ARTICLES

MONETARY AND FISCAL POLICY INTERACTIONS IN A MONETARY UNION

In EMU, responsibility for monetary policy is assigned to the ECB, while fiscal policy remains the remit of each individual EU Member State. The Treaty on the Functioning of the European Union (hereinafter referred to as the "Treaty"), as well as additional provisions on monetary and fiscal policy interactions, aim to safeguard the value of the single currency and lay down requirements for national fiscal policies.

The financial crisis has highlighted that threats to financial stability can have a tremendous influence on both monetary policy and fiscal policy. In particular, financial instability and weak public finances can have a negative impact on each other. This adverse financial-fiscal feedback loop poses severe challenges to monetary policy, as volatile and illiquid sovereign bond markets, as well as a struggling banking system, put the smooth functioning of the monetary policy transmission mechanism at risk. In order to counter the adverse impact of fiscal and financial instability on the monetary policy transmission mechanism, the Eurosystem resorted to a set of non-standard monetary policy measures during the crisis.

Several weaknesses in the national fiscal policies and economic governance of EMU have come to light in the course of the crisis. First, the incentives and rules for sound fiscal, financial stability and macroeconomic policies proved to be insufficient. Second, the absence of a framework for the prevention, identification and correction of macroeconomic imbalances was a clear flaw in the EMU framework. Third, the lack of an explicit framework for euro area-wide financial stability and crisis management made it difficult to contain cross-market contagion quickly and efficiently.

Together with a stability-oriented monetary policy, sound fiscal and financial stability policies are an important foundation for sustainable growth and employment in the euro area. Hence, an improved policy framework is needed to address the identified shortcomings and thus ensure the smooth functioning of EMU. Such a framework must: i) maintain a price stability-oriented monetary policy; ii) provide stronger safeguards for sustainable public finances and economic policies; and iii) include explicit provisions for ensuring financial stability and crisis management. The first steps have been taken to overhaul the framework for economic governance in EMU, as well as the framework for financial supervision and regulation. The fast implementation and efficient enforcement of the new rules are essential.[1]

1 INTRODUCTION

EMU is based on a unique institutional framework, comprising a single monetary policy and several fiscal policies, each of which has clearly specified objectives and functions. With regard to monetary policy, the Treaty tasks the Eurosystem with the clear, primary objective of maintaining price stability in the euro area as a whole. With regard to fiscal policy, it is the responsibility of the national authorities to ensure a commitment to sound public finances, despite there being a formal framework for coordinating and laying down requirements for fiscal policies across countries.

The single monetary policy and national fiscal policies interact in various ways. For instance, a reliable and stability-oriented monetary policy fosters stable inflation expectations and low inflation risk premia, both of which help to limit the level and volatility of long-term interest rates. This, in turn, is beneficial to governments' financing costs. Conversely, fiscal policy has an impact on monetary policy, not only through demand-side effects, which may have a direct impact on the inflation outlook, but also by shaping the supply side of the economy, e.g. via tax regimes, or by influencing long-term interest rates via the issuance of public debt.

1 The article is based on information available until 12 June 2012.

While fiscal and monetary policies should ideally be mutually reinforcing, the euro area sovereign debt crisis has exemplified the opposite, namely that unsustainable public finances and high levels of debt can impede the conduct of a stability-oriented monetary policy. In fact, the experience of recent years has unfortunately highlighted that weak public finances can trigger a vicious circle that puts the financial system under strain. Deteriorating fiscal positions induce a repricing of sovereign debt, which has an adverse impact on the financial system via banks' exposure to government bonds. This, in turn, has negative repercussions for the macroeconomy, weakening public finances and financial markets even further. Such an adverse feedback loop then has an impact on monetary policy, in that volatile and illiquid sovereign bond markets, as well as instabilities in the banking system, put the smooth functioning of the monetary policy transmission mechanism at risk.

Against this background, this article sets out to shed fresh light on the interaction of monetary and fiscal policies in the euro area, taking into account a new dimension consisting in the nexus of fiscal and financial developments.[2] Section 2 recalls the institutional set-up of EMU, going back to the preparatory work carried out before 1999. Section 3 focuses on monetary and fiscal policies in the euro area prior to the onset of the financial crisis. It discusses the evolution of Member States' public finances and highlights deficiencies in fiscal governance. In Section 4, the article explains the interaction between public finances, financial stability and monetary policy. Section 5 provides a snapshot of the status quo in terms of addressing the shortcomings of the economic governance framework, as well as reforming financial supervision and regulation. Section 6 concludes.

2 THE INSTITUTIONAL FRAMEWORK OF EMU

Based on historical experience and academic studies, there is a broad consensus that the prerequisites for a stable currency are not only the independence of the central bank and its commitment to price stability, but also the commitment of the fiscal authorities to ensure sound public finances.[3] In fact, unsustainable budgets and excessive debt are detrimental to long-term growth because of the effect they have on long-term interest rates and, ultimately, they could put undue pressure on central banks to monetise public debt. When the EMU framework was designed, there was indeed a clear understanding that unsustainable fiscal positions can interfere with the smooth conduct of a single monetary policy. As stated in the "Delors Report"[4] "[a single currency] would imply a common monetary policy and require a high degree of compatibility of economic policies […], in particular in the fiscal field"; Moreover, "[i]n particular, uncoordinated and divergent national budgetary policies would undermine monetary stability […]."[5]

The founding fathers of EMU were well aware that the incentives for sustainable fiscal policies are weaker in a currency union. The Delors Report mentions that "[…] the access to a large capital market may for some time even facilitate the financing of economic imbalances."[6]

2 For earlier discussions of the relationship between monetary and fiscal policies in the euro area, see the article entitled "One monetary policy and many fiscal policies: ensuring a smooth functioning of EMU", *Monthly Bulletin*, ECB, July 2008; and the article entitled "The relationship between monetary policy and fiscal policies in the euro area", *Monthly Bulletin*, ECB, February 2003.

3 See, for example, Goodfriend, M., "How the world achieved consensus on monetary policy", *Journal of Economic Perspectives*, Vol. 21, No 4, 2007, pp. 47-68. For an overview of the various aspects of the interaction between monetary and fiscal policies in the academic literature, see, for example, Walsh, C.E., *Monetary theory and policy*, Chapter 4, 3rd edn, MIT Press, 2010. As evidenced, for example, by Sargent, T.J., "The ends of four big inflations", in Hall, R.E. (ed.), *Inflation: Causes and Effects*, University of Chicago Press, 1982, pp. 41-98, periods of hyperinflation have been observed when central banks lacking independence bow to fiscal needs and finance budget deficits through money creation.

4 In June 1988 the European Council set up the Committee for the Study of Economic and Monetary Union (the Delors Committee) and mandated it to study and propose concrete steps towards establishing economic and monetary union. The resulting Report on economic and monetary union (the "Delors Report") was, in essence, a concrete plan for the introduction of EMU.

5 See *Delors Report*, 1989, p. 13 and p. 19.

6 ibid., p. 20.

This refers to the fact that, in a currency union with fully integrated capital markets, governments and private agents can draw on a larger pool of savings to cover their borrowing needs. As a result, if an individual country increases its borrowing, funding costs rise only moderately; in fact, if the country were to have a smaller local pool of savings to draw from, the same increase in public borrowing would induce a stronger increase in bond yields. The elimination of exchange rate risk and the perceived possibility that, in the worst case scenario, the union might assume the liabilities of individual members clearly weakens incentives to pursue prudent fiscal policies. Bearing this in mind, the overall policy framework of EMU was designed to safeguard the value of the single currency, while countering any adverse side effects on incentives to ensure sound public finances.

Under the framework, there is a clear separation of responsibilities: the definition and implementation of monetary policy are mandated to the Eurosystem, while fiscal policies are ultimately the responsibility of the national governments. The ECB is an independent institution with the primary objective of maintaining price stability (see Articles 127(1) and 130 of the Treaty). At the same time, Member States are required to avoid excessive government deficits (see Article 126(1) of the Treaty).

While, in principle, it was expected that financial markets would penalise rising public deficits and debt by demanding higher yields on government bonds, the Delors Report had already pointed out that markets on their own may be imperfect devices for encouraging disciplined national fiscal policies: "Experience suggests that market perceptions do not necessarily provide strong and compelling signals […]. Rather than leading to a gradual adaptation of borrowing costs, market views about the creditworthiness of official borrowers tend to change abruptly and result in closure of access to market financing. The constraints imposed by market forces might either be too slow and weak or too sudden and disruptive."[7]

It was therefore essential to strengthen the incentives for pursuing prudent public finances by establishing explicit rules and commitments under the Treaty.[8] First, the ECB and the NCBs of the EU Member States were excluded as a source of direct borrowing via the prohibition of monetary financing of public debt (see Article 123 of the Treaty).[9] Second, the prohibition of privileged access to financial institutions by the public sector (see Article 124 of the Treaty)[10] rules out forced lending on state-specified terms. Third, the no-bailout clause (see Article 125 of the Treaty) prohibits the fiscal obligations of one Member State being assumed by the EU or another Member State.[11] Fourth, and crucially, explicit fiscal rules, coupled with the idea of peer surveillance and sanctions, were laid down in Article 126(2) to (14) of the Treaty and reinforced by the Stability and Growth Pact.

While this framework takes due account of conflicts that could arise from the interaction between fiscal and monetary policy, it also provides some guidance with regard to the division of labour between the fiscal authorities and central banks faced with financial instability. Financial stability policies, supervision and regulation are clearly the remit of the national authorities,[12] while the Eurosystem's role in ensuring financial stability is confined to providing liquidity to its counterparties.

7 ibid., p. 20.

8 For one of the first discussions of the rationale behind the Stability and Growth Pact, both as an attempt to underpin monetary dominance in the context of strategic interaction between monetary and fiscal authorities and as a partial substitute for a shared stability culture, see Artis, M. and Winkler, B. "The Stability Pact: Safeguarding the Credibility of the European Central Bank", *National Institute Economic Review*, Vol. 163, No 1, January 1998, pp. 87-98.

9 However, public credit institutions can borrow directly from the Eurosystem in the context of the supply of reserves for fulfilling minimum reserve requirements and are treated in the same way as private credit institutions.

10 Privileged access to financial institutions for the purposes of prudential supervision and regulation is permitted.

11 Loans from the EU or Member States to another Member State do not infringe the no-bailout clause.

12 However, this implies that, in some euro area countries, the NCB is involved in banking supervision. In fact, Article 127(5) of the Treaty asserts that "[t]he ESCB shall contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system". See also Article 3.3 of Protocol (No 4) on the Statute of the European System of Central Banks and of the European Central Bank.

3 MONETARY AND FISCAL POLICIES BEFORE THE CRISIS

In accordance with its mandate, the ECB conducts monetary policy for the euro area in line with its primary objective of maintaining price stability, thereby contributing to an overall stable macroeconomic environment. Euro area HICP inflation was, on average, 2.04% over the period from January 1999 to the onset of the financial crisis in August 2007 (see Chart 1).[13] Inflation expectations were well anchored around levels consistent with the aim of the Governing Council of the ECB to maintain euro area inflation below, but close to, 2% over the medium term. Compared with inflation rates achieved in other advanced economies across the globe, euro area inflation rates have, since the launch of the euro, been not only low, but also fairly stable and accompanied by a low level of macroeconomic volatility (see Chart 2).

At the same time, however, the economic governance framework in place did not prevent the build-up of sizeable public and private sector imbalances in the euro area, which was possibly supported by an environment of increased financial market integration, low macroeconomic volatility, the absence of exchange rate risk and the fact that governments and private agents had access to a large common pool of savings.

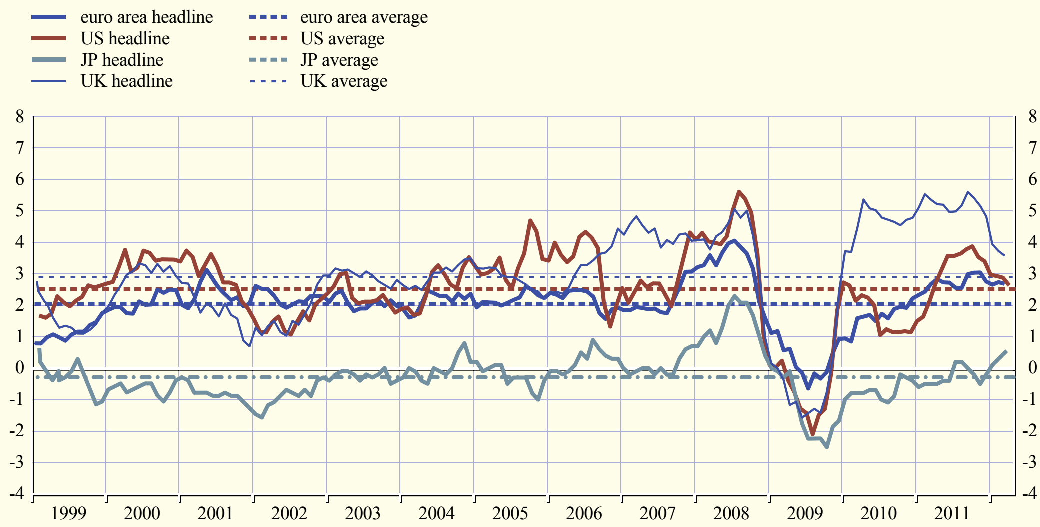
With regard to fiscal developments in the euro area in the run-up to Stage Three of EMU, there was a significant improvement in the fiscal positions of the first 11 countries to join the euro area. This reflected the considerable consolidation efforts made by most countries aiming to join the single currency.[14] Declining interest rates also helped countries to reduce their fiscal deficits during that period.

However, during the economic upswing of 1999-2000 most euro area countries missed the opportunity to further reduce their fiscal imbalances and build up sufficient "fiscal buffers". In the course of the economic

13 Since 1999 average euro area HICP inflation has been 2.05%. The latest observation for this calculation was May 2012.
14 The aggregate average government deficit of the countries that were the first to join the euro area declined from around 5% of GDP in 1991 to just above 2% of GDP in 1998.

Chart 1 Inflation rates in major industrialised economies

(annual percentage changes)

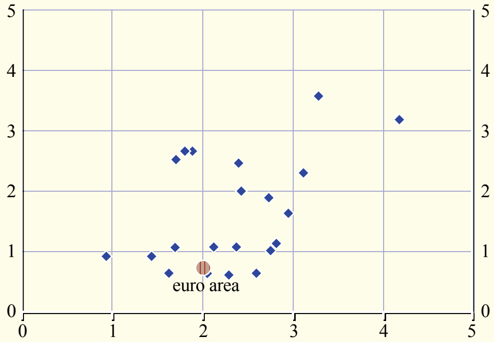


Sources: Eurostat, BIS and ECB calculations.
Notes: Inflation rates are calculated as year-on-year changes in the HICP for the euro area, the CPI-U for the United States and headline CPI for Japan and the United Kingdom. The data are not seasonally adjusted.

Chart 2 Inflation and output volatility in OECD countries and the euro area

(annual data 1999-2011; percentage points)

x-axis: standard deviation of output
y-axis: standard deviation of inflation



Sources: OECD and ECB calculations.
Notes: The inflation data refer to annual CPI inflation and the GDP growth data refer to annual real GDP growth. The sample consists of the OECD member and partner states (excluding euro area countries) and the euro area.

slowdown that began in 2001, fiscal positions deteriorated and excessive deficits were run up in an increasing number of euro area countries. In 2003 six out of the then twelve euro area countries recorded deficits above 3%, with the euro area average also exceeding that reference value. The deterioration in budgetary positions over that period and the growing reluctance to follow agreed rules and procedures weakened the credibility of the EU fiscal framework. Rather than insisting on a strict implementation of the rules, it was decided to reform the Stability and Growth Pact in 2005. Overall, the reforms introduced greater scope for the exercise of discretion in the application of procedures.[15] At the time, the Governing Council of the ECB expressed concern that these changes would make the EU fiscal framework more complex and less transparent, thereby hampering its ability to facilitate the achievement of sound fiscal positions by euro area countries.[16]

The new framework was not put to the test until the financial crisis erupted. The years following

15 See the article entitled "Ten years of the Stability and Growth Pact", *Monthly Bulletin*, ECB, October 2008.

16 See the statement issued by the Governing Council of the ECB on 21 March 2005 regarding the ECOFIN Council's report on improving the implementation of the Stability and Growth Pact.

Selected fiscal indicators

	Fiscal balance to GDP ratio				Government debt to GDP ratio				Interest payments to GDP ratio			
	1998	Change 1998-2007	Change 2007-2010	2011	1998	Change 1998-2007	Change 2007-2010	2011	1998	Change 1998-2007	Change 2007-2010	2011
Belgium	-0.9	0.9	-3.8	-3.7	117.2	-33.2	12.0	98.0	7.3	-3.4	-0.5	3.3
Germany	-2.3	2.6	-4.5	-1.0	60.5	4.7	17.9	81.2	3.4	-0.6	-0.3	2.7
Estonia	-0.7	3.1	-2.1	1.0	6.0	-2.3	3.0	6.0	0.5	-0.4	0.0	0.1
Ireland	2.4	-2.3	-31.2	-13.1	53.0	-28.2	67.6	108.2	3.3	-2.3	2.1	3.4
Greece	-3.9	-2.6	-3.9	-9.1	95.4	12.0	37.5	165.3	8.2	-3.7	1.2	6.9
Spain	-3.0	4.9	-11.3	-8.5	64.2	-27.9	25.0	68.5	4.2	-2.6	0.3	2.4
France	-2.6	-0.1	-4.3	-5.2	59.5	4.7	18.1	85.8	3.3	-0.6	-0.3	2.6
Italy	-2.7	1.0	-3.0	-3.9	114.2	-11.2	15.5	120.1	7.9	-2.9	-0.4	4.9
Cyprus	-4.2	7.7	-8.8	-6.3	59.2	-0.4	2.7	71.6	3.1	0.0	-0.8	2.5
Luxemburg	3.4	0.3	-4.5	-0.6	7.1	-0.4	12.4	18.2	0.4	-0.2	0.2	0.5
Malta	-9.9	7.6	-1.4	-2.7	53.4	8.8	7.2	72.0	3.2	0.1	-0.3	3.1
Netherlands	-0.9	1.1	-5.3	-4.7	65.7	-20.4	17.6	65.2	4.7	-2.5	-0.2	2.0
Austria	-2.4	1.5	-3.6	-2.6	64.4	-4.2	11.7	72.2	3.6	-0.8	-0.1	2.6
Portugal	-3.9	0.7	-6.7	-4.2	50.3	18.0	25.1	107.8	3.1	-0.2	-0.1	3.9
Slovenia	-2.4	2.3	-6.0	-6.4	23.1	-0.1	15.7	47.6	2.2	-0.9	0.4	2.0
Slovakia	-5.3	3.5	-5.9	-4.8	34.5	-4.9	11.5	43.3	2.5	-1.1	0.0	1.6
Finland	1.6	3.7	-7.8	-0.5	48.4	-13.2	13.2	48.6	3.5	-2.1	-0.4	1.1
Euro area	-2.3	1.6	-5.6	-4.1	72.8	-6.5	19.2	88.0	4.5	-1.6	-0.2	3.1

Sources: European Commission and the European Commission's European Economic Forecast – spring 2012.
Notes: 1998 and 2011 levels are expressed as a percentage of GDP. The changes over the periods 1998-2007 and 2007-10 are expressed in percentage points. Regarding changes in the fiscal balance-to-GDP ratio, a positive (negative) figure reflects an improvement (deterioration) in the fiscal balance.

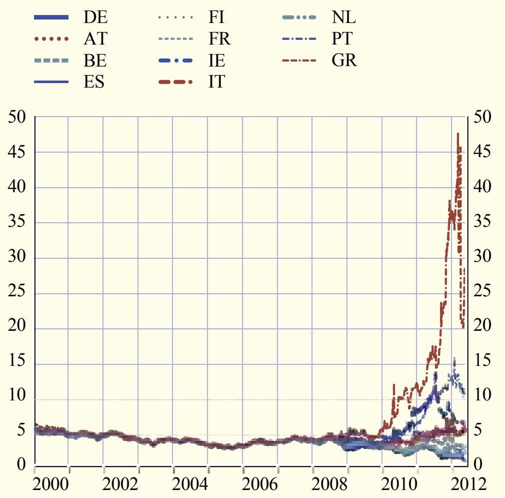
the reform of the Stability and Growth Pact were characterised by a significant improvement in the fiscal positions of most euro area countries: the aggregate euro area deficit ratio dropped to 0.7% of GDP in 2007, its lowest level since the introduction of the euro (see the table). However, in most countries, this improvement was largely the result of favourable economic developments rather than concrete fiscal consolidation policies. Thus, the structural fiscal position of the euro area was much weaker and the structural deficit, i.e. the nominal deficit adjusted for the impact of the economic cycle and one-off measures, still amounted to 2.0% of GDP. In addition, the euro area debt-to-GDP ratio was around 66% of GDP in 2007, which is only about 6 percentage points below the level recorded when the euro was introduced in 1999. Fiscal fundamentals also differed substantially across the euro area countries.

The failure to achieve sound fiscal positions before the crisis can be attributed to two main institutional weaknesses. First, the preventive arm of the reformed Stability and Growth Pact was not fully enforced, with only a few countries either achieving their medium-term budgetary objective or complying with the minimum adjustment requirements for achieving said objective. Second, the excessive deficit procedure was not rigorously applied to those countries that exceeded the 3% of GDP deficit criterion, i.e. sanctions were never imposed. Moreover, financial markets did not provide the necessary incentives for ensuring fiscal discipline. Until early 2008 governments issued debt at very similar interest rates, despite the divergence in their fiscal positions (see Chart 3). This reduced incentives to adopt more ambitious consolidation strategies.

With regard to the private sector, several euro area countries experienced large and persistent current account imbalances, as well as rising unit labour costs, which resulted in a loss of competitiveness.[17] Moreover, increasing private sector leverage was, in some cases, accompanied by a housing market boom, and various macroeconomic imbalances tended to "cluster"

Chart 3 Yields on ten-year government bonds in selected euro area countries

(percentages)



Source: Thomson Reuters Datastream.
Note: The latest observation is for 22 May 2012.

in some countries: the leverage of non-financial corporations and households, for instance, increased significantly in countries with a current account deficit, but remained broadly stable in countries with a current account surplus. Furthermore, the increase in leverage in the non-financial sector in deficit countries tended to be accompanied by surges in bank leverage.[18] These developments took place under a governance framework that made no provision for monitoring and preventing the build-up of such macroeconomic imbalances and, furthermore, they were not addressed by fiscal, structural or financial policies at the national level.

Essentially, several euro area countries entered the financial crisis with far from perfect fiscal fundamentals, and some of them were also burdened by sizeable private sector imbalances.

17 For a discussion of labour cost developments in the euro area countries between 1999 and 2007, see the article entitled "Monitoring labour cost developments across euro area countries", *Monthly Bulletin*, ECB, November 2008.

18 See the article entitled "Sectoral balances and euro area financial integration", *Financial Integration in Europe*, ECB, April 2012. Bank leverage is measured using notional assets and notional liabilities. By construction, the dynamics of notional ratios are not affected by asset price changes.

4 MONETARY AND FISCAL POLICIES IN THE FACE OF FINANCIAL INSTABILITY

The global financial crisis started in the summer of 2007, intensified in the autumn of 2008 and was followed by the deepest worldwide recession for decades. In response to the scale of the crisis, governments and central banks across the globe introduced policy measures that were often unprecedented in size or scope.

With regard to the euro area, the Eurosystem responded to the financial crisis with a combination of standard and non-standard measures. The standard measures led to significant interest rate cuts in 2008 and 2009, while the non-standard measures took the form of enhanced credit support to the banking system. Over the period 2007-09 this support comprised: i) unlimited liquidity provision to euro area banks at a fixed rate in all refinancing operations against adequate collateral; ii) the lengthening of the maximum maturity of refinancing operations from three months prior to the crisis to one year; iii) the extension of the list of assets accepted as collateral; iv) the provision of liquidity in foreign currencies (notably US dollars); and v) outright purchases in the covered bond market. Notably, these non-standard measures complemented an operational framework that was already "broad" – by international comparison – in the sense that it essentially enabled all credit institutions to obtain funding against a wide range of collateral.

The aim of all these measures was to mitigate the adverse effects that dysfunctional money markets were having on the liquidity situation of solvent banks in the euro area, and, ultimately, on credit market conditions and longer-term interest rates. They therefore helped to support the flow of credit to firms and households, and to counteract risks to price stability.

With regard to government policy responses at the national level, these included not only fiscal stimulus measures (that had been agreed at the EU level), but also measures to support the financial sector.[19] In conjunction with the strong contraction in GDP and the operation of automatic stabilisers in a contracting economy, these measures brought about a rapid rise in government deficit and debt ratios.

As shown in the table, the fiscal balance-to-GDP ratio for the euro area as a whole increased by 5.6 percentage points over the period 2007-10, while the government debt-to-GDP ratio shot up by almost 20 percentage points. This deterioration in public finances and the weak economic outlook triggered a strong widening of sovereign bond spreads, as investors started to change their views on the fiscal strength and growth prospects of certain countries. However, it cannot be ruled out that, during some periods, sovereign bond yields displayed some overshooting. This is precisely the risk that had already been acknowledged in the Delors Report, namely that "market views about the creditworthiness of official borrowers tend to change abruptly" and that the "constraints imposed by market forces might either be too slow and weak or too sudden and disruptive".

For most euro area countries, the first sharp increase in sovereign bond spreads in the autumn of 2008 has been attributed to a "transfer of risk" from the financial system to governments[20] after the collapse of Lehman Brothers in the September of that year. The national responses to the financial crisis, which consisted, in particular, of various forms of government guarantee and rescue measure for the financial

19 These amounted in total to 5.2% of euro area GDP over the period 2008-11 (see Table 1 in the article entitled "Analysing government debt sustainability in the euro area", *Monthly Bulletin*, ECB, April 2012). For an overview of the measures to support the financial sector see, for example, Petrovic, A. and Tutsch, R., "National rescue measures in response to the current financial crisis", *Legal Working Paper Series*, No 8, ECB, July 2009; or Stolz, S.M. and Wedow, M., "Extraordinary measures in extraordinary times – public measures in support of the financial sector in the EU and the United States", *Occasional Paper Series*, No 117, ECB, July 2010. See also Van Riet, A. (ed.), "Euro area fiscal policies and the crisis", *Occasional Paper Series*, No 109, ECB, April 2010.

20 See, for example, Attinasi, M.-G., Checherita-Westphal, C. and Nickel, C., "What explains the surge in euro area sovereign spreads during the financial crisis of 2007-09?", *Public Finance and Management*, Vol. 10, No 4, 2010, pp. 595-645; and Ejsing, J. and Lemke, W., "The Janus-headed salvation – sovereign and bank credit risk premia during 2008-09", *Economics Letters*, Vol. 110, No 1, 2011, pp. 28-31.

sector, lowered the perceived riskiness of banks. In turn, bondholders started to accept lower yields on bank bonds and demand higher yields on sovereign debt titles. This was coupled with a general reassessment and repricing of risk in financial markets, which led to a further general increase in euro area sovereign bond spreads. Over the months that followed, sovereign bond spreads widened further, with country-specific news – affecting perceptions regarding fiscal sustainability – becoming an increasingly prominent driver of sovereign credit risk premia.[21]

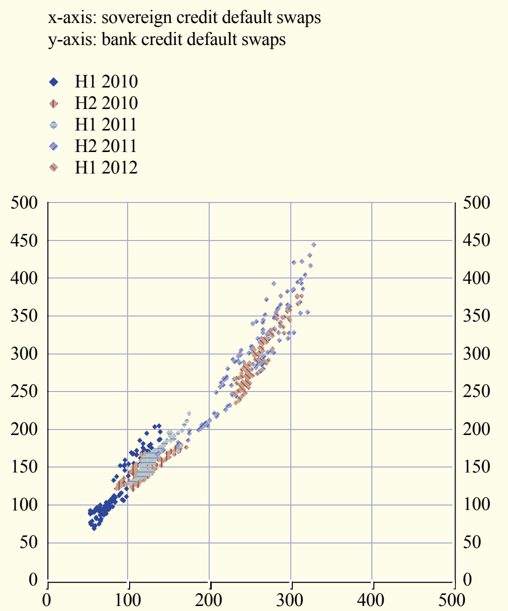
It soon became clear that sovereign bond prices were not merely a barometer for the credit and liquidity risk inherent in government bonds. Instead, bond valuations themselves were having a strong impact on other parts of the financial markets and real economy, as well as on monetary policy. Falling government bond prices came to weigh heavily on banks' balance sheets, as lower valuations of government debt reduce, ceteris paribus, the creditworthiness of banks and push up their market-based financing costs. Together with the initial "transfer of risk" from the financial sector to sovereigns, the negative impact of government bond valuations on banks completed the first full adverse feedback loop between sovereign bond markets and the financial sector.

As the crisis unfolded further, the downward spiral continued. Banks faced with funding constraints, owing to their weakened balance sheets, tightened credit supply standards.[22] The negative repercussions that this had on the real economy put a strain on public finances, as automatic stabilisers reacted to the economic downturn and ailing banks needed further support. Reflecting this vicious circle, the credit risk assessments of sovereign and bank issuers became closely linked (see Chart 4).

In addition to the adverse spillovers between sovereign debt markets and the banking sector, there was probably contagion between euro area sovereign debt markets. In a broad sense, contagion occurs when an "idiosyncratic", i.e. inherently country-specific, increase in bond yields in one Member State lead to an increase in another Member State's yields that does not reflect changes in that Member State's fundamentals. Accordingly, Member States subject to contagion incur an externality or "social cost", as they have to pay higher interest rates on their debt purely as a result of spillover effects not related to fundamentals. Although contagion is difficult to capture both conceptually and quantitatively, there is descriptive and model-based evidence that

Chart 4 Euro area sovereign and bank credit default swap premia

(basis points)



Sources: Thomson Reuters Datastream and ECB calculations.
Notes: The latest observation is for 30 April 2012. The sovereign credit default swap (CDS) premia for the euro area are calculated as a weighted average of the five-year CDS premia of 11 euro area countries using the ECB's capital keys as weights. The countries included are Germany, France, Italy, Spain, the Netherlands, Portugal, Belgium, Austria, Finland, Slovakia and Ireland. The bank CDS premia are calculated as the simple average across ten large banks in the euro area. Each dot represents the pair (sovereign CDS premium, bank CDS premium) on a certain day in each six-month period.

21 See, for example, the box entitled "Common trends in euro area sovereign credit default swap premia", *Financial Stability Review*, ECB, June 2011.

22 See, for example, the box entitled "The results of the euro area bank lending survey for the fourth quarter of 2011", *Monthly Bulletin*, ECB, February 2012.

there has been an overshooting of yields over and beyond the normal market reaction to changes in fundamentals during the euro area sovereign debt crisis.[23]

In early May 2010 tensions in the sovereign debt markets of some euro area countries reached new heights and spilled over to other financial market segments. In particular, liquidity conditions in overnight and longer-term money markets deteriorated significantly, probably owing to the increased counterparty risk between banks. With the normal functioning of the interbank market thus seriously impaired, a crucial element in the early stages of the monetary policy transmission mechanism was in jeopardy. Ultimately, the very ability of banks to provide credit to the real economy was at risk. In the face of this, the ECB introduced a number of non-standard policy measures, including the Securities Markets Programme.[24] This programme involves liquidity-neutral Eurosystem interventions in the euro area public and private debt securities markets, with a view to ensuring depth and liquidity in dysfunctional market segments, and to restoring the proper functioning of the monetary policy transmission mechanism.

Following the decision of the euro area Heads of State or Government to resort to private sector involvement for Greece, the tensions in sovereign debt markets intensified once more in the summer of 2011. This increasingly hampered euro area banks' access to market-based funding, in turn impeding the flow of credit to euro area households and non-financial corporations.[25] To counter the severe impairment of the credit intermediation process and ensure that the ECB's monetary policy continued to be transmitted effectively to the real economy, the ECB reintroduced and extended a number of the non-standard monetary measures in the second half of 2011.[26] Finally, in December 2011 the Governing Council of the ECB announced additional measures to support bank lending and liquidity in the euro area money market. In particular, it decided to conduct two longer-term refinancing operations (LTROs) with a maturity of three years and the option of early repayment after one year. The effect of these measures is still under evaluation, but a preliminary analysis of these two LTROs suggests that they helped to improve funding conditions for banks and thereby removed impediments to credit provision to the real economy.[27]

One particular monetary policy challenge when designing the non-standard measures was the heterogeneity in financial conditions across the euro area countries, which had increased considerably during the crisis. While all measures were guided by the mandate of price stability for the euro area as a whole, some of the non-standard measures had different effects across countries, which was natural and desirable. For instance, the long-term liquidity provisions have been taken up by countries to varying degrees, reflecting differences in the situation of the respective banking system.

5 CURRENT POLICY INITIATIVES

Overall, the years of crisis have exposed several shortcomings in national policies, but also in economic governance at the EU level, as well as in financial supervision and regulation.

23 See, for example, the speech entitled "Sovereign contagion in Europe" by José Manuel González-Páramo, Member of the Executive Board of the ECB, London, 25 November 2011; and the article entitled "The euro area sovereign crisis: monitoring spillovers and contagion", *Research Bulletin*, No 14, ECB, autumn 2011.

24 See the box entitled "Developments in financial markets in early May", *Monthly Bulletin*, ECB, June 2010.

25 See Chart 1, *Euro area bank lending survey*, ECB, January 2012.

26 Including: i) the reintroduction of longer-term operations, with one of approximately 6 months (conducted in August 2011) and later on two additional operations of approximately 12 months and 13 months (conducted in October 2011); ii) the active implementation of the Securities Markets Programme (August 2011); iii) three additional US dollar liquidity-providing operations with a maturity of approximately three months covering the end of the year (September 2011) – a measure decided on in coordination with other major central banks; iv) a decision to prolong fixed rate tender procedures with full allotment for all refinancing operations allotted until at least the first half of 2012; v) a new covered bond purchase programme; and vi) coordinated action with other central banks to enhance their capacity to provide liquidity support to the global financial system through liquidity swap arrangements.

27 See the box entitled "Impact of the two three-year longer-term refinancing operations", *Monthly Bulletin*, ECB, March 2012.

First, the fiscal governance framework has proved inadequate to foster disciplined public finances at the national level. In particular, both the preventive and the corrective arm of the Stability and Growth Pact have not served as effective deterrents against the build-up of fiscal imbalances. Second, financial markets have failed to provide the necessary additional signals that sound fiscal positions need to be maintained. Third, there has been no effective mechanism for counteracting the build-up of potentially hazardous private sector imbalances. As the crisis has revealed, such private sector imbalances can quickly turn into public debt, thus exacerbating government sector imbalances. Fourth, if the risks to a country's fiscal sustainability increase, this can trigger a repricing of its government bonds, which can, in turn, have negative repercussions on the euro area financial sector and result in spillovers to the government bond markets of other countries. There has been no policy framework in place to prevent such contagion effects. Finally, while the source and the various repercussions of the financial crisis may have been almost impossible to predict, better micro- and macro-prudential supervision may have highlighted, at an earlier stage, certain risks for the euro area financial sector.

Lessons from the crisis have been learnt at both the national and EU level. Governments have embarked on a process of fiscal consolidation and structural reforms. An overhaul of the EU's frameworks for economic governance, as well as for financial supervision and regulation, is also under way. This is being complemented by the establishment of "firewalls", which have crisis management frameworks for addressing financial instability and preventing contagion across the euro area. All of these efforts are still ongoing, but progress has already been made in a number of areas.

First, from 2010 euro area countries began to discontinue fiscal stimulus measures and implement consolidation packages. In conjunction with a pick-up in GDP growth (after negative growth rates in 2008 and 2009), the fiscal deficit for the euro area as a whole decreased somewhat in 2011. However, the degree of consolidation achieved by the individual countries varied significantly, with 11 of the 17 countries still recording a deficit above the 3% of GDP threshold in 2011, according to the European Commission's European Economic Forecast – spring 2012. As regards the fiscal adjustment process, there is no doubt that, in the long term, fiscal consolidation has a positive and significant effect on growth and employment. While fiscal consolidation can have a dampening impact on economic activity in the short run, the extent of this impact depends on several factors, such as the composition of the fiscal adjustment. Indeed, consolidation strategies tend to be more successful and sustainable if the focus lies on the spending side of the budget.

Second, a number of initiatives have been launched to restore fiscal discipline and foster competitiveness. These include sets of new legislative measures (e.g. the "six pack" and the "two pack"), which should reinforce both the preventive and the corrective arm of the Stability and Growth Pact, improve budgetary surveillance and prevent the build-up of macroeconomic imbalances. Moreover, almost all EU Member States have signed the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, of which the fiscal part (the "fiscal compact") mandates all contracting parties to incorporate balanced budget rules and automatic correction mechanisms into national legislation.[28] Further steps have also been taken to enhance the competitiveness and convergence of national economies (see the box for details). Indeed, well-designed structural reforms in labour and product markets can have a positive impact on growth and employment relatively quickly and can thus also help to mitigate any negative effect that fiscal consolidation may have on short-term growth.

28 See also the article entitled "A fiscal compact for a stronger economic and monetary union", *Monthly Bulletin*, ECB, May 2012.

Box

THE EU'S NEW FRAMEWORK FOR ECONOMIC GOVERNANCE

To address the shortcomings of the institutional set-up of EMU with regard to fiscal and macroeconomic policies, a number of important measures have been implemented or are currently in the making. These measures are intended to substantially improve EMU's fiscal rules and to help restore the fiscal discipline needed for a smooth functioning of EMU. They should also further strengthen the economic dimension of EMU and, in turn, foster deeper economic integration in the euro area.

A package of six new legislative acts, the "six pack", which entered into force in December 2011, is intended to fill the main gaps in the fiscal and economic governance framework that were identified in the main text.[1] Regarding the fiscal rules, the six pack reinforces both the preventive and the corrective arm of the Stability and Growth Pact. Inter alia, it: i) strengthens the focus on government debt and fiscal sustainability; ii) increases the degree of automaticity in the excessive deficit procedure, leaving less leeway for political considerations; iii) reinforces compliance by introducing early and gradual financial sanctions for euro area countries if they do not adhere to the rules; and iv) defines more clearly the adjustment path to be followed by all EU Member States to sufficiently reduce their public deficits. Importantly, the six pack includes a new procedure for monitoring and preventing the build-up of macroeconomic imbalances, which was not part of the pre-crisis framework. With the help of a scoreboard of different indicators covering, for instance, current account balances, unit labour costs and house prices, the European Commission is asked to identify emerging imbalances and give appropriate policy recommendations. Like the Stability and Growth Pact, the procedure has a preventive and a corrective arm. Euro area countries may be fined if they do not comply with the rules.

To improve the overall surveillance of national economic policies, the six pack formally introduces the "European semester" which comprises a timetable to align the timing of all elements of surveillance, including fiscal, macroeconomic and structural policies. The main aim of the European semester is to ensure that all national policies are analysed and assessed together, although the procedures are legally and procedurally separate. The new approach was applied for the first time in 2011.

As a form of high-level political commitment to further enhancing economic coordination, also in areas of national competence, all euro area countries, as well as six non-euro area countries,[2] signed the Euro Plus Pact in March 2011. The Pact aims to help boost the competitiveness and convergence of national economies. Euro area leaders review the concrete goals on an annual basis and the European Commission monitors their implementation.

It soon became clear that the euro area countries would have to take steps in addition to the six pack in terms of enhancing the surveillance of economic policies, as well as promoting financial stability in the euro area and mitigating the risk of contagion.

1 For detailed information on and an assessment of the governance elements addressed in the six pack, see the article entitled "The reform of economic governance in the euro area – essential elements", *Monthly Bulletin*, ECB, March 2011.

2 The six non-euro area countries that signed the Euro Plus Pact were Bulgaria, Denmark, Latvia, Lithuania, Poland and Romania.

In November 2011 the European Commission proposed two regulations that are specifically addressed to the euro area. These are referred to as the "two pack". They are currently being finalised and it is envisaged that they will enter into force before the autumn of 2012. The first regulation aims at improving budgetary surveillance, in particular through ex ante assessments of draft national budgetary plans by the Commission. If the draft budgets are found not to comply with the requirements of the Stability and Growth Pact, the Commission may request that they be revised. In addition, the Commission will monitor the in-year budgetary implementation of countries with an excessive deficit very carefully and issue further recommendations if need be. The second regulation proposes enhanced surveillance for euro area countries in difficulty, or threatened with difficulties, as regards financial stability. It is the decision of the Commission whether or not to subject a euro area country to enhanced surveillance. Such surveillance implies, inter alia, heightened fiscal monitoring and an obligation to carry out stress tests in the banking sector, in cooperation with the European Banking Authority. Fact-finding missions by the Commission, in cooperation with the ECB, will feed into possible recommendations for further corrective measures.

The latest element in the reform of economic governance framework is the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, signed in March 2012 by all EU Member States, except the United Kingdom and the Czech Republic. In particular, the fiscal part of the Treaty, the "fiscal compact", is essential to ensuring fiscal discipline, as it mandates all countries to enshrine balanced budget rules and an automatic correction mechanism into national law.[3]

Overall, the reform of the economic governance framework is an important first step towards strengthening the foundations of EMU. Going forward, the strict implementation and enforcement of the new rules will be key to ensuring their success.

3 For further information on the fiscal compact, see the article entitled "A fiscal compact for a stronger economic and monetary union", *Monthly Bulletin*, ECB, May 2012.

Third, work is under way to improve procedures for the detection and treatment of risks to financial stability. In this context, the current overhaul of the international financial regulatory framework, which is being overseen by the Financial Stability Board, is essential. So far, the overhaul has seen the launch of the Basel III framework of new capital and liquidity rules for banks and, at the EU level, the introduction of a more integrated system for prudential supervision. The European System of Financial Supervision comprises the European Systemic Risk Board on the macro-prudential side and the three European Supervisory Authorities (ESAs) – the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA) – on the micro-prudential side. Gradual progress has been made towards the establishment of a single rulebook, which should foster coordination between national supervisors and spur the convergence of national supervisory practices.

Finally, the improvements to economic governance, as well as financial supervision and regulation, are being complemented by the establishment of firewalls to tackle threats to financial stability, as well as contagion across markets, in a swift and effective manner. This is particularly noteworthy as the pre-crisis framework did not include instruments for crisis management. In this context, the European Financial Stability Facility (EFSF) and its successor, the European Stability Mechanism (ESM), are important additions to the architecture of EMU.[29]

29 See, for example, the article entitled "The new EU framework for financial crisis management and resolution", *Monthly Bulletin*, ECB, July 2011; and the article entitled "The European Stability Mechanism", *Monthly Bulletin*, ECB, July 2011.

Despite the significant progress that has been made, several important issues still need to be addressed, in particular with regard to the financial stability safeguards in the euro area. Given the current level of financial integration, better cross-border financial safety net arrangements are essential. As a first step towards a more unified scheme for bank recovery and resolution, the European Commission has recently adopted a proposal that envisages a harmonised set of prevention tools, early intervention measures and resolution tools, as well as a framework for cooperation between national authorities, but no centralisation.[30] However, the creation of a single European resolution authority would truly constitute a change in the financial safety net to reflect the degree of financial integration in EMU. Under the control and responsibility of such an authority – equipped with the right tools to effectively support financial stability – synergies between a supranational deposit insurance scheme and a supranational resolution fund could be fully exploited.

Taken together, better economic governance and an improved financial stability framework could help to break the hazardous feedback loop between government and the financial sector. If governments live up to their responsibility to ensure fiscal prudence, and if the new economic governance framework is implemented consistently, investors will start to regain confidence and sovereign bond prices will adjust accordingly. If banks restore sustainable profitability, as well as sound liquidity and capital profiles, they will be less vulnerable to financial volatility and changes in asset valuations, including those related to government debt holdings. While this is the desired scenario, the time needed to achieve it will depend on how quickly and comprehensively the envisaged framework is implemented.

6 CONCLUSION

Not even a decade since its launch, EMU has been hit by the international financial turmoil and subsequently experienced its own sovereign debt crisis. Beyond the lessons from the crisis that apply at the global level, the years of crisis have also provided important but painful lessons about shortcomings in the design of EMU and the insufficient implementation of policy rules. The economic governance framework failed to ensure fiscal discipline across the euro area countries, as well as to identify and correct the build-up of macroeconomic imbalances in a timely manner. Moreover, the hazardous interplay between strained public finances and threats to the financial system was a new (at least in terms of its extent) and truly unsettling phenomenon.

Decisive steps have already been taken to establish a better economic governance framework for the euro area, with a view to ensuring fiscal discipline and improving the competitiveness of euro area countries. In parallel, an overhaul of the framework for financial supervision and regulation is under way in order to make the financial system more resilient. Finally, firewalls including instruments for crisis management have been established to further safeguard financial stability, in particular by addressing the risk of contagion across countries and different financial market segments.

By contrast, the set of principles guiding monetary policy – i.e. the mandate of price stability, codified central bank independence, the prohibition of monetary financing – as well as the monetary policy strategy and operational framework, functioned well and resulted in a successful track record in terms of price stability, both prior to and during the crisis. Moreover, the framework provided the ECB with sufficient flexibility to act during the financial crisis.

However, the evolution of the financial crisis into a sovereign debt and banking crisis over the last two to three years has posed several challenges for euro area monetary policy. Monetary policy has been confronted with a deterioration in public finances and volatile sovereign debt

30 See European Commission Press Release, IP/12/570, 6 June 2012.

markets, several threats to financial stability and the vicious circle of the feedback loop between the two, i.e. sovereign debt market tensions and a struggling banking system. In response, the Eurosystem has had to introduce a variety of new and non-standard measures to address liquidity problems in interbank markets and the impairment of the monetary policy transmission mechanism.

This conflict-prone interplay between monetary policy, fiscal policy and financial stability constitutes a challenging "triangle" of interactions that adds another pole to the typical "dipole" of monetary and fiscal policy interaction. The above-mentioned reforms to the economic governance framework and the reshaping of the financial system all have the potential to mitigate these tensions. Restoring sound public finances will address the root causes of the recent tensions in sovereign debt markets. Together with better supervision and regulation of the financial system and the established firewalls, it will help to avoid the hazardous feedback loop between sovereign debt market tensions and financial instability that has shaped the euro area sovereign debt crisis.

If the reforms succeed in promoting disciplined public finances, reducing macroeconomic imbalances and safeguarding financial stability, it would relieve monetary policy from having to address negative externalities from other policy areas when striving to maintain price stability. However, the success of the measures taken will ultimately depend on the speed and extent of their implementation, their enforcement and, most importantly, the commitment of the national governments to comply with the agreed rules and to deliver the promised policy reforms.

If successful, all this will result in a better framework for EMU, with a more resilient financial system that is focused on its core task of financing the real economy, as well as sound public finances governed by fiscal discipline and a monetary policy that continues to maintain price stability in the euro area. Ultimately, sound fiscal policies and a stability-oriented common monetary policy would be mutually reinforcing and provide the foundations for sustainable economic growth in the euro area.