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EURO AREA FISCAL POLICIES AND THE CRISIS

Editor
Ad van Riet

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This Occasional Paper was prepared by an ECB Fiscal Policies Team under the lead management of Ad van Riet, Head of the Fiscal Policies Division of the ECB. The study brings together ECB staff analyses undertaken between September 2008 and December 2009 on the consequences of the crisis for the sustainability of public finances in the euro area, including in its member countries. The authors are staff members of the Fiscal Policies Division and the Euro Area & Public Finance Accounts Section of the ECB.

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ABSTRACT

In mid-September 2008, a global financial crisis erupted which was followed by the most serious worldwide economic recession for decades. As in many other regions of the world, governments in the euro area stepped in with a wide range of emergency measures to stabilise the financial sector and to cushion the negative consequences for their economies. This paper examines how and to what extent these crisis-related interventions, as well as the fall-out from the recession, have had an impact on fiscal positions and endangered the longer-term sustainability of public finances in the euro area and its member countries. The paper also discusses the appropriate design of fiscal exit and consolidation strategies in the context of the Stability and Growth Pact to ensure a rapid return to sound and sustainable budget positions. Finally, it reviews some early lessons from the crisis for the future conduct of fiscal policies in the euro area.

JEL Classification: E10, E62, G15, H30, H62

Key words: fiscal policies, financial crisis, fiscal stimulus, financial markets, sustainability, Stability and Growth Pact.

PREFACE

The financial and economic crisis has had a very profound impact on public finances in the euro area. Projections suggest that the government deficit in the euro area will climb to almost 7% of GDP in 2010 and that all euro area countries will then exceed the 3% of GDP limit. The euro area government debt-to-GDP ratio could increase to 100% in the next years – and in some euro area countries well above that level – if governments do not take strong corrective action. These fiscal developments are all the more worrying in view of the projected ageing-related spending increases, which constitute a medium to long-term fiscal burden.

There is no doubt that the exceptional fiscal policy measures and monetary policy reaction to the crisis have helped to stabilise confidence and the euro area economy. Following the substantial budgetary loosening, however, the fiscal exit from the crisis must be initiated in a timely manner and is to be followed by ambitious multi-year fiscal consolidation. This is necessary to underpin the public's trust in the sustainability of public finances. The Stability and Growth Pact constitutes the mechanism to coordinate fiscal policies in Europe. The necessary fiscal adjustment to return to sound and sustainable fiscal positions is substantial and will take considerable efforts. Without doubt, this situation poses the biggest challenge so far for the rules-based EU fiscal framework.

Sound and sustainable public finances are a prerequisite for sustainable economic growth and a smooth functioning of Economic and Monetary Union. Therefore, it is important not to miss the right moment to correct the unsustainable deficit and debt levels. A continuation of high public sector borrowing without the credible prospect of a return to sustainable public finances could have severe consequences for long-term interest rates, for economic growth, for the stability of the euro area and, therefore, not least for the monetary policy of the European Central Bank.

Jürgen Stark
Member of the Executive Board
and the Governing Council of the ECB

SUMMARY[1]

In mid-September 2008, a global financial crisis erupted which was followed by the most serious worldwide economic recession for many decades. As in many other parts of the world, governments in the euro area stepped in with emergency measures to stabilise the financial sector and to cushion the negative consequences for their economies, in parallel with a swift relaxation of monetary policy by the European Central Bank (ECB). This Occasional Paper examines to what extent these crisis-related interventions, as well as the fall-out from the recession, have had an impact on the fiscal position of the euro area and its member countries and endangered the longer-term sustainability of public finances.

Chapter 2 of this paper reviews how euro area governments responded to the financial crisis and provides estimates of the impact of their interventions on public finances. The direct fiscal costs of all the bank rescue operations in the euro area are substantial and may rise further in view of large contingent liabilities in the form of state guarantees provided to financial institutions. Notwithstanding the high direct fiscal costs, taxpayers greatly benefited from the stabilisation of the financial system and the economy at large. This in turn increases the chances that in due time governments will be able to exit from the banking sector, allow the state guarantees to expire and sell the acquired financial sector assets at a profit rather than a loss.

The financial crisis also contributed to a rapid weakening of economic activity, leading to the sharpest output contraction since the Great Depression of the 1930s. Chapter 3 examines how euro area fiscal policies responded to this economic crisis with a view to sustaining domestic demand while also strengthening the supply side of the economy. The European Economic Recovery Plan of end-2008 established a common framework for counter-cyclical fiscal policy actions, whereby each Member State was invited to contribute, taking account of its own needs and room for manoeuvre. Governments were asked, in particular, to ensure a timely, targeted and temporary fiscal stimulus and to coordinate their actions so as to multiply their positive impact. As it turns out, these criteria seem at best to have been only partially met. Moreover, the effectiveness of such fiscal activism is widely debated.

Chapter 4 reviews the reaction of financial markets to the concomitant rapid deterioration of public finances in the euro area countries. As the crisis intensified, a general "flight to safety" was seen, with investors moving away from more risky private financial assets (in particular equity and lower-rated corporate bonds) into safer government paper. As a result, most euro area governments have been able to finance their sizeable new debt issuance under rather favourable market conditions. At the same time, the governments' strong commitment to assist distressed systemic banks helped to contain the rise in credit default spreads for financial firms in the euro area. In effect, their credit risks were largely taken over by the taxpayers, as *de facto* governments stood ready to be the provider of bank capital of last resort. Reflecting a parallel "flight to quality", markets also tended to discriminate more clearly between euro area countries based on their perceived creditworthiness. Within the euro area, this reassessment of sovereign default risks contributed to a significant widening of government bond yield spreads, notably for those countries with relatively high (actual or expected) government deficits and/or debt relative to GDP, large budgetary risks associated with the contingent liabilities from state guarantees and a less favourable economic outlook.

As described in Chapter 5, the crisis-related deterioration of fiscal positions has called the longer-term sustainability of public finances into question. The risks to fiscal sustainability are manifold. They arise from persistently high primary budget deficits in the event that

1 Prepared by Ad van Riet.

fiscal stimulus packages are not fully reversed, ongoing government spending growth in the face of a prolonged period of more subdued output growth, rising government bond yields and thus increasing debt servicing costs, and possible budget payouts related to state guarantees to financial and non-financial corporations. Furthermore, rising government indebtedness may itself trigger higher interest rates and contribute to lower growth, creating a negative feedback loop. These challenges for public finances are compounded by the expected rising costs from ageing populations. To contain these risks, euro area countries will need to realign their fiscal policies so as to bring their debt ratios back onto a steadily declining path and limit the debt servicing burden for future generations.

Chapter 6 discusses the exit from the crisis mode and the crisis-related challenges for the EU fiscal framework. Pointing to the exceptional circumstances and responding to the call for a coordinated fiscal stimulus, many euro area countries have exploited the maximum degree of flexibility offered by the Stability and Growth Pact in designing their national responses to the economic crisis and allowing for higher budget deficits. At the end of 2009, 13 out of the 16 euro area countries were subject to excessive deficit procedures, with (extended) deadlines to return deficits to below the reference value of 3% of GDP ranging from 2010 to 2014. In this context, the design and implementation of optimal fiscal exit and consolidation strategies have taken centre stage. These strategies should comprise scaling down and gradually exiting from the bank rescue operations, phasing out the fiscal stimulus measures and correcting excessive deficits. The appropriate timing, pace and composition of the fiscal adjustment process, to be coordinated within the framework of the Stability and Growth Pact, are key to sustaining the public's confidence in fiscal policies and the way out of the crisis.

Finally, Chapter 7 seeks to draw some early lessons from the crisis for the future conduct of euro area fiscal policies. Most importantly, a strengthening of fiscal discipline will be needed to ensure the longer-term sustainability of public finances, which is a vital condition for the stability and smooth functioning of Economic and Monetary Union (EMU).

I INTRODUCTION [2]

In mid-2007, the first signs of increasing turmoil in global financial markets became visible. They were related to a rapidly intensifying crisis in the US sub-prime mortgage market, which negatively affected the value of related structural financial products held by banks and other financial institutions all over the world. While initially the consequences for European banks were perceived to be largely confined to a few heavily exposed financial institutions (and the ECB was quick to provide the necessary liquidity to the euro area banking system), the uncertainty over the true exposure of the banking sector lingered on. In the following months, several large financial institutions in the United States and the United Kingdom had to file for bankruptcy, or had to be rescued by their respective governments. In mid-September 2008, after the default of the investment bank Lehman Brothers in the United States, the financial crisis escalated and many "systemic" (i.e. systemically important) European financial institutions were faced with severe liquidity problems and massive asset write-downs. In this emergency situation, both confidence in and the proper functioning of the whole financial system were at stake.

To stabilise the situation, a comprehensive set of measures was agreed at the European level.[3] In particular, the European G8 members at their summit in Paris on 4 October 2008 jointly committed to ensure the soundness and stability of their banking and financial systems and to take all the necessary measures to achieve this objective. Furthermore, at an extraordinary summit on 12 October 2008, the Heads of State or Government of the euro area countries set out a concerted European Action Plan to restore confidence in and the proper functioning of the financial system. The principles of this action plan were subsequently endorsed by the European Council on 15-16 October 2008.

Whereas the ECB and other European central banks had already taken firm action to prevent liquidity shortages in the banking sector, the task to ensure the solvency of the affected systemic financial institutions rested with the national governments.[4] From end September 2008 onwards they undertook substantial bank rescue operations, designed to meet national requirements, but within an EU-coordinated framework, committed to take due account of the interests of taxpayers and to safeguard the sustainability of public finances. As in many other regions of the world, governments in the euro area also stepped in with a range of fiscal stimulus measures to cushion the negative consequences of the crisis for their economies. The common framework for these national counter-cyclical fiscal policies was provided by the European Economic Recovery Plan, which the European Commission launched on 26 November 2008 and the European Council approved on 11-12 December 2008.

While all these emergency measures appear to have been successful in averting a possible collapse of the financial system and in supporting short-term domestic demand, they entailed very high direct fiscal costs. Moreover, the abrupt fall in economic activity has led to a rapid rise in government deficits and debt in all euro area countries. On unchanged fiscal policies, the rise in government debt-to-GDP ratios is set to continue, even as the recovery takes hold and the short-term fiscal stimulus measures are phased out. Taken together, the dramatic increase in fiscal imbalances, the accumulation of extensive contingent liabilities related to the crisis response measures and the many uncertainties surrounding the future

2 Prepared by Ad van Riet.

3 At the international level, the finance ministers and central bank governors of the G7 countries agreed on 10 October 2008 to use all available tools to prevent the failure of systemically important financial institutions, to take all necessary steps to unfreeze credit and money markets, to ensure that banks can raise sufficient capital from public and private sources, and to ensure that national deposit insurance and guarantee programmes are robust and continue to support confidence in the safety of retail deposits. These actions were to be taken in ways that protect the taxpayers. The leaders of the G20 countries committed at their Washington summit of 15 November 2008, among other steps, to take whatever further actions are necessary to stabilise the financial system.

4 For a discussion of this distribution of tasks in a financial crisis, see e.g. Hellwig (2007).

path of growth and interest rates have put the longer-term sustainability of public finances in danger.

The aim of this paper is to offer an overview of how public finances in the euro area countries and the euro area as a whole have been affected by the crisis, what risks to fiscal sustainability have emerged and what lessons may be drawn at this stage for euro area fiscal policies. The paper is organised as follows. Following this introduction, Chapter 2 reviews how euro area fiscal authorities have responded to the financial crisis and what the direct impact was on their public finances. Chapter 3 focuses on the reaction of fiscal policy-makers to the economic downturn, the effectiveness of fiscal stimulus measures and the importance of automatic fiscal stabilisers as a first line of defence. Chapter 4 discusses how financial markets have reacted to the rapidly changing outlook for public finances across euro area countries. Against this background, Chapter 5 examines the risks to the longer-term sustainability of public finances and the corresponding debt dynamics under various scenarios. Chapter 6 asks what challenges the crisis has brought for the application of the legal provisions of the EU Treaty and the Stability and Growth Pact which aim to ensure fiscal sustainability. In this context, it also discusses the design of appropriate fiscal exit and consolidation strategies for a rapid return to sound and sustainable fiscal positions. Finally, Chapter 7 considers what early lessons from the crisis may be drawn for the future conduct of fiscal policies in the euro area countries.

2 EURO AREA FISCAL POLICIES: RESPONSE TO THE FINANCIAL CRISIS [5]

2.1 INTRODUCTION

Although the start of the global financial crisis is commonly set at mid-2007, in its early stages the implications for Europe were largely perceived as rather limited. Initially only a few banks were affected, particularly those which were dependent on the wholesale markets for their financing or had either investments in structured finance products or substantial off-balance-sheet structures.[6] In September 2008, particularly after the default of the US investment bank Lehman Brothers, the global financial turmoil intensified and an increasing number of European financial institutions experienced serious liquidity problems and were forced to undertake massive asset write-downs, with negative implications for their own credit quality (for more details, see ECB 2009a).

In response to the financial crisis – following the actions taken by the ECB and other European central banks to ensure the liquidity of the financial system – European G8 members at their summit in Paris on 4 October 2008 jointly committed to ensure the soundness and stability of their banking and financial systems and to take all the necessary measures to achieve this objective. The leaders of all 27 EU countries agreed on a similar statement on 6 October 2008, also stressing that each of them would take the necessary steps to reinforce bank deposit protection schemes. At the ECOFIN Council meeting of 7 October 2008, the ministers of finance of the Member States agreed on EU common guiding principles to restore both confidence in and the proper functioning of the financial sector. National measures in support of systemic financial institutions would be adopted in principle for a limited time period and within a coordinated framework, while taking due regard of the interests of taxpayers. At the same time, the ECOFIN Council agreed to lift the coverage of national deposit guarantee schemes to a level of at least EUR 50,000, acknowledging that some Member States were to raise their minimum to EUR 100,000. Following the adoption of their concerted European Action Plan on 12 October 2008, the principles of which were endorsed by the European Council a few days later, euro area countries announced (additional) national measures to support their financial systems and ensure appropriate financing conditions for the economy as a prerequisite for growth and employment.

This chapter analyses the response of euro area fiscal policies to the financial crisis and the direct impact of government support to the banking sector on euro area public finances.[7] In addition to the consequences for government deficits and debt, the assessment needs to take account of governments' explicit and implicit contingent liabilities arising from the substantial state guarantees that have been provided. A comprehensive assessment of the implications of financial sector support for public finances also requires a forward-looking perspective. The exit strategies that governments will adopt once confidence in and the proper functioning of the financial sector have been restored and in particular their success in recovering the direct fiscal costs will determine the long-term impact on public finances.

This chapter is structured as follows. Section 2.2 briefly reviews the euro area governments' interventions to support the financial sector. Section 2.3 analyses the direct impact of these interventions on the accounts of euro area governments since the onset of the financial crisis. In addition, it discusses the net fiscal

5 Prepared by Maria Grazia Attinasi.

6 In the second half of 2007 IKB in Germany and Northern Rock in the United Kingdom had to be rescued as a consequence of the US sub-prime mortgage crisis. IKB suffered losses owing to its exposure to the US sub-prime mortgage market, whereas Northern Rock had difficulties in obtaining funding from the interbank market. Furthermore, in Germany, in the first half of 2008, two state-owned banks, WestLB AG and Bayern LB, faced liquidity problems due to their exposure to the US sub-prime mortgage market and received support from their federal states.

7 For an earlier review of the impact of government support to the banking sector on euro area public finances, see ECB (2009b) and European Commission (2009b, 2009c and 2009d).

costs, taking account of the recovery rates of the bank support measures. Section 2.4 concludes.

2.2 PUBLIC INTERVENTIONS TO SUPPORT THE FINANCIAL SECTOR

The EU common guiding principles agreed by the ECOFIN Council on 7 October 2008 and the concerted European Action Plan of the euro area countries adopted on 12 October 2008 paved the way for exceptional national measures as part of a coordinated effort at the EU level to deal with the implications of the unfolding financial crisis.[8] Initially, public support targeted the liabilities side of banks' balance sheets and consisted of: (i) government guarantees for interbank lending and new debt issued by the banks; (ii) recapitalisation of financial institutions in difficulty including through injections of government capital and nationalisation as an ultimate remedy; and (iii) increased coverage of the retail deposit insurance schemes.

Between end-September and end-October 2008, several euro area countries announced bank rescue schemes which complemented the exceptional liquidity support provided by the ECB. In order to ensure respect of the EU state aid rules the European Commission provided guidance on how to design these measures.[9] In particular, measures under (i) and (ii) should avoid any discrimination against financial institutions based in other Member States and should ensure that beneficiary banks do not unfairly attract new additional business solely as a result of the government support. Support should also be targeted, temporary, and designed in such a way as to minimise negative spill-over effects on competitors and/or other Member States. Guarantee schemes should moreover ensure a significant contribution from the beneficiaries and/or the sector to cover the costs of the guarantee and of government intervention if the guarantee is called. As to recapitalisation measures, depending on the instrument chosen (e.g. shares, warrants), governments must receive adequate rights and appropriate remuneration as a counterpart for public support. The ECB has provided specific guidelines on the pricing of both guarantees and recapitalisation measures.[10]

Although all countries have acted within the framework set up by the European Action Plan and by the subsequent Commission Communications and ECB guidelines, the specific modalities have differed across countries. Whereas some countries adopted, since the onset of the financial crisis, broad-based schemes consisting of both guarantees and recapitalisation measures (Germany, Austria, Greece, Spain, France and the Netherlands), some other countries did not announce a general scheme, but carried out *ad hoc* interventions to support or even nationalise individual financial institutions as a way to address specific banks' solvency threats (e.g. Belgium, the Netherlands, Luxembourg and Ireland). Over and above guarantees and recapitalisation measures some governments have adopted *sui generis* schemes consisting of asset purchase schemes, debt assumption/cancellation, temporary swap arrangements (e.g. Spain, the Netherlands and Italy) and blanket guarantees on all deposits and debts of both domestic banks and foreign subsidiaries (Ireland). In addition, some euro area countries incorporated financial incentives for early repayment in their support packages, or they added specific conditions to the support, such as the obligation to provide credit to the economy. In order to ensure that government support is limited to the minimum necessary and it does not become too protracted,

8 At that point in time, some euro area governments already had announced emergency measures to deal with the rising pressure on their national banking systems. For a detailed overview of the financial crisis measures introduced by the 27 Member States from 1 October 2008 to 1 June 2009, see Petrovic and Tutsch (2009).

9 The European Commission has adopted the following Communications: (i) the Banking Communication, OJ C 270, 25 October 2008; (ii) the Recapitalisation Communication, OJ C 10, 15 January 2009; and (iii) the Communication on the return to viability and the assessment of restructuring measures in the financial sector in the current crisis under the state aid rules, OJ C 195, 19 August 2009.

10 For the recommendations issued by the Eurosystem, see: (i) recommendations on government guarantees for bank debt (www.ecb.int/pub/pdf/other/recommendations_on_guaranteesen.pdf); and (ii) recommendations on the pricing of recapitalisations (www.ecb.int/pub/pdf/other/recommendations_on_pricing_for_recapitalisationsen.pdf).

the Commission required each Member State to undertake a review of the (guarantee and recapitalisation) scheme every six months. Governments have also the opportunity to amend the original scheme in case the evolution in the situation of financial markets so requires.

In early 2009 public support to the banking sector began to target the assets side of banks' balance sheets, with the aim of providing relief for impaired bank assets. This support complemented existing measures and was mainly motivated by the persisting uncertainty regarding asset valuations and the risk that new asset write-downs could impair banks' balance sheets, thus undermining confidence in the banking sector. Asset relief schemes include: (i) asset removal schemes, which aim at removing impaired assets from a bank's balance sheet either via direct government purchases or by transferring them to independent asset management companies (which are sometimes referred to as "bad banks"); and (ii) asset insurance schemes which keep the assets on the banks' balance sheets but insure them against tail risk.

Asset relief schemes are regulated by the guiding principles issued by the Eurosystem and the European Commission in February 2009.[11] Asset relief measures should aim at the attainment of the following objectives: (i) safeguarding financial stability and restoring the provision of credit to the private sector while limiting moral hazard; (ii) ensuring that a level playing field within the single market is maintained to the maximum extent possible; and (iii) containing the impact of possible asset support measures on public finances.

Ireland announced the creation of a National Asset Management Agency (NAMA) in April 2009. The NAMA, which will be classified as a special-purpose entity outside the government accounts, will buy as from March 2010 risky loans from participating banks at a significant discount in order to improve the quality of the banks' balance sheets. In payment for the loans the banks will receive government securities and/or guaranteed securities. However, should the NAMA incur a loss or liability, the participating banks will indemnify the agency.[12] The Spanish Fund for Ordered Bank Restructuring (FROB) was established in June 2009, in order to support the restructuring of banks whose financial viability is at risk. The FROB will temporarily replace the directors of the affected institution and will submit a restructuring plan to the Banco de España aimed at a merger with another institution or at an overall or partial transfer of assets and liabilities to another institution. The FROB may grant funding to the affected institution or acquire its assets or shares. The German asset relief scheme was established in July 2009 and complements the existing measures for banking sector support. It involves exchanging financial instruments including asset-backed securities and collateralised debt obligations for bonds that would be backed by the state, with banks paying a fee for the guarantees.

The tables below provide a cumulated overview of the financial sector stabilisation measures carried out by euro area governments in 2008 and 2009. Table 1 summarises all government interventions conducted in the form of capital injections, asset purchases and other measures, subtracting some early redemptions of loans and debt repayments. Table 2 summarises the amount of contingent liabilities assumed by euro area governments, including the debt issued by special-purpose entities (SPEs) which is covered by state guarantees. At the euro area level, the total amount committed is at least 20% of GDP (i.e. the ceiling for guarantees and all other support measures).

11 See Eurosystem Guiding Principles for Bank Support Schemes: www.ecb.int/pub/pdf/other/guidingprinciplesbank assetsupportschemesen.pdf; and Commission Communication on the Treatment of Impaired Assets in the Community Banking Sector: http://ec.europa.eu/competition/state_aid/legislation/impaired_assets.pdf. See also European Commission Communication on Impaired Assets, OJ C 72, 26 March 2009.

12 The circumstances under which the participating institutions have to indemnify the NAMA in case of losses or liabilities are specified in the NAMA legislation. As to the specific modality, it may take the form of a tax surcharge on the profits of the participating banks.

Table 1 Cumulated financial sector stabilisation operations and their impact on government debt

(2008-2009; percentage of 2009 GDP)

	Measures impacting government debt (2008-2009)					Total impact on government debt in 2008-2009	o/w impact in 2008
	Capital injections		Asset purchases	Debt assumptions/ cancellations	Other measures		
	Acquisition of shares	Loans					
Belgium	4.2	2.1	0.0	0.0	0.1	6.4	6.4
Germany	1.8	0.0	1.7	0.0	0.0	3.5	2.2
Ireland	6.7	0.0	0.0	0.0	0.0	6.7	0.0
Greece	1.6	0.0	0.0	0.0	0.0	1.6	0.0
Spain	0.0	0.0	1.8	0.0	0.0	1.8	0.9
France	0.4	0.0	0.0	0.0	0.0	0.4	0.6
Italy	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Cyprus	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Luxembourg	6.6	0.0	0.0	0.0	0.0	6.6	6.4
Malta	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Netherlands	6.3	1.3	3.5	0.0	0.2	11.3	13.7
Austria	1.8	0.0	0.0	0.0	0.0	1.8	0.3
Portugal	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Slovenia	0.0	0.0	0.4	0.0	3.6	4.1	0.0
Slovakia	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Finland	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Euro area	**1.4**	**0.2**	**0.9**	**0.0**	**0.0**	**2.5**	**2.0**

Table 2 Cumulated financial sector stabilisation operations and their impact on government contingent liabilities

(2008-2009; percentage of 2009 GDP)

	Measures impacting government contingent liabilities (2008-2009)						Guarantees on retail deposits (€ or % of retail deposits)
	SPE debt covered by government guarantee	Other guarantees	Asset swaps/lending	Total impact 2008-2009	o/w impact in 2008	Ceiling	
Belgium	1.3	12.8	0.0	14.2	10.4	26.7	100,000
Germany	0.0	9.9	0.0	9.9	2.7	18.3	100%
Ireland	0.0	172.0	0.0	172.0	206.8	172.0	100%
Greece	0.0	1.2	1.9	3.1	0.8	9.5	100,000
Spain	0.0	4.8	0.0	4.8	0.0	19.1	100,000
France	4.7	1.1	0.0	5.8	1.8	16.7	70,000
Italy	0.0	0.0	0.0	0.0	0.0	0.0	circa 103,000
Cyprus	0.0	0.0	0.0	0.0	0.0	0.0	100,000
Luxembourg	0.0	7.9	0.0	7.9	11.4	0.0	100,000
Malta	0.0	0.0	0.0	0.0	0.0	0.0	100,000
Netherlands	0.0	13.7	0.0	13.7	0.5	34.8	100,000
Austria	0.4	7.6	0.0	8.0	2.5	27.5	100%
Portugal	0.0	3.3	0.0	3.3	1.1	12.3	100,000
Slovenia	0.0	5.6	0.0	5.6	0.0	33.5	100%
Slovakia	0.0	0.0	0.0	0.0	0.0	0.0	100%
Finland	0.0	0.1	0.0	0.1	0.1	28.8	50,000
Euro area	**1.1**	**8.3**	**0.1**	**9.4**	**5.7**	**20.1**	

Source: European System of Central Banks (national sources for retail deposit guarantees).
Notes: These tables have been compiled on the basis of the statistical recording principles for public interventions described in Box 1. The cut-off date was 18 January 2010. For Ireland the lower ceiling on guarantees compared with the total impact in 2008 is explained by the fall in the value of covered bank liabilities between 2008 and 2009. Data on contingent liabilities do not include the retail deposit guarantees reported in the last column of Table 2.

Box 1

THE STATISTICAL RECORDING OF PUBLIC INTERVENTIONS TO SUPPORT THE FINANCIAL SECTOR [1]

On 15 July 2009 Eurostat published a decision on the statistical recording of public interventions to support financial institutions and financial markets during the financial crisis. This box summarises these recording principles.

The public interventions in support of the financial sector covered a wide range of operations. Eurostat has based its statistical recording on the established principles of the European System of Accounts 1995 (ESA 95), which have been applied to the specific circumstances of the financial crisis.

Statistical recording principles

Recapitalisations of banks and other financial institutions through purchases of new equity at market prices are recorded as financial transactions without any (immediate) impact on the government deficit/surplus. If the purchase takes place above the market price, a capital transfer for the difference is recorded, thereby negatively affecting the government budget balance. The purchase of unquoted shares in banks (such as preferred shares) is recorded as a financial transaction as long as the transaction is expected to yield a sufficient rate of return under EU state aid rules.

Loans are recorded as financial transactions at the time they are granted, if there is no irrefutable evidence that the loans will not be repaid. Any subsequent cancellations or forgiveness of loans will lead to a recording of a capital transfer.

Asset purchases involve the acquisition of existing (possibly impaired) assets from financial institutions. The market value of some assets may be difficult to determine. In this respect, Eurostat has decided on a specific "decision tree" for valuing securities. In short, if the purchase price paid by government is above the market price (the latter being determined as the price either a) on an active market or b) at an auction, or determined c) by the accounting books of the seller or d) by a valuation of an independent entity), a capital transfer for the difference between the purchase price and the market price has to be recorded. If the assets are sold later, under similar market conditions, but at a lower price than the purchase price paid by government, the price difference should be recorded as a capital transfer.

Government securities lent or swapped without cash collateral in temporary liquidity schemes are not counted as government debt; neither are government guarantees, which are contingent liabilities in national accounts. Provisions made for losses on guarantees are not recorded in the national accounts. A call on a guarantee will usually result in the government making a payment to the original creditors or assuming a debt. In both cases, a capital transfer will be recorded from government for the amount called.

Recapitalisations, loans and asset purchases increase government debt if the government has to borrow to finance these operations. Interest and dividend payments, as well as fees received for securities lent and guarantees provided, improve the government budget balance.

1 Prepared by Julia Catz and Henri Maurer.

Classification of new units and re-routing

Governments have in some cases created new units or used existing units outside the general government sector to support financial institutions. This raises two additional issues: first, the sector classification of the new unit must be determined (i.e. outside or inside the general government sector); second, even if the unit is classified outside the general government sector, certain transactions carried out by this unit may need to be re-routed through the government accounts.

For the sector classification of a newly created entity, Eurostat has decided that government-owned special-purpose entities, which have as their purpose to conduct specific government policies and which have no autonomy of decision, are classified within the government sector. On the contrary, majority privately-owned special-purpose entities with a temporary duration, set up with the sole purpose to address the financial crisis, are to be recorded outside the government sector if the expected losses that they will bear are small in comparison with the total size of their liabilities.

As to the rescue operations undertaken by a public corporation classified outside general government, Eurostat has decided that these operations should be subject to re-arrangement through the government accounts (with a concomitant deterioration of government balance and debt), if there is evidence that the government has instructed the public corporation to carry out the operations. In the specific case of central bank liquidity operations, these operations fall within the remit of central banks to preserve financial stability and therefore should not be re-routed through the government accounts.

In its October 2009 press release on government deficit and debt, Eurostat also published supplementary information on the activities undertaken by the European governments to support the financial sector (e.g. government guarantees, the debt of special-purpose entities classified outside the government sector, temporary liquidity schemes). This is essential to gauge the fiscal risks arising from governments' contingent liabilities and the liabilities of newly created units that are classified inside the private sector.

2.3 THE NET FISCAL COSTS OF BANK SUPPORT

An assessment of the net fiscal costs of government support to the banking sector requires a long horizon, which goes beyond the year in which such support was effectively provided. In the short term, the (net) impact of the various measures to support the financial sector on the government deficits has so far been very small (i.e. below 0.1% of GDP for the euro area as a whole). The direct impact on government debt levels will strictly depend on the borrowing requirements of the governments to finance the rescue operations (see Box 1). As can be seen in Table 1, euro area government debt on balance increased by 2.5% of GDP by the end of 2009 due to the stabilisation measures. At the country level, Belgium, Ireland, Luxembourg and the Netherlands witnessed the most noticeable increases in government debt by 6.4%, 6.7%, 6.6% and 11.3% of GDP, respectively. In the case of France, the relatively small impact on government debt (i.e. 0.4% of GDP) is due to Eurostat's decision on the statistical classification of majority privately-owned special-purpose entities, set up with the sole purpose to address the financial crisis (see Box 1). Following this decision, the Société de Financement de l'Économie Française (SFEF) is recorded outside the government sector. As a result, the amounts borrowed by

the SFEF with a government guarantee do not affect the general government debt, but only its contingent liabilities.

In addition to the direct impact on deficits and debt, the assessment of the fiscal implications of bank rescue operations needs to take account of the broader fiscal risks governments have assumed as a result of such operations. Although their effect may not be visible in the short term, such fiscal risks may have an adverse impact on fiscal solvency over the medium to long term (see also Chapter 5). As a result of the financial crisis, governments have assumed two fundamental types of fiscal risks.

The first is related to the governments' contingent liabilities (e.g. further guarantees and/or recapitalisations may be required).[13] By the end of 2009 the *implicit* contingent liabilities related to the financial rescue measures represented at least 20% of GDP for euro area governments (excluding government guarantees on retail deposits; see Table 2). The potential fiscal risks are sizeable for all countries that have provided a guarantee scheme. The government of Ireland has taken on more implicit contingent liabilities than any other euro area government (around 172% of GDP, excluding a blanket guarantee on retail deposits). At the end of 2009 state guarantees available to the financial sector expired in some euro area countries, while they were extended in most others. The *explicit* contingent liabilities from state guarantees that were actually provided to the banks and special-purpose entities on balance amount to about 9.4% of GDP (see Table 2). Accordingly, by end-2009, less than half of the total amounts committed had been effectively used. The probability that such explicit fiscal risks will materialise depends on the credit default risk of the financial institutions that made use of the guarantees.

The second source of fiscal risks relates to the effects of financial sector support measures (e.g. bank recapitalisations, asset purchases and loans) on the size and composition of governments' balance sheets (see IMF 2009d). In principle, these interventions do not increase a government's net debt, as they represent an acquisition of financial assets. However, their ultimate impact on fiscal solvency will depend on how these assets are managed, on possible valuation changes which could negatively affect the net debt ratio, and on the proceeds from the future sale by governments of these financial sector assets. As reported in Box 2, experience shows that the recovery rates tend to be well below 100%.

The fiscal costs of support to the banking sector are partially offset by the dividends, interest and fees paid by the banks to the governments in exchange for financial support. For some euro area countries, this is a considerable source of revenues. At the same time, this price tag attached to bank support provides market-based incentives for the financial institutions involved to return the capital and loans received from the government and to issue debt securities without a government guarantee as market conditions normalise. Indeed, already in the course of 2009, several banks were able to repay the loans from government or to issue debt securities without a government guarantee.

Finally, an assessment of the net fiscal costs of government support should also weigh these costs against the economic and social benefits of the interventions, as they were successful in stemming a collapse of the financial system and a likely credit crunch. A quantification of these benefits is difficult as it would require an estimate of the output and job losses following the default of systemic financial institutions and a breakdown of the financial system.

13 See ECB (2009g), Box 10 entitled "Estimate of potential future write-downs on securities and loans facing the euro area banking sector".

Box 2

THE FISCAL COSTS OF SELECTED PAST BANKING CRISES [1]

Since the Second World War systemic banking crises have been relatively rare occurrences in developed countries and tended to be local in nature and related to country-specific imbalances. In this respect, the recent period of financial turmoil is unprecedented, owing to its global reach, and this naturally limits the scope of comparability with past episodes. This notwithstanding, past experiences may offer useful guidance on appropriate crisis management and exit strategies. This box therefore reviews the common features of several past systemic banking crises and the medium-term fiscal costs of government interventions in advanced economies.[2]

Banking crises frequently occurred in the aftermath of pro-cyclical policies, lax financial regulation and exceptionally fast credit growth. In some cases, banks took excessive risks (often in the real estate or stock markets) during periods of strong economic growth, which then materialised when the economy was hit by major internal or external shocks. In other cases, financial crises were related to the excessive dependence of banks on short-term financing.

Government intervention tended to be based on a combination of measures aimed at restoring confidence in the financial system and supporting the flow of credit to the domestic economy in order to prevent a credit crunch. A first line of defence usually consisted of a guarantee fund or a blanket guarantee. The nature of the guarantees varied depending on country-specific conditions. Capital injections were also provided to those institutions facing liquidity or solvency problems for the purpose of restoring banks' required capital ratios. In exchange, governments acquired ownership of bank shares or proceeded to outright nationalisation. Non-performing bank assets were in some cases removed from bank balance sheets and transferred to asset management companies, which would later sell these assets again. In the case of publicly owned asset management companies, the proceeds from the sale of assets partially offset the fiscal costs related to bank rescue operations.

The estimated fiscal costs of government intervention in the banking sector vary substantially across studies depending on the methodology used for their derivation and the definition of fiscal costs.[3] Some studies recognise only government outlays as fiscal costs, whereas others also take into account the revenue side of government finances. The literature identifies three main channels through which to assess the fiscal costs of financial instability,[4] namely: (i) direct bailout costs (either excluding or including the future sale of financial sector assets acquired by the government), (ii) a loss of tax revenues from lower capital gains, asset turnover and consumption, and (iii) second-round effects from asset price changes on the real economy and the cyclical component of the budget balance, and via government debt service costs. These fiscal costs have to be weighed against the economic and social benefits of stabilising the financial sector.

1 Prepared by Maria Grazia Attinasi.
2 For more detailed analyses, see Caprio and Klingebiel (1996), Laeven and Valencia (2008), Eschenbach and Schuknecht (2002), Jonung, Kiander and Vartia (2008) and Jonung (2009).
3 Two approaches to estimating fiscal costs can be applied. The bottom-up approach sums up all government measures related to a crisis, although some of these measures are difficult to quantify, especially if they are carried out by institutions classified outside the general government sector. This approach was followed in Laeven and Valencia (2008). The top-down approach starts with the government debt-to-GDP ratio before the crisis and assumes that any changes in the ratio are related to the financial crisis. This approach, which also includes debt changes which are unrelated to the crisis, is followed in Reinhart and Rogoff (2009).
4 See, for example, Eschenbach and Schuknecht (2002).

The fiscal costs of selected systemic banking crises

Country	Starting date of crisis (*t*)	Gross fiscal costs after five years (% of GDP)	Recovery of fiscal costs during period *t* to *t+5* (% of GDP)	Recovery of fiscal costs during period *t* to *t+5* (% of gross fiscal costs)
Finland	September 1991	12.8	1.7	13.3
Japan	November 1997	14.0	0.1	0.7
Norway	October 1991	2.7	2.1	77.8
Sweden	September 1991	3.6	3.4	94.4

Source: Laeven and Valencia (2008).
Note: The starting date was identified by Laeven and Valencia (2008) based on their definition of systemic banking crises.

The table above shows the estimated gross fiscal costs as well as the estimated recovery rates for selected past systemic banking crises in advanced economies (i.e. Finland, Japan, Norway and Sweden) using available estimates. Gross fiscal costs are estimated over a period of five years following the occurrence of the financial crisis. The highest fiscal costs were recorded in Japan (around 14% of GDP within five years of the start of the crisis), while they were relatively modest in Norway and Sweden (around 3-4% of GDP).

The recovery rates in the last column of the above table indicate the portion of gross fiscal costs that governments were able to recover, by way of, for example, revenues from the sale of non-performing bank assets or from bank privatisations. Recovery rates usually vary significantly across countries, depending on country-specific features, such as the modality of government intervention, the quality of acquired financial sector assets, exchange rate developments and market conditions when the assets were sold by government. IMF estimates[5] show that Sweden was able to reach a recovery rate of 94.4% of budgetary outlays five years after the 1991 crisis, while Japan had recovered only about 1% of the budgetary outlays five years after the 1997 crisis. However, by 2008 the recovery rate for Japan had increased to 54%.

The medium-term fiscal costs of financial support depended to a large degree on the exit strategies governments adopted to reduce their involvement in the financial system once the situation returned to normal and on the recovery rates from the sale of financial assets. The exit strategies can be seen as comprehensive programmes to reverse anti-crisis measures taken during a financial crisis. When deciding on an exit strategy, the key variables are timing (i.e. the moment and speed at which the government plans to phase out the measures, for example, by withdrawing government guarantees) and scale (i.e. the degree to which the government wishes to return to pre-crisis conditions, for example, by reducing government ownership in the banking sector). In the past banking crises reviewed in this box, concrete exit strategies were rarely specified *ex ante*. If nationalisation of a substantial part of the banking sector occurred or the government acquired large amounts of assets, government holdings were sold once the crisis was over. As the Swedish experience shows,[6] the key determinants for the successful management of a financial crisis include swift policy action, an adequate legal and institutional framework for the resolution procedures, full disclosure of information by the parties involved, and a differentiated resolution policy that minimises moral hazard by forcing private sector participants to absorb losses before the government intervenes financially.[7]

5 IMF estimates show that average recovery rates for advanced economies are about 55% and are influenced, among other factors, by the soundness of the public financial management framework. For more details, see IMF (2009a).
6 See Jonung (2009).
7 Honohan and Klingebiel (2000) also find that crisis management strategies have an impact on the fiscal costs of financial crises. Their analysis shows that crisis management practices such as open-ended liquidity support, regulatory forbearance and an unlimited depositor guarantee lead to higher fiscal costs than less accommodating policy measures.

2.4 CONCLUSIONS

The response of euro area governments to the financial crisis was timely, necessary and unprecedented. Governments acted in a coordinated manner, in respect of the temporary framework adopted under the EU state aid rules and within the guidelines issued by both the European Commission and the ECB/Eurosystem. Their interventions were successful in stemming a confidence crisis in the financial sector and averting major adverse consequences for the economy.

Nonetheless, government support to the banking sector has substantial implications for fiscal policy. As discussed in this chapter, in addition to the direct impact on government accounts (i.e. the impact on deficits and debt), a comprehensive assessment of the fiscal implications of bank support measures needs to take account of the broader fiscal risks governments have assumed as a result of these operations. Based upon the principles for the statistical recording of the public interventions, the impact on the euro area countries' government deficits has been limited so far, whereas the impact on gross debt levels has been substantial. Moreover, as a result of these interventions, governments have assumed significant fiscal risks, which may threaten fiscal solvency in the medium to long term. The major sources of fiscal risks are possible further capital injections, guarantees to the banking sector which may be called and the increase in the size of governments' balance sheets. The large amount of assets acquired by governments as a counterpart of support measures is vulnerable to valuation changes and to the potential losses that may result once these assets are disposed of. Therefore, looking ahead, the risk of the government debt ratio rising further cannot be ruled out.

Finally, during the current crisis, a more indirect effect on fiscal policy has been at work as governments' decision to support the banking sector has affected investors' perceptions of countries' creditworthiness. From a public finance point of view, these indirect effects are also relevant as increased risk aversion towards governments may reduce investors' willingness to provide long-term funding to sovereign borrowers. This would adversely affect governments' capacity to issue long-term debt and may impair the sustainability of public finances by way of higher debt servicing costs (see Chapter 4).

3 EURO AREA FISCAL POLICIES: RESPONSE TO THE ECONOMIC CRISIS [14]

3.1 INTRODUCTION

In view of the expected economic fall-out from the financial crisis, leaders of the G20 countries at their Washington summit of 15 November 2008 set out to "use fiscal stimulus measures to stimulate domestic demand to rapid effect, as appropriate, while maintaining a policy framework conducive to fiscal sustainability". On 26 November 2008, the European Commission launched the European Economic Recovery Plan (EERP), with the aim to provide a coordinated short-term budgetary impulse to demand as well as to reinforce competitiveness and potential growth.[15] The total package amounted to EUR 200 billion (1.5% of EU GDP), of which Member States were called upon to contribute around EUR 170 billion (1.2% of EU GDP) and EU and European Investment Bank (EIB) budgets around EUR 30 billion (0.3% of EU GDP). The stimulus measures would come in addition to the role of automatic fiscal stabilisers and should be consistent with the Stability and Growth Pact and the Lisbon Strategy for Growth and Jobs.

This chapter reviews how euro area fiscal policies responded to the economic crisis. Section 3.2 discusses the size of the total fiscal impulse to the euro area economy and its impact on the budgetary position of the euro area. Drawing on the literature, Section 3.3 puts forward some considerations on the effectiveness of automatic fiscal stabilisers and discretionary fiscal policies for supporting output growth. Section 3.4 concludes.

3.2 THE FISCAL IMPULSE FOR THE EURO AREA ECONOMY

The budgetary support or *fiscal impulse* that the government can provide to the economy reflects the initial momentum from public finances, as broadly captured by the year-on-year change in the general government budget balance as a share of GDP. The *fiscal impulse* can be broadly decomposed into three categories, comprising 1) the operation of automatic fiscal stabilisers associated with the business cycle – equivalent to the change in the cyclical component of the budget; 2) the fiscal stance, consisting of discretionary fiscal policy measures and a number of non-policy factors – as captured by changes in the cyclically adjusted (or structural) primary balance; and 3) interest payments, which represent a financial flow between the government and other sectors in the economy, and therefore may also be seen as part of the fiscal impulse (see Chart 1).

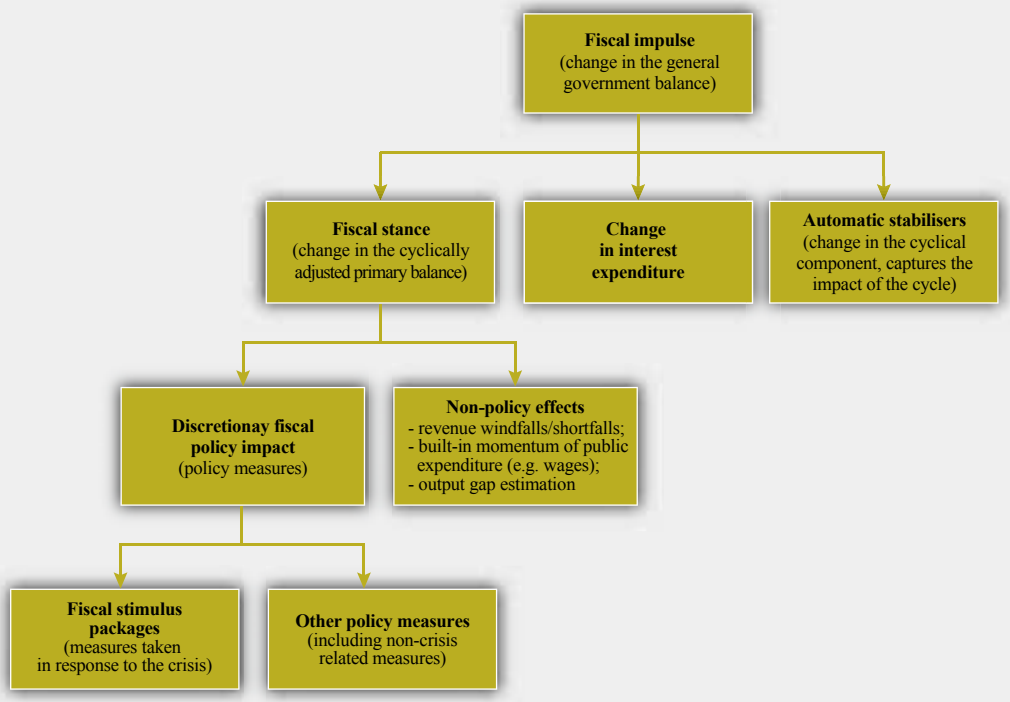
In a cyclical downturn, the operation of *automatic fiscal stabilisers* provides an automatic buffer to private demand through built-in features of the government budget. These reflect above all rising unemployment and other social security benefits on the expenditure side and falling income from corporate, personal and indirect taxes on the revenue side. Conversely, in a cyclical upturn, the automatic features of the budget work in the opposite direction, thereby putting a brake on private demand.

The *fiscal stance* is commonly used to measure the impact of *discretionary fiscal policies* on government finances. The *fiscal stimulus packages*, adopted by governments as a direct response to the economic crisis, form a subset of discretionary fiscal policies. The fiscal stance is, however, also affected by *non-policy factors* outside the control of government. Notably, difficulties in estimating the output gap in real time complicate the separation of cyclical and policy-related budget changes and could distort a proper measurement of the fiscal stance (see e.g. Cimadomo, 2008). As shown by Morris et al. (2009), in the boom years before the crisis several euro area countries recorded large increases in tax revenues that could neither be explained by discretionary measures, nor by the development of typical tax base proxies. These windfall revenues are nevertheless registered as improving the cyclically adjusted primary

14 Prepared by António Afonso, Cristina Checherita, Mathias Trabandt and Thomas Warmedinger.

15 See European Commission, "A European Economic Recovery Plan", COM(2008)800, 26.11.2008.

Chart 1 Overview of the fiscal impulse and its components

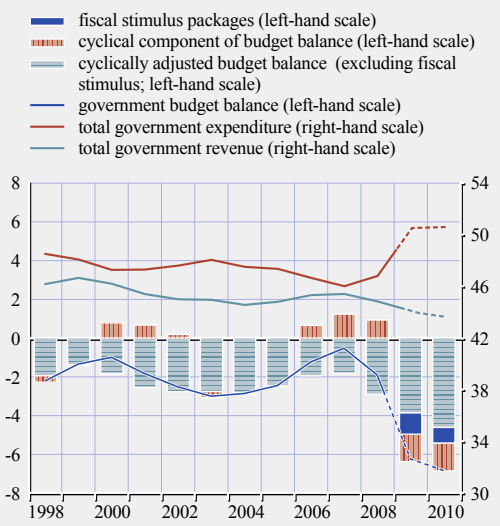


balance. Similarly, the reversal of these windfall revenues after the boom (leading to revenue shortfalls) is recorded as a deterioration in the cyclically adjusted primary balance. Revenue windfalls/shortfalls may be caused, for example, by changes in asset prices, in the price of oil, or in households' spending habits. On the expenditure side, such non-policy factors refer to government spending trends in excess of trend output growth. This could reflect the in-built momentum of expenditures (e.g. public wages) or an unanticipated drop in trend growth.

Accommodating the impact of automatic stabilisers and implementing discretionary fiscal policies during the economic crisis has come at a very high cost for euro area public finances. The rapid deterioration of the fiscal outlook is illustrated in Chart 2. After having been close to balance in 2007, the euro area general government budget is projected to show a deficit of 6.9% of GDP in 2010, caused by an upward shift in the spending ratio and a steady decline in revenue

Chart 2 Euro area budget balance and its components over the period 1998-2010

(euro area; percent of GDP)



Sources: European Commission (2009b and 2009f), ECB calculations.
Note: Data for 2009 and 2010 are projections (indicated by dashed lines).

relative to GDP. The analysis in Box 3 suggests that these euro area fiscal developments (apart from those on the revenue side) are broadly in line with those during past systemic financial crises in a group of selected advanced economies.

Table 3 shows the detailed data underpinning the estimated size of the fiscal impulse and its components for the euro area. In line with Chart 2, the upper part of the table shows the main fiscal features of the euro area, showing a rapid deterioration of public finances. According to European Commission (2009b and 2009d) estimates, the fiscal stimulus packages for 2009-10 adopted by euro area countries as a direct response to the economic crisis amount to almost 2.0% of GDP (of which 1.1% in 2009 and 0.8% in 2010).

The analysis of the components of the fiscal impulse in the lower part of Table 3 is based on annual changes in GDP ratios, with the sign reversed such that a deterioration of the respective balance indicates a positive stimulus. The overall fiscal impulse to the euro area economy (as given by the decline in the government budget balance) is projected to have increased substantially in 2009 (by about 4.4 percentage points of GDP) and somewhat further in 2010 (by about 0.5 percentage point of GDP). Taking a two-year perspective, out of the total fiscal impulse of 4.9 percentage points of GDP in 2009-10, the effect of automatic stabilisers accounts for about half (2.4 percentage points of GDP), while the other half represents largely the loosening of the fiscal stance and to a minor extent the increase in interest expenditures. The fiscal stance reflects the impact of the fiscal stimulus packages as well as significant additional revenue shortfalls and structural spending growth in excess of the (lower) trend growth rate of the economy.

Table 4 shows the total fiscal impulse and its components for euro area countries, as well as the size of their fiscal stimulus packages. The latter stems from a bottom-up aggregation of reported fiscal stimulus measures, some of which were already decided before the EERP. Such an aggregation is subject to considerable definition problems and therefore arbitrariness, because there is no clear distinction between fiscal stimulus measures in response to the crisis and government measures that would have been undertaken irrespective of the crisis. Moreover, some countries undertook separate consolidation measures.

The dispersion of the fiscal stimulus size by country (as initially estimated by the European Commission: see last two columns of Table 4) is considerable, reflecting in general the available budgetary room for manoeuvre and the perceived deterioration of the economic outlook. For 2009, the largest fiscal package was

Table 3 The fiscal impulse and its components for the euro area

	2008	2009	2010
Fiscal position (% of GDP)			
Government budget balance	-2.0	-6.4	-6.9
Cyclical component of budget balance	0.9	-1.4	-1.4
Cyclically adjusted budget balance	-2.9	-5.0	-5.4
Interest expenditures	3.0	3.0	3.2
Cyclically adjusted primary balance	0.1	-2.0	-2.2
Fiscal stimulus packages	-	1.1	0.8
Fiscal impulse (annual changes, p.p. of GDP)			
Change in government budget balance	-1.4	-4.4	-0.5
Fiscal impulse	1.4	4.4	0.5
o/w cyclical component – automatic stabilisers	0.3	2.4	0.0
o/w cyclically adjusted primary balance – fiscal stance	1.0	2.1	0.2
o/w interest expenditures	0.1	0.0	0.2
Change in fiscal stimulus packages	-	1.1	-0.3

Sources: European Commission (2009b and 2009f), ECB calculations.

Table 4 Total fiscal impulse and its components by euro area country

Fiscal variable	Fiscal impulse (-Δ general government balance; p.p. of GDP[1]) (a) = (b) + (c)			Automatic stabilisers (-Δ cyclical component; p.p. of GDP[1]) (b)			Fiscal stance and change in interest expenditure (-Δ cyclically adjusted balance; p.p. of GDP[1]) (c)			Fiscal stimulus packages (levels; % of GDP) (d)	
	2008	2009	2010	2008	2009	2010	2008	2009	2010	2009	2010
Belgium	1.0	4.7	-0.1	0.4	2.2	0.2	0.6	2.5	-0.3	0.4	0.4
Germany	0.2	3.4	1.6	-0.2	3.0	-0.1	0.3	0.4	1.7	1.4	1.9
Ireland	7.4	5.3	2.2	2.0	2.9	0.2	5.4	2.5	1.9	0.5	0.5
Greece	4.1	4.9	-0.4	0.3	1.3	0.8	3.8	3.6	-1.3	0.0	0.0
Spain	6.0	7.2	-1.1	0.3	1.6	0.3	5.7	5.6	-1.5	2.3	0.6
France	0.7	4.9	0.0	0.5	1.7	0.0	0.1	3.2	0.0	1.0	0.1
Italy	1.2	2.5	0.0	0.8	2.5	-0.2	0.5	0.1	0.2	0.0	0.0
Cyprus	2.5	4.4	2.2	-0.4	1.2	0.4	2.8	3.2	1.8	0.1	0.0
Luxembourg	1.2	4.7	2.1	1.8	2.8	0.3	-0.5	1.9	1.7	1.2	1.4
Malta	2.5	-0.1	-0.1	-0.3	1.1	0.0	2.8	-1.2	-0.1	1.6	1.6
Netherlands	-0.5	5.4	1.5	-0.2	3.2	0.2	-0.4	2.2	1.2	0.9	1.0
Austria	-0.1	3.9	1.1	-0.2	2.4	0.2	0.1	1.5	1.0	1.8	1.8
Portugal	0.1	5.3	0.1	0.3	1.3	0.0	-0.2	4.0	0.1	0.9	0.1
Slovenia	1.8	4.5	0.7	-0.1	4.2	0.0	1.9	0.3	0.7	0.6	0.5
Slovakia	0.4	4.0	-0.2	-0.5	2.9	0.4	0.9	1.0	-0.6	0.1	0.0
Finland	0.8	7.3	1.7	0.6	4.1	-0.1	0.2	3.2	1.8	1.7	1.7
Euro area	**1.4**	**4.4**	**0.5**	**0.3**	**2.4**	**0.0**	**1.1**	**2.1**	**0.4**	**1.1**	**0.8**

Sources: European Commission (2009b and 2009f), ECB calculations.
Note: For Italy, the fiscal stimulus data reflect the net impact of the measures taken in response to the crisis.
1) A positive sign indicates an expansionary fiscal position, i.e. a deterioration of the respective fiscal balance.

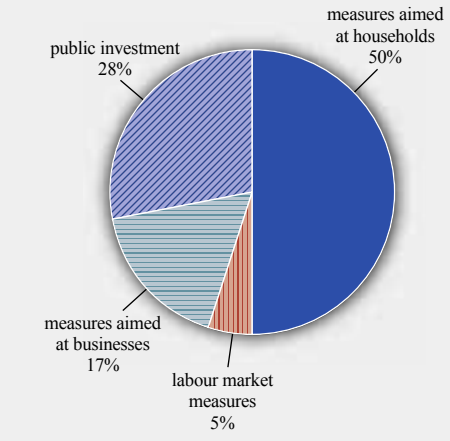
adopted in Spain (2.3% of GDP), followed by Austria, Finland and Malta (with over 1.5% of GDP) and Germany (1.4% of GDP). For 2010, when most countries keep their stimulus measures in place in support of their economies, Germany stands out as new public investments raise the total size of the fiscal package to about 2% of GDP. One should note that a few countries have subsequently extended certain measures (France) or further expanded their total packages (Germany) for 2010. Countries that had less room for budgetary manoeuvre, in particular Greece and Italy, avoided taking discretionary fiscal measures as a response to the crisis that would raise their budget deficits.

Looking in more detail at the composition of the fiscal stimulus packages for the euro area, out of the total of 1.8% of GDP over the period 2009-10, 1.0% of GDP is given by measures on the revenue side and 0.8% of GDP is accounted for by measures on the expenditure side. Four broad categories of measures in support of the economy have been adopted by euro area countries in 2009-10 (see Chart 3).

Most governments took *measures to support households' purchasing power*, especially through a reduction of direct taxes, social security contributions and VAT, as well as through direct aid, such as income support for households

Chart 3 Composition of fiscal stimulus measures in the euro area (2009-10)

(euro area; share in terms of budgetary impact)



Sources: European Commission (2009d), ECB calculations.

and support for housing or property markets. In terms of the budgetary impact, this category alone accounts for half of the total stimulus by euro area countries in 2009-10 (0.9% of GDP). More than half of the countries have adopted sizeable stimulus measures in the area of *public investment*, such as investment in infrastructure, as well as other public investment aimed at supporting green industries, and/or improving energy efficiency. This category comes second in terms of budgetary impact in 2009-10, with about 28% of the total stimulus. Similarly, about half of the countries have also implemented sizeable *measures to support business*, such as the reduction of taxes and social security contributions, and direct aid in the form of earlier payment of VAT returns, providing subsidies and stepping up export promotion (17% of the total stimulus). Significantly increased spending on *labour market measures*, such as wage subsidies and active labour market policies, have initially been adopted by only a few countries and account for only 5% of the total stimulus volume. One should note that many countries also supported demand through extra-budgetary actions which do not directly affect their government budgets, such as capital injections, loans and guarantees to non-financial firms and extra investment by public corporations. The total size of these additional measures is estimated at 0.5% of GDP for the euro area in 2009-10. Finally, at the EU level, EU and EIB budgets were used to respectively accelerate the payment of structural funds and give financial support to small and medium-size firms.

According to the European Commission (2009b and 2009d), the stimulus measures were generally implemented in a *timely* fashion, although one may note that new public investment projects (other than maintenance or frontloading existing plans), as well as various tax cuts, were subject to implementation lags and took quite some time to become effective. The stimuli are also considered to have been *well targeted*, at liquidity- or credit-constrained households and firms, or ailing sectors such as construction or the car industry in some countries. However, without a detailed cost/benefit analysis the economic efficiency of this allocation is difficult to assess.[16] Moreover, government support to specific industrial sectors may distort competition within Europe and must therefore observe EU state aid rules. Clear doubts exist regarding the *temporary* character of the stimuli, especially for revenue measures, given that most of these were generally not designed to be phased out quickly and for political economy reasons could be difficult to reverse.

16 For an assessment of the economic impact of the vehicle-scrapping schemes, see ECB (2009e).

Box 3

FISCAL DEVELOPMENTS IN PAST SYSTEMIC FINANCIAL CRISES[1]

This box aims to provide some stylised facts about the evolution of key fiscal variables during past systemic financial crises in advanced economies. It tries to identify common features and differences between systemic crisis episodes, on the one hand, and normal cyclical downturns, on the other. In addition, it provides a comparison of the current and expected fiscal developments in the euro area with the past systemic crisis experience in advanced economies.[2]

1 Prepared by Vilém Valenta.

2 This box compares fiscal developments during "normal cycles", calculated as the average development of a particular fiscal variable across past recession periods in 20 advanced economies, to so-called "crisis cycles", which are the past recession periods connected to 5 systemic financial crises in advanced economies (Spain, Finland, Norway, Sweden and Japan). The shaded range of normal cycles is demarcated by the lower and upper quartiles. The charts include also current and expected fiscal developments in the euro area based on European Commission (2009f). The year T on the horizontal axes represents a trough of the real GDP growth cycle. For the past cycles, data are synchronised according to actual past troughs; for the current and expected fiscal developments in the euro area, the trough in real GDP is assumed to occur in 2009. For an analysis focusing on other macroeconomic variables, see ECB (2009f).

Chart A Total government revenue

(percentage of GDP)

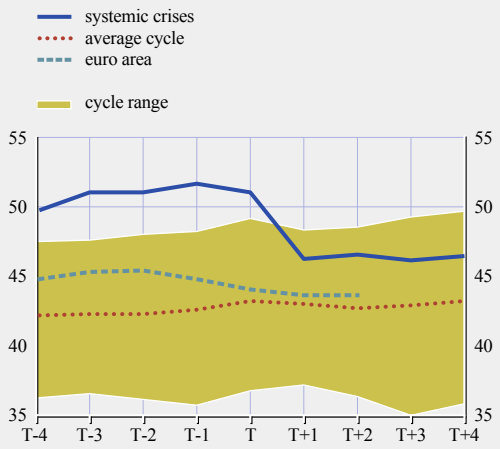
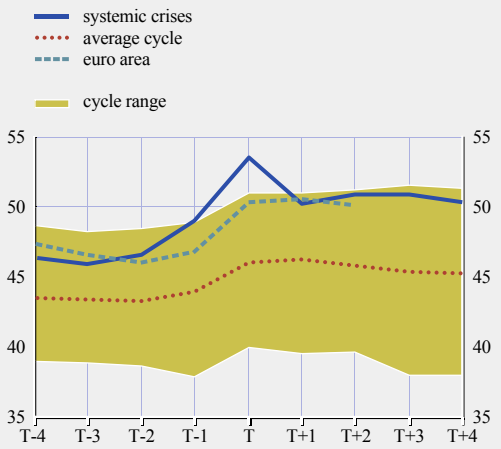


Chart B Total government expenditure

(percentage of GDP)



Response of government revenue and expenditure

The ratio of government revenue to GDP remains, on average, more or less stable during normal economic cycles (see Chart A), reflecting a rather close link of government revenue to economic activity. In case of systemic crises, a downward shift in the level of the revenue-to-GDP ratio can be identified. This can be attributed, for example, to adverse structural effects of the crisis on tax-rich components of GDP, the impact from bursting asset price bubbles, or counter-cyclical tax cuts. For the euro area, the revenue ratio is expected to show only a moderate decline.

Government expenditure reacts in general much less in line with cyclical developments than the revenue side of the budget. Nominal downward rigidity of expenditures such as public wages and pensions, the automatic increase in unemployment and other social benefits and/or intentional fiscal stimulation in economic downturns lead to increases in expenditure-to-GDP ratios during economic recessions and the increases are even more dramatic in crisis episodes (see Chart B). The government expenditure ratio for the euro area is expected to develop broadly in line with the pattern observed in advanced economies in systemic crises.

Consequences for government budget balances and debt

Economic downturns have a clear negative impact on government budget balances, the deterioration being much more pronounced and protracted in case of systemic crises (see Chart C). This evidence is not surprising and well in line with the above-described developments in revenue and expenditure ratios.

The more interesting finding may be that, while cyclically adjusted balances in advanced economies show a relatively flat development in normal cycles, implying an a-cyclical or mildly counter-cyclical conduct of discretionary fiscal policies, there appears to be a stronger adverse

Chart C Government budget balance

(percentage of GDP)

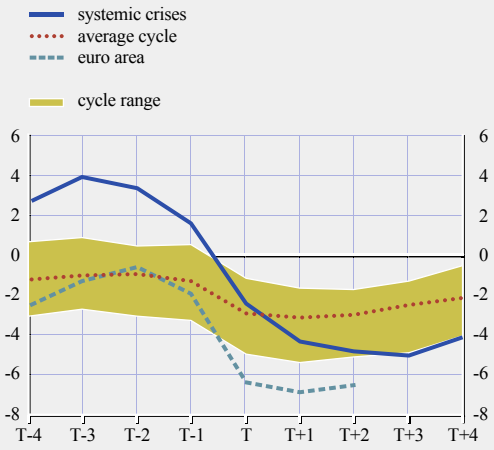
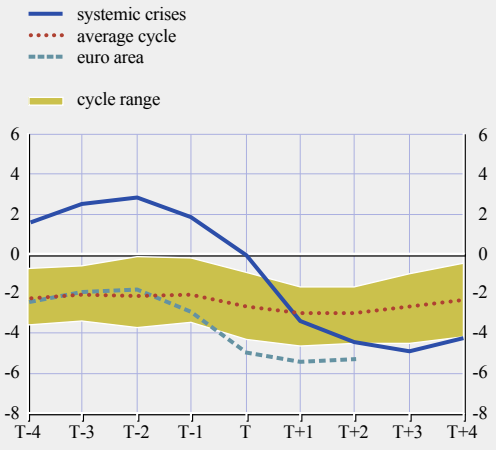


Chart D Cyclically adjusted balance

(percentage of GDP)



structural impact during systemic crises (see Chart D)[3]. This may be attributable to fiscal activism to cushion the downturn, a slowdown of potential growth as a consequence of the systemic crisis which contributes to revenue shortfalls and higher spending ratios, and to some extent to increased debt servicing costs due to the significant accumulation of debt.

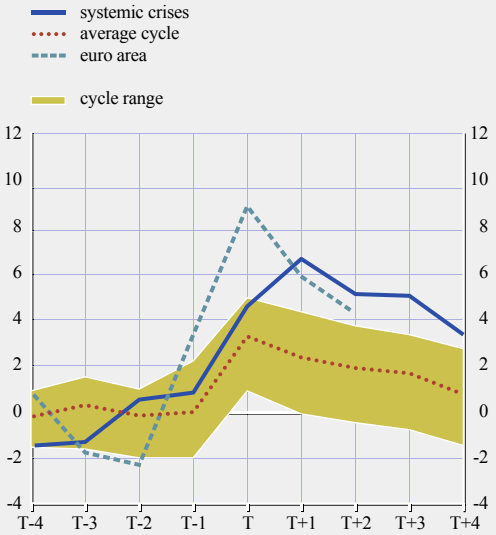
Current developments in fiscal balances in the euro area follow a pattern typical for systemic crises, i.e. a deep structural deterioration, which is expected to persist under unchanged policies. It is notable that the selected advanced countries hit by such crises in the past had however started from favourable fiscal positions. In this respect, the euro area was less well prepared for the current systemic crisis.

As shown in Chart E, systemic crises led, on average, to much higher increases in gross government debt-to-GDP ratios than in average business cycles in the past. This can be explained by a more pronounced and protracted deterioration in public finances, as well as the fiscal costs related to financial crises.

The current steep increase in the euro area government debt ratio is well in line with past financial crises. Some euro area countries, in particular the Benelux countries, are at present even more severely affected and the expected rise in their government debt-to-GDP

Chart E Government gross debt-to-GDP ratio

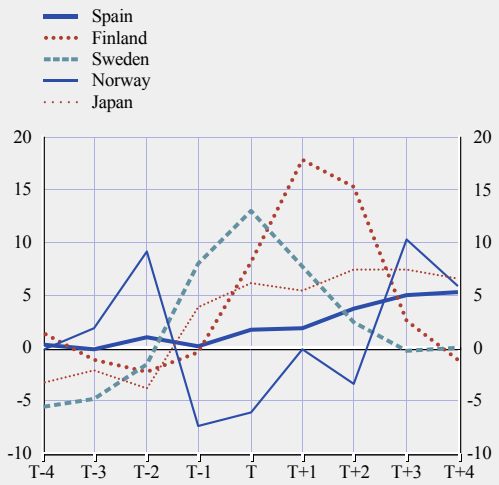
(annual change; percentage points of GDP)



3 Inaccuracies and uncertainties connected with various methods of cyclical adjustment should be borne in mind, however, when considering these conclusions.

Chart F Government gross debt-to-GDP ratio

(annual change; percentage points of GDP)



ratios is comparable to the crises in the Nordic countries in the early 1990s (see Chart F).

Caveats

Finally, certain caveats to the approach applied should be stressed. The comparisons of profiles for fiscal variables presented here are highly aggregated. As the analysis averages across countries, time, policy regimes and circumstances, on occasion some heterogeneity displayed by individual economies during systemic financial crises may be missed. In particular, the initial vulnerabilities and the causes of the crises differed, as did the policy responses, and these experiences are averaged out in discussing the "typical" path of fiscal variables following a financial crisis.

3.3 EFFECTIVENESS OF A FISCAL IMPULSE

In the debate on the fiscal policy response to the economic downturn, the effectiveness of a fiscal impulse to support the economy, both through automatic stabilisers and fiscal stimulus measures, has gained importance. This section reviews the literature on this point and also addresses the appropriate design of fiscal stimulus packages to maximise their impact.

AUTOMATIC STABILISATION

The working of automatic stabilisers provides the first line of defence in an economic downturn and the need for discretionary fiscal measures has to be weighed against the built-in counter-cyclical fiscal response from tax and spending systems.[17] The advantages of allowing automatic stabilisers to operate are well known. They are not subject to implementation time lags in contrast with discretionary fiscal policy. Moreover, they are not subject to political decision-making processes and their economic impact adjusts automatically to the cycle. Given the size of the public sector, their stabilising impact on the economy is relatively large in the euro area. Girouard and André (2005), as well as Deroose et al. (2008), estimate the elasticity of the total government budget balance with respect to the output gap for the euro area at about 0.49, compared with 0.33 for the United States.

On the other hand, while a larger public sector is associated with larger automatic stabilisers and lower cyclical output volatility, the correspondingly higher taxes lead to higher efficiency costs with negative implications for potential output. Debrun et al. (2008) argue that the benefits from automatic stabilisers tend to decline when public expenditure approaches 40% of GDP. As also pointed out by Baunsgaard and Symansky (2009), bigger governments do not always provide increased economic stabilisation.[18] Moreover, the impact of automatic stabilisers may have to be capped if the initial fiscal position was weak and due to strong cyclical factors the deficit threatens to exceed prudent budget limits, which itself could become a source of instability. This asymmetry in the scope for an unconstrained operation of automatic stabilisers may be strongest when extreme negative events occur,

17 Among OECD countries, the size of fiscal stimulus packages for 2008-10 varies inversely with the strength of automatic stabilisers (see OECD, 2009a).

18 Tanzi and Schuknecht (2000) offer a broad overview of the link between government spending trends and output growth.

such as a housing market collapse (Blix, 2009). Furthermore, there is great uncertainty about the measurement of output gaps and thus the identification of automatic stabilisers and their economic impact.[19] This also argues for caution in allowing automatic stabilisers to work without restrictions.

DISCRETIONARY FISCAL POLICIES

Discretionary fiscal policies attempting to stabilise the economy can in principle be successful if particular criteria are fulfilled. However, the size of the effect on demand and output tends to vary depending on several factors and is subject to great controversy.[20] Moreover, past experiences suggest that unless a discretionary fiscal stimulus is timely, targeted and temporary it actually risks being harmful.[21]

Regarding *timeliness*, fiscal policy is characterised by long lags regarding the design, decisions on and implementation of measures, as highlighted by Blinder (2004). Therefore, under economic uncertainty, when the discretionary fiscal impulse reaches the economy, the measures taken may no longer be timely, and could instead become pro-cyclical. Indeed, there is some historical evidence for such pro-cyclicality, notably in euro area countries (see OECD, 2003, and Turrini, 2008).

Targeted discretionary fiscal policy may also prove difficult to carry out, and the group of beneficiaries can easily go beyond liquidity- or credit-constrained consumers, encompassing also non-rationed consumers that may save the stimulus. This reduces the effectiveness of the fiscal measure. Moreover, when allocating the funds, economic efficiency considerations should also play a role, for example, to avoid that the structural adjustment of declining industries is prevented.

The *temporary* character of a discretionary fiscal stimulus should also be ensured. Still, there is a risk that tax cuts or spending increases that are intended to be temporary will in practice become permanent and not be reversed. A more permanent fiscal expansion would worsen fiscal imbalances, could imply higher domestic interest rates and may then crowd out private investment during the recovery phase.[22] Moreover, it could trigger concerns about fiscal sustainability, motivating households to save rather than spend the fiscal bonus. In this respect, Corsetti et al. (2009) show that the impact of a government spending increase on private consumption is positive when households expect this stimulus to be reversed through future government spending cuts.

One could also argue that *coordination* of fiscal stimulus measures to counter an international economic recession would reduce cross-border leakages and thereby increases the effectiveness of a fiscal stimulus. The available empirical studies tend to find that the cross-border effects of tax and government spending shocks are weak or insignificant in the euro area.[23] Therefore, if the size of national fiscal multipliers is limited, the quantitative importance of a spill-over effect will also be small.[24] Nevertheless, it could be significant at the aggregate euro area level in the face of a common negative shock.

Even when discretionary stimulus packages are expected to comply with the criteria mentioned above, questions relating to their *optimal design* remain open to debate. Despite the great heterogeneity of results in the empirical literature

19 See for instance ECB (2002, 2005) and Cimadomo (2008).
20 See for example Hemming et al. (2002), ECB (2008a), IMF (2008a), Ilzetzki et al. (2009), and Bouthevillain et al. (2009).
21 Fatás and Mihov (2003) study the reasons why fiscal policies frequently fail to meet these requirements and risk making matters worse. In the context of the 2008-09 global economic crisis, Spilimbergo et al. (2008) argue that the fiscal stimulus should be timely, large, lasting, diversified, contingent, collective and sustainable, and that the challenge is to find the right balance between these sometimes competing criteria.
22 Afonso and St. Aubyn (2009) provide evidence of such crowding-out effects on private investment for the OECD countries.
23 See Beetsma et al. (2006), Bénassy-Quéré and Cimadomo (2006), Gros and Hobza (2001), Marcellino (2006), Roeger and in't Veld (2004).
24 Regarding the ability of fiscal policies in EMU to contribute to cross-country output smoothing, which increases with the degree of business cycle synchronisation, see Afonso and Furceri (2008).

and the difficulty of making comparisons across various models and their assumptions, across countries, or across types of fiscal measures, a few broad conclusions can be reached.

First, in the short run, increases in government spending are likely to be more effective in supporting the economy than tax reductions, while tax cuts seem to work better in the longer run. Most empirical studies indicate that spending multipliers with respect to output are higher than tax multipliers in the short term, but their impact fades away in the medium to long run.[25] This finding is consistent with the notion that part of the increase in disposable income resulting from a tax cut is likely to be saved (unless the tax cut fully targets credit-constrained consumers), while government purchases of goods and services directly affect aggregate demand and output.

Second, within each category, there are differences in effectiveness between various fiscal stimulus measures. Among government expenditure components, the largest short-term impact on demand appears to come from purchases of goods and services, while government investment is likely to have a higher impact in the medium to longer term. Higher social transfers usually have a quick positive impact if well targeted at liquidity- or credit-constrained households, but if persistent, they tend to be detrimental to long-term growth by creating distortions in the allocation of resources and impeding labour mobility.[26] As regards tax components, work by Johansson et al. (2008) suggests that the effectiveness of tax changes depends on the existing tax structure and the proportion of credit-constrained agents, with wide differences across countries. In most cases, a reduction in income taxes appears to produce the strongest long-term impact on output.

Third, an economy's response to various fiscal stimulus measures is likely to depend on a range of other factors, such as its size and openness, the reaction of monetary policy, as well as institutional factors. In general, the responsiveness of output to a fiscal stimulus tends to be more noticeable in a large economy than in a small, open economy. This may be explained by the fact that, the more open the economy, the higher the share of additional consumption demand resulting from a fiscal stimulus that is going into imports. Reflecting this consideration, by type of fiscal policy tool, IMF (2008b) simulations find that the highest relative difference in the output response between a large economy and a small open economy is in the case of consumption tax cuts and increases in transfers. The monetary policy reaction plays a key role in the effectiveness of a fiscal stimulus, the output response being considerably higher and more persistent in the case of monetary accommodation. By type of fiscal tool, IMF (2008b) simulations shows that the output response to labour tax cuts is less affected by monetary accommodation in comparison with other tools (e.g. government investment, consumption taxes or transfers), due to the impact on labour supply. Institutional factors are also of importance in the design of a fiscal stimulus plan. How tax reductions, e.g. labour income tax cuts, affect output depends on labour market institutions, such as the degree of unionisation and features of the wage-setting process. Other factors, such as the preparedness of government institutions (efficiency of spending/line ministries versus tax collection agencies, the capacity of government agencies to implement large-scale investment programmes, etc.) also influence the effectiveness of spending versus tax measures.

RICARDIAN BEHAVIOUR

Ricardian equivalence may arise with forward-looking consumers (e.g. reflecting intergenerational altruism within households) who save the proceeds from a debt-financed fiscal stimulus in anticipation of the future tax increase that will be needed to repay the extra government debt. Therefore, consumers' net wealth would be invariant in the case of a debt-financed government expenditure increase, and budget

25 See Hemming et al. (2002) for a general review. See Roeger and in't Veld (2004), Al-Eyd and Barrell (2005), Hunt and Laxton (2003) and Perotti (2002) for studies on the euro area and large EU economies.

26 See Obstfeld and Peri (1998) and Checherita et al. (2009).

deficits would have no short-term real economic effects, contrary to the conventional Keynesian view that higher budget deficits stimulate demand in the short run.[27] The theoretical possibility of Ricardian equivalence is based on a number of strict assumptions, which are unlikely to hold in practice. Those assumptions include infinitely living households, price flexibility, lump-sum taxes, efficient capital markets and the absence of credit constraints.[28]

Empirical evidence regarding Ricardian equivalence is mixed. Some studies for OECD countries on the direct link between the fiscal stance and private consumption have found a Ricardian offset of 50% or more, i.e. half of the fiscal impulse is saved, and an even higher share when it is perceived as permanent.[29] Looking more broadly at the impact of discretionary fiscal impulses on real GDP growth in recessions, the IMF (2008b) finds only very small positive effects for industrial countries. In particular, such positive effects are contingent on low government debt levels (relative to the sample average) at the start of the fiscal impulse and they take several years to materialise. Additional evidence for the "old" EU15 group of countries shows that while extra government debt, being a component of consumers' net wealth, has a significant and positive coefficient with regard to private consumption, this impact declines with the size of the government debt increase: if the debt increase exceeds a certain threshold (estimated at 5% of GDP), consumers increasingly see government indebtedness as a future problem rather than attributing any possible net wealth characteristics to it.[30]

Empirical studies on the linkages between public and private saving, notably via external balances, can provide further insights regarding Ricardian behaviour. The argument is that when the government increases its consumption or reduces taxes, and Ricardian consumers just save more to prepare for the higher future tax burden, national savings remain broadly constant and thus the current account balance stays largely unaffected. For the EU and OECD countries there is indeed no strong evidence pointing to a direct and close relationship between government budget balances and current account balances.[31] Other studies indicate that only beyond certain government debt thresholds (i.e. 80% of GDP) the behaviour of private agents in euro area countries becomes more Ricardian. This points to a possible variability in the share of Ricardian consumers across countries and across time.[32]

FISCAL MULTIPLIERS IN DSGE MODELS

Dynamic stochastic general equilibrium (DSGE) models are used widely within international institutions and are useful tools for analysing the effectiveness of fiscal stimulus packages. The introduction of non-Ricardian households into DSGE models is devised to allow, *inter alia*, for the possibility of crowding-in effects of government spending shocks, i.e. fiscal multipliers larger than one, reflecting the fact that non-Ricardian households tend to have a higher propensity to consume out of disposable income than households showing Ricardian behaviour. To the extent that non-Ricardian households are typically assumed to be liquidity- or credit-constrained, this would support also the existence of a link between credit market conditions and fiscal policy effectiveness.

Looking at the literature, the share of non-Ricardian households for the euro area is mostly in a range of 25-35%,[33] whereas it is 35-50% for the United States.[34] By and large, the share of non-Ricardian households thus

27 See Ricardo (1817) and Barro (1974).
28 See also Buiter (1985) and Seater (1993).
29 See Federal Reserve Bank of San Francisco (2008).
30 See Afonso (2008a and 2008b) on Ricardian behaviour.
31 See Afonso and Rault (2008), on the basis of panel cointegration and SUR analysis.
32 See Nickel and Vansteenkiste (2008).
33 For the euro area, Coenen and Straub (2005) report an estimate of 25% for the share of non-Ricardian consumers in a version of the Smets and Wouters (2003) model that was estimated using Bayesian techniques. By contrast, a somewhat higher estimated share of 35% for non-Ricardian consumers in the euro area is reported by Ratto et al. (2009) for the QUEST III model of the European Commission. Forni et al. (2009) also report 35% for the share of non-Ricardian consumers for a euro area-wide DSGE model developed at the Banca d'Italia. On the other hand, Roeger and in't Veld (2009) assume a share of credit-constrained households of 30% in addition to a share of liquidity-constrained households of 30% in the EU. The unconstrained (Ricardian) households thus represent 40% only.

tends to be about 10-15 percentage points lower in models for the euro area economy compared with models for the US economy. Overall, this supports the widely held view of a higher sensitivity of private saving to fiscal expansions (or consolidations) in the euro area. However, given that the shares of non-Ricardian and Ricardian households are most likely state-dependent (e.g. influenced by the financial and economic crisis or higher government debt ratios), these figures need to be interpreted cautiously. In particular, one could argue that the share of liquidity- or credit-constrained (i.e. non-Ricardian) households may be larger in a crisis, situation than in normal times, which could then increase the effectiveness of the fiscal stimulus measures. On the other hand, in a crisis, more consumers may be concerned about a strong rise in government debt, especially if certain debt thresholds are exceeded. This would actually result in the opposite effect, i.e. the share of non-Ricardian households may become smaller. In addition, the possible negative reaction of financial markets to higher government indebtedness may raise interest rates and undermine the expected positive economic effect from a fiscal stimulus.

Coenen et al. (2010) compare the effectiveness of fiscal stimulus measures in various DSGE models used by international institutions[35] including the calibrated version of the ECB's New Area-Wide Model (NAWM).[36] The following set of results emerges across DSGE models. The fiscal multiplier is larger 1) if monetary policy accommodates the stimulus and if in that case prices are more flexible; 2) if the stimulus is temporary rather than permanent; 3) in closed economies (unless international coordination occurs); 4) if the composition is right (i.e. the multiplier is larger for direct government expenditures than for taxes and larger for targeted transfers than for general transfers); and 5) if the share of liquidity- and credit-constrained (non-Ricardian) consumers is larger. Taken together, in line with the findings of Ilzetzki et al. (2009), the impact of discretionary fiscal policies on output and the size of fiscal multipliers is very much state-dependent.

For the calibrated version of the ECB's NAWM and under the assumption of monetary policy accommodation, the first-year fiscal multiplier with respect to output is 1.2 for government consumption, 1.1 for government investment, 0.3 for government transfers to all households, 0.1 for labour taxes and 0.4 for consumption taxes.[37] A sensitivity analysis reveals that doubling the share of non-Ricardian consumers from 25% to 50% increases the effect on real GDP only to a comparatively small extent. By contrast, a moderately higher risk premium on government bond yields, in response to deteriorating fiscal positions, significantly reduces the impact. These fiscal multipliers with respect to output are similar to the results for the New Keynesian models with rational expectations formation examined by Cwik and Wieland (2009) for the euro area.

However, it should be stressed that the uncertainty concerning the size of the fiscal multiplier is large, notably in times of financial crisis going along with a sharp recession and

34 Campbell and Mankiw (1989) econometrically estimate the share of non-Ricardian households to be 50% in the United States using macroeconomic time-series evidence. More recently, Iacoviello (2005) studies the housing market in a DSGE framework and reports a somewhat lower econometrically estimated share of US non-Ricardian consumers of 35%. On the other hand, Galí et al. (2007) assume the share to be 50% using macroeconomic time-series evidence to calibrate a DSGE model which focuses on the effects of government consumption on private consumption. Moreover, Erceg et al. (2006) calibrate the share of US non-Ricardian households to 50% in the SIGMA model, which is a DSGE model used at the Federal Reserve Board.

35 The following international institutions participated in the comparison exercise: European Commission (QUEST III model), International Monetary Fund (GIMF model), European Central Bank (NAWM model), Board of Governors of the Federal Reserve System (SIGMA model and FRB US model), OECD (OECD fiscal model) and the Bank of Canada (BoC-GEM model).

36 See Coenen et al. (2008) and Straub and Tchakarov (2007).

37 The size of the fiscal measures corresponds to 1% of baseline GDP. The fiscal stimulus measures are assumed to be temporary, i.e. to last for two years and are zero thereafter. In the analysis, the fiscal and monetary policies reaction functions are assumed to be inactive over the two-year implementation horizon of the fiscal measures, but are allowed to become active thereafter.

deflationary risks. In particular, Christiano et al. (2009) and Erceg and Linde (2010) show that the multipliers in standard New Keynesian models for the United States can become very large if the economy is in a deep recession and the zero lower bound on nominal interest rates is binding for sufficiently many periods, which is akin to implicit monetary policy accommodation. On the other hand, these authors show also that the fiscal multiplier decreases in case the fiscal stimulus is subject to implementation lags, because of anticipation effects and a larger initial deterioration of the government balance. Moreover, Erceg and Linde (2010) demonstrate that the fiscal multiplier falls substantially with the size of the fiscal stimulus if the economy is at the zero lower bound on nominal interest rates initially.

3.4 CONCLUSIONS

Euro area governments have responded to the economic downturn by adopting sizeable fiscal stimulus measures on top of a significant fiscal impulse provided by automatic stabilisers, revenue shortfalls and structural spending growth. Fiscal developments in the euro area have so far been broadly similar to those observed during past systemic financial crises in advanced economies, showing a large increase in government expenditure-to-GDP ratios, a considerable deterioration of government structural balances, and a rapid accumulation of government debt. However, in contrast to the advanced countries that have faced financial crises in the past, the euro area began from a less favourable (structural) fiscal starting position.

In the face of an economic downturn, automatic fiscal stabilisers should be the first line of defence, although they may be subject to decreasing returns the more fiscal stability itself is endangered. As their sensitivity to the business cycle is rather high in the euro area, this requires a sound initial fiscal position, a key condition which was not fulfilled for many euro area countries. Additional counter-cyclical fiscal measures should only be considered when it can be ensured that they will be timely, targeted and temporary. As regards the "optimal" composition of a fiscal stimulus package in terms of its impact on the economy, the literature suggests taking into account several factors, such as: (i) the initial fiscal position and the existing tax and expenditure structures; (ii) the expected depth and duration of the economic downturn, and correspondingly, the potential trade-off between short-term stabilisation objectives (demand side) and longer-term growth-enhancing tools (supply side); (iii) the expected size of the fiscal multipliers of various instruments and the time needed for the measures to feed through to demand and output; (iv) the institutional characteristics that facilitate implementation; and (v) the need to minimise distortions in market mechanisms. With respect to the size of fiscal multipliers, the empirical literature suggests that the impact of a fiscal stimulus on output is very much state-dependent.

Overall, euro area countries would be well advised to ensure sound fiscal positions in normal times, so that in case of need the automatic stabilisers can be allowed to operate freely and fully, without exceeding the 3% of GDP reference value for government deficits. Any fiscal stimulus package in an economic recession should meet the above criteria for success and be designed in such a way that it stabilises the economy and at the same time supports a self-sustaining recovery.

4 EURO AREA FISCAL POLICIES AND THE CRISIS: THE REACTION OF FINANCIAL MARKETS [38]

4.1 INTRODUCTION

Between the intensification of the financial crisis in September 2008 and the early signs of stabilisation in financial markets in March 2009, government bond yields in the euro area reacted strongly. On the one hand, a "flight to safety" was observed which reduced the sovereign bond yields of most euro area countries. On the other hand, sovereign bond spreads relative to the German benchmark increased for all euro area countries, in particular for those whose fiscal situation was perceived as being most vulnerable. This parallel "flight to quality" indicates that markets also tended to discriminate more clearly between euro area countries based on their perceived sovereign default risks and creditworthiness. In addition, a greater preference among investors for the most liquid government bond markets contributed to some dispersion in sovereign bond yields.

This chapter analyses the reaction of financial markets to fiscal policy developments in the euro area countries in the context of the crisis. Section 4.2 presents stylised facts on the financial market reaction, focusing on government bond yields and sovereign credit default swap (CDS) premia between July 2007, when the first signs of increasing turmoil in global financial markets became visible, and September 2009. Section 4.3 discusses the findings of the academic literature with respect to the determinants of sovereign bond yield spreads; it also summarises the results of an analytical investigation of the factors underlying the rise in government bond spreads over Germany in the euro area countries during the critical period from July 2007 to March 2009. Section 4.4 concludes.

4.2 THE FINANCIAL MARKET REACTION FROM JULY 2007 UNTIL SEPTEMBER 2009

As the crisis intensified, financial markets reacted strongly. A flight to safety caused many investors to move away from more risky private financial assets (in particular equity and lower-rated corporate bonds) into safer government paper. The resulting increase in the demand for government bonds led to a reduction in sovereign bond yields for most euro area countries, especially for bonds at shorter maturities, to which also the relaxation of monetary policy contributed. At the same time, the government interventions in support of the banking sector helped to contain the rise in credit default spreads for financial corporations in the euro area. As mentioned in Chapter 2, the price of this success is that the governments have assumed substantial fiscal costs and credit risks, on top of the budgetary impact from the economic downturn and the fiscal stimulus measures.

This risk transfer from the private to the public sector is also revealed by the developments in CDS premia: between end-September and end-October 2008, when many governments across the euro area announced substantial bank rescue packages, sovereign CDS premia for all euro area countries increased sharply, whereas the CDS premia for European financial corporations – i.e. those covered by the iTraxx financials index [39] – started to decline. This is illustrated in Chart 4 (upper panel), which depicts the cumulative changes between mid-September 2008 (when the US investment bank Lehman Brothers collapsed) and end-March 2009 (when financial markets showed early signs of stabilisation) of average five-year sovereign CDS premia for euro area countries and CDS premia for European financial institutions covered by the iTraxx index. The vertical bars denote the dates on which bank rescue packages were announced. The chart shows that at the time of announcement of the bailout packages,

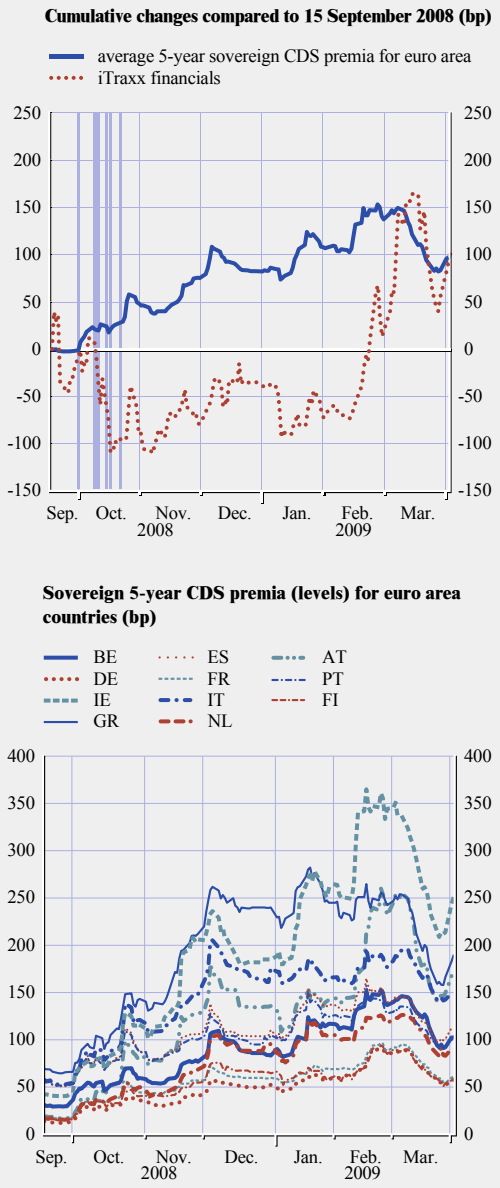
38 Prepared by Maria Grazia Attinasi, Cristina Checherita and Christiane Nickel.

39 A credit default swap (CDS) is a contract in which a "protection buyer" pays a periodic premium to a "protection seller" and, in exchange, receives a pay-off if the reference entity (a firm or a government issuer) experiences a "credit event", for example, a failure to make scheduled interest or redemption payments on debt instruments (typically bonds or loans). The iTraxx financial index contains the CDS spreads of 25 European financial institutions, including institutions from the United Kingdom and Switzerland.

sovereign CDS premia increased, whereas CDS premia for financial institutions declined. This suggests that the broad-based rescue packages have alleviated some credit risk in the banking sector and brought about an immediate transfer of credit risk from the financial to the public sector (see also Ejsing and Lemke, 2009).

Chart 4 Sovereign CDS premia for the euro area and CDS premia for European financial institutions

(15 September 2008-31 March 2009; basis points)



Sources: Datastream and ECB calculations.
Note: The vertical bars indicate the dates on which bank rescue packages were announced in euro area countries.

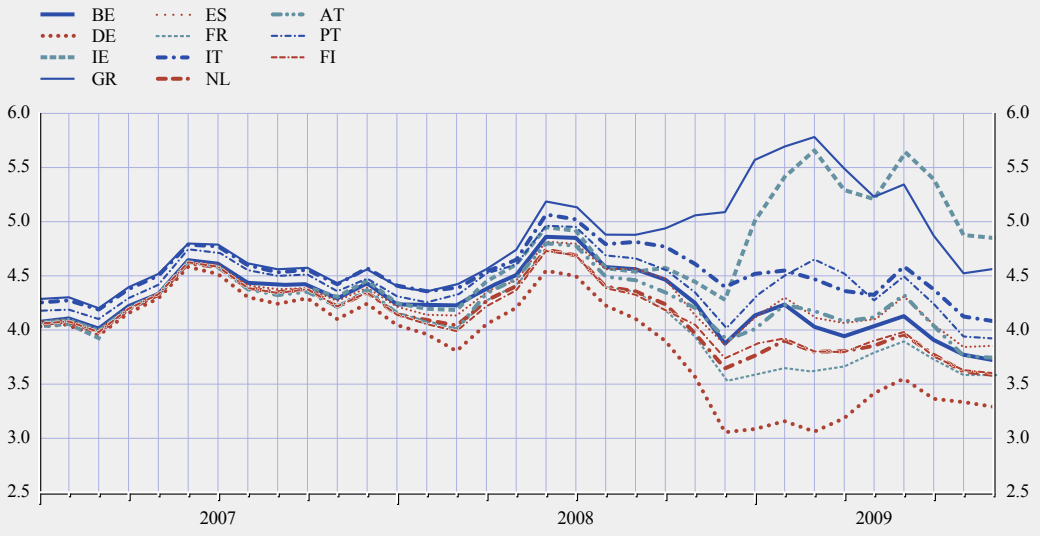
While all euro area countries faced a rise in sovereign CDS premia until end-March 2009, some countries were affected more than others (see lower panel of Chart 4). These cross-country differences were also mirrored by the trend in government bond yields relative to Germany. Chart 5 depicts the developments in ten-year sovereign bond yields for most euro area governments from January 2007 up to September 2009. Before the intensification of the financial turmoil in September 2008, government bond yields moved quite closely together. Between then and end-March 2009, developments differed across countries to a great extent.

By the fourth quarter of 2008, the budgetary outlook across euro area countries had worsened rapidly. In this crisis episode of high uncertainty and market turbulence, this may have caused investors to discriminate more strongly among sovereign borrowers by asking for higher risk premia from countries perceived to be especially vulnerable. Chart 6 provides stylised evidence for this argument. The ten-year government bond yield spreads over Germany for the euro area countries under consideration are plotted against their expected budget balance as a percentage of GDP relative to that of Germany. The chart shows that countries that were expected to have a less favourable budget balance outlook than Germany experienced larger sovereign bond yield differentials over the period from end-July 2007 to end-March 2009. France was an outlier in this respect, as it experienced only a slight increase in its ten-year government bond yield differential against Germany despite its less favourable expected budget balance. This can possibly be explained by the relatively lower liquidity premium which France may face compared with the other countries under consideration.

Between March 2009 and September 2009, financial market conditions started to normalise, investors' regained confidence and yields

Chart 5 Ten-year government bond yields of euro area countries

(monthly averages; percentages per annum; January 2007-September 2009)



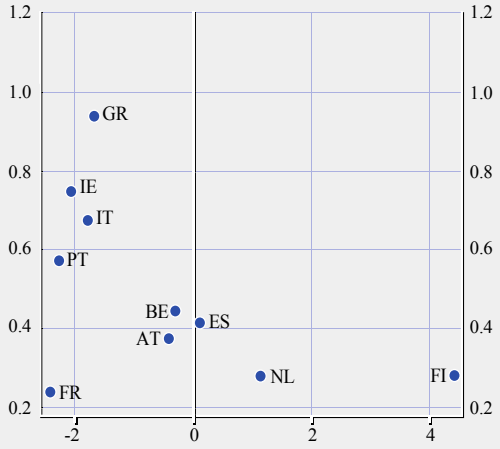
Sources: Bloomberg and ECB calculations.
Note: Some euro area countries are not shown because of a lack of data.

returned to more normal levels. Euro area long-term sovereign bond spreads vis-à-vis Germany have tightened somewhat. A similar trend can be observed for sovereign CDS premia for all euro area countries.

Chart 6 Ten-year government bond yield spreads of euro area countries over Germany and the expected budget balance relative to Germany

(average from 31 July 2007 to 25 March 2009)

x-axis: average expected budget balance relative to Germany (p.p. of GDP)
y-axis: 10-year government bond spreads over Germany (p.p.)



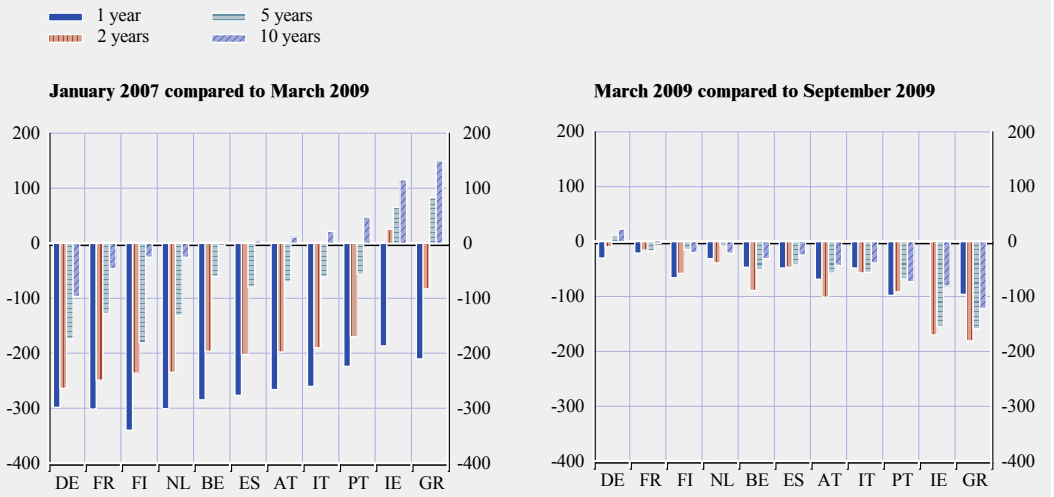
Sources: Bloomberg, European Commission and ECB calculations.
Note: For each country, the average expected budget balance for 2007, 2008 and 2009 is computed using vintages of the European Commission forecasts available at each point in time.

Nevertheless, Chart 5 also shows the volatile pattern and the country variation of ten-year government bond yields during this period. By September 2009 in all euro area countries, except Greece and Ireland, ten-year government bond yields were lower than before the crisis. Furthermore, whereas for the majority of countries the upward pressures on long-term bond yields subsided once the financial and economic conditions stabilised, for some other countries more recent developments in sovereign bond yields suggest that these countries may end up paying a permanently higher premium after the crisis.

Looking at the development of yields at various maturities, Chart 7 depicts the change in the level of sovereign bond yields for maturities of one, two, five and ten years, divided into two periods: the left panel compares the bond yields in January 2007 with the bond yields at their height in March 2009, while the right panel depicts the change in bond yields between March 2009 and September 2009. The left panel

Chart 7 Changes in euro area government bond yields

(monthly averages; basis points)



Sources: Bloomberg and ECB calculations.

shows that for most countries and across the maturity spectrum bond spreads on balance have come down from January 2007 to March 2009.

However, there are some noteworthy exceptions. For Greece, Ireland, Portugal, Italy, Austria and Spain, the yield at the ten-year maturity actually increased, mainly related to the effects of the financial crisis and the higher differentiation of country risks by financial markets, as described above. For Ireland and Greece, the bond yields even increased at shorter maturities. After March 2009, bond yields came down across the maturity spectrum and for almost all countries (with the exception of Germany, where a small increase was recorded for the five- and ten-year maturity). Overall, by September 2009, only Ireland and Greece had witnessed higher ten-year sovereign bond yields in comparison to January 2007.[40]

The generalised decline in short-term bond yields is partly related to the reduction in monetary policy rates combined with the enhanced credit support measures. Furthermore, the deterioration in investors' appetite for riskier private financial assets may have supported the demand for low-yielding but safer government assets of all maturities, particularly the short-term ones. In such a reassessment of

40 This can be seen if one combines the two graphs in Chart 7.

Table 5 Long-term foreign-currency sovereign rating downgrades in 2009

Country	Rating in 2007	Date of downgrade	Rating lowered to	Outlook
Ireland	AAA	30 March 2009	AA+	-
		8 June 2009	AA	Negative
Greece	A	14 January 2009	A-	Stable
		17 December 2009	BBB+	Negative
Spain	AAA	19 January 2009	AA+	Stable
Portugal	AA-	21 January 2009	A+	Stable

Source: Standard and Poor's.

risk, investors seem to have taken into account cross-country differences in creditworthiness and bond market liquidity.

Against the backdrop of lower interest rates, most euro area governments have been able to finance their substantial new debt issuance in the context of the crisis under relatively favourable market conditions. This success was also due to tactical adjustments in debt management strategies to ensure the attractiveness of government debt issues. Looking ahead, as the economy recovers and competition for financing increases, governments may face higher medium- and long-term bond yields again. Yields at shorter maturities may be expected to increase once monetary policy exits the expansionary stance.

Directly impacting on the developments in sovereign bond markets, some euro area countries have experienced downgrades in their credit ratings (see Table 5), reflecting deteriorating fiscal prospects, especially the strong projected rise in government debt ratios and significant off-balance-sheet contingent liabilities. Greece, for example, since the first quarter of 2009 has experienced downgrades of its sovereign credit rating, due to increasing concerns about the sustainability of the country's public finances and uncertainty regarding the quality of its statistical data and forecasts.

4.3 THE DETERMINANTS OF GOVERNMENT BOND YIELD SPREADS IN THE EURO AREA

This section aims at exploring potential determinants of long-term government bond yield spreads in the euro area during the crisis period. It first discusses the findings of the academic literature on the determinants of sovereign bond yield spreads. Box 4 then summarises the results of an empirical investigation of the factors underlying the initial rise in government bond spreads over Germany in the euro area countries.

As discussed in the academic literature, long-term government bond yield spreads are likely to depend on factors such as investors' perceptions of countries' credit risk (as captured, in particular, by the relative soundness of expected fiscal positions or other indicators of creditworthiness), market liquidity risk (which may be related to the relative size of sovereign bond markets), and the degree of international risk aversion on the part of investors (investor sentiment towards this asset class compared with others, e.g. corporate bonds). Finally, and related to the creditworthiness of countries, the effect of announcements, for example, macroeconomic news/surprises or fiscal policy events (e.g. government plans) might also play a role in the developments in sovereign bond spreads.

As regards *credit risk*, for European and, in particular, euro area countries, several studies tend to point towards a significant impact of fiscal fundamentals (government debt and/or deficits) in explaining sovereign bond spreads.[41] More recently, evidence for the role of fiscal factors across euro area countries has been unveiled also for the period of the financial crisis. In particular, Haugh et al. (2009) find evidence of non-linear effects of fiscal variables (including the expected deficit and the ratio of debt service payments to tax receipts; also in interaction with international risk aversion) which could help to explain sovereign bond spreads. Sgherri and Zoli (2009) find that financial markets' responsiveness to future sovereign debt dynamics and to fiscal risks related to national financial sectors' vulnerabilities increased progressively since October 2008. On the other hand, Heppke-Falk and Huefner (2004) find no evidence that expected budget deficits (derived from consensus forecasts) had an impact on interest rate swap spreads in France, Germany and Italy over the period 1994-2004. However, they find that market discipline (markets' sensitivity to public finances) increased in Germany and France (but not in Italy) since July 1997 (after the Stability and Growth Pact had been signed), and in Germany also after the start of EMU in 1999.

41 See Faini (2006), Bernoth et al. (2004), Hallerberg and Wolff (2006), Codogno et al. (2003) and Bernoth and Wolff (2008).

As regards the *liquidity risk premium*, the literature does not provide clear evidence on its relative importance versus credit risk for sovereign bond markets. Several studies, such as Gomez-Puig (2006) and Beber et al. (2009), find that liquidity risk is an important factor in explaining spreads after the introduction of the euro and the most important factor in times of heightened uncertainty.

With respect to other factors, Manganelli and Wolswijk (2009) find that in the euro area, government bond spreads are largely driven by the monetary policy interest rate, which can be interpreted as a proxy for a *common international risk factor*, while credit risk and liquidity risk also matter in EMU. Codogno et al. (2003) also posit that international risk aversion is one of the main factors in explaining sovereign bond yield spreads in the euro area. The impact of international risk is found to be larger in countries with high government debt ratios. France is found to be the only country in which liquidity matters more than international risk.

Event studies have shown that also *announcements*, for example of macroeconomic data, have a discernable impact on government bond spreads, especially over shorter-term horizons. The papers devoted to the euro area government bond markets find that US data releases not only affect US markets, but also exert a significant effect on European bond markets. In a dynamic model of intraday bond returns for long-term German government bonds, Andersson et al. (2006) use euro area, German, French and Italian macroeconomic data releases, in addition to US announcements, and find significant effects on prices of long-term government bonds. Codogno et al. (2003) find that announcements of the initiation of excessive deficit procedures seem to have raised sovereign bond spreads for Portugal. By contrast, Afonso and Strauch (2007) show that there was no persistent and systematic reaction of the default risk premium to the identified fiscal policy events during 2002, even if some specific events had a significant, temporary impact on swap spreads.

To conclude, the review of the empirical literature on balance provides evidence that fiscal fundamentals are significant in explaining sovereign bond spreads in normal economic times and even more so in crisis times. For the 2008-09 crisis, the empirical evidence summarised in Box 4 points to the same conclusion: euro area governments with more favourable expected fiscal positions may benefit from lower borrowing costs in times of crisis. In addition, sound fiscal positions offer the "cushion" that enables governments to shoulder the additional fiscal costs arising from bank rescue operations and fiscal stimulus measures. As the 2008-09 crisis has shown, such measures contributed to averting a possible collapse of the financial system and supporting short-term domestic demand.

Box 4

THE DETERMINANTS OF SOVEREIGN BOND YIELD SPREADS IN THE EURO AREA: AN EMPIRICAL INVESTIGATION[1]

In an empirical model for the euro area during the financial crisis period from 31 July 2007 to 25 March 2009, Attinasi et al. (2009) propose that long-term government bond yield spreads (over Germany) are likely to depend on three categories of factors: (i) countries' credit risk, as captured particularly by indicators of expected fiscal positions; (ii) markets' liquidity risk; and (iii) the degree of international risk aversion. In addition, given the particular nature of the period

1 Prepared by Maria Grazia Attinasi, Cristina Checherita and Christiane Nickel.

of financial crisis covered in the analysis, the announcements of bank rescue packages are also considered potentially relevant in explaining government bond spreads, and whether there has been a transfer of credit risk from the private financial sector to the public sector.[2]

The following empirical model is used to explain ten-year government bond yield spreads of ten euro area countries[3] over Germany (*spread*):

$$spread_{it} = \alpha + \rho\, spread_{it-1} + \beta_1 (ANN)_{it} + \beta_2 FISC_{it} + \beta_3 IntlRisk_t + \beta_4 LIQ_{it} + \varepsilon_{it}$$

In this model, *ANN* denotes the announcements of bank rescue packages made by individual euro area governments (this variable takes the value 1 after the date of the announcement and the value 0 before); FISC denotes the expected general government budget balance and/or gross debt as a share of GDP, relative to Germany, over the next two years, as released bi-annually by the European Commission; *IntlRisk* is a proxy for investors' international risk aversion, as given by the difference between the ten-year AAA-rated corporate bond yield in the United States (US) and the US ten-year Treasury bond yield; *LIQ* is a proxy for the degree of liquidity of euro area governments' bond markets, measured as the size of a government's gross debt issuance relative to Germany;[4] and ε_{it} is the unexplained residual.

Based on a dynamic panel model (estimated using feasible generalised least squares, in the presence of AR(1) autocorrelation within panels and heteroskedasticity across panels), using both daily and monthly data as a robustness check, the empirical analysis comes to the following conclusions:

– First, higher expected budget balances and/or higher expected government debt relative to Germany is on average associated with higher government bond yield spreads vis-à-vis the German benchmark. Moreover, the expected budget balance is robust to various specifications (more so than the expected debt variable). This may suggest that in periods of heightened economic uncertainty, the expected fiscal deficit seems to have a larger impact on the movements in sovereign bond spreads than in more tranquil episodes. This finding also indicates that investors were most concerned with the short-term fiscal outlook and less convinced by public statements that governments were still committed to longer-term fiscal sustainability.

– Second, the greater the degree of international risk aversion, the higher the sovereign bond spreads in the euro area.

– Third, the liquidity risk of euro area government bond markets, relative to Germany, is also found to play a statistically significant role in explaining government bond yield spreads in the euro area: spreads seem to be lower, the higher the degree of liquidity in the respective government bond market.

– Fourth, turning to the announcements of bank rescue packages, the initial government decisions to step in to support the financial sector increased, on average, the perceived risk of government debt compared with Germany during the period of the analysis. This can be interpreted as a

2 The fiscal stimulus packages announced by euro area governments to boost aggregate demand were not considered. Their effect on the fiscal variables would already be captured by the expected budget deficit and debt ratios.
3 Austria, Belgium, Finland, France, Greece, Ireland, Italy, Netherlands, Portugal and Spain.
4 Alternatively, the variable "traded volumes of total government securities maturing after 9 to 11 years relative to Germany" was used, but it was found to have a weak or no significance in the model.

transfer of credit risk from the private banking sector to the government (as confirmed by a similar regression of the difference between sovereign CDS premia and CDS premia for iTraxx financials over the same variables).[5]

– Fifth, the paper also investigates the impact of the announced size of bank rescue operations on investors' perception of euro area governments' credit risk compared with Germany. The empirical results with the size of bank rescue packages were found to be less conclusive than when announcements were used. They turned out to be influenced by an extreme outlier for Ireland, for which the maximum cumulative size of guarantees to the banking sector stood much above 100% of GDP. This analysis points out that investors' discrimination among sovereign borrowers might have been triggered by governments' credible commitment to extend support to the banking sector and not significantly so by the mere size of this support. Investors may have anticipated that governments would provide as much support as needed to shore up ailing banks regardless of the amounts explicitly announced in the first place (i.e. significant implicit government guarantees may be added to the explicit ones).

Finally, the paper quantifies the relative contributions of the main explanatory variables to the change in government bond spreads for the period under analysis.[6] For the whole panel, international risk aversion appears to have made the largest relative contribution (over half) in explaining the widening of spreads. Fiscal positions (expected deficit and debt) and related fiscal factors (the announcement of financial rescue packages) were found to explain about one-third of the widening of sovereign spreads. The contribution of the proxy for liquidity risk was found on average to explain about one-seventh of the rise in spreads.

By country, the expected fiscal positions (budget balance and debt) make the largest contribution to explaining the rise in sovereign bond spreads in Finland, followed by Ireland, Greece and Italy. The announcements of bank rescue packages contributed most to explaining the sovereign spread change in the case of Austria, followed by Portugal, and (to a similar extent) Belgium, Spain and Ireland. The fact that the largest contribution of bank rescue packages was recorded for Austria may reflect possible market concerns regarding future rescue operations given the country's exposure to the banking sector in Central and Eastern Europe. This conjecture is also supported by the fact that Austria is the country for which international risk aversion seems to have played the largest role in explaining the rise in sovereign spreads compared with the other countries in the sample. As regards the liquidity premium, it is found to be, by far, the largest contributor to the developments in sovereign bond spreads in France.

5 Excluding the proxy for liquidity in the government bond market, since CDS premia do not incorporate liquidity risk. The analysis using CDS premia includes Germany in addition to the ten euro area countries mentioned above.
6 These contributions are considered as being the maximum since other uncontrolled explanatory factors may play some additional role.

4.4 CONCLUSIONS

The analysis of developments in euro area sovereign bond yields shows that different factors affect investors' perceptions and that there are differences across both countries and maturities. One of the most important findings is that during the period of heightened financial turmoil, investors increasingly discriminated among countries on the basis of their perceived sovereign default risk and creditworthiness, which is determined, among other factors, by differences in fiscal fundamentals.

Moreover, as shown by the results of an empirical investigation, the fact that fiscal variables (e.g. expected government debt and deficits, government announcements of financial

rescue packages) account for about one-third of the movements in euro area sovereign spreads during the financial crisis points to the importance of preserving the public's trust in the soundness of public finances. Otherwise, market expectations about a government's ability to meet its future debt obligations are not well anchored.

An important lesson from the financial crisis is that countries should consolidate during good economic times in order to build a "fiscal cushion" that provides sufficient room for manoeuvre during an economic downturn or a crisis. Many euro area countries failed to do this and entered the crisis with high government deficits and debt ratios, which limited the scope of their fiscal actions at a time when such scope was needed the most. Moreover, when announcing bank rescue operations and fiscal stimulus packages, a credible commitment to maintain longer-term fiscal sustainability could have limited the negative market reaction, as reflected in sovereign CDS premia and government bond spreads.

The general fall in government bond yields in the euro area compared with the pre-crisis period should not be interpreted as a "clean bill of health" for public finances. A number of special factors played a favourable role, such as the temporary flight to safety and exceptionally low monetary policy rates combined with enhanced credit support measures. As the experience during the 2008-09 crisis showed, the market's assessment of sovereign default risk and creditworthiness can change quickly. Therefore, it is essential that governments make a strong and credible commitment to a path of consolidation back towards sound fiscal positions. This will preserve trust in the sustainability of public finances and through lower risk premia in interest rates will support both the recovery and long-term economic growth.

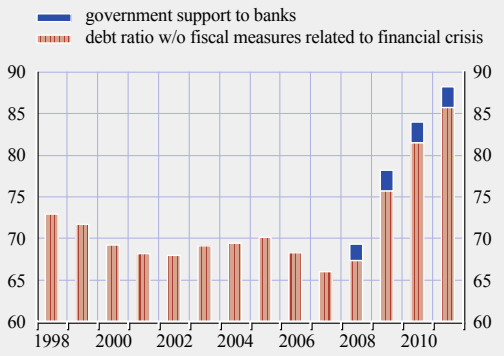
5 THE CRISIS AND THE SUSTAINABILITY OF EURO AREA PUBLIC FINANCES[42]

5.1 INTRODUCTION

This chapter discusses the risks to the sustainability of euro area public finances that are associated with the crisis. While there are several definitions of fiscal sustainability, it is generally understood as the ability of a government to service its debt obligations in the long term (see also Box 5).[43] For many euro area countries this ability has been impaired by the adverse developments in the primary budget balance, a rising burden of net interest payments, lower long-term output growth and the need to finance large capital injections in support of the financial sector. The threat to the solvency of governments is most clearly shown by the fact that their debt-to-GDP ratios are on a rising path and will continue rising if fiscal policies remain unchanged. As indicated in Chart 8, after having declined from roughly 73% of GDP in 1998 to a trough of 66% of GDP in 2007, the euro area government debt-to-GDP ratio increased to 69.3% in 2008 and is projected to rise strongly to 88.2% in 2011.

Chart 8 Euro area general government debt, 1998-2011

(percentage of GDP)



Sources: European Commission (2009f), European System of Central Banks, ECB calculations.
Notes: The years 2009-11 are projections. The fiscal impact of the financial crisis on debt in 2008 and 2009 is captured by the government support to banks in the form of capital injections (i.e. loans and acquisition of shares), as well as asset purchases and other financial transactions, including repayments. For 2010 and 2011 the impact is kept constant at the 2009 level. See also Table 1 in Chapter 2.

The surge in the euro area government debt ratio is a concern for various reasons. First, rising budget deficits and debt may fuel inflation expectations and place an additional burden on the ECB's monetary policy for the euro area. Second, if large government (re)financing needs drive up real interest rates, this may crowd out private demand in the recovery phase. Third, rising government debt and higher sovereign bond yields imply higher interest expenditure. This either has to be covered by higher taxes, which are detrimental to potential growth, or by imposing constraints on other government spending items, including those promoting longer-term growth (e.g. infrastructure or education).[44] Such constraints will become even tighter in the absence of reforms addressing the rising budgetary costs of an ageing society. Fourth, as discussed in Chapter 4, investors are likely to discriminate increasingly against sovereign borrowers with higher (expected) debt levels relative to GDP, in particular in times of elevated risk aversion. The rise in government bond yields that these sovereign borrowers face may even spill over to other euro area countries.

Against this background, Section 5.2 discusses the main risks to the sustainability of public finances in the euro area countries. Section 5.3 analyses these risks by presenting various scenarios and a sensitivity analysis of how the government debt ratio may develop under different assumptions.[45] Section 5.4 concludes.

42 Prepared by Maria Grazia Attinasi, Nadine Leiner-Killinger and Michal Slavik.
43 See for example Giammarioli et al. (2007) for a more detailed exposition on the issue.
44 Chalk and Tanzi (2002) discuss six channels through which large public debt can have a negative impact on growth.
45 For a similar analysis for the G20 countries, see IMF (2009b).

Box 5

MEASURING FISCAL SUSTAINABILITY [1]

The sustainability of public finances requires as a minimum that the government debt-to-GDP ratio is stable over time. This notwithstanding, in accordance with the Treaty and the Stability and Growth Pact, the general government gross debt ratio must be below the reference value of 60% of GDP or "sufficiently diminishing and approaching the reference value at a satisfactory pace", implying that in many euro area countries, debt ratios would need to be reduced substantially. From a theoretical perspective and for the purpose of defining fiscal sustainability, debt accumulation is driven by four main factors: (i) the government's primary budget balance in each period, (ii) the interest payments on the outstanding stock of government debt, (iii) the nominal growth rate of the economy, which affects the debt-to-GDP ratio through a denominator effect and (iv) any stock-flow adjustments, i.e. those transactions or other factors that affect outstanding debt but do not affect the primary balance.

This can be formally expressed as:

$$\Delta d = \frac{i-g}{1+g} d_{t-1} - p_t + sf_t \qquad (1)$$

where Δd is the change in the debt-to-GDP ratio over the previous period, i is the implicit interest rate paid on the outstanding government debt, g is the nominal growth rate of the economy, d_{t-1} is the debt-to-GDP ratio in the previous period, p_t is the primary balance-to-GDP ratio and sf_t presents the stock-flow adjustments-to-GDP ratio. The stock-flow adjustment includes differences in cash and accrual accounting, accumulation of financial assets, valuation changes as well as other residual effects. This term has assumed particular relevance during the recent crisis in light of the financial support provided by many euro area governments to ailing financial institutions. As discussed in Chapter 2, this support generally has consisted of capital injections and acquisitions of (impaired) financial assets. To the extent that these financial transactions were conducted at market prices or yield a sufficient return, they do not have an immediate impact on the primary balance, but will raise outstanding debt if governments need to borrow in order to finance them. The counterpart of this extra government debt is represented by the financial assets that the governments acquired during the crisis, which in the future may be sold at a loss or a profit. The explicit government guarantees that were provided in the context of the crisis represent contingent liabilities that are recorded off balance sheet. They would only affect the primary balance once a call on a guarantee is made, which will then usually result in a deficit-increasing government capital transfer.[2] The fees, dividends or interest payments that the government receives from the banks as a result of its rescue operations are recorded as revenues and improve the overall budget balance. As argued by the IMF (2009d), a comprehensive view of the sovereign balance sheet is necessary to properly assess the risks to the creditworthiness of governments following their crisis-related interventions.

Applying equation (1), the table on the next page displays the actual and projected developments in the euro area government debt-to-GDP ratios over the periods 2003-07 and 2008-11, respectively, as well as the underlying factors. As the table indicates, the euro area debt ratio is projected to rise to 88.2% of GDP in 2011. The main underlying factors are: (i) the change in the primary

1 Prepared by Maria Grazia Attinasi, Nadine Leiner-Killinger and Michal Slavik.
2 For the statistical recording of government interventions to support the banking system, see Box 1 in Chapter 2.

The euro area government debt-to-GDP ratio: changes and underlying factors

	Average 2003-07	2008	2009	2010	2011
Gross debt-to-GDP ratio (% of GDP)	**68.6**	**69.3**	**78.2**	**84.0**	**88.2**
Change in the debt ratio (p.p. of GDP)	-0.4	3.3	8.9	5.8	4.2
Contribution to change:					
Primary balance					
(- for surplus, + for deficit)	**-0.9**	**-1.0**	**3.4**	**3.7**	**3.1**
Snow-ball effect	**0.3**	**1.1**	**4.9**	**1.8**	**1.1**
of which:					
Interest expenditure	3.0	3.0	3.0	3.2	3.4
Growth effect	-1.4	-0.4	2.9	-0.5	-1.2
Inflation effect	-1.4	-1.5	-1.0	-0.8	-1.1
Stock-flow adjustment	**0.3**	**3.2**	**0.6**	**0.3**	**0.1**

Source: European Commission (2009f, p. 31).

balance from a moderate surplus to a large deficit; (ii) the so-called snow-ball effect, which captures the joint impact of the interest expenditures on the accumulated stock of debt and of real GDP growth and inflation on the debt ratio; and (iii) the stock-flow adjustments, which comprise *inter alia* the accumulation of financial assets and valuation changes.

From equation (1) a simple condition for achieving a constant debt-to-GDP ratio can be obtained, namely:

$$\frac{i-g}{1+g} d_{t-1} = p_t - sf_t \qquad (2)$$

According to equation (2) a stable debt ratio requires the government to generate a sufficient primary surplus if the implicit interest rate on outstanding debt exceeds the nominal growth rate of the economy and if the stock-flow adjustment is positive. Otherwise, in the presence of a positive stock-flow adjustment, primary deficits are compatible with a stable trajectory for the debt ratio only if the interest-growth rate differential ($i - g$) is sufficiently negative. Therefore, under the assumption that the implicit interest rate on government debt and the nominal growth rate of the economy are given or exogenously determined, the primary balance is the variable governments can control in order to achieve fiscal sustainability.

5.2 RISKS TO FISCAL SUSTAINABILITY

This section discusses the risks to fiscal sustainability associated with each of the main determinants of euro area government debt-to-GDP developments in relation to the crisis (see Box 5).

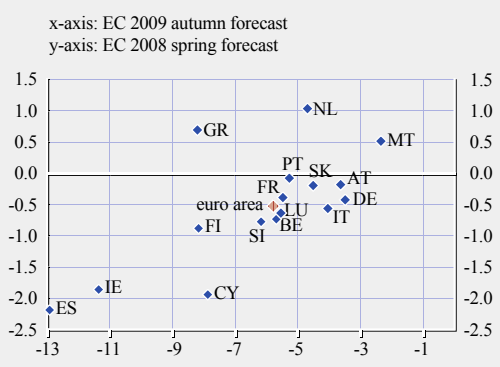
PRIMARY BALANCE

The primary balance is a major determinant of fiscal sustainability.[46] The sharp and unexpectedly large deterioration in the euro area governments' primary balances is illustrated in Chart 9. The chart plots the cumulated change over the period 2007-09 in the primary balances of euro area countries as was projected by the European Commission in its Spring 2008 Economic Forecast (i.e. before the financial crisis erupted) versus the projections released 18 months later in its Autumn 2009 Economic Forecast. For all countries, given the new fiscal stimulus measures and the stronger than initially expected worsening of the macroeconomic environment, the deterioration in the primary balance is much stronger than anticipated one and a half years earlier. The main sources of risk for fiscal sustainability related to these adverse

46 See also Chapter 3 and Box 5 for a discussion of the main driving factors of the primary balance during the crisis.

Chart 9 Cumulated change in primary balances (2007-09) comparing EC Spring 2008 forecast and EC Autumn 2009 forecast

(percentage points of GDP)



Sources: European Commission (2009a and 2009f), ECB calculations.

developments in the primary balance are the following:

First, even if the fiscal stimulus measures were to be quickly removed, this would in most euro area countries not suffice to return to debt-stabilising primary surpluses. Generally, a full assessment of the impact of fiscal activism on the sustainability of public finances requires consideration of the composition of fiscal stimulus measures, as well as their effectiveness in promoting growth both in the short and long run (see also Chapter 3).

Second, the cyclical component of the primary deficits may become structural to the extent that the higher unemployment rate turns out to be structural and potential output settles at a lower level than before the crisis. A prolonged period of lower output and revenue growth would thus render existing spending growth trends, which are reflected in rising government expenditure-to-GDP ratios, unsustainable. On top of this, the costs related to population ageing will increasingly take their toll on public finances by way of lower revenues from social security contributions and higher age-related expenditures (see Box 6 at the end of this chapter).

Third, further write-downs in the banking sector and losses in key industries may trigger additional government bailout operations involving guarantees. Expiring guarantees may be prolonged and further guarantees may be granted in the future. A non-negligible part of the government guarantees to financial and non-financial firms may be called, in which case they would burden the government budget. Also, the higher level of retail deposit insurance, even when the costs are expected to be covered by the banking sector, would ultimately imply a risk that the government might potentially have to step in to repay deposit-holders in case of a more widespread failure of banks. This is true in particular for those euro area countries where governments promised a more or less unlimited guarantee for all retail deposits (see Chapter 2 and European Commission, 2009b).

ECONOMIC GROWTH

As the crisis unfolded, output growth prospects over the short term deteriorated drastically, triggering rising government debt-to-GDP ratios across the euro area countries. At the same time, long-term developments in output growth, estimates of potential growth and thus government debt developments are associated with a high degree of uncertainty at the current juncture. ECB (2009c) describes three possible scenarios for future developments in potential output. These entail a "full recovery scenario", according to which the decline in potential output is only of a short-term nature as a post-crisis acceleration in potential growth would quickly realign the level of potential output with its long-term pre-crisis path. Second, in the "level shift scenario", potential growth would stand at its long-term rate of 2.0% after the end of the downturn, but the level would not return to its long-term path. Finally, according to a "lower growth scenario", there may not only be a downward shift in the level, but also a persistent slowdown in the rate of growth of potential output.

In general, a lower (or negative) economic growth rate leads to an increase in both the debt-to-GDP ratio and the interest-growth rate differential, which in turn increases the speed of debt accumulation (see equation (2) in Box 5).

Thus, in an environment of permanently lower growth, higher primary surpluses would be required to stabilise the government debt ratio and even higher primary surpluses to bring it onto a declining path. Although lower economic growth could improve the primary balance ratio through a denominator effect, permanently lower growth would also entail lower government revenues, thus putting additional downward pressure on the primary balance. Therefore, in the absence of fiscal consolidation measures, debt ratios would remain on a rising path. As noted above, rising government debt could also be detrimental to economic growth.

INTEREST RATES

Table 6 shows the development of the implicit interest rate on euro area government debt. It is calculated as the ratio of government interest expenditure to government gross debt. The decline in the implicit interest rate observed in 2009 can be linked to generally favourable financing conditions for the vast majority of euro area governments (see Chapter 4). The "flight to safety" that followed when the crisis took hold brought an elevated demand for government securities that lowered on average the yields required by investors.

However, these unique market conditions, reflecting an elevated risk aversion as well as limited investment opportunities in the corporate sector, are likely to change in the future. As the recovery gains momentum, investors will likely return to more risky (corporate sector) securities. In addition, large government (re)financing needs could trigger higher medium and long-term interest rates. The combination of rising government debt and higher financing costs would imply ever-higher interest expenditure and require sufficiently high primary surpluses to get out of this negative spiral and put the government debt-to-GDP ratio on a downward trajectory.

STOCK-FLOW ADJUSTMENTS

A positive stock-flow adjustment means that government gross debt increases by more than the annual deficit (or decreases by less than implied by the surplus). The stock-flow adjustment consists of three main categories: (i) the net acquisition of financial assets, which are recorded "below the line" as they do not contribute to the deficit; (ii) financial derivatives and other liabilities; and (iii) other adjustments (e.g. effects of face valuation, appreciation/depreciation of foreign currency debt and other changes in volume).

Over the past few years, the contribution of the stock-flow adjustment to changes in the euro area government debt-to-GDP ratio has been modest, though positive. For the period 2004-2007 the stock-flow adjustment was 0.5% of GDP or less and the net acquisition of financial assets has usually been the main explanatory factor. Since the financial crisis the size of the stock-flow adjustment has recorded a sixfold increase, reaching 3.2% of GDP in 2008, against 0.5% of GDP in 2007.

The main reason underlying such a sharp increase in the stock-flow adjustment is the support extended by governments to ailing financial institutions by way of capital injections and asset purchases, amounting to about 2.0% of GDP in 2008 (see Table 1 in Chapter 2). The direct effect on the gross debt stock will last until these assets can be sold again. Moreover, since governments have committed larger

Table 6 Implicit interest rate on euro area government debt

		2007	2008	2009	2010	2011
Government interest expenditure	% of GDP	2.9	3.0	3.0	3.2	3.4
Government gross debt	% of GDP	66.0	69.3	78.2	84.0	88.2
Implicit interest rate	%	4.39	4.33	3.86	3.81	3.85

Sources: European Commission (2009f), ECB calculations.

amounts of capital support to the financial sector than were actually used and banks may yet be confronted with further write-downs, the possibility of additional recapitalisations cannot be ruled out. This would imply further contributions of the stock-flow adjustment to the level of debt.

On the other hand, following a successful stabilisation of the banking sector, the restructuring of bank balance sheets and a sustained return to profitability, governments may also be able to sell the financial assets they acquired during the crisis and exit from the financial sector sooner rather than later. Generally, the medium-term fiscal cost of financial support operations and thus the impact on fiscal sustainability will depend on the extent to which the assets acquired by the government keep their value and can be disinvested without losses. In this respect, uncertainty about the timing of asset disposals and the recovery rate from the sale of these assets is an additional source of fiscal risk (see Chapter 2). All in all, in the course of 2008-09 "below the line" operations have led government debt in the euro area to increase much faster than indicated by the government deficit (see also Box 5).

5.3 GOVERNMENT DEBT SCENARIOS

The following section presents some scenarios for possible developments in the general government debt ratio for the euro area until 2030. Their purpose is to provide a general idea of the magnitude of fiscal consolidation in the euro area needed to bring public finances back onto a sustainable path. In addition, a sensitivity analysis is provided. The focus is initially on euro area aggregates, thus abstracting from the existing heterogeneity among the euro area countries. However, this heterogeneity must be fully accounted for when designing fiscal exit strategies from the crisis, assessing debt management strategies or discussing issues related to the appropriate pace of fiscal consolidation at the country level. Therefore, the euro area debt scenarios are followed by corresponding information for individual euro area countries.

THREE BASELINE SCENARIOS

Three illustrative baseline scenarios for euro area debt developments are constructed:

- The real GDP growth assumption which is used for each of the three baseline scenarios is based on the path for the real potential growth rate of the euro area, as underlying the baseline long-term projections in European Commission and Economic Policy Committee (2009). According to this source, real potential growth gradually declines from 2.2% in 2011 to 1.5% in 2030. The increase in the GDP deflator is assumed constant at 1.9% over the scenario period.

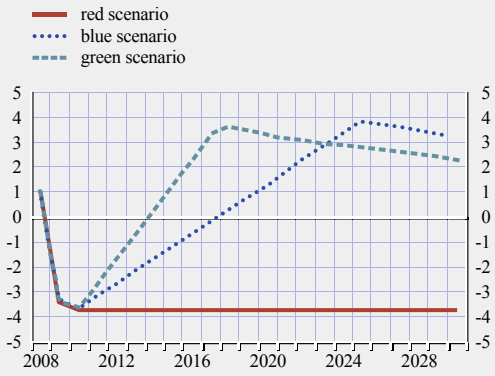
- The nominal implicit interest rate on government debt is assumed constant at 4.3%, the value recorded in 2008 (as the values in 2009-11 are distorted by the financial crisis; see Table 6).

- In all scenarios, the European Commission (2009f) forecast for euro area general government debt in 2010 (84.0% of GDP) is used as a starting point. The starting value of the primary balance in 2010, based on the same source, is -3.7% of GDP; subsequent developments as from 2011 are determined by three fiscal consolidation scenarios (see below). The assumptions for the primary balance associated with the three consolidation scenarios are depicted in Chart 10. Since economic growth is assumed to be at its potential over the period 2011-30, the annual changes in the overall budget balance correspond to the changes in the structural budget balance (see Chart 11).

- The green scenario (dashed line) assumes a rapid fiscal consolidation with the primary balance improving by 1.0 percentage point of GDP per year until a balanced budget is reached (in 2018). Afterwards, a primary

Chart 10 Assumptions about the primary balance in the three baseline scenarios

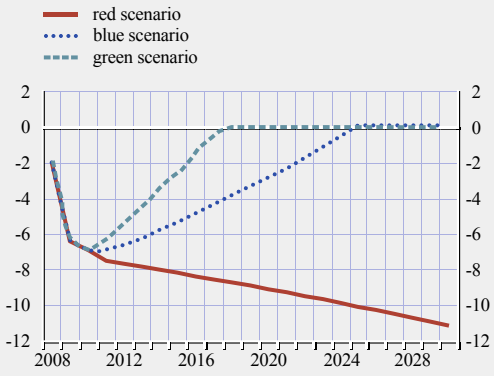
(percentage of GDP)



Source: ECB calculations.

Chart 11 Overall budget balance in the three baseline scenarios

(percentage of GDP)



Source: ECB calculations.

balance compatible with a balanced budget is maintained over the projection horizon, i.e. until 2030.

- The blue scenario (dotted line) assumes a less ambitious consolidation path, with the primary balance improving by only 0.5 percentage point of GDP per year until a balanced budget is reached (in 2025). Primary surpluses compatible with a balanced budget are then maintained until 2030.

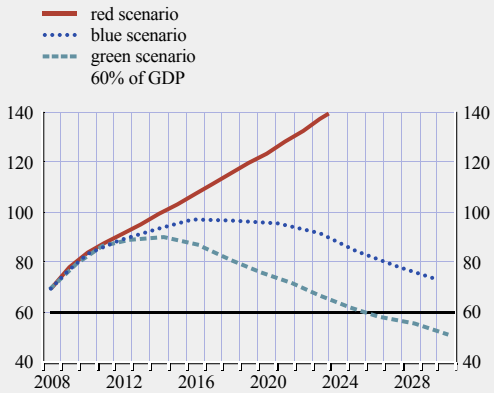
- The red scenario (smooth line) assumes that no consolidation effort takes place. The primary balance remains at -3.7% of GDP, i.e. constant at the forecast value for 2010.

The results of these euro area debt scenarios are shown in Chart 12. The government debt ratio peaks in the green scenario in 2013 at 89.3% of GDP and in the blue scenario in 2017 at 97.2% of GDP. Both the green and the blue scenarios subsequently lead to a gradual decline of the government debt-to-GDP ratio. The 60% of GDP reference value is reached within the next two decades only in the green scenario (i.e. in 2026). The red scenario leads to a steady rise in the government debt ratio that exceeds 100% of GDP in 2015, 120% in 2020 and 150% in 2026.

Obviously, the results of these scenarios are highly sensitive to the underlying assumptions. This notwithstanding, they serve to illustrate the risks for fiscal sustainability for the euro area. These risks are much more pronounced for some individual countries, in particular for those that already had high or very high debt ratios before the crisis and for those that face high or very high deficits after the crisis. Moreover, the risks to fiscal sustainability may be compounded by negative feedback effects, if rising government

Chart 12 Government debt for the euro area in the three baseline scenarios

(percentage of GDP)



Source: ECB calculations.

debt ratios would trigger higher real interest rates and/or reduce economic growth. This in turn may also raise the likelihood of further write-downs by banks and a call on government guarantees.

SENSITIVITY ANALYSIS

In order to illustrate the sensitivity of the results related to the choice of the underlying assumptions, this section separately considers the impact of lower than assumed economic growth, higher interest rates and higher fiscal costs from the financial crisis. The three consolidation scenarios (annual changes in the primary balance) remain unchanged.

First, potential growth is assumed to be 0.5 percentage point lower than in the baseline. As shown in Chart 13, as expected, the consolidation paths under the less favourable growth assumption shift to less favourable outcomes (thick lines) than in the baseline scenarios (thin lines). Only in the green scenario would the debt-to-GDP ratio fall to the 60% of GDP threshold within the period until 2030.

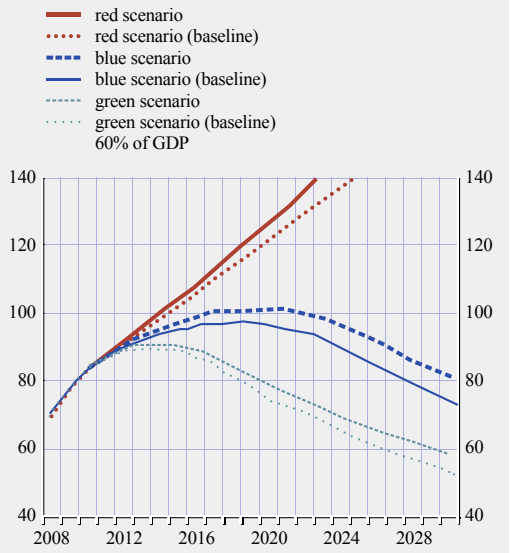
Second, the nominal implicit interest rate on government debt is assumed to be 1.0 percentage point higher than in the baseline, i.e. 5.3%. As demonstrated in Chart 14, higher interest rates lead to a much faster accumulation of government debt in the blue and red scenarios. For example, in the blue scenario, the debt-to-GDP ratio now peaks at 104.5% in 2020, while it peaks at 97.2% in 2017 under the baseline assumptions.

Third, as regards the financial crisis-related fiscal costs the assumption is made that half of the outstanding government guarantees (4.5% of GDP)[47] are called in 2011. Table 7 shows the impact. In the rows (a), no future fiscal revenues from the reversal of earlier bank capital injections are considered to offset the fiscal costs related to these guarantees.

47 The euro area governments' guarantees related to the financial crisis represent more than 9% of GDP over 2008-09, including the guarantees on special-purpose entities' debt. See Table 2 in Chapter 2.

Chart 13 Government debt scenarios for the euro area – potential output growth 0.5 p.p. lower than in the baseline scenarios

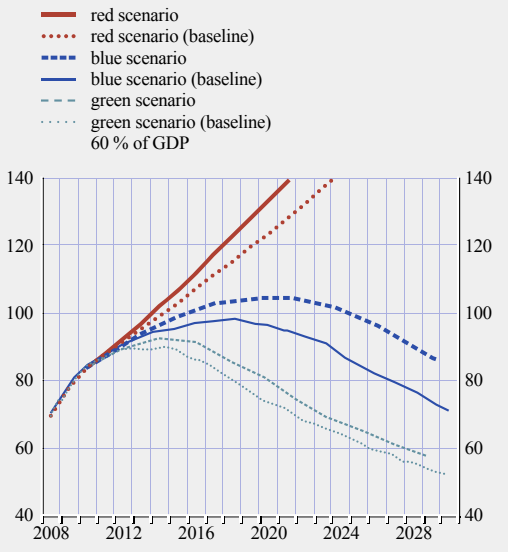
(percentage of GDP)



Source: ECB calculations.

Chart 14 Government debt scenarios for the euro area – interest rates 1 p.p. higher than in the baseline scenarios

(percentage of GDP)



Source: ECB calculations.

Table 7 Government debt scenarios for the euro area – call on guarantees [1)]

(percentage of GDP)

Scenario		2010	2015	2020	2030
Red	(a)	84.0	107.9	128.4	177.1
	(b)	84.0	107.0	126.6	173.6
Blue	(a)	84.0	100.3	100.6	75.4
	(b)	84.0	99.5	98.8	72.5
Green	(a)	84.0	92.8	77.8	54.1
	(b)	84.0	91.9	76.1	51.8

Sources: European Commission (2009f) for 2010, ECB calculations otherwise.
1) Assuming that in 2011 4.5% of GDP of outstanding guarantees are called with (a) no offsetting revenues (from the reversal of bank capital injections) or (b) with such offsetting revenues used to reduce government debt.

This creates a level jump in the debt-to-GDP ratio in all three scenarios in 2011. Thereafter, the consolidation paths are almost parallel to the paths under the baseline. In the rows (b), the additional assumption is made that fiscal revenues over time fully offset the fiscal costs related to the call on guarantees (e.g. from repayments of loans provided to banks and governments gradually reselling the financial assets they acquired back to the private sector) and these revenues would directly reduce government debt ratios. This would lead to a level jump in the debt-to-GDP ratio followed by a convergence of the debt-to-GDP path towards the baseline scenarios.

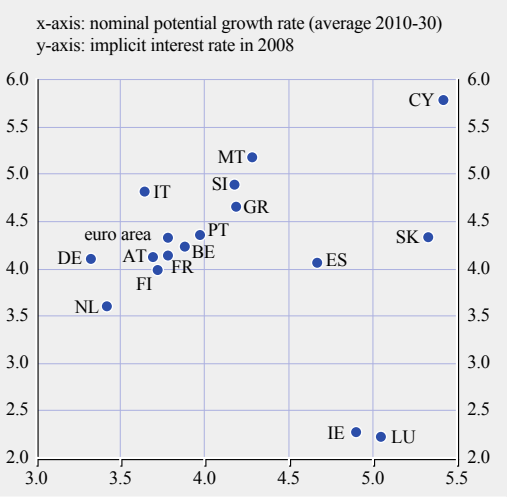
DEBT SCENARIOS FOR EURO AREA COUNTRIES

The euro area countries entered the crisis with very heterogeneous budget balances, initial debt positions, interest burdens and growth prospects. This heterogeneity is evident from Chart 15, which displays the projected average nominal potential growth rates between 2010 and 2030 and the implicit interest rates in 2008. At the same time, the heterogeneity is also given by the primary balance and government debt projected for 2010 as shown in Chart 16.

To construct debt scenarios for the individual euro area countries, the same methodology as applied in the three baseline scenarios for the euro area is used, based on the variables underlying Charts 15 and 16. Table 8 summarises the findings. The government debt-to-GDP ratios

Chart 15 Nominal potential growth rates and implicit interest rates across the euro area countries

(percentages)

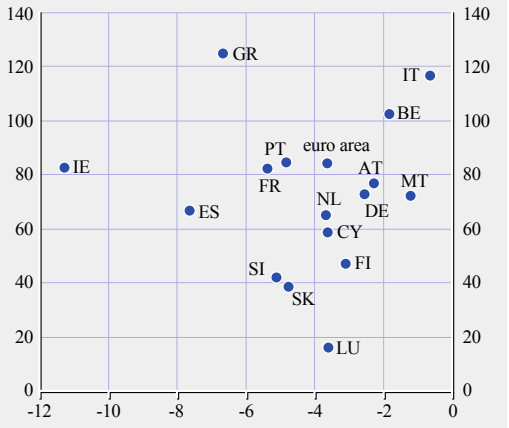


Sources: Real potential growth rates – European Commission and Economic Policy Committee (2009); implicit interest rates – European Commission (2009f).
Note: Nominal potential growth rates are derived from real growth rates and assumed annual inflation of 1.9%.

are depicted for the years 2015, 2020 and 2030 under the three scenarios, in red, blue and green, as described above. The assumptions on which the green scenario is based, in particular the annual improvement of the primary balance by

Chart 16 Primary balance and government debt in the euro area countries in 2010

(percentage of GDP)



Source: European Commission (2009f).

Table 8 Government debt scenarios for the euro area countries

(percentage of GDP)

	Three consolidation scenarios									
		Red			Blue			Green		
	2010	2015	2020	2030	2015	2020	2030	2015	2020	2030
Belgium	101.2	108.2	117.1	140.2	100.9	89.8	58.5	93.3	73.8	47.1
Germany	76.7	86.9	98.4	128.5	79.8	71.2	52.9	72.0	60.1	44.7
Ireland	82.9	132.0	181.5	284.1	124.7	154.7	182.3	117.3	128.0	92.8
Greece	124.9	156.5	189.3	272.5	149.0	161.8	162.4	141.5	134.4	93.1
Spain	66.3	100.1	131.1	199.0	92.7	104.6	97.3	85.3	78.1	50.2
France	82.5	107.6	132.7	184.7	100.1	105.4	83.5	92.7	80.4	55.5
Italy	116.7	121.3	125.6	137.9	118.4	102.7	71.5	106.3	87.5	60.9
Cyprus	58.6	70.7	81.8	106.1	63.4	55.7	33.4	56.1	42.0	25.1
Luxembourg	16.4	31.6	47.2	80.2	24.3	23.2	21.8	19.0	18.4	18.7
Malta	70.9	76.9	82.3	98.8	71.8	58.7	38.9	62.8	49.4	32.8
Netherlands	65.6	84.0	103.2	145.6	76.5	75.6	61.1	69.0	61.2	50.6
Austria	73.9	86.7	100.2	131.6	79.2	72.6	50.8	71.7	58.9	41.3
Portugal	84.6	107.9	130.8	174.5	100.5	103.5	78.8	93.0	80.6	57.7
Slovenia	42.8	66.5	91.2	155.7	59.1	63.9	56.2	51.7	45.6	41.1
Slovakia	39.2	55.4	72.3	112.0	48.2	46.5	37.1	41.0	34.5	29.3
Finland	47.4	60.2	73.3	100.7	52.8	46.4	16.7	45.4	28.7	3.1
Euro area	**84.0**	**103.2**	**123.7**	**171.9**	**95.7**	**95.9**	**71.2**	**88.1**	**73.6**	**51.2**

Sources: European Commission (2009f) for 2010, otherwise ECB calculations.
Notes: The red, blue and green scenarios stand for an annual improvement of the (structural) primary balance by 0%, 0.5% and 1.0% of GDP, respectively. See Charts 15 and 16 for the assumptions and starting values underlying the debt scenarios.

1 percentage point of GDP until the overall budget is balanced and maintenance of this overall balanced budget thereafter, would bring government debt in most euro area countries below 60% of GDP by 2030. The red scenario, in which the primary fiscal deficit is maintained unchanged at the 2010 level during the whole simulation period 2011-30, would lead to government debt-to-GDP ratios exceeding or being close to 200% of GDP by 2030 in several euro area countries. Clearly, countries with a worse starting position than the euro area average (i.e. with a higher primary deficit and/or higher government debt-to-GDP ratio) will need to implement a relatively more ambitious fiscal effort in order to reverse the unsustainable fiscal trends.[48]

An important caveat to these calculations is that the country assumptions for nominal potential growth and implicit interest rates, based on pre-crisis sources, may substantially differ in the aftermath of the crisis. Euro area countries facing lower potential growth or higher interest rates on government debt after the crisis will be confronted with even greater challenges to fiscal sustainability than shown in Table 8.

5.4 CONCLUSIONS

The above simulations over the period 2010-30 point to the risk of a rapidly rising euro area government debt-to-GDP ratio. Assuming unchanged fiscal policies, this would pose a clear threat to the longer-term sustainability of public finances. Notwithstanding the high uncertainty surrounding future economic developments, this chapter has identified the channels through which debt sustainability is put at risk. These include the combined effect of sustained high primary deficits, a prolonged episode of slow output growth, as well as a possible rise in interest rates. In addition, the fiscal costs of emergency bank support may turn out to be higher than expected. Furthermore, rising government indebtedness may itself trigger higher interest rates and contribute to

48 On successful experiences with government debt reduction in euro area countries in the run-up to EMU, see ECB (2009d).

lower growth, creating a negative feedback loop. The risks to fiscal sustainability are even more pronounced, as the debt simulations do not take into account the projected rise in ageing-related costs. Especially after 2020, strong pressures on public finances must be expected on account of ageing populations (see Box 6).

The Treaty requires Member States that wish to adopt the euro to maintain a government gross debt ratio below the reference value of 60% of GDP, or else to ensure that the debt ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace. As a consequence of the crisis, many euro area countries that fulfilled this criterion upon joining EMU will need to realign their fiscal policies so as to bring their debt ratios back onto a steadily declining path and to limit the debt servicing burden for future generations. Even with consolidation efforts of 0.5% of GDP annually, the return to the pre-crisis euro area debt ratio is likely to take more than two decades. Substantially higher annual consolidation would thus be required to ensure a more rapid decline in the debt ratio towards the 60% of GDP reference value and below. The challenges are particularly pronounced for euro area countries with high or very high government deficits and/or debt ratios after the crisis and for those countries which face relatively high interest rates and low potential growth.

Box 6

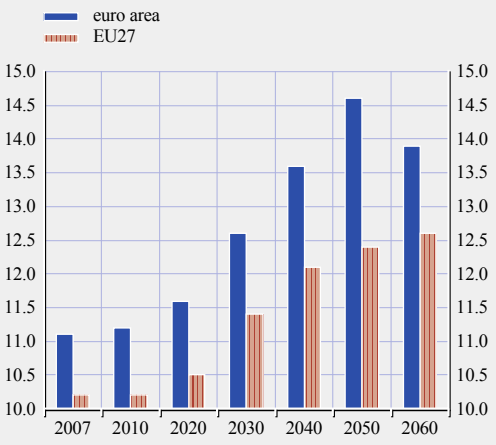
AGEING COSTS AND RISKS TO FISCAL SUSTAINABILITY[1]

The government debt simulations in this chapter abstract from the projected impact of changes in age-related public expenditure that are expected to result from the ageing of society. This reflects that governments may prefer to undertake pension and health care reforms to tackle the rising budgetary pressures from ageing rather than allowing these to crowd out other budget items. According to the baseline scenario of the European Commission and the Economic Policy Committee (2009), the ratio of age-related public expenditure to GDP in the euro area is projected to rise by 5.2 percentage points over the period 2007-60 under a no-policy-change assumption. There are, however, large differences across the euro area countries (see table on the next page). The projections also show that the rise in public pension expenditure in the euro area is expected to accelerate after 2020 before slowing down somewhat after 2050 (see chart).

Overall, accounting for the projected increase in age-related expenditure would imply that – under a no-policy-change assumption – primary budget deficits and thus government

Public pension expenditure in the euro area and the EU, 2007-60

(percentage of GDP)



Source: European Commission and Economic Policy Committee (2009).

1 Prepared by Nadine Leiner-Killinger.

Age-related government expenditure in the euro area, 2007-60

(levels in percentage of GDP; changes in percentage points of GDP)

	Pensions		Health care		Long-term care		Unemployment benefits		Education		Total	
	Level 2007	Change 2007-60	Level 2007	Change 2007-60	Level 2007	Change 2007-60	Level 2007	Change 2007-60	Level 2007	Change 2007-60	Level 2007	Change 2007-60
Belgium	10.0	4.8	7.6	1.2	1.5	1.4	1.9	-0.4	5.5	0.0	26.5	6.9
Germany	10.4	2.3	7.4	1.8	0.9	1.4	0.9	-0.3	3.9	-0.4	23.6	4.8
Ireland	5.2	6.1	5.8	1.8	0.8	1.3	0.8	0.1	4.5	-0.3	17.2	8.9
Greece	11.7	12.4	5.0	1.4	1.4	2.2	0.3	-0.1	3.7	0.0	22.1	15.9
Spain	8.4	6.7	5.5	1.6	0.5	0.9	1.3	-0.4	3.5	0.1	19.3	9.0
France	13.0	1.0	8.1	1.2	1.4	0.8	1.2	-0.3	4.7	0.0	28.4	2.7
Italy	14.0	-0.4	5.9	1.1	1.7	1.3	0.4	0.0	4.1	-0.3	26.0	1.6
Cyprus	6.3	11.4	2.7	0.6	0.0	0.0	0.3	-0.1	6.1	-1.2	15.4	10.8
Luxembourg	8.7	15.2	5.8	1.2	1.4	2.0	0.4	0.0	3.8	-0.5	20.0	18.0
Malta	7.2	6.2	4.7	3.3	1.0	1.6	0.4	0.0	5.0	-1.0	18.2	10.2
Netherlands	6.6	4.0	4.8	1.0	3.4	4.7	1.1	-0.1	4.6	-0.2	20.5	9.4
Austria	12.8	0.9	6.5	1.5	1.3	1.2	0.7	0.0	4.8	-0.5	26.0	3.1
Portugal	11.4	2.1	7.2	1.9	0.1	0.1	1.2	-0.4	4.6	-0.3	24.5	3.4
Slovenia	9.9	8.8	6.6	1.9	1.1	1.8	0.2	0.0	5.1	0.4	22.9	12.8
Slovakia	6.8	3.4	5.0	2.3	0.2	0.4	0.1	-0.1	3.1	-0.8	15.2	5.2
Finland	10.0	3.3	5.5	1.0	1.8	2.6	1.2	-0.2	5.7	-0.3	24.2	6.3
Euro area	**11.1**	**2.8**	**6.7**	**1.4**	**1.3**	**1.4**	**1.0**	**-0.2**	**4.2**	**-0.2**	**24.3**	**5.2**

Sources: European Commission and Economic Policy Committee (2009).

debt-to-GDP ratios would turn out even higher than in the scenarios presented in this chapter.[2] Furthermore, following the dramatic decline in the value of assets in the funded components of private and public pension systems, there may potentially be pressure on governments to compensate for these financial losses in order to provide the elderly with an adequate living standard, thus raising risks to fiscal sustainability.

2 For more details on fiscal sustainability in the EU countries taking into account changes in age-related expenditure, see European Commission (2009e). See also Balassone et al. (2009).

6 EURO AREA FISCAL POLICIES: EXIT FROM THE CRISIS MODE [49]

6.1 INTRODUCTION

As shown in previous chapters, the fiscal costs of the crisis are considerable. Within a short period of time, all euro area governments have experienced a sharp reversal of their budget balances, some of them moving far away from their previous apparently sound fiscal positions (see Table 9). The rapid rise in government indebtedness, the budgetary risks from higher interest rates, a prolonged period of low growth, extensive contingent liabilities and the rising costs from ageing populations, have raised concerns over the sustainability of public finances.

This rapid fiscal deterioration also puts strong pressure on the EU institutional framework for ensuring sustainable public finances. Moreover, the coordinated short-term fiscal response to the recession contributing to excessive deficits in most euro area countries points to a number of challenges for the functioning and credibility of the Stability and Growth Pact (SGP).

Looking ahead, the fiscal authorities face the challenge of how to exit from the crisis mode and return to sound and sustainable fiscal positions. They will also need to address the weaknesses related to past policies that were exposed by the crisis. This chapter discusses these challenges in more detail. Section 6.2 argues in favour of a timely exit from the crisis mode and develops the main principles for the fiscal consolidation strategies. Section 6.3 summarises a number of crisis-related challenges for the proper functioning of the EU fiscal framework and how they could be addressed. Section 6.4 concludes.

6.2 FISCAL EXIT AND CONSOLIDATION STRATEGIES

Exit strategies represent a key issue for the conduct of fiscal policies in the recovery phase. The exit strategies should include at least three dimensions: (i) phasing-out of the financial assistance to the banking sector, (ii) unwinding fiscal stimuli and restoring fiscal sustainability, and (iii) growth-enhancing structural reforms.

49 Prepared by Philipp Rother and Vilém Valenta.

Table 9 Government budget balance and debt ratios in the euro area

(percentage of GDP)

	Budget balance					Debt				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Belgium	-0.2	-1.2	-5.9	-5.8	-5.8	84.2	89.8	97.2	101.2	104.0
Germany	0.2	0.0	-3.4	-5.0	-4.6	65.0	65.9	73.1	76.7	79.7
Ireland	0.3	-7.2	-12.5	-14.7	-14.7	25.1	44.1	65.8	82.9	96.2
Greece	-3.7	-7.7	-12.7	-12.2	-12.8	95.6	99.2	112.6	124.9	135.4
Spain	1.9	-4.1	-11.2	-10.1	-9.3	36.1	39.7	54.3	66.3	74.0
France	-2.7	-3.4	-8.3	-8.2	-7.7	63.8	67.4	76.1	82.5	87.6
Italy	-1.5	-2.7	-5.3	-5.3	-5.1	103.5	105.8	114.6	116.7	117.8
Cyprus	3.4	0.9	-3.5	-5.7	-5.9	58.3	48.4	53.2	58.6	63.4
Luxembourg	3.7	2.5	-2.2	-4.2	-4.2	6.6	13.5	15.0	16.4	17.7
Malta	-2.2	-4.7	-4.5	-4.4	-4.3	62.0	63.8	68.5	70.9	72.5
Netherlands	0.2	0.7	-4.7	-6.1	-5.6	45.5	58.2	59.8	65.6	69.7
Austria	-0.6	-0.4	-4.3	-5.5	-5.3	59.5	62.6	69.1	73.9	77.0
Portugal	-2.6	-2.7	-8.0	-8.0	-8.7	63.6	66.3	77.4	84.6	91.1
Slovenia	0.0	-1.8	-6.3	-7.0	-6.9	23.3	22.5	35.1	42.8	48.2
Slovakia	-1.9	-2.3	-6.3	-6.0	-5.5	29.3	27.7	34.6	39.2	42.7
Finland	5.2	4.5	-2.8	-4.5	-4.3	35.2	34.1	41.3	47.4	52.7
Euro area	**-0.6**	**-2.0**	**-6.4**	**-6.9**	**-6.5**	**66.0**	**69.3**	**78.2**	**84.0**	**88.2**

Source: European Commission (2009f).

This section does not cover the first aspect of the exit mode,[50] but focuses instead on the second, while taking account of the third aspect.

NEED FOR TIMELY AND CREDIBLE FISCAL EXIT AND CONSOLIDATION STRATEGIES

Many economic arguments support the need for a timely and credible fiscal exit from the crisis mode. First, sound fiscal positions in line with the requirements of the SGP are an important prerequisite for the smooth functioning of EMU. High government deficits and debt at the euro area level represent an upside risk to price stability and place an additional burden on the ECB's monetary policy. Persisting large fiscal imbalances could also severely constrain the scope for fiscal policy action should any emergency need arise. At the national level, they may fuel the accumulation of other macroeconomic imbalances, such as current account deficits, which make countries more vulnerable to negative shocks. Moreover, wide-ranging differences in fiscal positions can contribute to economic divergences within the euro area.

Second, while governments appear to have been successful in bolstering public confidence via economic support in the recession phase, in the exit phase confidence must be preserved via a timely withdrawal of the fiscal stimulus measures and credible consolidation. Well-specified and duly communicated fiscal exit strategies are of great importance to reduce market concerns about fiscal sustainability and support public confidence.

Third, the need to finance large deficits, bank rescue packages and debt roll-over have made governments more vulnerable to and may even trigger rapid changes in market sentiment, leading to higher medium and long-term interest rates (see Chapter 4). This may force them to adopt pro-cyclical restrictive fiscal policies to restore confidence. The upward pressure on interest rates also risks crowding out private investment, with adverse implications for potential growth.

Fourth, while in response to the financial and economic crisis governments have assumed a more active role in managing the economy (see Chapters 2 and 3), historical experience shows that the market principle remains the best basis for a well-functioning economic system.[51] Therefore, state involvement in the private sector should be scaled down again, in line with EU state aid rules, and government interventions to support domestic demand should remain the exception rather than become the new rule.

When designing and implementing fiscal exit strategies, the proper timing, pace and composition of the consolidation measures are the core issues. On the one hand, fiscal consolidation should start as soon as possible in order to limit the accumulation of fiscal imbalances, which may hamper long-term economic growth. On the other hand, the risks of a premature fiscal restriction for the recovery should be considered. There is evidence, however, that fiscal consolidation may have a positive impact on economic growth, if credible and properly designed (see Box 7).

50 For a discussion of governments' exit strategies from emergency measures in support of the financial sector, see European Commission (2009c and 2009d) and OECD (2009b).

51 See also Stark (2009).

Box 7

FISCAL CONSOLIDATION AND ECONOMIC GROWTH[1]

Conventional Keynesian theory suggests that fiscal consolidations can be harmful to output growth in the short run due to their negative impact on aggregate demand. This makes the decision when to start fiscal consolidation and how fast to proceed more complex. However, risks to short-term growth need to be weighed against possible adverse impacts on the credibility of governments' commitment to sound public finances that could result from unambitious consolidation. Eventually, there is a risk that failure to consolidate will undermine long-term fiscal sustainability.

A number of considerations suggest that the downside effects of fiscal consolidation on growth need not dominate. In theory, expectation effects could even more than offset the contractionary impact on growth of fiscal consolidations (the so-called non-Keynesian fiscal effects). For instance, a significant and sustained reduction of government expenditures may lead consumers to assume that this will create room in the medium term for a permanent tax reduction. In that case, an expected increase in permanent income may lead to a rise in private consumption, also generating a better environment for private investment. However, if the reduction in government spending is small and temporary, or not credible, private consumption may not respond positively to the fiscal cutback.[2]

In addition, Blanchard (1990) and Sutherland (1997) argue that a fiscal consolidation that credibly attempts to reduce public sector borrowing may produce an induced positive wealth effect, leading to an increase in private consumption. Furthermore, the reduction of the government borrowing requirement diminishes the risk premium associated with government debt issuance, which reduces real interest rates and allows the crowding-in of private investment. The empirical evidence does not seem to fully convey whether observed expansionary effects following fiscal consolidations are driven by expectations about future disposable income or other factors, such as supply-side or structural reforms, monetary policy adjustments or exchange rate depreciation accompanying the fiscal consolidation.[3]

Afonso (2010) reports for the 15 "old" EU countries some evidence in favour of the existence of expansionary fiscal consolidations, for a few budgetary spending items (government final consumption and social transfers), depending on the specification and on the time span used. In addition, Giudice et al. (2007) argue that around half of the fiscal consolidations in the EU in the last 30 years have been followed by higher growth. Hauptmeier et al. (2007) conduct case studies and find that fiscal consolidations based on expenditure reforms were the most likely to promote growth. Several other studies also find that fiscal consolidations have had only limited negative implications for real GDP growth in many instances, with diverse impacts of public spending shocks on output.[4] In this regard, the quality of fiscal consolidation plans and structural reforms will play an important role with respect to the ensuing growth effect in the medium to longer run. Governments would thus be well advised to pursue fiscal reforms that enhance the efficiency of government expenditure and taxation systems, in combination with structural reforms in labour and product markets.

1 Prepared by António Afonso.
2 See Giavazzi and Pagano (1990), McDermott and Wescott (1996), and Alesina and Ardagna (1998).
3 See Briotti (2005) for a survey and Afonso (2010) for results on the composition of fiscal adjustment.
4 See Afonso and González Alegre (2008) and Afonso and Sousa (2009) for empirical evidence on the fiscal effects in the 15 "old" EU countries and in the United States.

PRINCIPLES AND CRITERIA FOR FISCAL EXIT AND CONSOLIDATION STRATEGIES

In order to achieve the aforementioned main objectives, fiscal exit and consolidation strategies should be based on the following *common principles*:[52]

- The Treaty and the Stability and Growth Pact provide the appropriate framework for credible and well-specified fiscal exit and consolidation strategies, which should be communicated and implemented in a timely fashion.

The provisions of the Treaty and the SGP should be fully implemented. They provide for a considerable degree of flexibility to take account of country-specific circumstances. Countries with current or planned deficits above 3% of GDP or facing high debt ratios should be subject to a strengthened surveillance under the excessive deficit procedure (EDP). In any case, these countries should not further pursue expansionary fiscal policies and should shift to consolidation in order to correct the excessive deficits in accordance with the ECOFIN Council recommendations.

- The structural adjustment should start no later than the economic recovery. Where necessary, it should be significantly larger than the minimum required annual structural adjustment of 0.5% of GDP.

The deadlines for the correction of excessive deficits need to be ambitious. According to the SGP, an excessive deficit should as a rule be corrected "in the year after its identification, unless there are special circumstances" (see Box 8). While the room for consolidation may be limited as long as economic growth remains negative or very low, much stronger efforts in structural terms should be feasible once economic recovery starts. A relapse in the recovery and/or lower than previously assumed potential growth should not automatically be seen as implying that further postponement or watering-down of consolidation efforts would necessarily be justified. Under normal circumstances, the annual minimum structural adjustment benchmark is 0.5% of GDP. As shown in Chapter 5, the minimum structural adjustment implies excessive debt levels persisting for very long periods of time in many euro area countries. For countries with very high government deficits or debts, even an annual adjustment of 1.0% of GDP implies that the government debt-to-GDP ratio could not be reduced to below the 60% of GDP reference value over an acceptable time horizon. At the same time, it appears unlikely that countries will be able to rely on strong real GDP growth to reduce their debt burdens. Therefore, unwinding fiscal stimuli, while necessary and in principle relatively easy to achieve, is clearly insufficient to restore sustainable public finances in most countries. Most likely, a very large structural consolidation effort over a long time span will be needed in order to adjust public finances to the new economic environment. In this regard, the ECOFIN Council conclusions of October 2009, which call for consolidation to start in 2011 at the latest and to go well beyond the structural benchmark of 0.5% of GDP per annum, represent the minimum requirement for all euro area countries.

- The fiscal consolidation plans should be based on realistic and cautious growth assumptions, with a strong focus on expenditure reforms.

As a result of the crisis, (potential) output growth may be lower for a prolonged period of time, which needs to be reflected in the fiscal consolidation plans. The composition of the fiscal adjustment should be tailored to the needs of individual countries. However, past evidence on successful fiscal corrections suggests that expenditure-based consolidation is to be preferred, as the tax burden is already high in most euro area countries and further tax increases risk impeding competitiveness and incentives to work, invest and innovate. The expected increase

52 For the principles adopted by Ministers of Finance see the Eurogroup "Orientations for fiscal policies in euro area Member States" dated 8 June 2009 and the ECOFIN "Council conclusions on fiscal exit strategy" of 20 October 2009.

of age-related expenditures and the risk of higher interest payments from rising government debt levels call for additional restraint on the expenditure side. Last but not least, the exit strategies should ensure also the durability of fiscal consolidation and consider structural aspects. In this regard, they should be characterised by structural reforms that systematically reduce long-term public expenditure dynamics and promote long-term growth.

- The fiscal exit and consolidation strategies need to go beyond the correction of excessive deficits.

In line with the preventive arm of the Pact, countries should build a safety margin to help them to avoid a repeated breach of the 3% of GDP reference value for the deficit and aim to reach their medium-term objective as soon as possible. Therefore, they should maintain the pace of consolidation until their medium-term fiscal position is close to balance or in surplus. More significant progress should be required in particular if the economic situation permits, i.e. in "good times".

When applying these common principles, country-specific circumstances may be taken into account. In this respect, the following *criteria* could be considered:

– The level and expected dynamics of government deficit and/or debt ratios: *How far are the projected deficit and/or debt ratios above the reference values and are they still rising?* Ceteris paribus, more unfavourable fiscal positions call for more ambitious and faster implementation of consolidation strategies.

– Expected duration of the recession: *When is the recovery taking hold and the economy on a path of self-sustaining growth?* As long as "special circumstances" apply (see Box 8), notably a continuation of negative or very low economic growth, a later or smaller structural adjustment could be warranted. However, those countries with very high deficits and/or debt ratios must take immediate corrective action to avoid that their public finances get out of control.

In addition, one may consider the supplementary information on:

– Past fiscal performance: *Was a sound fiscal position achieved and maintained before the onset of the crisis?* Achievement of and adherence to its medium-term budgetary objective may be taken as an indication of a country's general commitment to fiscal discipline. The absence of a good "track record" in this respect may warrant a somewhat stricter implementation of the provisions of the SGP, especially if the excess over the 3% of GDP reference value for the deficit is expected to be relatively large.

– Extent of contingent liabilities: *What are the projected fiscal costs of ageing and how significant are explicit and implicit contingent liabilities stemming from measures to support the financial sector and non-financial firms?* Ceteris paribus, the greater the challenges to fiscal sustainability from off-balance-sheet liabilities, the earlier and more forceful the fiscal adjustment should be.

– Existence of other macroeconomic vulnerabilities: *What are the risks from current account deficits, how large is the need to strengthen competitiveness, and do households and firms face high levels of indebtedness?* Where fiscal developments contribute to sustained vulnerabilities in other areas of the economy, structural fiscal reforms will be necessary to address these vulnerabilities.

6.3 CRISIS-RELATED CHALLENGES FOR THE EU FISCAL FRAMEWORK

Fiscal sustainability is vital for the smooth functioning of EMU and a precondition for long-term stability and growth. The EU fiscal framework, as embedded in the Treaty and the

SGP, serves as the coordination mechanism to ensure sustainable public finances in Member States. This section describes a number of challenges for the proper functioning of the EU fiscal framework stemming from the crisis.

WEAK INSTITUTIONAL INCENTIVES FOR FISCAL DISCIPLINE?

Fiscal surveillance in the EU is based on quantitative and qualitative monitoring of national fiscal developments. On the quantitative side, the Treaty's reference values for the government deficit and debt ratios represent the most fundamental and transparent indicators. They are supplemented by country-specific fiscal targets, the so-called medium-term objectives (MTOs). The quantitative information is supplemented by stability programmes, which present euro area governments' macroeconomic assumptions and fiscal policy intentions in some detail. The financial and economic crisis, the coordinated fiscal policy response and the subsequent excessive deficit and debt levels in most euro area countries have raised a number of questions about the credibility of the Treaty and the SGP in maintaining fiscal discipline.

First, the crisis has demonstrated the vital importance of establishing and maintaining sound fiscal positions, in line with or even beyond MTOs, in order to have room for manoeuvre to respond to a negative shock. Over the past years, however, the role of MTOs as a tool to promote fiscal discipline has been limited. The incentives set by the EU fiscal framework had to counterbalance national policy interests in countries with little domestic political pressure for consolidation. As documented in ECB (2008b), the reform of the SGP in 2005 has so far been a mixed success. With regard to the corrective arm of the SGP, all excessive deficits of euro area countries were eventually corrected by 2008, albeit supported by favourable economic conditions and after long delays in meeting the deadlines in some cases. Regarding the preventive arm, the MTOs have not become a firm anchor for the EU fiscal framework, despite repeated agreements at the Eurogroup level that all euro area countries should have reached their MTO by a specific year. The perception of the MTOs as binding fiscal targets was in general lacking. Some euro area countries pursued more ambitious fiscal targets for domestic purposes, whereas others more or less ignored their MTOs. The benchmark for the annual minimum structural fiscal adjustment of 0.5% of GDP was in general only rarely respected and "good times" were insufficiently used to speed up consolidation.

Second, the activist fiscal policies in response to the expected deep recession, as agreed in the European Economic Recovery Plan (EERP), arguably were in conflict with Treaty Article 126.1 that "Member States shall avoid excessive government deficits". The fact that this discretionary fiscal loosening has been the direct result of a coordinated EU-wide approach also made it more difficult to call a few months later for vigorous consolidation efforts in the excessive deficit countries. In particular, the EERP called on Member States to take full advantage of the credibility and flexibility offered by the SGP, as well as the protection that the euro offers against destabilising exchange rate movements which otherwise would have complicated national fiscal policy responses. As a consequence, the institutional coordination framework offered by the SGP has been complemented by an ad hoc coordination mechanism to deal with particularly large, common negative shocks. While some economic arguments could be found to support the chosen approach for addressing the crisis, there is a risk that this precedent will be used to justify coordinated expansionary fiscal policies outside the EU fiscal framework at times when this is not warranted. Beyond the risk of adverse economic outcomes, such behaviour would induce risks to the credibility of the EU fiscal framework.

Third, the fiscal stimulus measures generally did not foresee credible exit strategies which could have helped to create positive confidence

effects and anchor expectations about longer-term fiscal sustainability.[53] While the ECOFIN Council stated in January 2009 that "the coordinated fiscal stimulus will… be followed by a coordinated budget consolidation", this joint commitment to fiscal discipline was then in most countries not followed up with well-specified national plans to return to sound and sustainable public finances. This gave rise to the risk of a loss of market confidence and an increase in sovereign risk premia resulting in higher long-term interest rates (see also Chapter 4).

Fourth, the large fiscal imbalances now facing all euro area countries will make it more difficult to enforce the disciplinary mechanism of peer pressure on which the EU fiscal framework is based. There is a clear risk that countries with high fiscal deficits will fail to put political pressure on their peers in a similar situation. This peer pressure mechanism is a key element in reaching ECOFIN Council conclusions that an excessive deficit exists, issuing recommendations for ambitious start and end dates for their correction, giving further notice in case countries do not follow up, deciding on the application of sanction measures and, finally, concluding whether the excessive deficit has been corrected (according to Treaty Articles 126.6-12).[54] The flexibility incorporated in the legal provisions of the SGP – which provide considerable room for manoeuvre in setting and extending the deadline for correcting an excessive deficit in the face of "special circumstances" and "unexpected adverse economic events" – was already stretched to the limit when taking decisions under Article 126.7 (see Box 8). Effective peer pressure is also important to promote transparent national budgets, as countries subject to excessive deficit procedures may face incentives to engage in window-dressing and creative accounting to downplay and/or reduce the apparent size of their fiscal challenges.

Finally, the rapid increase in government debt ratios and contingent liabilities must lead to a commensurate strengthening of fiscal discipline and consolidation requirements. One of the objectives of the reform of the SGP in 2005 was to increase the focus on government debt and on safeguarding the sustainability of public finances in EU fiscal surveillance. Since the reform, for countries above the 60% of GDP reference value, the (ECOFIN) Council formulates recommendations on the debt dynamics in its opinions on the stability and convergence programmes of Member States.[55] The fact that the EU fiscal surveillance procedures in practice tend to focus on deficit developments points to the risk of giving insufficient attention to the current negative debt dynamics and the potential destabilising properties of high and rising government debt-to-GDP ratios in a monetary union.

All these developments suggest that the EU's institutional mechanisms for ensuring fiscal discipline face a number of challenges at present, which could erode the fiscal pillar of EMU. The vigorous implementation of the corrective arm of the SGP is more uncertain than ever and all the euro area countries are a long way from complying with the medium-term objectives of the preventive arm. In the current situation, a powerful application of the EU fiscal framework enforcing credible fiscal exit and consolidation strategies and the return to sound and sustainable fiscal positions needs to be preserved and even strengthened.

53 The IMF (2009c) warned European countries that a credible commitment to long-run fiscal discipline was essential to sustain market confidence. Hence, it was crucial that any short-term fiscal actions be cast within a credible medium-term fiscal framework envisaging a fiscal correction as the crisis abated.

54 Stéclebout-Orseau and Hallerberg (2009) show that the more "sinners" with excessive deficits there are in the EU, the weaker the peer pressure mechanism to take corrective action.

55 See "Improving the implementation of the Stability and Growth Pact", Council Report to the European Council, 21 March 2005.

Box 8

THE FLEXIBILITY PROVISIONS OF THE STABILITY AND GROWTH PACT IN TIMES OF CRISIS[1]

The Treaty on the Functioning of the European Union (Lisbon Treaty) and the Stability and Growth Pact (SGP) aim to ensure the sustainability of public finances of Member States. They require EU countries not to exceed a government deficit ratio of 3% of GDP and a government debt ratio of 60% of GDP and provide procedural steps for the correction of excessive deficits in case one or both of these reference values is breached. Moreover, the so-called preventive arm of the SGP obliges countries to maintain sound budgetary positions. This box discusses the flexibility provisions of the Treaty and the SGP that are relevant for taking into account the consequences of the crisis for public finances in the implementation of the procedures.

Corrective arm

Under the Treaty (Article 126.1), Member States shall avoid excessive government deficits. In case the 3% of GDP deficit limit is breached, the Commission prepares a report to examine whether the "excess over the reference value is only exceptional and temporary and the ratio remains close to the reference value" (Treaty Article 126.2-3). According to the relevant provisions,[2] "exceptional" can mean an "unusual event outside the control of the Member State" (this could be a financial crisis) or a "severe economic downturn", including negative real GDP growth or a protracted period of very low output growth relative to its potential (such as in a deep or prolonged recession). In other words, if a country records a deficit slightly above 3% of GDP in a given year due to exceptional circumstances *and* the excess is foreseen to be reversed in the following year, the country would not have to face the steps under the excessive deficit procedure. In all other cases of a country's deficit exceeding the 3% of GDP reference value, the (ECOFIN) Council will decide on the existence of an excessive deficit (Treaty Article 126.6). This was the case in 2009, as the deficits notified by many Member States were neither small nor temporary, even when it was accepted that the crisis circumstances were exceptional. As a result, 13 out of 16 euro area countries were subject to an excessive deficit procedure at the end of 2009 (Belgium, Germany, Ireland, Greece, Spain, France, Italy, Malta, Netherlands, Austria, Portugal, Slovenia and Slovakia).

The Commission report on the existence of an excessive deficit shall take into account "all other relevant factors", including the medium-term economic and budgetary position of the Member State. While "all other relevant factors" are not specified in detail, countries are invited to put forward any factor considered relevant. Reference to the financial or economic crisis as a relevant factor did not materially affect the decision on the existence of an excessive deficit in 2009.

In setting the initial deadline for the correction of the excessive deficit (Treaty Article 126.7), the relevant provisions allow the Council in its recommendation to extend the standard time frame of correction in the year after the identification of the excessive deficit, in case there are "special circumstances"; the deadline would then be set as a rule to the second year after the identification of the excessive deficit. The overall assessment of the existence of special circumstances should

1 Prepared by Philipp Rother.
2 See Council Regulation (EC) No 1056/2005 of 27 June 2005 on "Speeding up and clarifying the implementation of the excessive deficit procedure" and the Code of Conduct on the "Specifications on the implementation of the Stability and Growth Pact".

Overview of excessive deficit procedures for euro area countries, end-2009

	Date of the Commission report under Article 126.3	Council Decision on the existence of an excessive deficit	Initial deadline for the correction of an excessive deficit	Extended deadline
Belgium	07.10.2009	02.12.2009	2012	:
Germany	07.10.2009	02.12.2009	2013	:
Ireland	18.02.2009	27.04.2009	2013	2014
Greece	18.02.2009	27.04.2009	2010	no effective action
Spain	18.02.2009	27.04.2009	2012	2013
France	18.02.2009	27.04.2009	2012	2013
Italy	07.10.2009	02.12.2009	2012	:
Malta	13.05.2009	07.07.2009	2010	:
Netherlands	07.10.2009	02.12.2009	2013	:
Austria	07.10.2009	02.12.2009	2013	:
Portugal	07.10.2009	02.12.2009	2013	:
Slovenia	07.10.2009	02.12.2009	2013	:
Slovakia	07.10.2009	02.12.2009	2013	:

take into account "all relevant factors" as mentioned above in a balanced manner. This provision was applied in 2009 for 11 euro area EDP countries (with the exceptions of Greece and Malta) to justify a delayed correction of an excessive deficit on the basis of the argument that additional fiscal tightening in a weak economic environment could prolong the recession. Also when effective action in response to the Council recommendation has been taken and then "unexpected adverse economic events" occur, the deadline for the correction of the excessive deficit may be extended by one year. This provision was applied in December 2009 for Ireland, Spain and France. In the case of Greece, the Council established that the action taken in response to its recommendations has been insufficient (Treaty Article 126.8). In this case, the deadline cannot be extended and the Council moved to the next stage of the EDP procedure of giving notice to Greece (Treaty Article 126.9).

Preventive arm

Under the preventive arm of the SGP, EU countries commit to adhere to their country-specific medium-term objectives (MTOs), as specified in cyclically adjusted terms net of one-off and other temporary measures.[3] This should provide a safety margin with respect to the 3% of GDP deficit limit and ensure rapid progress towards fiscal sustainability while allowing room for budgetary manoeuvre, in particular taking into account public investment needs. The annual structural adjustment effort towards the MTO should be higher than the minimum benchmark of 0.5% of GDP in "good times" and could be more limited in "bad times". Moreover, the Commission may issue policy advice to encourage Member States to stick to the structural adjustment path towards their MTO, as it did in 2008 in the cases of France and Romania.

The focus on the structural budget balance allows countries (in particular those that have already achieved their MTO) to let automatic stabilisers operate freely over the business cycle, while respecting the 3% of GDP deficit limit. This provides room for budgetary manoeuvre to avoid pro-cyclical fiscal policies in particular in bad times. Given the nature and depth of the 2008-09 crisis, however, a precise quantification and interpretation of structural budget balances taking

3 See Council Regulation (EC) No 1055/2005 of 27 June 2005 on "The strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies" and the Code of Conduct on the "Specifications on the implementation of the Stability and Growth Pact".

due account of cyclical, one-off and other (such as asset price) effects appears extremely difficult. Thus, it appears somewhat unlikely that in a crisis situation strong policy recommendations could be derived under the preventive arm of the SGP.

Overall, the rules of the Treaty and the SGP provide considerable flexibility to take the effects of the crisis into account in the implementation of the EU fiscal surveillance framework. As a matter of principle, this flexibility must be applied in a prudent and judicious manner in order not to endanger the credibility of the legal provisions.

Lessons for strengthening the implementation of the EU fiscal framework in post-crisis times emerge in particular in two areas. First, a lack of high-quality information may have impeded an accurate assessment of the fiscal situation in the individual countries before the crisis. Second, the weighting of the different incentives driving government actions may have shifted during the crisis. The question is how to enhance the effectiveness of the existing surveillance and incentive mechanisms in preventing the emergence and later materialisation of substantial fiscal risks.

WAYS TO STRENGTHEN EU FISCAL SURVEILLANCE

EU fiscal surveillance is based upon two *quantitative* assessments: the assessment of the cyclical state of the economy and the assessment of its impact on the fiscal balance. In particular, this requires an assessment of the evolution of the output gap and macroeconomic tax bases, and the application of tax elasticities with respect to relevant macroeconomic bases. Both assessments have proved to be subject to significant uncertainties. The size of the output gap, in particular, but also the evolution of an output gap are extremely difficult to estimate in real time in a normal business cycle – and even more so in buoyant times and in crisis times (see also Cimadomo, 2008).

In light of the uncertainty surrounding estimates of the underlying fiscal balances, future quantitative assessments will need to be more prudent. Estimates of potential output should be conservative and forward-looking in order to assess the structural position of the economy over a longer-term horizon. In this regard, useful complementary indicators might be the current account balance, measures of competitiveness, household and corporate indebtedness, the structural unemployment rate, trends in asset prices, etc. As noted by Morris et al. (2009), with regard to tax elasticities, or more generally the link between macroeconomic and fiscal developments, the reliability of the estimated underlying fiscal position is likely to remain limited.

Given the uncertainty regarding trend output and revenues, a prudent conduct of expenditure policies is crucial. The experience from past boom phases shows that maintaining expenditure ratios (expressed in relation to GDP) in fast-growing economies can lead to fiscal vulnerability as part of the (permanent) expenditure increases are financed from cyclical and sometimes highly volatile (e.g. asset price-based) tax revenues. A more prudent approach is to link expenditure growth to a sustainable long-term growth rate of the economy, which would induce a tendency towards possibly large fiscal surpluses in boom periods.

As noted above, in view of the projected sharp increase in government debt ratios in many euro area countries, as well as the assumption of contingent liabilities, the surveillance of debt developments will need to be strengthened. In this context, it will also be necessary to develop further the analysis of countries' short-term refinancing needs as an indication of vulnerability to negative shocks affecting market confidence.

The stability programmes are a further source of fiscal surveillance of a more *qualitative*

nature. The programmes should be based on realistic and cautious growth assumptions and could focus more on the identification of macroeconomic and fiscal risks. A first step in this direction could be to present an unchanged policy scenario in the programme that would identify the consolidation gap that has to be filled in order to achieve government targets. Moreover, the discussion of government policy intentions could focus more on quality aspects. In this regard, further investigation of the durability of fiscal consolidation plans may be useful, e.g. to highlight risks from revenue-based structural adjustments, in particular if they derive from small and cyclically sensitive tax bases, or consolidations based on *ad hoc* expenditure cuts.

With regard to the data situation for assessing the state of public finances, Member States are obliged to provide timely, reliable and complete information. As suggested by Onorante et al. (2008), improving the availability of infra-annual budgetary data could help fiscal surveillance to be more up to date. As regards data reliability, frequent and unexpectedly large revisions of government finance statistics and forecasts hamper a proper fiscal policy assessment at the EU level. To improve the situation in this respect, independent national statistical institutes and national "watchdogs" could play a useful role. More comprehensive information on the size of contingent government liabilities would also be important for assessing the true magnitude of fiscal risks.

It should be borne in mind that information problems are not only of a technical nature, as discussed so far, but they may also have important policy implications. Reliable information that is comparable across countries is necessary to anchor the way of thinking about fiscal developments in individual member countries and EMU as a whole. An insufficient quality of such information significantly reduces the accuracy of policy analysis and effectiveness of decision-making, both at the national and EU levels. Commonly agreed concepts and adequate statistics for the assessment of fiscal policies are a precondition for effective peer pressure to meet the fiscal policy objectives and to underpin the credibility of EU fiscal surveillance.

WAYS TO STRENGTHEN NATIONAL INCENTIVES FOR FISCAL DISCIPLINE

Market perceptions of countries' solvency risks as reflected in sovereign bond spreads and credit default swap (CDS) premia provide a welcome disciplining mechanism to national governments. Before the crisis, market pressures were virtually non-existent, as evidenced by very narrow sovereign bond spreads and similar high sovereign credit ratings across euro area countries. During the crisis, the weight of the different incentive mechanisms has changed. Market pressures have gained in importance, with sovereign bond spreads and CDS premia rising to unprecedented levels and close attention of investors to possible short-term financing difficulties in individual euro area countries. While these spreads and premia subsided in the course of 2009, in many instances they remain elevated compared with pre-crisis levels.

While financial market indicators can provide supportive information to guide national fiscal policies, exclusive reliance on such indicators could result in misjudgements. The evidence presented in Chapter 4 shows that in crisis episodes financial markets appear to differentiate between sovereign issuers according to the sustainability of their public finances. However, there are indications that other factors, such as liquidity premia and international risk aversion, also play a role (see Box 4 in Chapter 4). Thus, inferences for the conduct of fiscal policies could be problematic. Furthermore, the accuracy of short-term market indicators in quantifying sustainability risks may be questionable as investors may overreact to changes in fundamentals. Finally, reductions in sovereign bond spreads or CDS premia could be misinterpreted as signalling progress in consolidation efforts.

Additional policy incentives to support countries' compliance with the EU fiscal

framework could be established on the domestic side. Any strengthening of national political and public ownership of the EU fiscal rules would be helpful.[56] The large post-crisis fiscal imbalances may trigger widespread public support for new, complementary institutions and binding medium-term-oriented national fiscal policy frameworks. For example, constitutional budget rules,[57] national stability pacts and multi-year budgetary targets could promote exit strategies from the current fiscal loosening and strengthen incentives for fiscal consolidation and the return to sound medium-term budgetary objectives. Furthermore, independent Fiscal Policy Councils could be set up to critically monitor, forecast and assess fiscal developments and evaluate the risks for fiscal sustainability in regular public reports. National monitoring and enforcement mechanisms could contribute to fulfilling the EU budgetary objectives if the national rules are consistent with those at the EU level. Suggestions for a greater involvement of national parliaments have also been made. This avenue was also discussed during the negotiations on the revision of the SGP, but at the time resulted in little concrete progress.

6.4 CONCLUSIONS

Once the recovery is evident, governments need to start exiting from the fiscal stimulus and shift to substantial fiscal consolidation in order to return to sound and sustainable fiscal positions. Fiscal exit and consolidation strategies should be well specified, duly communicated and implemented in a timely manner in order to maintain confidence in longer-term fiscal sustainability. The existing EU fiscal framework, as embedded in the relevant provisions of the Treaty and the Stability and Growth Pact, provides the appropriate coordination mechanism. In this respect, the precedent of coordinated fiscal expansions within the framework of the European Economic Recovery Plan calls for particular attention. To prevent the risk of an erosion of the EU fiscal framework, it is important that the provisions of the Treaty and the Stability and Growth Pact are fully respected and implemented in a strict manner.

From the recent fiscal developments, the following lessons emerge for the implementation of the EU fiscal framework in post-crisis times. First, at the EU level, only high-quality information will enable an accurate assessment of the fiscal situation in individual countries. In this respect, the existing EU fiscal surveillance process – also with regard to the reliability of fiscal data – needs to be strengthened. Second, outside crisis times, market incentives are often not sufficiently strong to promote sound national fiscal policies. Moreover, the EU's institutional incentives for ensuring fiscal discipline face a number of challenges. Therefore, at the national level, effective complementary institutions, binding medium-term fiscal policy frameworks as well as strong monitoring and enforcement mechanisms could be put in place to ensure fiscal discipline in both good and bad economic times. Overall, both at the EU level and the national level, a more powerful application and enforcement of the EU fiscal rules for sound and sustainable fiscal positions will be required.

56 See also Holm-Hadulla et al. (2010) for empirical results regarding the benefits of domestic fiscal rules.

57 An example is the new constitutional deficit rule that has been adopted in Germany (see Kastrop et al., 2009).

7 EARLY LESSONS FROM THE CRISIS [58]

This Occasional Paper has reviewed the response from euro area governments to the financial and economic crisis, the reaction of financial markets and the impact on the longer-term sustainability of their public finances. While it is too early for a full assessment of the conduct of euro area fiscal policies during the crisis, some preliminary lessons for the future may already be drawn by considering *five key questions*:[59]

1) *Were governments well prepared for a crisis, going into it with healthy public finances?* The EU fiscal framework evidently helped to contain the crisis-related fiscal imbalances, although it was not able to prevent them. In this respect, the crisis has demonstrated the vital importance of establishing and maintaining sound fiscal positions, in line with or even exceeding medium-term objectives of a budget close to balance or in surplus. While such fiscal positions may not be shock-proof to a crisis of the size that the euro area countries faced in 2008-09, with a better starting position than most of them had going into the crisis, they would have had more room for budgetary manoeuvre. This is a strong argument for a more powerful enforcement of sound national fiscal policies at the EU level.

2) *Have the fiscal authorities responded to the financial crisis with due regard to the costs and benefits for taxpayers?* The upfront fiscal costs of the bank bailouts for the taxpayer have been substantial and there are major further fiscal risks. However, given the creation of market-based incentives for the banks to withdraw from the government support, the fiscal costs may be (partly) recovered over time, depending on how fast the financial industry and the economy at large recover from the damages caused by the crisis. The net fiscal costs of the bank rescue measures are difficult to gauge at this stage and have to be weighed against the economic and social benefits of the successful stabilisation of the financial sector.

3) *Was their fiscal activism in reaction to the economic downturn both effective and efficient?* The coordinated fiscal stimulus measures taken to prevent a free fall of economic activity appear to have been effective in building a "bridge" to the recovery – arguably more effective than could have been expected. At the same time, some doubts exist as to the timeliness of fiscal stimuli that are still in the pipeline for 2010 and whether the extra public money has always been allocated efficiently and will indeed be temporary. As the automatic fiscal stabilisers are large in the euro area, they provided a very important first line of defence against the economic slowdown. Still, both fiscal activism and automatic stabilisers appear to be subject to decreasing returns, the more fiscal stability itself is impaired.

4) *Have governments taken care to counter the risks to fiscal sustainability and to support confidence?* After the 2008-09 crisis, most euro area countries face excessive deficits, rising debt-to-GDP ratios and substantial contingent liabilities. Greater prudence in allowing the free and full operation of automatic stabilisers and in carrying out fiscal stimulus measures, in particular when they lead to or enlarge excessive deficits, would seem warranted. The huge debt (re)financing needs of governments could drive up real interest rates, raise expectations of higher tax rates in the future and crowd out private demand in the recovery phase. Also the financing of increasing interest payments on government debt, either through a reduction of non-interest spending or higher taxes, is likely to have negative consequences for longer-term growth. To support public confidence, there is a clear need to credibly anchor any coordinated short-term fiscal impulse into a timely and ambitious exit and consolidation strategy that ensures longer-term fiscal sustainability and

58 Prepared by Ad van Riet.

59 For a discussion of the lessons for the three building blocks of the EU's crisis management framework (crisis prevention, crisis control and mitigation, and crisis resolution), see European Commission (2009c).

focuses on expenditure reforms. This will create positive confidence effects, lower sovereign default risk premia and sustain economic growth.

5) *Has the flexibility of the Stability and Growth Pact in "bad times" been applied with prudence and have the rules for fiscal discipline been observed?* The provisions of the Stability and Growth Pact provided considerable flexibility to take the exceptional circumstances of the crisis into account. While the rules aimed at correcting excessive deficits have so far been observed, in setting (extended) deadlines for bringing deficits below 3% of GDP, they were stretched to the limit. The real test of euro area countries' fiscal discipline and their commitment to correcting excessive deficits in a timely fashion (without resorting to creative accounting) will however only come when they have to implement their exit and consolidation strategies. To create appropriate national incentives for fiscal discipline, strong domestic budgetary rules and institutions as well as effective monitoring and enforcement mechanisms should complement the EU fiscal framework.

The overall lesson from the crisis is that governments must strengthen fiscal discipline to ensure the longer-term sustainability of public finances. Fiscal sustainability is a vital condition for the stability and smooth functioning of EMU. Large fiscal imbalances fuel inflation expectations and place an additional burden on the conduct of the single monetary policy. Moreover, they contribute to a widening of macroeconomic imbalances within the euro area, which in turn increase vulnerabilities of individual member countries to negative shocks. As the 2008-09 experience has shown, fiscal sustainability is also a prerequisite for governments to be able to respond to financial and economic crises. In turn, sustainable public finances require a stable financial system and a flexible economy that are able to sustain output growth and employment creation. Governments should therefore also tackle the risks to fiscal sustainability by ensuring high-quality public finances and enhancing structural reforms, as this will promote economic flexibility and potential growth.

Finally, care must be taken to prevent perverse incentives from the widespread state interventions in the economy. The perception is that taxpayers will step in again with unlimited support if systemic financial institutions were to be on the brink of collapse. This perception feeds "moral hazard" in the sense that the banking sector has an incentive to take excessive risks, which in case they materialise would be borne by society, while the banks' private stakeholders have little incentive to correct such risk-seeking behaviour.[60] Moreover, the coordinated fiscal stimulus measures in response to the economic crisis may have created expectations that governments will again initiate such joint actions in the future, even in a normal slowdown – if necessary stretching again the rules of the Stability and Growth Pact. A genuine fiscal exit strategy should thus also cover the question of how to avoid such perverse incentives and more generally how to scale back again the role of the state in the economy to sustainable and efficient proportions. The importance of this goes well beyond government budgets, as sustainable and high-quality public finances are a key condition for price stability, financial stability and long-term growth, and thereby for the smooth functioning of EMU.

60 See Alessandri and Haldane (2009) and Van den End et al. (2009).

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