-specific shocks and about the interaction between centralized monetary policy and decentralized fiscal policy. Given the diversity of the Member State economies, the skeptics argued, the loss of monetary policy and the exchange rate would make the adjustment to country-specific disturbances less than optimal. Regarding fiscal policy, which would remain with the Member States, fears of fiscal profligacy were widespread. Some Member States would be likely to free-ride on the stabilization efforts of others and thereby create tensions between fiscal policy and overall monetary policy. Finally, it was argued that real interest rates would behave pro-cyclically in the countries—they would go down as inflation rose in cyclical upturns, and vice versa, making it more difficult for the economies to adjust naturally to cyclical shocks.⁴ Alternative adjustment mechanisms, such as wage and price flexibility, and labor migration within the euro area, were deemed relatively weak in Europe or, as in the case of federal fiscal transfers, undesirable.

2.2 A successful first decade

The many achievements of EMU and the euro have largely disproved the predictions of the early critics.

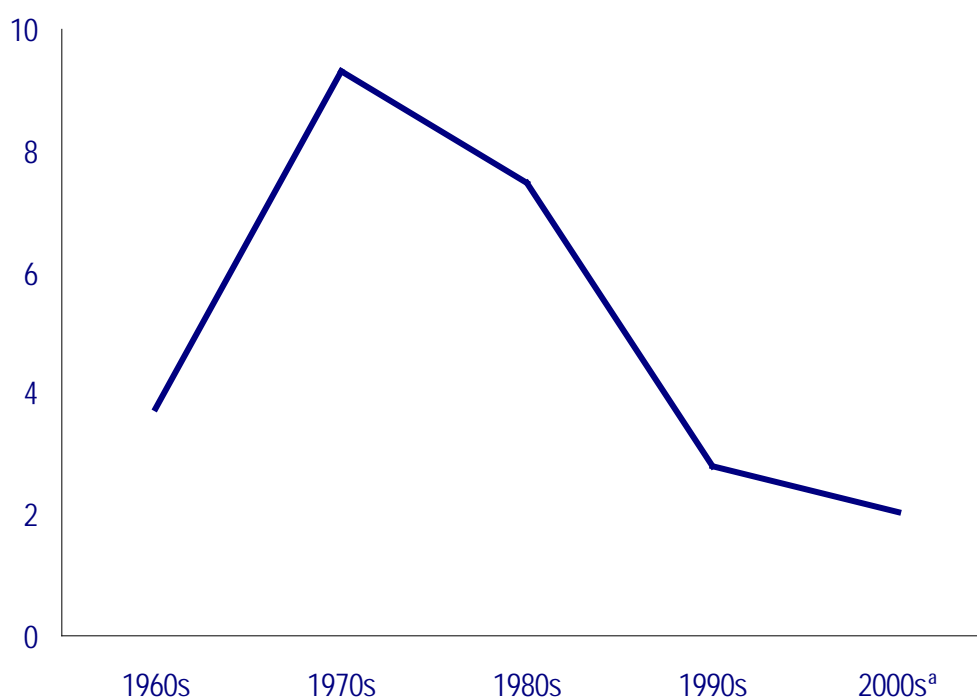
³ See, for instance, Buti and Sapir (1998) and (2002) for a good overview. See Jonung and Drea (2009) for a survey of the positions taken by US economists toward the euro before its launch.

⁴ This last point refers to the so-called "Walters critique." See Walters (1986).

2.2.1 At the macroeconomic level

First, EMU has created a zone of macroeconomic stability in Europe, with price stability and low-cost borrowing. The euro has put an end to costly changes in intra-European exchange rates that were often triggered by currency problems outside Europe. The inflation performance of the euro area offers clear evidence of the effectiveness of its institutional setup in achieving macroeconomic stability. Average inflation in the first 10 years of the euro area was broadly on a par with the price stability benchmark of the European Central Bank (ECB) of close to but below 2% annual inflation (Figure 1). Together with the marked improvement in inflation performance over that of previous decades, there has been a sharp decline in price volatility. Standard-deviation measurements of inflation volatility show that the period since the launch of the euro has been more stable than any other postwar period of comparable length. Perhaps more importantly, the ECB has achieved well-anchored inflation expectations and high credibility in a relatively short time. This performance is remarkable given that 10 years ago the ECB was still a new institution without a track record. Overall stability is further reflected in lower and less volatile long-term interest rates. Thus, the monetary union has solidified a Europe-wide culture of stability, with a decisive contribution from the single currency.

Figure 1: Inflation in the Euro Area (% , decade averages)

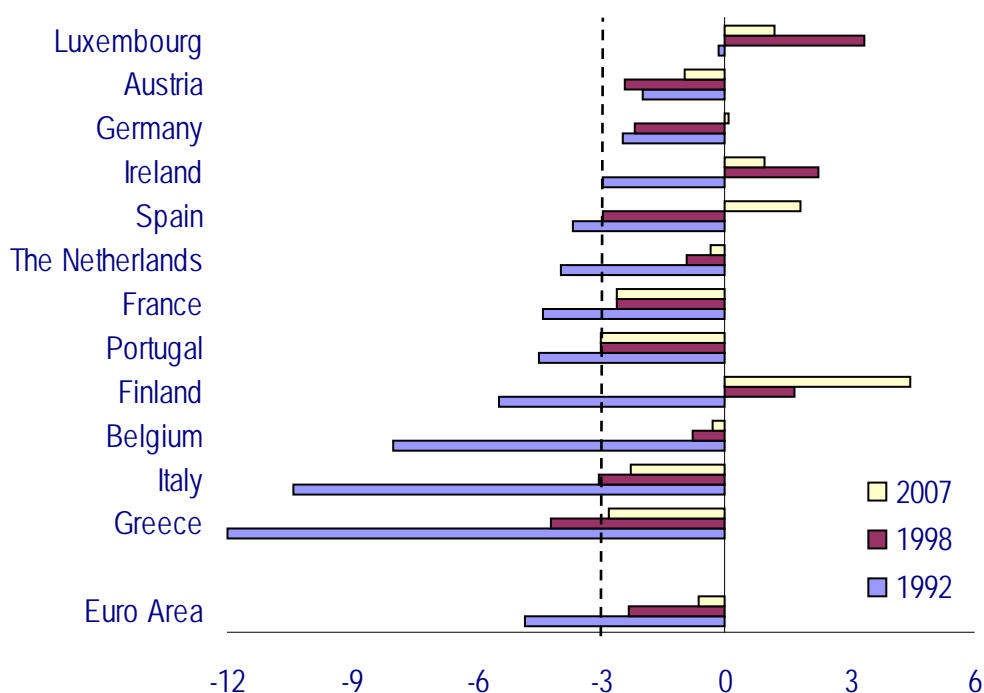


^a The period since the start of stage III of EMU. The values for the last 2 years are projections.

Source: European Commission.

Fiscal policies have supported macroeconomic stability in EMU. Progress in fiscal consolidation has been significant, with fiscal deficits falling to only 0.6% of gross domestic product (GDP) in 2007 compared with an average of 4% in the 1980s and 1990s. It has not been all plain sailing, however. Deficits increased at the start of the 2000s, calling into question the efficiency of coordination. Reform under the Stability and Growth Pact in 2005, building on the experiences of the first years of EMU, has improved the coordination of fiscal policies. Overall, pro-cyclical fiscal policies have become less common. As a result, and, thanks to windfall gains in tax revenues, no euro-area country ran a deficit in excess of 3% of GDP in 2007 (Figure 2).

Figure 2: Fiscal Position, 1992, 1998, and 2007 (% of GDP)



Source: European Commission.

EMU has also led to better-synchronized business cycles in euro-area countries. Indeed, as Table 1 shows, the average correlation of business cycles within the euro area has increased and is larger than the correlation between the euro area and the United States or Japan. Moreover, EMU has made the euro area more resilient in the face of adverse macroeconomic shocks. The area has withstood the economic consequences of the 9/11 terrorist attacks and the bursting of the dot-com bubble, among other events. Indeed, the downturn of the early 2000s was comparatively shallow, with the trough less deep and the negative output gap absorbed faster than in previous downturns (Table 2). The global Great Moderation was partly responsible, but the stability-oriented macroeconomic policy framework of the euro area undoubtedly helped as well.

Table 1: Mean Intra-Euro-Area Correlation, in Consecutive Cycles

Item	Period	
	1989–1998	1999–2008
GDP	0.56	0.60
	1978–1986	1989–1997
IP	0.48	0.61
	0.59	1999–2007

GDP = gross domestic product, IP = industrial production.

Source: European Commission.

Table 2: Two Indicators of the Severity of Downturns

Indicator/Area	Period			Average
	1980s	1990s	2000s	
Number of consecutive quarters with a negative gap				
Euro Area	26	26	16	23
United States	11	27	15	18
Sum of consecutive negative output gaps (% of GDP)				
Euro Area	-7.6	-5.8	-2.7	-5.4
United States	-8.5	-7.1	-3.0	-6.2

Note: Downturns after peaks in 1980Q1, 1991Q4, and 2000Q4. The sum of consecutive negative output gaps measures the cumulative output loss while output is below potential.

Source: European Commission..

Perhaps the most tangible achievement of EMU in its first decade has been the spectacular creation of 16 million jobs in the euro area. Jobs have grown faster than in other mature economies, including the United States. The majority of these improvements reflect reforms of labor markets and social security systems carried out in (some) Member States under the Lisbon Strategy and the coordination and surveillance framework of EMU, as well as the wage moderation that has characterized most euro-area countries. Table 3 gives an overview of macroeconomic performance indicators for the euro area in 1989–1998 and 1999–2008 in comparison with major EU economies outside the euro area and with the US.

Table 3: Macroeconomic Performance Indicators

Item	Unit	Period Average					
		Euro Area		Denmark, Sweden, UK		United States	
		1989–1998	1999–2008	1989–1998	1999–2008	1989–1998	1999–2008
Real GDP	% rate of change	2.2	2.1	2.0	2.7	3.0	2.6
Real GDP per capita	% rate of change	1.9	1.6	1.7	2.2	1.8	1.6
Real GDP per capita	index, US = 100	73.0	72.0	74.0	76.0	100.0	100.0
Employment	% rate of change	0.6	1.3	0.1	0.9	1.5	1.0
Labor productivity	% rate of change	1.9	0.8	1.9	1.8	1.5	1.6
Unemployment	% of labor force	9.3	8.3	7.9	5.2	5.8	5.0
Inflation	%	3.3	2.2	3.4	1.7	3.3	2.8
Fiscal balance	% of GDP	-4.3	-1.7	-3.6	-0.9	-3.3	-2.5
Gross public debt	% of GDP	68.6	68.6	48.7	43.0	67.8	60.7
Long-term interest rate	%	8.1	4.4	8.6	4.9	7.1	4.8
Real long-term interest rate	%	4.7	2.4	4.2	3.3	4.3	2.4

GDP = gross domestic product.

Source: European Commission, OECD.

2.2.2 At the microeconomic level

The euro has fortified the European Single Market and improved consumer welfare. It has promoted the convergence of the money and capital markets through increased competition, market liquidity and transparency, and economies of scale and scope. The euro can be credited, together with growing liberalization and technological innovation, with the improved possibilities for risk diversification and more efficient allocation of capital resources. The most immediate and extensive impact of EMU on financial integration has been felt in the euro-area markets for unsecured money and derivatives. Almost as soon as the euro was launched, interest rates on interbank deposits and derivative contracts across the euro area converged fully on the benchmark Euribor and Eonia rates. Fixed-income markets have also become well integrated, as is well documented for sovereign bonds (Jappelli and Pagano 2008, ECB 2009b, and Schulz and Wolff 2008). While EMU has had less impact on financial integration in the equity markets, there is some indication that equity-market integration has proceeded faster in the euro area than globally, particularly since the introduction of the euro (see, for example, Adam et al. 2002).

The elimination of exchange rate risk within the euro area has increased price transparency, reduced transaction costs, and heightened competition, thereby promoting trade within the euro area. According to the 2009 SNS Economic Policy Group Report (Flam et al. 2009), for example, trade in the euro area has been 24% higher on average since 1999 than previously, while trade between the euro area and outside countries has been only about 12% higher. More firms are encouraged to sell their goods abroad, making more products available on the market and thus adding to consumers' choices and utility. Export price volatility has dropped, and greater price transparency has discouraged price discrimination between national markets. While the euro effect is difficult to separate from the impact of other pro-integration policies, even the most conservative estimates find a positive and "exclusive" euro effect on trade of around 2% of GDP (Baldwin et al. 2008).

The euro has benefited foreign direct investment (FDI) within the euro area and elsewhere (Petroulas 2006, Foad 2007). Baldwin et al. (2008) also present evidence of the positive effects of EU and euro-area membership on FDI. They find that the adoption of the euro has promoted FDI from outside the euro area, but this effect has been only about half as strong as the impact within the area. Moreover, the euro has fostered domestic and cross-border mergers and acquisitions among both large and small firms, but the effect on small firms has been biased toward cross-border activity. The euro has had a very strong impact on mergers and acquisitions within the same sector in manufacturing (Coeurdacier et al. 2009).

2.2.3 The governance dimension

The euro is founded on a stability-oriented economic policy framework (the "E" in "EMU"), in a unique governance setup that combines area-wide policies with coordinated domestic policies.⁵ Most importantly, an independent central bank has the primary mandate of assuring price stability. Fiscal governance has been strengthened to reflect the joint responsibility for the smooth management of EMU. The Stability and Growth Pact and the Excessive Deficit Procedure have increased fiscal sustainability and stability. Last but not least, the creation of the Eurogroup, an informal body where ministers of finance, the ECB president, and the European Commission exchange views and prepare important policy decisions, has been a significant step toward closer economic coordination.

While the euro and its policy framework have contributed to stability and prosperity in the euro area, the current economic and financial crisis underscores the need to continue strengthening European economic governance in preparation for new challenges.

⁵ See also Eichengreen (2008).

2.2.4 The external dimension

By establishing itself swiftly as the second-most-important international currency in the world behind the US dollar, the euro has changed the global economic and monetary landscape. It has allowed international public and private investors to diversify their asset allocation, and borrowers to find other sources of funding. Across many of the major functions that an international currency can play, the euro surpasses today the combined status of its legacy currencies 10 years ago, and it continues to strengthen its position.⁶ In global foreign exchange markets, the euro-dollar currency pair is the most actively traded one, accounting for more than one-quarter of global turnover. In debt securities markets, the amount of outstanding euro-denominated international debt securities has surpassed that of the US dollar, with the euro accounting for almost half of the world's stock of international debt securities. The single European currency is also widely used for invoicing and constitutes an important part of the foreign exchange reserves of non-euro-area central banks.

Despite the growing global role of the euro area and the euro, progress in its external representation in international institutions and forums, such as the International Monetary Fund and the G7, G8, and G20, remains piecemeal and fragmented.

3. THE EURO AND THE CRISIS: PART OF THE PROBLEM OR PART OF THE SOLUTION?

3.1 Brief review of the crisis

The financial crisis, although triggered by the collapse of the US sub-prime market, can be traced back to a complex conjunction of underlying causes and drivers, both at the global macroeconomic and at the microeconomic level. Ample liquidity and low interest rates were major underlying factors. But financial innovation, regulatory and supervisory gaps, weaknesses in risk management, and corporate governance failures and accounting weaknesses amplified and accelerated the consequences of excess liquidity and credit growth.⁷

Monetary policies across the globe were rather easy in the years leading to the crisis. What began as a monetary policy reaction to the bursting of the dot-com bubble in 2000 sowed the seeds for an extended period of excess liquidity. Taylor (2007) demonstrates that, from mid-2001 to 2006, monetary policy in the US was too easy relative to the Taylor rate. Applying the same Taylor-rule estimates to the euro area, and with the benefit of hindsight, Elmeskov (2009) concludes that interest rates were somewhat lower than warranted by the cyclical position of the economy in the euro area.

Strong global macroeconomic growth since the mid-1990s had nourished an illusion that such high and practically inflation-free growth was always possible. At the same time, the increasing integration of the People's Republic of China (PRC) and other emerging markets in the global economy was exerting global pressure on commodity prices and restraining price and wage increases in the industrialized countries. Excess liquidity was plowed instead into credit, inflating asset prices and unbalancing the global financial markets.

The global growth model—excess consumption in the US and excess savings in the PRC and other emerging market economies, including oil-exporting countries—worsened the liquidity glut. With interest rates at record lows, personal saving in the US fell from 7% of

⁶ See European Commission (2008, 117–132) and Papaioannou and Portes (2008).

⁷ A broad consensus regarding the main causes of the global financial crisis has emerged. Detailed descriptions of the causes of the crisis can be found, for instance, in de Larosière et al. (2009), Issing et al. (2009), European Commission (2009a), and Financial Stability Forum (2008), on which this subsection draws.

disposable income in 1990 to below zero in 2005 and 2006. Consumer credit and mortgages ballooned. The private sector borrowed heavily. In the US the credit expansion was financed partly by massive capital inflows from emerging economies with current account surpluses, notably the PRC. Such surpluses, which had accumulated through currency pegs, were recycled into US government securities and other lower-risk assets and thus added to an overall compression of yields.

The combination of high liquidity and low interest rates, coupled with compressed volatility in many key markets, drew investors to ever-riskier assets that promised higher yields. Easy credit and rising asset prices contributed to low default rates, which reinforced the perception of low risk. As a result, risks became systemically mispriced and leverage reached an unprecedented scale. A number of factors on the microeconomic side amplified this trend.

Significant technological change and product innovation in financial markets had led over the years to the creation of increasingly complex financial products that were bought worldwide. The securitization, packaging, and trading of loans and assets changed the relationship between banks and customers and reduced the incentives for lenders to comply with proper lending standards. These new instruments allowed market participants to take on more debt and at the same time posed significant challenges to the management of risk, both for the individual financial institutions and for the public supervisors. The complexity and dramatic growth of these instruments prompted a great reliance on the assessment of credit rating agencies, some of which had actually designed and promoted the use of such instruments.

In an environment of intense market competition, the incentive structure of managers in financial institutions encouraged excessive short-term risk taking as they were paid for short-term successes while problems showed up only over time.

The supervisors did not pay enough attention to a number of relevant financial market features, such as off-balance-sheet activities, the risks of new instruments, the implications of the changing model of credit distribution, and liquidity risks. Neither the supervisors nor the credit agencies thought it likely that market confidence could suddenly evaporate and certain categories of instruments could no longer be sold at any reasonable price.

Perhaps most importantly, the supervisors did not take macroeconomic and macro-financial stability aspects, including global ones, sufficiently into account. Though effective at the surveillance of individual institutions, the supervisors were not used to assessing macro-prudential risks. In addition, the global inter-linkages were poorly understood by a supervisory structure organized basically along national boundaries. This was true for the United States, and also for the EU, where this reflected—in part—weak cross-border coordination of regulation and supervision. In the EU, the rapid growth in the cross-border activities of banks, including those in Central and Eastern Europe, underlined these weaknesses.

Finally, accounting rules, whose pro-cyclical impact turned out to be worse than expected, made the downward spiral more severe.

The dramatic repercussions of the financial sector crisis are well known. After a spate of bank failures in the US, the crisis intensified sharply as confidence in the financial markets crumpled and the flow of credit to the economy ground to a virtual halt. Market sentiment nosedived worldwide, and global production and world trade, after years of stellar growth, collapsed. As a result, the global economy at the end of 2008 was in its deepest and most widespread recession in the postwar era.

The euro area was particularly hard hit. The European Commission, in its autumn 2009 economic forecast, projected a decline of about 4.0% in euro-area GDP for the year, compared with a 2.5% contraction for the US and 5.9% for Japan. This has raised the question whether the euro area can weather the storm or whether the euro has further facilitated the spread of the crisis in Europe. Some commentators have even expressed doubt that EMU would survive unscathed.

3.2 Has the euro facilitated the spread of the crisis? No, but...

The current events have highlighted the advantages of a single currency and demonstrated the benefits of deepening euro-area policy coordination. Thanks to the successful first decade of EMU, the euro area and its Member States are today in a much better shape to weather these truly testing times than ever before. The euro is limiting the impact of the crisis in Europe and providing stability in several ways. First, it has prevented the exchange rate and interest rate turbulences among the euro-area Member States that used to be common during periods of financial stress in the past. We know from experience how damaging such intra-European currency turmoil can be for the functioning of the Single Market. Second, as argued in section 2, the euro area's stability-oriented macroeconomic framework has reduced the level and volatility of inflation and interest rates, as well as output fluctuations. Third, overall successful consolidation of budgetary deficits in most Member States in recent years, even though imperfect, has created room for fiscal policy to play an important stabilizing function in the crisis. Fourth, since the start of the financial turmoil in 2007, the ECB has adopted an accommodative monetary policy stance and has skillfully managed liquidity. This has helped to ease conditions in the interbank market and to anchor inflation expectations throughout this period of uncertainty. Finally, the governance structure of EMU, while far from being perfect, has facilitated policy coordination across the euro area and the European Union as a whole. The close interaction of all actors involved in the Eurogroup and in the Ecofin Council has spurred a swift and bold policy response to the global economic and financial crisis.⁸

Imagine for a moment how the crisis might have unfolded in the euro area without the euro. The coordination problems would have multiplied. Sixteen European central banks would have had to struggle for coordinated liquidity provision while trying to keep exchange rates and inflation expectations in check, and negotiate currency swaps with the US Federal Reserve.

However, the crisis has also revealed important weaknesses and vulnerabilities in the euro area. It has exposed in particular the vulnerability of Member States with significant macroeconomic imbalances, and underscored important shortcomings in the European regulatory and supervisory framework and in cross-border crisis resolution arrangements.

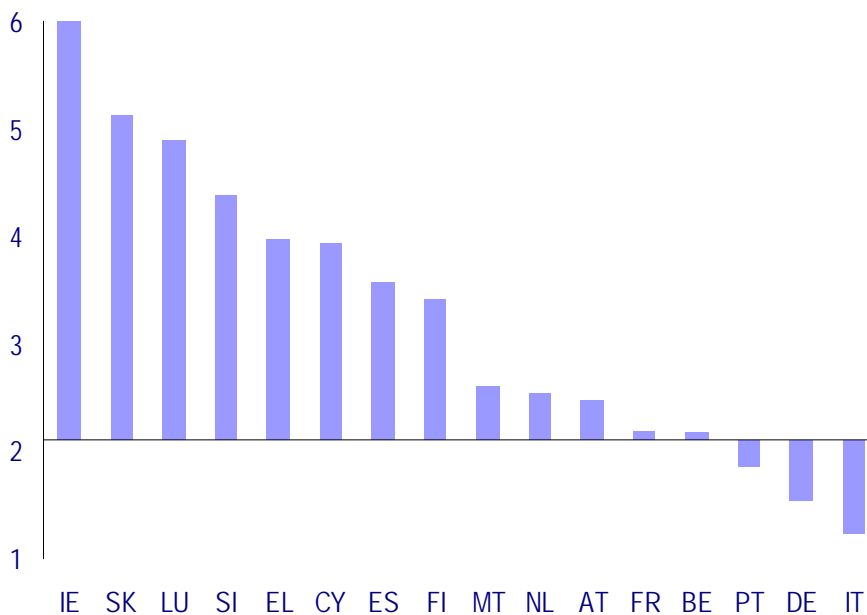
3.2.1 The role of intra-euro-area imbalances

The accumulation of large current account imbalances and divergent competitiveness developments have rendered some euro-area member states particularly vulnerable to the fallout from the crisis. Partly favored by low real interest rates, the euro area over the last 10 years has experienced substantial growth differences among Member States (Figure 3). Growth differences should pose no major problem for a monetary union if they are part of the normal catching-up process or a reflection of differences in population growth. However, they can become a problem if the differences are due to more enduring differences in competitiveness. As demonstrated by the evolution of intra-euro-area current accounts and real effective exchange rates (Figures 4 and 5), there was substantial divergence in competitiveness within the euro area at the start of the crisis. Recent research done by the European Commission identifies three groups of countries: (i) those with large current account deficits and significantly overvalued real effective exchange rates (notably Spain, Greece, and Portugal); (ii) countries with large current account surpluses and various degrees of real exchange rate undervaluation (Germany, the Netherlands, Finland, Luxembourg, and Austria); and (iii) countries with a worrying propensity for weak export

⁸ See also the text box on the EU response to the economic and financial crisis. Euro-area policy developments throughout the crisis are described in more detail in European Commission (2009a).

growth and falling export market shares (Belgium, Ireland, France, and Italy).⁹ Whereas Germany since 1999 has continuously increased its price competitiveness with respect to the euro average, the relative competitiveness of the initial boom economies, including Spain, Portugal, Greece, and also Ireland, has increasingly deteriorated.

Figure 3: Average Real GDP Growth Relative to the Euro-Area Average, 1998–2008 (%)

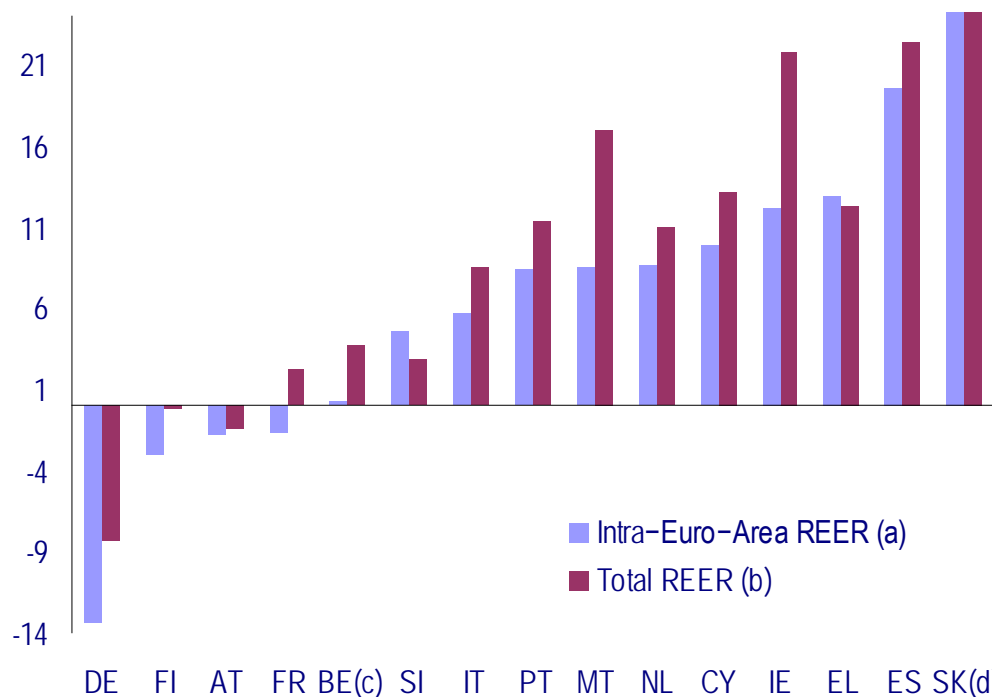


AT = Austria, BE = Belgium, CY = Cyprus, DE = Germany, EL = Greece, ES = Spain, FI = Finland, FR = France, IE = Ireland, IT = Italy, LU = Luxembourg, MT = Malta, NL = Netherlands, PT = Portugal, SI = Slovenia, SK = Slovak Republic.

Source: European Commission.

⁹ See the special report on competitiveness developments within the euro area, in European Commission (2009f).

Figure 4: Changes in Real Effective Exchange Rate (REER), Intra-Euro-Area and Relative to Other industrialized Countries, among Euro-Area Member States, 1998–2008 (%)



AT = Austria, BE = Belgium, CY = Cyprus, DE = Germany, EL = Greece, ES = Spain, FI = Finland, FR = France, IE = Ireland, IT = Italy, LU = Luxembourg, MT = Malta, NL = Netherlands, PT = Portugal, SI = Slovenia, SK = Slovak Republic.

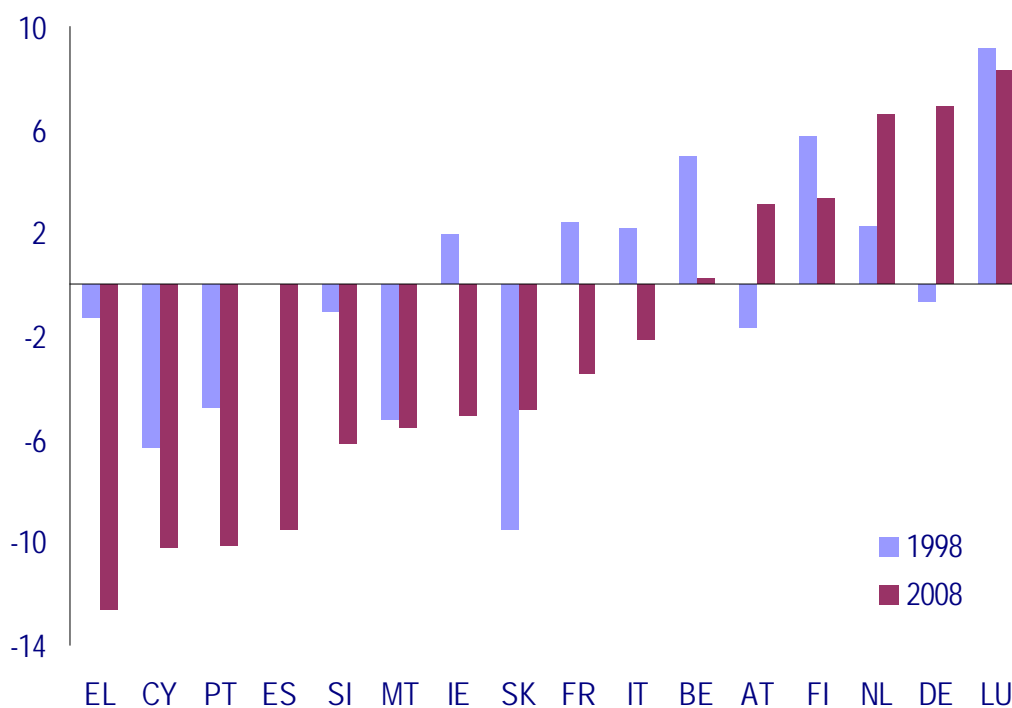
^a REER (GDP deflator) against other euro-area countries (16).

^b REER (GDP deflator) against other industrialized countries (35).

^c Belgium + Luxembourg.

^d The Slovak Republic is off-scale. The true rise in REER is 68% relative to other euro-area countries and 61% relative to other industrialized countries.

Source: European Commission.

Figure 5: Current Account Position, Euro-Area Member States, 1999–2008^a (% of GDP)

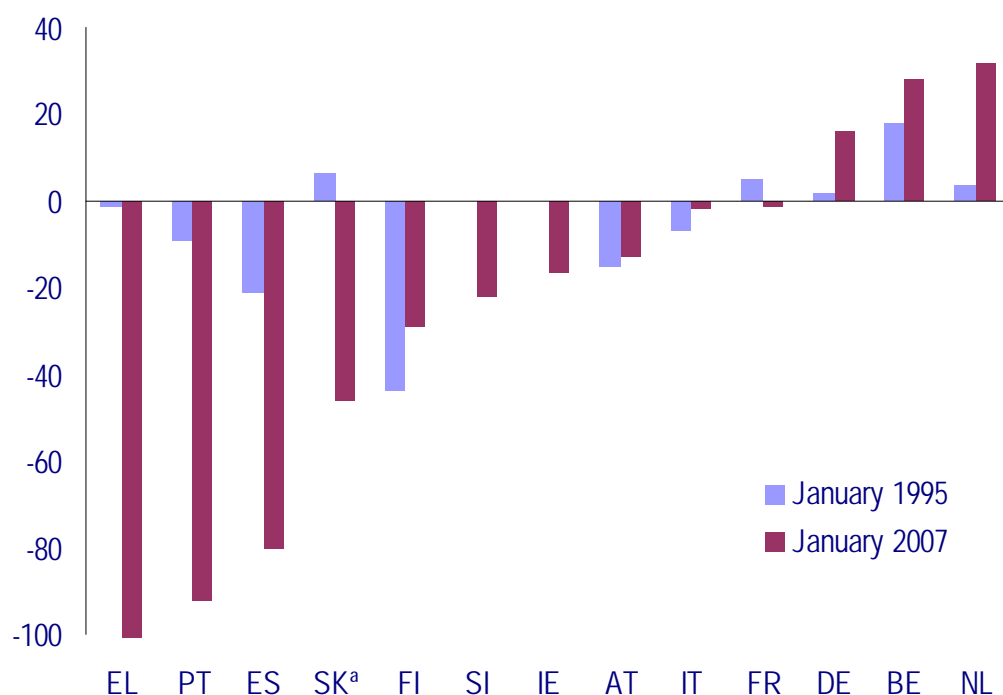
AT = Austria, BE = Belgium, CY = Cyprus, DE = Germany, EL = Greece, ES = Spain, FI = Finland, FR = France, IE = Ireland, IT = Italy, LU = Luxembourg, MT = Malta, NL = Netherlands, PT = Portugal, SI = Slovenia, SK = Slovak Republic.

^a Net lending and borrowing from national accounts for all Member States except Luxembourg (balance of current transactions).

Source: European Commission.

The differences in price competitiveness are driven partly by an inappropriate response of wages to country-specific productivity shocks in some Member States, and in some cases by the buildup of financial and macroeconomic imbalances linked to excessive domestic demand pressures. As a result of these imbalances, private sector and external debt have surged in the deficit countries (Figure 6). The importance of the imbalances is compounded by the fact that in some of these countries a substantial share of the capital inflow was not used for productive investment, but went into the real estate sector, where it contributed to the rise in asset prices and the development of excess construction capacities. All these factors, together with, in some cases, the buildup of short-term debt and large financial sectors, increased the vulnerability to abrupt changes in financial market conditions.

Figure 6: Net Foreign Asset Position, Euro-Area Member States, 1995–2007^a
(% of GDP)



AT = Austria, BE = Belgium, CY = Cyprus, DE = Germany, EL = Greece, ES = Spain, FI = Finland, FR = France, IE = Ireland, IT = Italy, LU = Luxembourg, MT = Malta, NL = Netherlands, PT = Portugal, SI = Slovenia, SK = Slovak Republic.

^a 2006 data for Slovak Republic.

Source: European Commission.

With the crisis-induced downturn in credit, coupled with a drastic fall in housing prices and the need to engineer substantial economic adjustment, the economic prospects and the public finances of these countries have been particularly hard hit. GDP has been forecast to shrink by 7.5% in 2009 and 1.4% in 2010 in Ireland, and by 3.7% in 2009 and 0.8% in 2010 in Spain. Deficits are projected to increase to 12.5% of GDP in Ireland and 11.2% in Spain. But the crisis is affecting not only the deficit countries. The contraction has been among the deepest in some surplus economies with particularly strong export sectors, including Germany, where GDP has been projected to shrink by 5.0% in 2009, Finland (by 6.9%), and the Netherlands (by 4.5%).¹⁰

Excessive borrowing in foreign exchange in some non-euro-area Member States and its potential repercussions are another source of concern for the euro area. External borrowing, in particular in euro but also in other foreign currencies, has created huge currency mismatches and balance-sheet risks in a number of EU economies in Central and Eastern Europe. A substantial share of this debt financed unsustainable real estate booms, which are now being drastically reversed. As a result, some of the countries are facing very sharp drops in activity, pressure on exchange rates, and severe balance-of-payment problems. The exposure of euro-area banks in the region has made some smaller euro-area Member States in particular more vulnerable to the economic developments in these countries.

3.2.2 Overhaul of the EU financial market supervisory framework

Finally, the financial crisis has highlighted weaknesses in the EU's supervisory framework. The outbreak and magnitude of the crisis caught financial market supervisors largely by

¹⁰ European Commission (2009d).

surprise, not only in the US but also in the EU, pointing to serious limitations in existing frameworks. Macro-prudential risks, both in individual countries and in the EU, were not emphasized enough. Even where such risks were identified, there was no effective mechanism for corrective action.

The European Commission had long argued that the integration of European financial markets needed to be accompanied by improved cross-border arrangements for prudential supervision, crisis management, and crisis resolution. However, 10 years after the introduction of the euro, supervision remains largely fragmented along national lines despite the ever-growing importance of cross-border financial activity, including the pan-European trading of sophisticated financial products. Around 70% of EU banking assets are held by 43 cross-border banking groups. While the so-called Lamfalussy approach, which started in 2001, helped speed up the adoption of EU financial services law, progress was much slower on the supervisory side. For instance, no common reporting formats for banks were agreed on. Even though a better pan-European supervisory system might not have prevented the crisis from hitting Europe, the insufficient flow of information between national supervisors and the absence of a robust framework for the management and resolution of a crisis did not make it any easier to limit the spread of the crisis and led to the initial restructuring of financial institutions along national lines.

With this widely shared assessment in mind, the European Commission invited Jacques de Larosière to help develop proposals for an overhaul of the framework for financial supervision in the EU, as head of a high-level group.¹¹ The commission has begun translating the group's recommendations into concrete legislative proposals. Drawing on the lessons from the crisis, the proposals foresee a two-tier supervisory structure, including the creation of a European macro-prudential risk board chaired by the president of the European Central Bank and a European system of financial supervision, with binding powers to mediate and settle conflicts between national regulators.¹²

Response of the European Union to the Economic and Financial Crisis

The European Union (EU) has responded quickly to the most severe global economic crisis in 80 years, taking substantive measures to stem the crisis, both to restore the functioning of financial markets and to support the economy. The European Central Bank and other central banks cut interest rates and injected ample liquidity into the system to prevent the interbank market from grinding to a halt.

Threatened by the specter of systemic bank failures in the wake of the Lehman Brothers bankruptcy, governments swiftly adopted bold rescue packages in October 2008. These packages typically combine far-reaching guarantee schemes, deposit guarantees, capital injections, and in some cases the purchase of impaired assets and the temporary nationalization of banks.

Quick and decisive action was needed to prevent the downturn in the real economy from affecting the financial sector, and in turn the financial sector from constraining the real economy further. The European Commission therefore issued on 26 November 2008 a communication on a European economic recovery plan, which was broadly endorsed by the European Council of 12 December. The immediate priority of the recovery plan is to secure full confidence in the financial system and to mitigate the potential impact of the crisis on the real economy. The recovery plan rests on two main pillars: (i) a major budgetary impulse of €200 billion (1.5% of EU gross domestic product), made up of €170 billion in budgetary expansion by Member States and €30 billion in EU funding for immediate actions, to boost demand; and (ii) priority actions, grounded in the Lisbon Strategy, and designed at the same time to adapt the EU economies to long-term challenges and to continue implementing

¹¹ See de Larosière et al. (2009).

¹² Commission Communication on European Financial Supervision of 27 May (COM 2009).

structural reforms aimed at increasing potential growth. A first assessment of the recovery plan shows that the implementation of the measures has been effective and timely.

Finally, the EU is working on an overhaul of its system of financial supervision and regulation. Most importantly, the de Larosière report forms the basis for the strengthening of European cross-border supervision and regulation. The European Commission has presented detailed proposals based on the report of the high-level group chaired by de Larosière to the Council and the European Parliament with a view to reaching agreement on the new structures to be set up in 2010. Moreover, comprehensive work on the reform of the regulatory framework of the EU financial market is under way, also feeding the debate at the global level in the context of the G20.

For further details, see European Commission (2009a).

3.3 Does the euro provide a shield in the crisis? Yes but...

The euro provides an effective shield against the crisis. Euro-area members have benefited in particular from the ECB's swift and decisive liquidity management. From the onset of the financial market tensions, the ECB has taken forceful action in liquidity management, including nonconventional measures, to make sure that banks can refinance themselves.

The ECB reduced its benchmark policy rate by 325 basis points to 1.00% between October 2008 and May 2009, and has kept it stable since then to cushion the impact of the financial crisis on the real economy against the backdrop of receding inflationary pressures. In addition, it implemented a range of nonstandard measures, such as enhanced liquidity provision via fixed-rate tenders with unlimited supply (including the introduction of very-long-term refinancing operations with a maturity of 12 months), looser collateral standards, provision of foreign currency liquidity, and purchases of covered bonds. These measures have successfully supported the functioning of both money and covered-bond markets in the euro area. They have ensured that banks have adequate access to central bank funding to continue financing the economy. Moreover, they have prevented major liquidity constraints and reduced the risks of a systemic crisis. The new Member States that have already adopted the euro have also benefited. Malta, Cyprus, and Slovenia have been largely shielded from the impact of the turmoil and liquidity shortages. Slovakia, which adopted the euro in January 2009, has also weathered the financial storm well. The euro has thus acted as an umbrella against possible liquidity strains that would otherwise have affected the smaller, and less credible, pre-euro currencies.

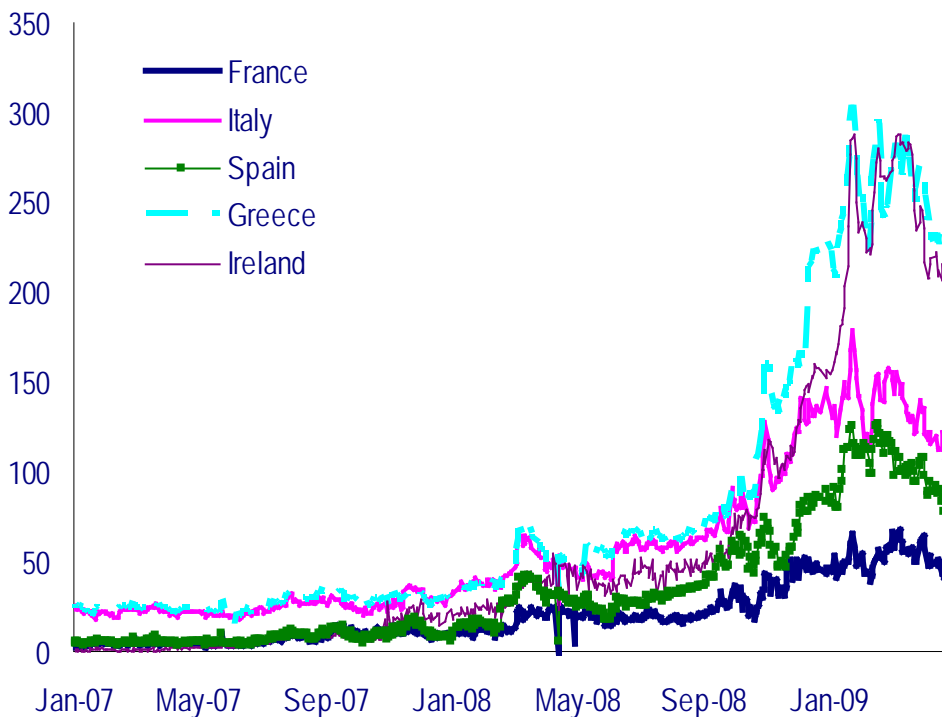
However, despite these important shielding functions, the various weaknesses and in particular the macro-financial vulnerabilities described in the previous section have increased macro-financial tensions within the euro area. These tensions have become most visible in the rapid surge of sovereign bond spreads in the area.

With the onset of the crisis, the spreads of sovereign bonds increased to levels not seen since the inception of the euro (see Figure 7). While underlying imbalances play an important role, much of the recent rise in spreads seems to be due to a general repricing of risk. Much of the widening of spreads appears to have been a rather general phenomenon across a broad range of asset markets.¹³ The risk of many assets, including government bonds, has been significantly repriced in the course of the crisis. For instance, corporate bonds have seen a similar widening of spreads across different risk classes (see Figure 8). Assuming that risk was underpriced before the crisis, it could be argued that at least part of the observed increase in government bond spreads can be interpreted as a return to the normal functioning of markets. A longer-term view of the evolution of spreads shows that

¹³ Longstaff et al. (2007) find that a large percentage of the variation in sovereign credit risk is driven by global factors and do not relate to country-specific credit risk.

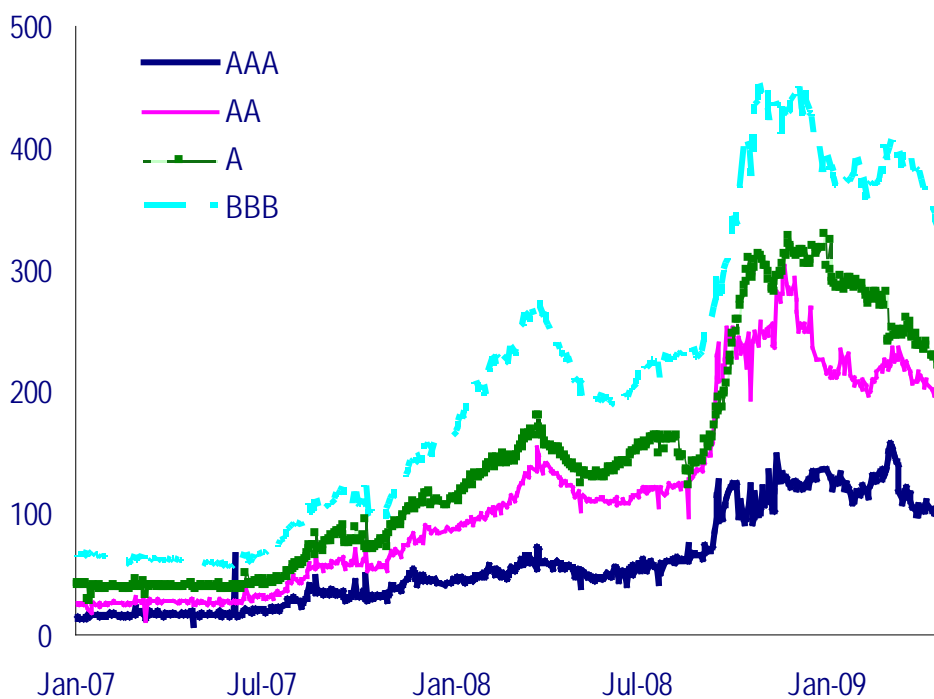
even during the most intense phase of the crisis for most Member States the spreads stayed below the levels seen before the start of the euro (see Figure 9).

Figure 7: Ten-Year Government Bond Spreads to Germany, 1 Jan 2007 to 30 April 2009 (basis points)



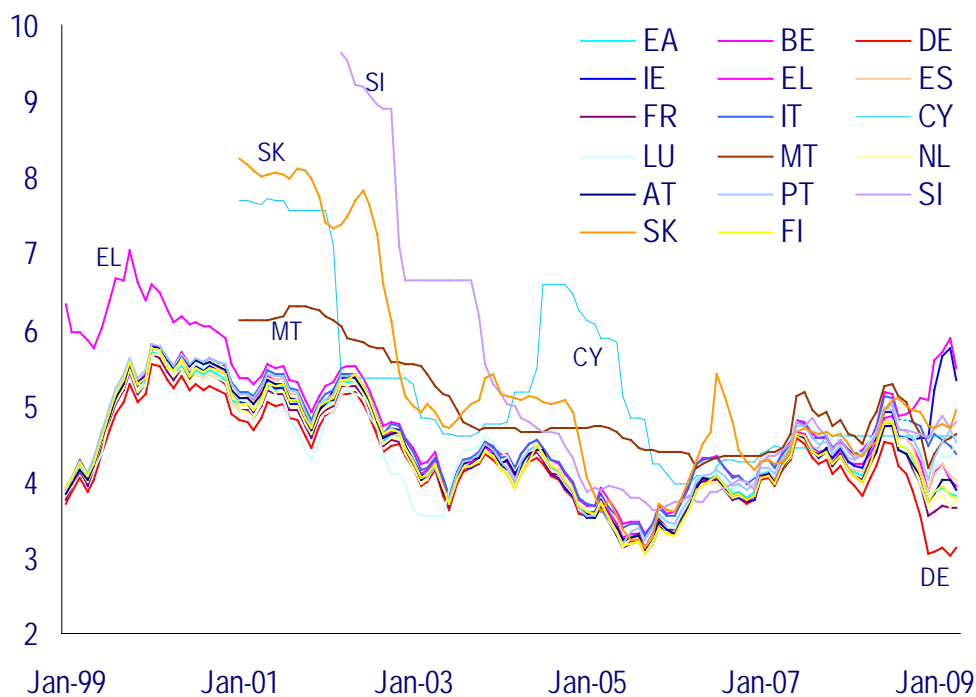
Source: EcoWin.

Figure 8: Corporate Bond Spreads, Euro Area, 1 Jan 2007 to 30 April 2009 (basis points)



Source: EcoWin.

**Figure 9: Ten-Year Government Bond Yields, 1 Jan 1999–30 April 2009
(percentage points)**



AT = Austria, BE = Belgium, CY = Cyprus, DE = Germany, EL = Greece, ES = Spain, FI = Finland, FR = France, IE = Ireland, IT = Italy, LU = Luxembourg, MT = Malta, NL = Netherlands, PT = Portugal, SI = Slovenia, SK = Slovak Republic.

Source: European Commission.

Moreover, the widening in spreads has not led to a corresponding rise in financing costs since the start of the euro because the yields for the underlying benchmark, the German bond, decreased significantly during the financial crisis. It fell from 4.3% in the second quarter of 2008 to 3.1% in the first quarter of 2009, followed by a broad stabilization (at some 3.3% in mid-October). The decrease in German yields during the crisis can be related to lower growth and inflation expectations and the associated monetary loosening of the ECB, but reflects also some flight-for-liquidity effects as the German capital market is perceived to be deeper, safer, and more liquid. As a result, even at the peak of the crisis, long-term government bond yields in most euro-area countries were not significantly higher than they were in the pre-crisis period. Marked exceptions are Greece and Ireland, where market concern about the sustainability of public finances and the scope of adjustment needs contributed to a particular strong rise in spreads. However, even in these two countries, the yield on government bonds is now back below the pre-crisis level.

Overall, the long-term borrowing environment still represents a major benefit of EMU membership in the current crisis. In particular for the periphery countries, in the absence of the euro, investors would have demanded much higher interest rates to compensate for the higher credit default and exchange rate risk as a result of the crisis.¹⁴

Despite this relatively reassuring assessment, some authors, stunned by the scope of the crisis, have evoked the specter of euro-area disintegration. What are the arguments and how real is the risk of a euro-area breakup?

¹⁴ Moreover, differences in spreads cannot be ascribed to the low integration of bond markets, as euro-area bond markets are well integrated (e.g., Schulz and Wolff 2008).

3.4 The specter of euro-area disintegration: Old and new myths

There can be no doubt: the ongoing global financial and economic crisis is a serious test for EMU. However, it is so from a rather unexpected angle, and the risks of breakup are far-fetched. Early EMU skeptics wondered if and how the euro area would survive asymmetric shocks affecting individual Member States in the context of a single monetary policy and exchange rate. Many found the euro area lacked the textbook criteria for a successful currency union, such as high intra-area mobility of labor and a centralized fiscal stabilization scheme. Yet, with the global crisis a massive shock is hitting all Member States simultaneously, although with a differentiated impact depending on the starting conditions.

As argued above, in a number of Member States the crisis has unearthed substantial adjustment needs to regain competitiveness, which will be much more challenging and economically painful to realize in a global environment of slow growth than in a period of dynamic economic expansion. This has led old and new skeptics to express doubts about the cohesion and viability of the euro area. For instance, Feldstein (2008) reasons that common economic policies, including the ECB's area-wide monetary policy and fiscal policies guided by the Stability and Growth Pact, might be perceived as ill suited for the welfare of individual countries. Tilford (2006) argues that widening current account deficits and losses in competitiveness could combine into a vicious circle, in which weak competitiveness generates low growth, which in turn leads to a protracted deterioration of the country's economy.

Much along the same line, Hankel, Schachtschneider, and Starbatty (2009) argue that economic divergences within EMU, driven by uncontrolled public deficits and deteriorating competitiveness, could undermine the entire European Union project. In their view, the notorious discrepancy between high- and low-performing Member States ultimately creates a policy dilemma that leaves only three options. The low performers would have to engage in permanent austerity policies, including repeated cuts in wages and social standards (option 1). However, such an option would hardly be politically viable and ultimately undermine the support of the Single Market project altogether. Alternatively, Germany, being the wealthiest high performer, would have to sustain the low performers (option 2). However, such an approach would have detrimental moral hazard effects, and would neither accord with the Treaty. Hankel et al. conclude that, to regain competitiveness, euro-area Member States with structural competitiveness disadvantages should exit the euro area and devalue (option 3).

In light of the potentially precarious economic and financial situation of some Member States, others, for instance, O'Grady (2009), see the lack of a lender of last resort as a significant source of weakness for the euro area. Finally, skeptics put in doubt the political governance of EMU. In view of its failure to spur structural reform, Tilford (2006) considers, in line with Feldstein (2008), that pressure for structural reforms might either generate rising tension between governments, or generate social and political unrest, ultimately inducing policy makers to opt for an exit from the euro area. Pisany-Ferry and Sapir (2009) do not predict a euro-area breakup, but criticize the absence of a sufficiently effective euro-area crisis management capacity. Judging the overall euro-area governance system as weak, they see it in particular as a handicap making it difficult for the euro to gain further influence as a global currency.

Many of the arguments presented in these critical assessments are not new.¹⁵ While they have to be taken seriously, they tend to overstate the risks implied by the intra-euro-area competitiveness divergences and to ignore the euro area's successful track record over the

¹⁵ Jonung and Drea (2009) review the position of US economists regarding the prospects of the euro in 1989–2002 and find that many were highly skeptical. The authors summarize their findings with a quote from Rudiger Dornbusch: "The euro: it can't happen. It is a bad idea. It won't last." Feldstein (1997) was also among the early skeptics.

last 10 years. Concerns of a euro-area breakup based on competitiveness are overstated for several reasons.

First, the observable evolution of competitiveness and current account imbalances has to be kept in perspective. Competitiveness assessments depend significantly on the choice of the base year. Using the year 2000—the first year after the introduction of the euro—as a base year clearly emphasizes the strong gains in competitiveness of Germany (22 percentage points over Italy in 2008).¹⁶ Taking 1990, before the effects of German unification set in, as starting point for comparison yields a different picture of relative competitiveness positions. Italy increased its competitiveness edge over Germany in the 1990s. It was not until 2000 that Germany began to regain lost ground. If 1990 is taken as baseline, Germany's real effective exchange rate (REER) had gained 4.8% by 2008, while Italy's REER had gained 6.4%.

Second, current account divergences are, at least to some extent, the result of faster growth in lower-income countries and thus reflect successful catching-up and integration in EMU.¹⁷ Moreover, the ongoing downturn reduces current account imbalances as it adjusts relative demand across Member States. Current account surpluses and deficits of euro-area Member States are expected to drop by about one-third between 2008 and 2010. Because of the current slump in domestic demand among deficit countries, a fall in the price of non-tradable goods will make investment and production in the tradable sector more profitable, thereby providing support for the current account. Likewise, Germany will not be able to maintain its large trade surplus at a time when world trade falls significantly.

Overall, this does not mean that the more entrenched part of current account deficits should be disregarded. To the contrary: differences in competitiveness, budget situations, and current accounts are real. They need to be tackled through structural reforms. That is not easy, but it is possible. Member States are increasingly aware of their need to adjust. Recognizing the common interest in addressing macroeconomic imbalances, the Eurogroup has embarked on the broadening of its surveillance of Member States' economic policy development to strengthen peer support for reform.

3.5 The true costs of exiting the euro area

Would leaving the euro area solve the pending competitiveness challenges as some propose? Legal, political, and more importantly economic considerations demonstrate that exit is no viable solution to prevailing policy challenges. According to the Treaty, joining the single currency was and is an irrevocable step. Article 4(2) of the Treaty refers to the "irrevocable fixing of exchange rates leading to the introduction of a single currency." Article 123(4) refers to the "conversion rates at which their currencies shall be irrevocably fixed." Beyond legal matters, exiting the euro area would bear considerable economic and political costs, both for the Member State concerned and for the euro area as a whole, which are often overlooked.

For countries with competitiveness challenges, exiting the euro would be tantamount to a very significant devaluation of the new currency in a bid to regain lost competitiveness. However, for a number of reasons such a move would backfire and be politically self-defeating. While an exit from EMU coupled with devaluation might give a temporary boost to national exports, the population would experience a loss of purchasing power with the currency devaluation and the likely increase in inflation. Possible protectionist reactions by trading partners could further undermine the desired effects. Moreover, the underlying structural problems would remain unaddressed, and the incentives for reform would probably weaken. Perhaps even more importantly, devaluation would lead to an increase in real

¹⁶ See Jones (2009).

¹⁷ For more details, see European Commission (2009f).

government debt or re-denomination, tantamount to a practical default on government debt; both options would be costly for the government as well as the population. By the same token, negative balance sheet effects in the private sector would further dampen growth.

There are also practical considerations that make the breakup of the euro area a rather remote option. Introducing a new currency is costly in terms of time as well as confidence. This starts with the inevitable complex and controversial political discussions surrounding the decision to make such a move, which would adversely affect confidence and ultimately the real economy. A new currency would need to be printed and brought into circulation; this cannot be done overnight. The exit argument overlooks the fact that the financial environment has dramatically changed over the last 2 decades. In a regime where capital flows freely, the process of leaving the euro would lead to large capital outflows, further undermining the stability of the economy. The new currency would be under heavy speculative pressure from financial markets. The authorities would either have to raise interest rates to high levels, choking the economy in the process, or let the new currency devalue further. Undershooting of the desired exchange rate, possibly over a considerable period, would be likely.

Finally, the repercussions on the relationship with other partner countries in the EU would be incalculable. In addition to potential protectionist reactions and the destabilizing impact on the Single Market, an exit from the euro area, the deepest form of European integration, is likely to be seen as a signal of intention to leave the European Union altogether. However, despite widespread complaints about “Brussels”-induced regulations and notoriously low ballot turnouts in elections for the European Parliament, EU membership is highly popular among European citizens across all countries.¹⁸

Against the foregoing background, it is not surprising that, rather than enticing members to exit, the crisis has further increased the attractiveness of the euro, even among those Member States that are not yet part of the euro area.

4. TOWARD AN ENLARGED EURO AREA: THE NEXT 10 YEARS AND BEYOND

4.1 The story so far

As we look ahead toward the next 10 years of EMU, a key open issue is the future pace of euro-area enlargement, as well as the implications of this process for the functioning and governance of EMU. All Member States except Denmark and the United Kingdom have committed to the goal of adopting the euro, once a high degree of sustainable convergence has been achieved. As we have seen, this process is neither predetermined nor linear. Countries themselves are ultimately in the driver’s seat of their euro ambitions (by calibrating their path toward the fulfillment of the criteria set by the Treaty), but must also take into account uncertainties in economic performance (which led to the postponement or abandonment of euro adoption targets by a number of new Member States [NMS]).

The last few years have shown that euro-area enlargement is an open process, with four of the 10 NMS that joined the EU in 2004 having already fulfilled the necessary conditions and joined the euro area. This needs to be seen in the proper perspective. While the starting conditions for the first three entrants may have been somewhat more favorable than those of other NMS (comparatively high income levels in Slovenia and the two islands; absence of shocks related to the transformation from former socialist to market economies and long-standing pegs in Cyprus and Malta; strong fiscal starting point in Slovenia), all of the new

¹⁸ According to Eurobarometer 71 of September 2009 (European Commission 2009c), with the exception of Austria (41%) and Greece (45%), the acceptance among euro-area member states of EU membership being a “good thing” ranges rather unchanged over the years, from around 50% to about 70%.

entrants had to pursue significant policy adjustments to qualify for the euro. These included the move from a crawling peg to a fixed exchange rate for Slovenia; fiscal consolidation in Cyprus, Malta, and Slovakia; and the completion of post-transition administered price adjustments in Slovakia. Structural reforms to strengthen domestic adjustment capacity and competitiveness were also pursued in preparation for life with the euro.

Euro adoption has clearly paid off for the new entrants by providing a shield in the crisis. Their longer-term performance will hinge on keeping the commitment to necessary policies and reforms.

4.2 Financially driven convergence: From boom to crisis and beyond

What are the prospects for the further enlargement of the euro area toward the NMS?¹⁹ Until recently, the NMS' euro adoption strategies were fairly clearly divided into two approaches, which mapped closely with the choice of exchange rate regimes.

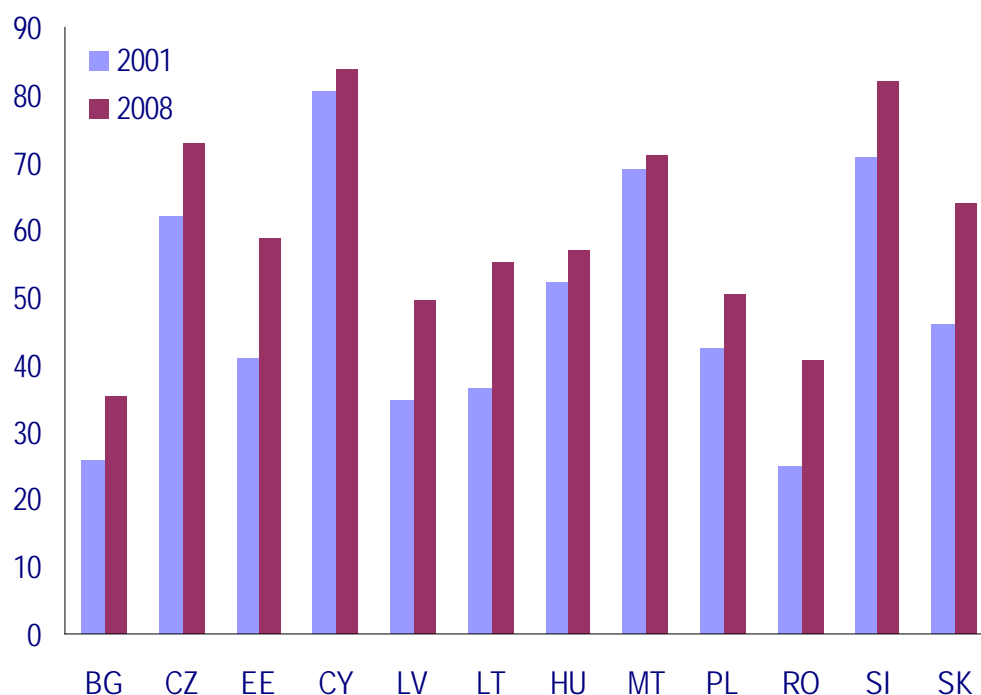
- One group of NMS operates hard pegs to the euro, either through currency board arrangements (Estonia, Lithuania, Bulgaria) or through a conventional peg (Latvia). These countries see euro adoption as an obvious exit strategy from their pegs and a logical endpoint of their monetary integration with the euro area, which they want to accomplish as soon as feasible.
- The other group of NMS have chosen to maintain more flexibility in their exchange rate arrangements, following domestic monetary anchors through inflation targeting regimes, with managed or free floats. The Czech Republic and Poland have pursued inflation targeting regimes since the late 1990s, Romania made this move in 2005, and Hungary gave up its hybrid inflation–exchange rate targeting regime in early 2008. These countries did not pursue near-term euro adoption plans after EU accession, partly because they still saw the need to be able to use the exchange rate instrument as a shock absorber, and partly because they still had to make major progress with nominal convergence (e.g., in fiscal positions). Most recently, the vulnerability of the floating NMS to the crisis has led to a reconsideration of euro adoption plans in some cases, reflecting the euro's increased attractiveness. For instance, Poland adopted for the first time a euro adoption target (2012); however, this has proved unrealistic and is now being revised.

The main elements of the convergence process help in judging the challenges and prospects of the NMS on the way to the euro. Some stylized facts illustrate the general trends:

- Real convergence has been substantial. While average incomes in the NMS are still considerably below those in the original euro area (at an average of some 52% in 2008), the gap in GDP per capita has narrowed by more than 10 percentage points since the start of this decade (see Figure 10).

¹⁹ This section does not address the issue of euro adoption by Denmark, Sweden, and the UK, because in these countries there is a strong political element to the issue, and because the analysis focuses primarily on the challenges for converging economies and on the issue of managing a more heterogeneous euro area.

**Figure 10: Real Convergence in the New Member States, 2001 and 2008
(GDP per Capita in Purchasing Power Standards, Euro Area 12 = 100)**



BG = Bulgaria, CZ = Czech Republic, CY = Cyprus, EE = Estonia, HU = Hungary, LT = Lithuania, LV = Latvia, MT = Malta, PL = Poland, RO = Romania, SI = Slovenia, SK = Slovak Republic.

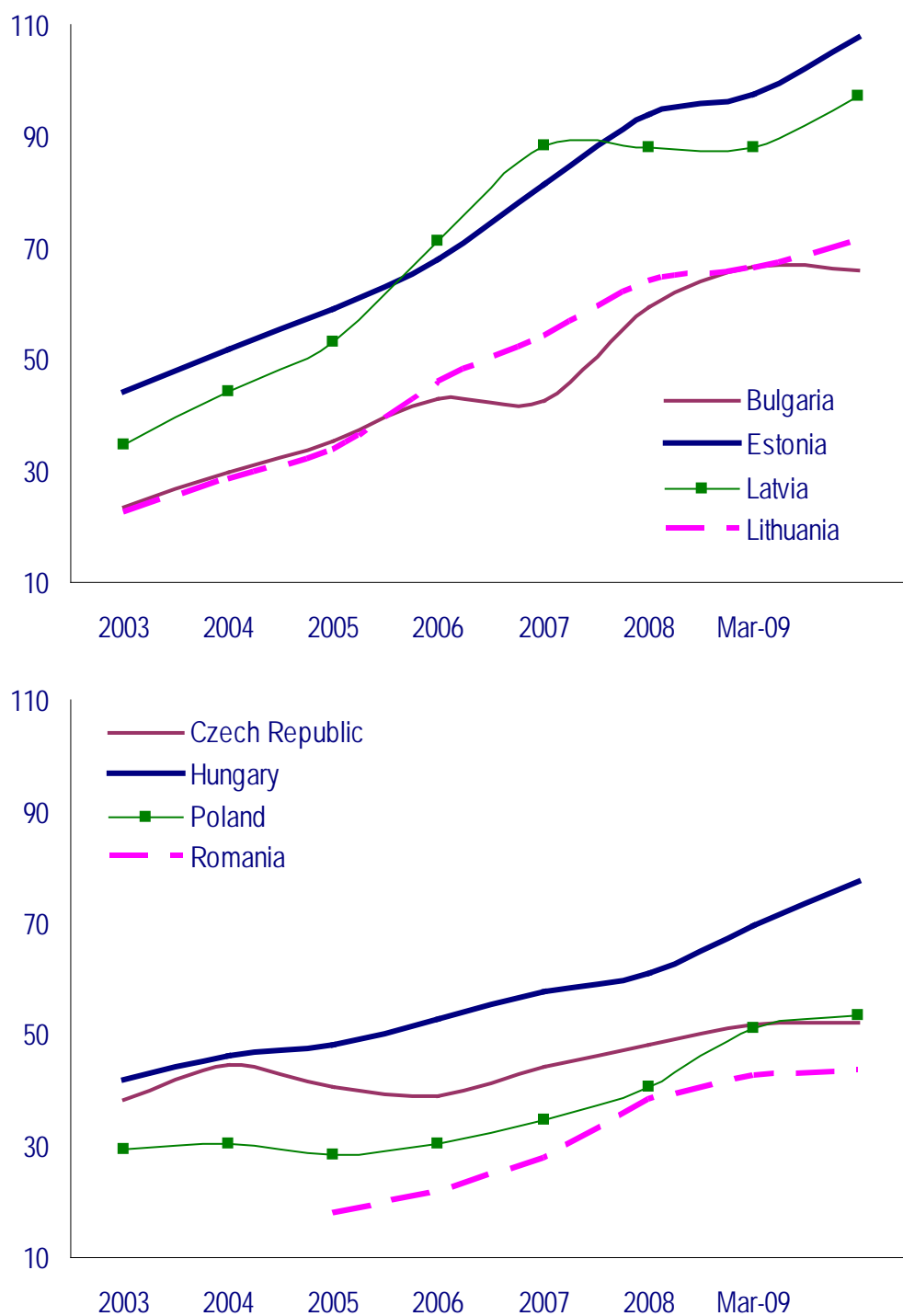
Source: European Commission.

- The NMS' economies have become increasingly well integrated with the broader EU economy. This fact reflects two interconnected underlying trends: more open trade and financial flows in general, as the NMS established full-fledged market economies,²⁰ and—particularly since the late 1990s—a clear orientation of integration toward the EU, culminating in full membership in 2004/2007.
- Financial integration has proceeded even more forcefully than the integration of the real sector. This has clearly been visible in a strong expansion of external balance sheets of NMS, with the average stock of external assets and liabilities rising from some 120% to more than 200% of GDP between 1999 and 2006. In the same vein, financial sector development in the NMS has proceeded at a brisk pace, with domestic financial deepening increasing rapidly from previously depressed levels (Figure 11). Foreign-currency borrowing has become widespread in the majority of NMS, creating balance-sheet vulnerabilities.²¹ Banking sectors are largely foreign owned (mainly by banks from other EU countries), lowering risks of “sudden stops” in capital flows but implying common creditor risks (Figure 12).

²⁰ The NMS started their transition from subpar trade integration and with a largely undeveloped financial sector. For a discussion of trade patterns during and after transition see Fabrizio, Igan, and Mody (2007).

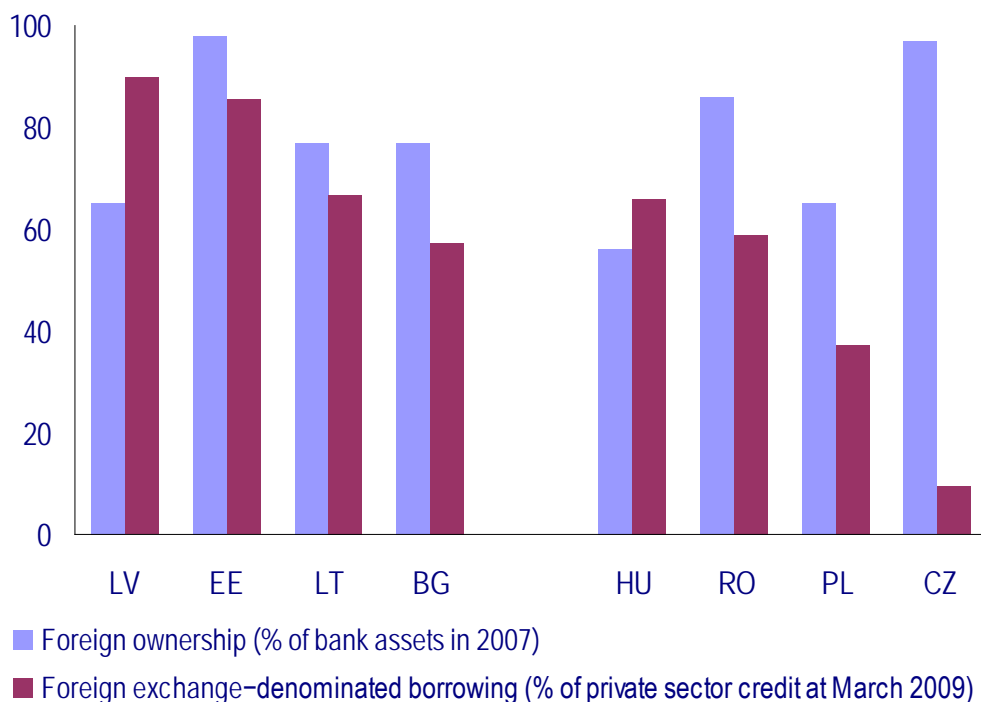
²¹ The underlying drivers of foreign-currency borrowing are diverse; exchange rate regimes play a role but their impact may be somewhat less straightforward than might be assumed. To be sure, euro-denominated borrowing has been predominant among the peggers (particularly in the Baltics; somewhat less in Bulgaria), as exchange rate risk was perceived to be close to zero and hence even small interest rate differentials were exploited. In some cases an accommodative regulatory framework (e.g., with no limits on banks' open euro positions) has contributed. What may be somewhat more surprising is that also in some of the “floaters” forex borrowing has increased significantly, accounting for half of the total credit, and more in some instances. In this case, high interest rate differentials appear to have played the main role.

Figure 11: Credit-to-GDP Ratios for the New Member States (%)



Source: European Commission.

Figure 12: Foreign Ownership and Foreign-Currency Lending in the Banking Sectors of New Member States



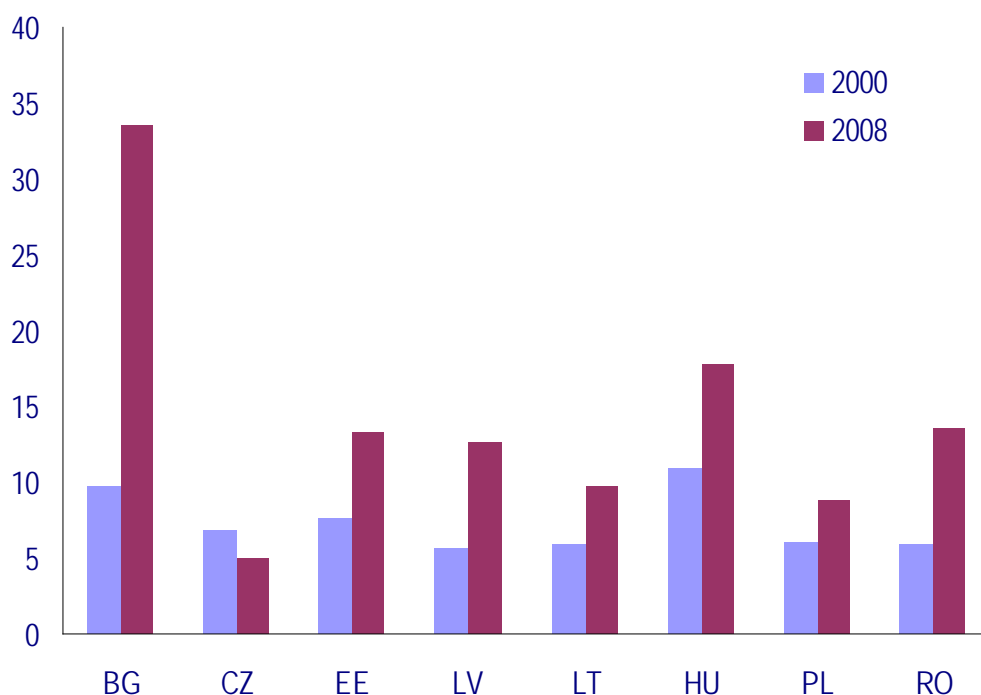
BG = Bulgaria, CZ = Czech Republic, EE = Estonia, HU = Hungary, LT = Lithuania, LV = Latvia, PL = Poland, RO = Romania.

Source: European Commission.

- In the context of “financially driven” convergence, the NMS have been able to mobilize foreign savings on a large scale in the context of catching-up and high returns on investment (see Figure 13). A sustained underlying improvement in risk perceptions vis-à-vis the NMS compared with other regions (reflecting, among other things, the EU accession process) is likely to have played a role in explaining the pattern of capital flows to the NMS in recent years and, indeed, an underpricing of risk may have contributed to the buildup of imbalances.²²

²² The size of the so-called “halo effect” of EU membership on external financing conditions has been estimated by Luengnaruemitchai and Schadler (2007) to be around 50–100 basis points. During the crisis, this effect appears to have largely unwound (IMF 2009), amplifying the widening of spreads in a pro-cyclical manner.

**Figure 13: Capital Inflows into the New Member States^a
(% of GDP)**



BG = Bulgaria, CZ = Czech Republic, EE = Estonia, HU = Hungary, LT = Lithuania, LV = Latvia, PL = Poland, RO = Romania.

^a Surplus on the capital and financial account of the balance of payments without reserves.

Source: European Commission.

In many new Member States, capital inflows have financed sizable external deficits, in the context of their catching-up process. Temporarily high external deficits may be economically benign insofar as they reflect an efficient inter-temporal allocation of resources by economic agents. This is particularly the case if foreign savings are used to improve longer-term productive capacity. High investment rates in most NMS over the last few years, amounting to an average of 29% of GDP over 2004–2008, compared with some 21% of GDP in the euro area, provide evidence for such an underlying trend. However, a large share of investment in sectors such as real estate that do not directly improve productive potential has raised vulnerabilities in a number of NMS, including the Baltics.

Against the background of large capital inflows and sustained credit-driven demand growth that eventually led to overheating, external imbalances in some NMS clearly surpassed levels that are sustainable in the medium term. With external deficits of well above 10% of GDP (and, in the case of Latvia and Bulgaria, reaching levels at or above 20% of GDP in 2008), the NMS have gone well beyond the traditional metrics of macro-financial sustainability analyses. As a result of cumulated external deficits, average gross external debt in the NMS rose steeply from 50% to 80% of GDP between 2002 and 2008, with debt levels exceeding 100% of GDP in Bulgaria, Estonia, Latvia, and Hungary, and net international investment positions widened sharply.

While the NMS' high external deficits have generally not resulted from a loss of external competitiveness, the picture on this front has clouded more recently. Rapid real appreciation in some countries on the back of high demand and wage growth surpassed levels that could

be considered as “equilibrium” in a catching-up context.²³ Indeed, lending booms amid rapid financial integration have arguably exerted temporary (nonequilibrium) upward pressure on the real exchange rate, which must eventually be reversed (Székely and Watson 2007).

Since the second half of 2008, the crisis has started to hit the NMS severely, and many of them have fallen into sharp recessions. In most cases, a rapid retrenchment of current accounts has set in amid falling domestic demand, though a weak external environment has slowed down the correction. Credit growth has also dropped significantly, reflecting tighter liquidity as well as higher risk awareness among lenders and borrowers (both supply and demand factors). External financing conditions have deteriorated, in a number of cases to the point of creating a need for external financial assistance, notably in Hungary, Latvia, and Romania. The NMS have not all been equally vulnerable in the crisis. Financial market conditions have deteriorated most for NMS with particularly large imbalances and vulnerabilities.

The past boom years as well as the ongoing adjustment have had a significant impact on the NMS’ progress toward meeting the conditions for euro-area entry. At the time of the last convergence assessment by the European Commission in May 2008, all NMS but one (Slovakia, which later joined the euro) failed to meet the inflation criterion, some by large margins. At the same time buoyant growth had led to a significant improvement in fiscal balances, leading all but two NMS to meet the fiscal criteria. Long-term interest rate convergence was well advanced for most NMS, with Hungary and Romania as outliers in view of weak fundamentals and low policy credibility. Exchange rate pegs were operating smoothly, while most of the floating currencies were on a sustained appreciation path amid high investor interest.

Since the crisis hit Eastern Europe in the second half of 2008, the picture has reversed sharply, pointing to an exceptionally challenging environment ahead. Inflation is on a generalized downward trend, hampered in some cases by currency depreciation, while meeting the fiscal criteria will be a challenge.²⁴ Long-term interest rate spreads have widened significantly, while the floating currencies have recorded sizable depreciation, and the pegs face testing times in a context of adverse external financing conditions and sharp domestic adjustment. Beyond the immediate challenges of the crisis, the NMS may face a relatively difficult and volatile macroeconomic and financial environment for some time to come.

4.3 The crisis and euro adoption strategies

Given the wide divergence of exchange rate regimes and euro adoption strategies among the NMS, a key question is to what extent the crisis will affect feasible and desirable convergence paths for individual countries. In this respect, some differentiation is due. The boom-bust dynamics described above have been more pronounced among NMS with an exchange rate peg, reflecting the virtual absence of perceived exchange rate risk and low real interest rates, but also a generally low starting position in real convergence and financial deepening. While the fixed exchange rates have served the peggers well for a long time, the crisis is putting them to an unprecedented test. Comparatively strong starting positions in public finances and flexibility of markets may be mitigating factors,²⁵ but the uncertainties ahead are high. The crisis has reinforced the prevailing euro adoption strategies followed by

²³ For an overview of the drivers of real appreciation in the NMS see European Commission (2008) and Égert (2007).

²⁴ It goes without saying that in some countries the reining in of fiscal deficits is not only an issue because of the convergence criteria, but rather, or even primarily, an imperative in view of limited fiscal space and the need to limit financing needs.

²⁵ The aggregate picture masks country-specific diversity. While the Baltics (notably Estonia) tend to score relatively well in international rankings on competitiveness and the business environment (see, for example, World Bank [2008]), Bulgaria tends to lag behind, in particular regarding the institutional framework.

the peggers, with euro-area membership perceived as a credible exit strategy propping up confidence (among residents and nonresidents alike) in the pegs. Euro adoption is not seen as posing additional constraints on economic policy making, because the main benefit of staying out of the euro—the “option value” of an exit from the peg—may actually have turned negative at the current juncture. At the same time, the adoption of the euro would relieve liquidity constraints and eliminate exchange rate mismatches.

The situation for the “floaters” among the NMS is somewhat more differentiated. They generally enjoyed slower growth than the peggers, with commensurately lower imbalances. The flip side has been weaker policy discipline—less favorable fiscal outturns, higher rigidities, and weaknesses in the business environment. It might have been expected that, in the absence of an exchange rate straitjacket, short-term risks and policy challenges for the floaters would be lower than for the fixers at this stage, but this situation has only partly materialized.

In particular, three interlinked risk factors have come to the fore. First, the scope for actual exchange rate flexibility is limited by the degree of foreign-currency borrowing.²⁶ This consideration has turned out to be highly relevant for Hungary and Romania, and to some extent Poland, but not for the Czech Republic, significantly increasing the country’s resilience.²⁷ Second, the evidence suggests that in practice exchange rates are not only shock absorbers but also shock amplifiers.²⁸ This is confirmed by the sharp downtrend and increase in volatility of the floating NMS currencies since the second half of 2008, in excess of levels that could reasonably be justified by fundamentals. Third, an unbalanced policy mix has increased fiscal vulnerabilities in some cases, and thus created tension points in the current environment. For instance, the ultimate trigger for Hungary’s need for financial assistance was a seizing-up of the government bond market. These vulnerabilities were not as apparent in a context of strong growth and very favorable global financing conditions, and hence did not signal a high degree of urgency for euro adoption. The deterioration of economic and financial conditions, however, appears to have shifted the trade-offs seen by policy makers in favor of earlier or more determined efforts to meet the conditions for euro-area entry.

4.4 A digression: Is the euro adoption framework still relevant?

With euro adoption gaining new strategic importance for the NMS as a group and amid the difficult global economic and financial conditions, the idea of going beyond the Treaty and advancing euro adoption for the new Member States has been floated in the debate. In this context, some remarks are in order. Yes, the euro provided a shield in the current crisis, and its attractiveness to neighboring countries has increased. Nevertheless, an accelerated euro-area enlargement that would require a waiver or a loosening of the entry criteria specified in the Treaty is not a desirable avenue to pursue. A number of factors, both economic and institutional, should be stressed in this context.

Regarding the underlying economics, euro adoption without convergence appears to be a suboptimal and potentially risky strategy. The requirement of convergence in public finances, inflation, exchange rate policy, and long-term interest rates provides an orientation for policies and acts as a disciplinary device, with membership in the European Exchange Rate Mechanism (ERM II) as a “training ground” in preparation for the irrevocable fixing of exchange rates.²⁹ The “policy convergence” that took place in the run-up to euro adoption

²⁶ This follows Calvo and Reinhardt (2002) on the “fear of floating.”

²⁷ In this context, Szapáry (2009) shows that the euro has increasingly become an anchor also for the floating NMS.

²⁸ See, for example, Darvas and Szapáry (2008).

²⁹ ERM II was established at the start of 1999 to provide a framework that would foster exchange rate stability and convergence in Member States outside the euro area. Participation is voluntary but expected at some

was a key ingredient for the smooth entry of the first wave of euro entrants into the new policy framework, and the same holds for future entrants.

Regarding the possible effect of ad hoc euro adoption on macrofinancial stabilization, several caveats are also in order. First, while exchange rate risk is indeed removed with euro adoption, credit risk is not. If the real exchange rate is perceived as overvalued by investors, raising doubts about medium-term external sustainability, this will still be reflected in external financing costs and the availability of foreign funding. Second, the core argument for euro adoption is about liquidity and exchange rate risks. It does not address issues related to bank solvency or external debt sustainability. Third, the underlying imbalances that built up when economies overheated have to be worked out under any monetary regime. While it is true that, at least for the peggers, euro adoption does not remove significant degrees of freedom in this respect, the issue of euro adoption should not detract from the underlying adjustment challenge. Fourth, while access to ECB operations would address the need for euro liquidity, it has become more apparent over the past months that complementary action can, at least to a degree, fulfill this function. The menu of instruments includes private sector solutions, indirectly transferring the benefits from enhanced ECB liquidity provision to countries outside the euro area, financial assistance by the EU and the International Monetary Fund, and flanking operations by central banks, including ECB repurchase agreements with Hungary and Poland, and a Riksbank swap with Estonia.

Regarding the institutional dimension, which is key in a large union of 27 Member States, both the European Commission and the Member States have consistently reaffirmed that the Treaty framework for euro area enlargement, based on the achievement of sustainable convergence, remains fully relevant and is an integral part of EMU governance. The rules-based framework of the Treaty provides for a transparent and accountable process of euro-area enlargement, based on a sound economic rationale. Compliance with the convergence criteria in a sustainable manner is in the interest of both the prospective and existing members of the euro area. It signals the commitment and the ability to ensure a stable macroeconomic environment after irrevocably giving up the national exchange rate and monetary policy, and thus contributes to the smooth functioning and stability of the euro area.

As an alternative option, some have suggested aiming for a “negotiated solution” by which countries would adopt the euro as legal tender while formally staying outside the euro area. In this respect, the institutional and economic arguments are equally clear. The EU Council has repeatedly stressed³⁰ that unilateral “euroization” runs counter to the underlying spirit of the Treaty, which is based on joint responsibility for the management of the euro area, and therefore is not an option for existing or prospective Member States. While some individual NMS may indeed be “too small to matter,” unilateral euroization could well trigger similar demands around the region, both inside and outside the EU, eventually transforming EMU into a “two-tier” structure. Such a two-tier structure would increase uncertainty, for instance in terms of emergency liquidity assistance, with adverse implications for the credibility of the monetary integration framework as a whole. In summary, it is difficult to see how the potential short-term benefits of euroization could outweigh these significant broader concerns. Circumventing the Treaty to engineer a broad-based ad hoc euro adoption is neither desirable nor feasible.

point after EU accession. The mechanism provides for mutually agreed central rates to the euro and standard fluctuation bands of $\pm 15\%$. Intervention at the margin of the band is in principle automatic and unlimited, unless it conflicts with the objective of price stability. All decisions in ERM II (entry, central rates, fluctuation bands, realignments) are taken by consensus of all participants. Current non-euro-area participants are Denmark and the three Baltics.

³⁰ Council of the European Union (2000, 2003).

4.5 Looking ahead: Toward an enlarged euro area

Euro adoption remains a key anchor for medium-term policies and expectations for NMS. An orderly convergence path is important to underpin market sentiment and strengthen investor confidence. The European Commission strongly encourages and supports Member States in pursuing policies that will bring them closer to the euro and ensure successful participation in the euro area. Necessary policy measures include efforts to strengthen fiscal discipline, correct macro-financial imbalances, preserve financial stability, and foster productivity and competitiveness. These policies will allow countries to move toward euro-area membership, and are also necessary for longer-term catching-up under any monetary regime. Conversely, premature euro entry without convergence would not be a promising starting point for life with the single currency. By heightening economic divergences and adjustment problems, it would make the management of EMU as a whole more difficult. As discussed in the previous section, this lesson is underlined by the experience of the euro area after its first decade.

While uncertainty on the short-term convergence path of the NMS has increased, the main scenario is still one in which more Member States are expected to adopt the euro over the coming years. Ultimately the composition of the euro area will align closely with that of the EU, in line with the Treaty objective. Such a significant enlargement could have implications for the management and the policy challenges facing the single currency area in the medium term. From a strategic perspective, it will be important to identify policies that facilitate the smooth integration of new entrants and bolster the stability and resilience of the enlarged euro area.

What will be the impact of euro enlargement on the present euro area? A look at the economic characteristics of the new Member States yields a number of contrasting conclusions with regard to the potential impact of enlargement on the euro area:

- On the one hand, the data clearly suggest that the entry of the new Member States will not have a significant impact on the euro-area economy on aggregate. The aggregate GDP of the 12 new Member States (in euro terms) is around 11% of the original euro area total.³¹ Given their limited economic weight, developments in the new Member States will not materially affect aggregate growth and inflation rates in the euro area. Higher trend growth rates should lead to a gradual increase in the relative weight of the NMS (the share of NMS GDP relative to the euro area rose by around 3 percentage points between 2004 and 2008), but the overall effect will remain modest. In this respect, the impact of enlargement on the overall euro-area policy setting should be limited.
- On the other hand, country-specific diversity within the group is large. Also, the catching-up context sets the prospective new entrants somewhat apart from the existing euro area “core.” That said, the new Member States are not the first catching-up economies to join the euro area, and the potential challenges implied by their euro-area entry are in themselves not fundamentally different from those facing existing catching-up members.
- Compared with the integration of previous catching-up euro-area entrants, the ongoing euro-area enlargement could comprise a potentially new dimension mainly because of (i) the relatively large number of expected new entrants, which would increase the share of the euro-area “periphery” in the overall membership; and (ii) the fact that some of the NMS are considerably less advanced than the spectrum of existing euro-area members in terms of real convergence, indicating

³¹ Around 37% of the NMS total is accounted for by Poland and another 26% by the Czech Republic and Hungary, while the recently acceded four new entrants into the euro area account for only 13%. Euro-area enlargement would thus primarily affect the euro-area aggregate through developments in these countries.

that the catching-up challenges facing them may be both more pronounced and more prolonged than for previous cases.

- Euro-area enlargement will also be reflected in the governance structures of EMU. The Eurogroup will become a larger and potentially more unwieldy body, and ways will have to be devised to maintain an efficient functioning while maintaining the informal character of the group. Decision making on monetary policy will accommodate euro-area enlargement by introducing a rotation system, aimed at balancing accountability and efficiency concerns.

Overall, despite a limited aggregate effect, the conclusion is that heterogeneity is set to increase within an enlarged euro area. In analyzing the underlying factors (and developing appropriate policy responses), a number of stylized facts can be outlined.

Country-specific variability of macroeconomic aggregates among euro-area members is likely to become larger, at least in the initial period of enlargement. Macroeconomic aggregates in new Member States tend to be more volatile than the euro-area average. Though cyclical correlation with the euro area has increased, growth rates have fluctuated significantly; in particular, higher trend investment rates might remain a cyclical amplifier for some time to come. Inflation has also been more volatile, reflecting both cyclical and structural factors, such as changes in market structures, administered price adjustments, and a relatively large weight of energy in the economy.

Sectoral structures have not yet fully aligned, raising the probability of asymmetric shocks. While the evidence suggests that existing sectoral divergences should not be a fundamental obstacle to successful euro-area participation by the NMS, in view of ongoing integration and other factors, they will have to be appropriately taken into account in surveillance and policy making within the enlarged euro area.³²

On a related note, differences in production and consumption structures may also generate a divergent impact of common shocks. For example, volatility in global food and energy prices affects inflation patterns in the NMS more strongly, given the larger weight of these items in consumption baskets—about 40% on average, compared with some 30% in the euro area.

As real convergence progresses, this type of divergence is set to diminish. Also, the divergences do not, in themselves, signal imbalances that need to be corrected. Rather, they are an inherent feature of a broad-based monetary union. The policy response should largely be focused on containing related risks to the medium-term real convergence path, for instance by putting particular emphasis on adjustment mechanisms and on reforms to promote potential growth, to accelerate the completion of the real convergence process.

Potentially suboptimal responses to the regime shift implied by euro adoption could magnify divergences. A key role in this respect is played by financial integration and the removal of remaining balance-of-payments constraints.³³ Financial integration is therefore an important element facilitating smooth adjustment to shocks in monetary union through enhanced risk-sharing capacity. However, the vulnerabilities associated with high credit growth fueling unsustainable domestic demand and asset price booms have become all too apparent during the current crisis. Compared with previous catching-up economies entering the euro area, the already high and increasing degree of financial integration implies that euro adoption itself is likely to have a smaller impact on many NMS, while euro-area membership should increase macro-financial resilience, for instance by reducing liquidity risks and eliminating currency mismatches. Macro-financial risks must be managed and external financing channeled to productive uses to ensure the smooth integration of the NMS into the euro area.

³² For a discussion see, for example, European Commission (2009e).

³³ See Blanchard and Giavazzi (2002).

5. LESSONS TO BE LEARNED

As EMU enters its second decade, what lessons can we draw from the assessment of the euro's first 10 years, and in particular from the way the euro area has weathered the ongoing unprecedented global crisis? The following considerations do not aim to provide an exhaustive enumeration, but rather to highlight some key factors, both on governance and on policies.

First and foremost, the euro has proven that it is a viable and sound project that is here to stay. EMU, a policy regime without real historical precedent,³⁴ has found its feet and established an area of economic and monetary stability and the second-most-important currency in the world. During the first decade of EMU the macroeconomic record overall has been positive, fostered by a stability-oriented institutional framework, anchored in credible area-wide monetary policy, and benefiting from an underlying "policy convergence" among Member States that has been in marked contrast to preceding decades. The euro has fostered trade and financial integration among members, contributing to the completion of the Single Market. During the current crisis the euro has proven its worth in strengthening members' resilience in the face of global financial shocks by, among other things, eliminating exchange rate volatility and facilitating access to liquidity and risk sharing.

At the same time, the first decade of EMU has shown uneven progress in fiscal and structural policies, which are the main domestic policy levers within monetary union. Insufficient domestic adjustment capacity can lead to persistent divergences within monetary union, whose eventual correction may take time and can be economically costly. The experience clearly underscores the fact that countries themselves remain in the driver's seat when it comes to realizing the full potential of EMU, and adapting policies to the requirements of an irrevocably fixed exchange rate has not always been as smooth as hoped for.

Second, the governance framework of EMU has functioned well overall, though further improvements in its effectiveness should be explored. Within the overall framework provided for in the Treaty, economic policy governance in EMU has evolved over time and has been further operationalized according to emerging needs and lessons learned. Most visibly this includes the 2005 reform of the Stability and Growth Pact and the adoption and refinement of the Lisbon Strategy on Growth and Jobs. This evolutionary process will continue, drawing both on the broader lessons from the past 10 years and on the daunting challenges thrown up by the crisis.

Well before the peak of the crisis, the European Commission set out a number of recommendations in the EMU@10 report that will allow the euro-area economy to better address challenges. In a situation of crisis, more than in usual times, economic policies need to react swiftly to address the economic downturn and mitigate its effects. The ability to deliver swift and coordinated responses should therefore be strengthened.

One of the key issues for further reflection is economic policy surveillance. The Treaty provides for a set of surveillance instruments based on Articles 99 and 104, which have served to exert peer pressure, foster policy consistency, and encourage learning from best practices. But the depth and intensity of surveillance is not even among policy areas. In its EMU@10 report, the European Commission called for a broadening and deepening of euro-area surveillance, to encompass in particular developments in relative competitiveness among euro-area members, and eventually to be extended to future members. This should serve to capture a more complete picture of countries' policy challenges and the requirements of operating well in EMU. Surveillance of macro-financial stability should also be strengthened and appropriately integrated into the EU policy processes. The crisis has underscored the relevance of these proposals. But a caveat is important: it was not a lack of

³⁴ See Eichengreen (2008) for the euro area's unique structure.

surveillance or prior diagnosis that led to the emergence of imbalances and vulnerabilities in the euro area, but rather a lack of political will to implement necessary reforms and policies “in good times.” With this key lesson in mind, ways of giving surveillance greater traction should also be explored.

Moreover, the crisis has shown that financial market regulation and supervision needs to be improved. Many of the challenges, such as systemic risk assessment, have not been specific to the EU or the euro area. But the fragmentation of Europe’s supervisory landscape has clearly not kept up with the ongoing financial integration. Significant progress was made in the period before the crisis, in particular on regulatory reform through the Financial Services Action Plan, and on supervisory cooperation through memorandums of understanding, but this has not been sufficient to prevent the collective action problems that arose in particular at the start of the crisis.

On the upside, the crisis has shown the ability of the euro area, and the EU more broadly, to act decisively and in a coherent manner when this was vital. Despite some initial hesitation, concrete policy initiatives such as the European Economic Recovery Plan show political will and recognition of joint responsibility. The crisis teaches a key lesson on the importance of policy coordination and the need to take full account of the intensified interdependencies and spillovers within the euro area. An important concrete stepping stone is the envisaged strengthening of the EU-wide supervisory framework, on which the European Commission has made proposals for further discussion with Member States and the European Parliament. Regarding fiscal policy, the prevailing setup appears to be capable of delivering the necessary degree of coordination while maintaining its country-specific dimension and accountability.

Finally, the crisis also documents the urgency of consolidating the external representation of the euro area, not least with a view to addressing more powerfully such challenges as global imbalances, which are among the root causes of the crisis. The euro area and the EU need to provide global leadership in developing joint responses to restore financial stability and sustainable growth in the global economy and to design a better regulatory and supervisory system. This is not to say that the EU does not play its part in managing the crisis. It plays a leading role in the G20 and other forums. But the clear and pressing need for effective external representation highlighted by the crisis may catalyze further progress toward consolidating Europe’s role as a global partner in the future.

The euro area has already expanded from 11 to 16 members since 1999, and further Member States are set to join over the coming years. The framework for euro-area enlargement, based on the achievement of sustainable convergence, remains fully relevant. Establishing a track record of sound policies is in the interest of both existing and prospective euro-area members. Fears of the euro area becoming a “closed shop” have proved unfounded, with four countries joining the euro area in the last 3 years. While not specifically designed with the NMS in mind, the euro-area enlargement framework has stood the test of time and fulfills an important role in safeguarding the credibility and stability of EMU.

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