ANNUAL REPORT 2012

BANCO DE ESPAÑA
Eurosistema

This English translation of the June 2012 *Informe Anual* of the Banco de España comprises Chapters 1 and 2, the boxes published in the remaining chapters of the Spanish edition and the Annual Accounts of the Banco de España. Readers interested in other chapters are referred to the Spanish edition available at **http://www.bde.es.**

CONTENTS

1 OVERVIEW

1 Introduction 5
2 The double-dip recession in the Spanish economy 9
3 Progress in adjustment processes 14
4 The role of economic policy 26

2 THE EURO AREA CRISIS

1 Introduction 31
2 The impact of the crisis on the euro area 33
3 The way forward in resolving the shortcomings of the euro area 43

BOXES

1.1 Changes in the functioning of the labour market 12
1.2 The impact of fiscal policy on economic activity 19
1.3 Progress made in the balance-sheet clean-up, recapitalisation and restructuring of the Spanish banking system 23
2.1 Structural reforms and EMU 37
2.2 Risk-sharing mechanisms in monetary unions 50
3.1 Growth and economic imbalances 54
3.2 Public finances in the United States: situation, outlook and economic policy responses 56
4.1 Single monetary policy and divergences in national financial conditions 58
4.2 The downward stickiness of inflation in the euro area 60
5.1 The scale of the fiscal consolidation drive in Spain 62
5.2 Spanish household consumption and saving in the latest phase of the crisis 65
5.3 Sectoral reallocation since the onset of the crisis 67
6.1 An analysis of the substitutability of credit across institutions 69
6.2 Corporate lending by banks since the onset of the financial crisis. A disaggregated analysis 72

ANNUAL ACCOUNTS OF THE BANCO DE ESPAÑA 2012

1 Introduction 75
2 Balance sheet and profit and loss account 76
3 Notes on the accounts 79
  3.1 Accounting policies 79
  3.2 Notes on the balance sheet 86
  3.3 Notes on the profit and loss account 106
  3.4 Changes in capital, reserves, provisions and revaluation accounts 115
4 Specific information required by Article 4.2 of the Law of Autonomy of the Banco de España of 1 June 1994 116
  4.1 Contribution made by the Bank to the Deposit Guarantee Fund 116
  4.2 Loss of profit 116
  4.3 Other transactions 116

1 Introduction

In 2012 the euro underwent a serious confidence crisis that affected the behaviour of the world economy

In 2012 there was an increase in the contractionary pressures that had first become discernible in the world economy in the second half of the previous year. Aggregate growth fell to 3.2% and the divergence between the emerging and developed economies remained in place, with the latter posting a rate of increase of only 1.3%. The decline in activity was singularly severe in the euro area, whose GDP fell by 0.5% (see Chart 1.1). The contraction affected most of its 17 economies, and in the remainder output slowed, by almost 2 pp in the case of the largest countries. The growth of world trade also fell significantly, while inflation eased in most countries.

Notable among the factors behind the loss of momentum in global activity was the worsening of tensions in the euro area which, after two years of instability, experienced the most serious confidence crisis since the creation of the single currency, to the extent that the irreversibility of Economic and Monetary Union was called into question.

At the source of the euro crisis were the lack of adaptation of domestic economic policies to the stability requirements of a monetary union…

At the source of the euro confidence crisis was the fact that in an increasingly extensive group of economies a series of imbalances were becoming manifest. Ultimately, this reflected a lack of adaptation in the management of their domestic economic policies to the standards of stability required in a monetary union. When the perimeter of the problems spread to encompass some of the larger economies, such as Italy and Spain, the crisis took on a systemic dimension which tended to exacerbate the scope of its potential consequences.

… and a series of weaknesses in the institutional design and governance of EMU

In any event, the nature and generalisation of the tensions highlighted significant weaknesses in the architecture and governance of EMU, which strongly constrained the European authorities' response capacity and called into question the soundness of the euro project. It was thus evident that the mechanisms for coordinating and overseeing economic, fiscal and supply-side policies had been clearly unable to prevent and, in the circumstances, redress imbalances capable of endangering the sound functioning of the area. And it was likewise clear that the institutional framework was lacking the mechanisms needed to manage a crisis situation as deep-seated as that which ultimately took shape.

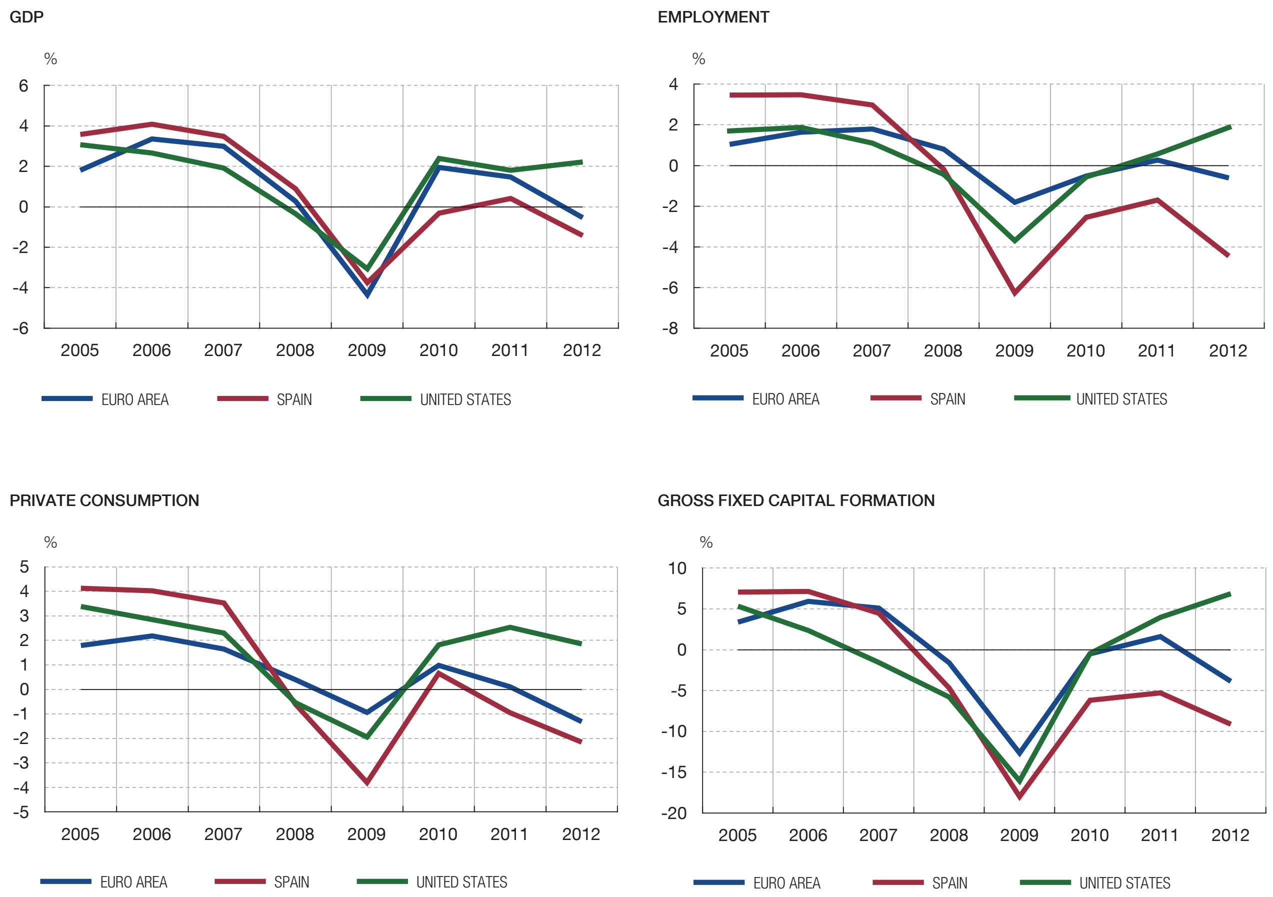
To overcome the situation, far-reaching decisions have been adopted in both the national economies and in the euro area as a whole

To respond to the challenges of this serious crisis situation, major decisions have been taken in two domains. Regarding domestic economic policy management, greater impetus and depth have been given to fiscal consolidation and to financial and structural reform aimed at correcting imbalances and making the economies more flexible, most particularly in countries where tensions have tended to concentrate to a greater extent. The European authorities have likewise set in train a review and reform of the institutional design and governance of the euro area, following the roadmap defined in the "Four Presidents' Report".

The response – despite its partial and in many cases hesitant nature – both at the European level, including in particular the ECB's announcement of its Outright Monetary Transactions (OMT) programme, and in the member countries allowed the most acute episodes of tension to be overcome, paving the way for the strengthening of the project and for ensuring its viability. However, as the events associated with the outcome of the Italian general elections and with the difficulties in agreeing on a financial assistance programme

GDP, PRIVATE CONSUMPTION, EMPLOYMENT AND GROSS FIXED CAPITAL FORMATION
Rate of change

CHART 1.1



SOURCES: Eurostat and national statistics.

for Cyprus show, sizable challenges remain. The nature and scope of the euro crisis, and the steps taken to overcome it, have decisively influenced the behaviour of the Spanish economy in 2012 and are a leading conditioning factor of the challenges it faces. Accordingly, Chapter 2 of this Report is dedicated exclusively to analysing in depth the various facets of this crisis.

The Spanish economy faced the rising tensions in the euro area from a position of great vulnerability, as a result of the depth of its imbalances…

The Spanish economy faced the euro confidence crisis from a vulnerable position. The severity of the great recession of 2009-2010 had had far-reaching repercussions in terms of a sharp contraction in household and business spending and a forceful increase in unemployment, which accelerated the deterioration in public finances and eroded the balance sheets of the banks most exposed to the real estate excesses of the expansionary phase.

The depth of the imbalances that had emerged and the need to correct them prevented the Spanish economy from joining in the pick-up in the world economy in the two years spanning 2010 and 2011. The persistence of the underlying problems and the difficulties the necessary adjustment processes faced confined this reaction to very modest growth in the second half of 2010 and early 2011, which was lacking the underpinnings needed to take root.

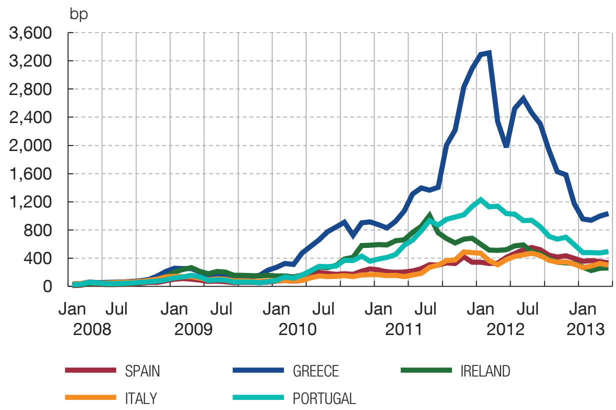
… and in which the economic policy action taken had not sufficed to dispel uncertainty

The economic policy action taken from the time the sovereign debt crisis began had not been sufficient to counter the doubts over the soundness of the Spanish banking system, the sustainability of public finances and the capacity to restore growth and absorb the high unemployment that had built up during the first recession. In 2012, market doubts heightened as it

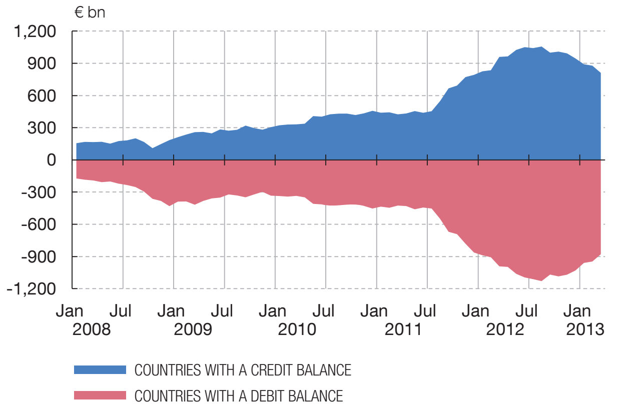
SPREAD OVER GERMANY OF THE 10-YEAR GOVERNMENT BOND YIELD
AND AGGREGATED TARGET2 BALANCE OF THE NATIONAL CENTRAL BANKS IN THE EUROSYSTEM

CHART 1.2

SPREAD OVER GERMANY OF THE 10-YEAR GOVERNMENT BOND YIELD



AGGREGATED TARGET2 BALANCE OF THE NATIONAL CENTRAL BANKS IN THE EUROSYSTEM (a)



SOURCES: ECB and national central banks.

a Estimated from statistics published by national central banks. The difference between the credit and debit balance of the aggregate of all the countries reflects the ECB position.

emerged that the public finances figures for the previous year involved slippage in the general government deficit of more than 2 pp the from the objective of 6.3% set under the Excessive Deficit Protocol (EDP), while the Bankia crisis revealed the persistence of fragilities in the Spanish banking system. And this against a highly adverse macroeconomic background in which the absence of growth meant that headway in fiscal consolidation and the restructuring of the private sector was considerably more complicated.

The euro credibility crisis severely impacted the Spanish economy and gave rise to a serious external funding crisis

The emergence of redenomination risk within the euro area in the summer months, strongly linked to growing speculation about the possibility of a Greek exit from the Monetary Union, increased financial instability in the more vulnerable economies (see Chart 1.2). In Spain the perception of the dangers inherent in a growing feedback loop between sovereign risk and banking risk worsened, sovereign debt yields reached their highest levels since the creation of the euro area (7.5% on the 10-year bond at end-July) and there was a notable acceleration in net capital outflows, rising from already-high figures in the second half of 2011. The confidence crisis scourging the Spanish economy in this period ultimately became a severe balance of payments funding crisis, the first since joining the euro area (see Chart 1.3). This was an unprecedented event, laden with unknowns and challenges, that required a pressing and extraordinary response that would help restore credibility to the Spanish economy within the broader framework of action pursued by the European authorities to redress the complex problems underlying the euro crisis and to curb the risks of redenomination.

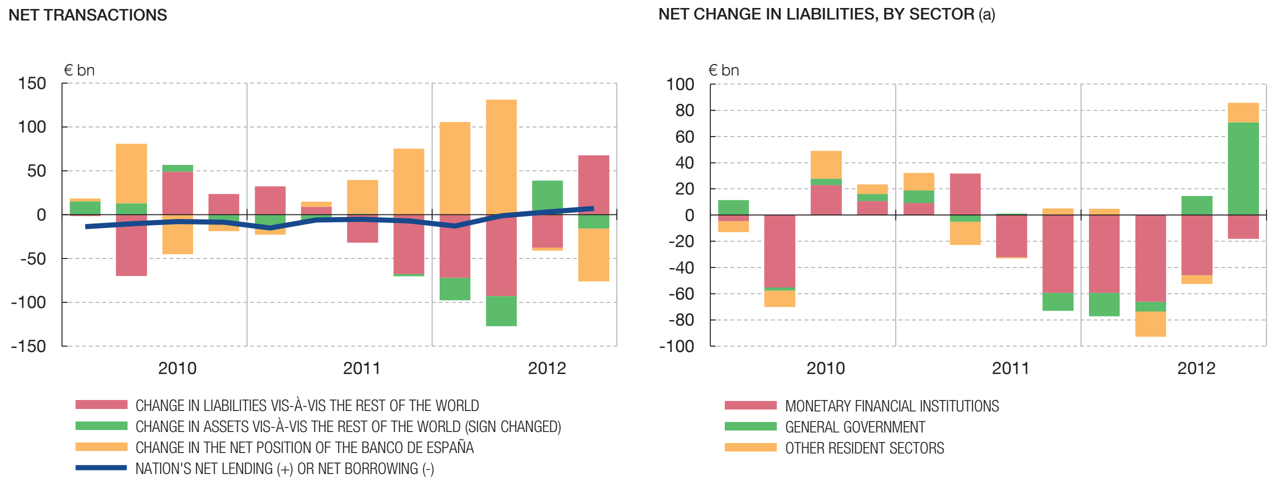
Generous liquidity provision by the ECB helped ease the effects of the external funding constraint

The generous liquidity provision policy pursued by the ECB since the onset of the crisis and some of the unconventional measures it adopted in response to the worsening situation helped compensate for the lack of external funds and circumvent the possibility of the financing of domestic spending being choked off. More specifically, credit institutions substantially increased their recourse to the Eurosystem, making use in particular of the opportunity provided by the two exceptional three-year liquidity tenders held in late 2011 and early 2012.[1]

1 These long-term refinancing operations (LTROs) thus complemented the policy to lengthen maturities (six months, one year and, now, three years) and to increase the amount injected through this means that the ECB has been implementing since the start of the crisis.

BALANCE OF PAYMENTS FINANCIAL ACCOUNT

CHART 1.3



SOURCE: Banco de España.

a Excluding the Banco de España.

This easing benefited also from a fresh bout of tensions being overcome in Greece, from the announcement of the OMT and from the design of a roadmap for the reform of the euro area and its governance

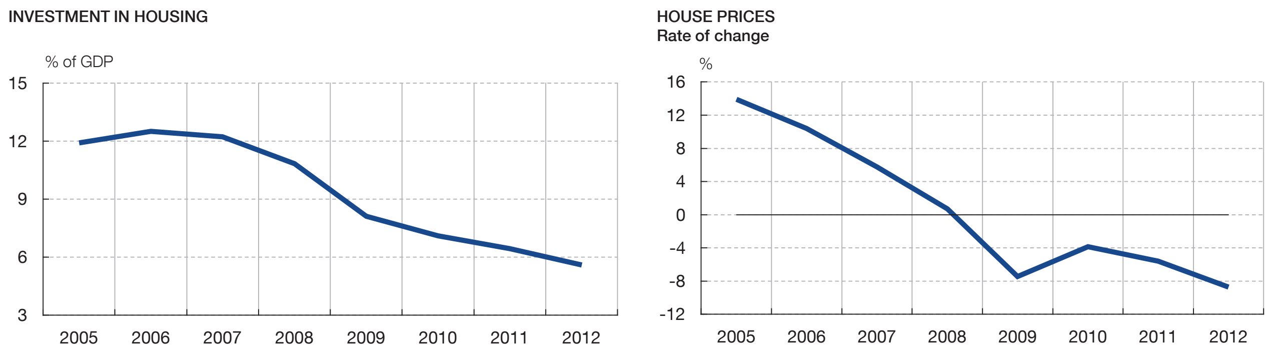
The easing in tensions also benefited from the fact that a fresh rise in the perception of a risk of reversal associated with the vicissitudes of the Greek economy was overcome. Moreover, the ECB stepped up its unconventional measures aimed at restoring the monetary policy transmission mechanism, following the further deterioration in this mechanism prompted by the emergence of the risk of reversibility of the euro. In August it announced a programme of conditional purchases on the sovereign debt markets, which provided strong protection against such redenomination risk. In parallel, the June European summit discussed the key elements for a reform of the euro area and its governance, a process which received additional impetus following the decisions adopted in December on moving towards a European banking union, which should help loosen the link between sovereign and banking risks in the area.

In Spain, economic policy measures in the financial, fiscal and structural areas were stepped up

Substantial steps were taken in Spain to speed through the clean-up, restructuring and recapitalisation of vulnerable Spanish banks. These included a financial aid programme for bank recapitalisation, which was requested by the Spanish government and agreed with the European institutions in July. There was also significant progress on public finances, following the approval of the Organic Law on Budgetary Stability and Financial Sustainability, which substantially strengthened the budgetary discipline framework by setting balanced-budget objectives for all levels of general government, caps on public debt, and requirements on transparency and the correction of slippage. In addition, the need to tackle the correction of a swollen deficit called for the adoption of various adjustment packages. These complemented the measures included in the State budget for 2012, including most notably the health and education reforms in April, the revision of the regional government re-balancing plans in May and the application of the extensive package of measures in July, which included an increase in indirect tax, a cut in public-sector wages and the elimination of house-purchase tax relief as from 2013.

July also saw the entry into force of the Law on Urgent Labour Market Reform Measures, which broadened the possibilities for the decentralisation of collective bargaining, increased internal flexibility at firms and rationalised the conditions for the determination of permanent contracts. Lastly, various measures were adopted during 2012 aimed at

INVESTMENT IN HOUSING AND HOUSE PRICES CHART 1.4



SOURCES: INE and Ministerio de Fomento.

liberalising certain sectors and promoting competitiveness, and a Plan for the Payment of Suppliers was introduced which contributed to easing corporate sector liquidity constraints.

This response managed to halt the negative spiral in the summer, although uncertainty remains very high

In combination, this broad set of measures managed to halt the negative spiral in the summer. The easing of financial tensions surrounding the euro and the advance of reforms helped reduce the pressures on the cost of Spanish public debt, and external funding markets reopened. Both processes have continued in 2013 to date, although the situation has not normalised in full, meaning that domestic interest rates do not yet fully reflect the expansionary stance of the single monetary policy. Credit, meantime, continues to contract.

2 The double-dip recession in the Spanish economy

The Spanish economy went into a second recession…

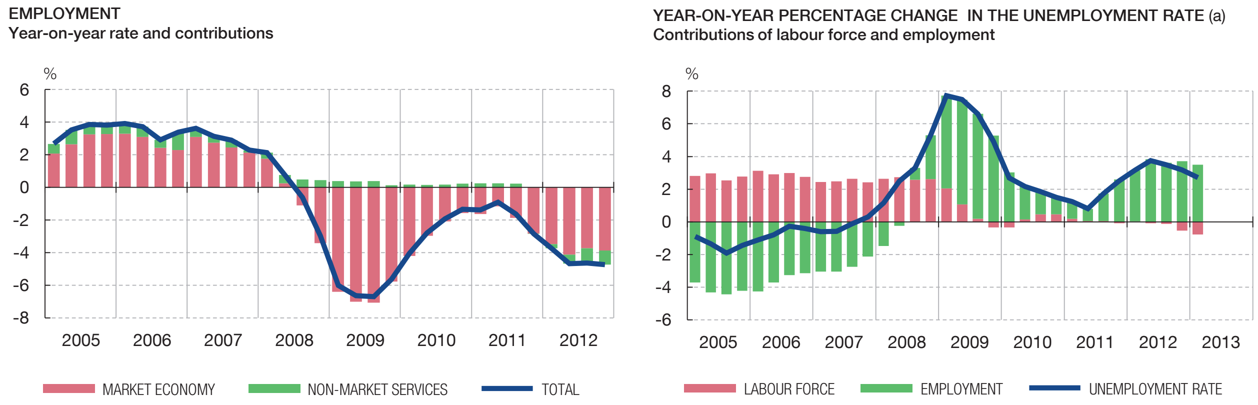
Against this enormously complex background, the Spanish economy went in late 2011 into a second recession, one less acute but more protracted than the first (between the second half of 2008 and late 2009). This double-dip in output, which spans the entire period under analysis in this Report, is unprecedented and poses major challenges. GDP shrank by 1.4% over the year on average, after its rate of decline had stepped up in the final quarter, when a series of temporary factors – linked chiefly to the greater budgetary consolidation drive undertaken in these months – combined with other more persistent ones. In this respect, the adverse funding conditions and the downturn in confidence exacerbated the fall-off in domestic demand, which dropped 3.9%, owing to the continuing real estate correction, the adjustment in private-sector balance sheets and the impact of fiscal consolidation. All these factors, present since the start of the crisis, bore down on private-sector demand, whose determinants were in a position of great fragility. Net external demand continued to be the only underpinning of activity, contributing 2.5 pp to output, although the weakening in the euro area during the year limited this cushioning effect, especially in the final months.

… as a result of a generalised and sharp decline in all domestic demand components

The decline in domestic demand affected all its components: consumption and investment, in public and private sector alike. The climate of uncertainty, the difficult financial conditions, the bleaker outlook for the labour market, the decline in disposable income and the fall in financial and non-financial wealth reduced household spending, in terms both of consumption and residential investment. Only the saving ratio, which fell once more to 8.2% of disposable income, less than half its level in 2009, helped soften to some extent the pattern of adjustment of household consumption. However, the abrupt decline in the saving ratio since the start of the crisis reflects the difficulties of household spending being sustained in the immediate future, in a setting in which the still-high level of household debt must continue to fall. Residential investment remained restricted by the

EMPLOYMENT AND UNEMPLOYMENT

CHART 1.5



SOURCES: INE and Banco de España.

a The EPA (Spanish Labour Force Survey) series are linked on the basis of the 2005 Q1 control survey.

depth of the correction of past real estate excesses and fell for the fifth year running, against the backdrop of weak housing demand, the continuing decline in real estate prices and the persistently high stock of unsold housing, which set back the start of new construction (see Chart 1.4). Business investment was likewise affected by an adverse financial environment and by a relatively unfavourable outlook for domestic and external demand.

The considerable effort made to respond to fiscal consolidation requirements exerted an inevitable contractionary impact on spending and activity. The fall in government consumption reflected the decline in purchases and in public-sector employment, for the first time since the crisis began, in response to the application of the regional government financial re-balancing plans, adding to the adjustment previously begun by central government. The collapse in public investment (38% for the year on average) was impacted by civil engineering work grinding to a halt, which affected the projects jointly undertaken with non-financial corporations. Under the restrictive fiscal policy stance in 2012, mention should however be made of the counter-effect of other measures (mainly the Payments to Suppliers Plan which, conceived to settle outstanding local and regional government payables to firms and sole proprietors, entailed the injection of €27 billion mid-year).

Activity and employment reacted forcefully to the contraction in spending

On the supply side, the figures for all the productive sectors worsened in relation to 2011, except for agriculture. The increases in value added in industry and in market services of the past two years turned negative in 2012, while the contraction in construction increased, owing to the marked decline in the non-residential segment. Employment fell by 4.4%, partly as a result of the above-mentioned decline in public procurement. But employment in the remaining productive sectors also fared very unfavourably (with a decline of 4.9% for the year on average), a figure much influenced in any event by the poor performance in late 2011 and early 2012. The unemployment rate rose sharply to 26% of the labour force in 2012 Q4, in a slightly contractionary demographic setting (27.2% in 2013 Q1). Indeed, in 2012 the labour force fell for the first time since the start of the crisis, as a result of the decline in the working-age population, caused in turn by the fall-off in the foreign population (see Chart 1.5).

The unfavourable performance of employment is having very adverse repercussions on structural unemployment, it amplifies the contractionary trend of expenditure and it hampers the attainment of speedier headway in the correction of certain imbalances, such as the fiscal maladjustment and private-sector indebtedness. However, the persistence of the recessionary environment is, along with the reforms undertaken, giving impetus to the adjustment of costs and, to a lesser extent, of prices, bringing about the necessary internal devaluation and the elimination of the external deficit. The results obtained on both fronts, whose significance and scope are analysed in depth elsewhere in this Report, have been better than expected and evidence the progress in the adjustments of the economy, though these are still incomplete.

Labour costs eased further…

The pattern of containment of labour costs begun two years earlier made further inroads. Economy-wide compensation per employee fell by 0.3%, after having increased at rates of 0.3% and 0.7% in 2010 and 2011, respectively. The fall in public-sector wages, owing to the elimination of the extra December payment, also played a key role here, although remuneration in the market economy likewise moved on a moderating course, posting a rate of increase of 0.6%. The progressive containment of wage settlements in new collective bargaining agreements, in which the weight of past inflation has been substantially lessened as has too the percentage of agreements with an inflation indexation clause, reflects the incipient impact of the labour market reforms on collective bargaining dynamics (see Box 1.1). Unit labour costs declined for the third year running, as a result also of the increase in productivity, prompting a further correction of the differentials with the euro area. It is crucial for this trajectory to firm if employment is to begin to be generated.

… but inflation quickened in the second half of the year owing to the impact of the rise in indirect tax and in administered prices

Inflation showed greater volatility during the year owing to the impact of the rises in energy prices and of the hike in VAT and in administered prices, which prompted an acceleration in the inflation rate in the second half of the year, taking the end-year annual rate to 2.9%. It is estimated that the impact of the rise in VAT from 1 September was only partly reflected in final prices, which is consistent with the ongoing extreme weakness of spending. Yet underlying inflation adjusted for these effects remained at relatively moderate levels. In April this year, the year-on-year rate of CPI inflation was 1.4%, and that of the CPI excluding unprocessed food and energy was 1.9%, with both rates still being affected by the aforementioned temporary factors. As these effects are progressively erased, inflation should resume a more moderate path, as should the inflation gap with the euro area (see Chart 1.6).

The external deficit narrowed substantially in 2012

In turn, the decline in the nation's net borrowing intensified in 2012, finally standing at 0.2% of GDP for the year as a whole (3.2% in 2011), following a second half of the year in which net lending capacity was generated for the first time since 1995. From the standpoint of the institutional sectors, this improvement was due exclusively to the surplus of non-financial corporations' saving over investment, which increased their financing to 3.5% of GDP (compared with a deficit of 10.7% of GDP in 2007). By contrast, the declining trajectory of households' net borrowing continued for another year and general government net borrowing increased, ending the year with a deficit of 10.6% of GDP. However, the budget deficit narrowed to 7% of GDP once the impact of the financial aid was stripped out.

Despite the sharp reduction in the nation's net borrowing, the demand for funds to roll over maturities on the burgeoning external debt was most substantial and difficult to meet on the markets. In 2012 as a whole, net outflows accounted for 17% of GDP, which made recourse by the banking system to Eurosystem liquidity vital, as earlier indicated. This trajectory reversed as from September last year.

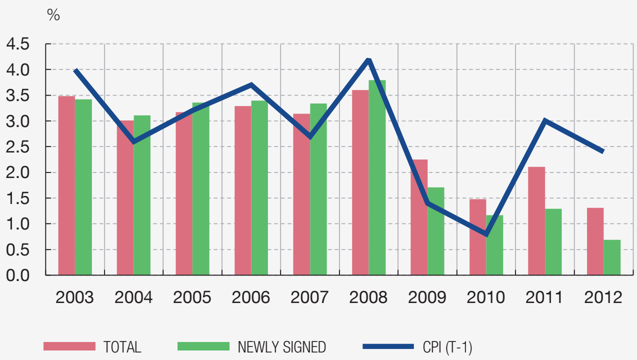
One of the most important characteristics of the economic expansion experienced by the Spanish economy before the current crisis was the gradual loss of competitiveness, as measured, for example, by the growth of unit labour costs relative to the average for the euro area countries (see Panel 4). During the crisis, however, this imbalance has been partially corrected, which means that a significant part of the cost competitiveness losses accumulated since 1998 have been reversed. The gap, however, remains considerable in relation to the most competitive euro area countries, reaching 18 pp in 2012 in the case of costs relative to Germany.

Most of the correction of accumulated competitiveness losses has been based on the increase in productivity arising from the intensity of labour shedding. Indeed, at the start of the crisis the rate of growth of compensation per employee continued to exceed the average euro area rate, and in 2012, after two years of wage moderation, it was still only three points below the relative level observed in 2008. Against this background, it is essential that the contribution of wage restraint to the fall in unit labour costs should be stepped up to ensure a sustainable recovery in the Spanish economy.

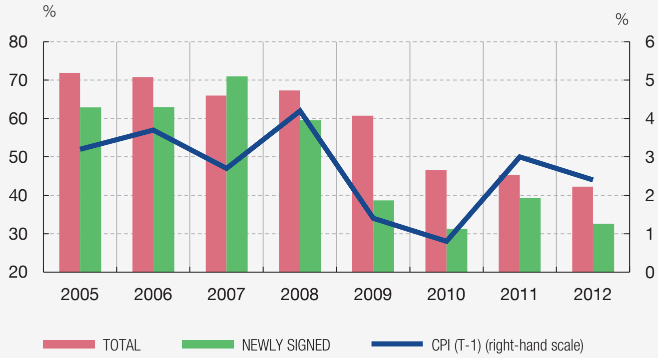
The various labour-market reforms adopted in recent years have sought to make the wage-determination process more flexible. In particular, firms have been afforded greater opportunities to adapt their wage and non-wage conditions to changes in the economic environment or in their own particular conditions, so as to reduce the need to adjust employment in response to adverse shocks. The functioning of the labour market in recent months is analysed below, to see to what extent changes can be detected in wage and employment behaviour during the double-dip recession in the Spanish economy. However, it is still too soon to make a definitive diagnosis of the effectiveness of the different reforms, and in particular to distinguish the effect of cyclical factors on the evolution of the labour market from effects arising from legislative changes.

With regard to wage developments, although a certain delay has built up in the collective bargaining conducted in 2012 and in the first few months of 2013, which may limit the representativeness of the available data, there would appear to be signs of greater wage moderation, with increases in compensation per employee

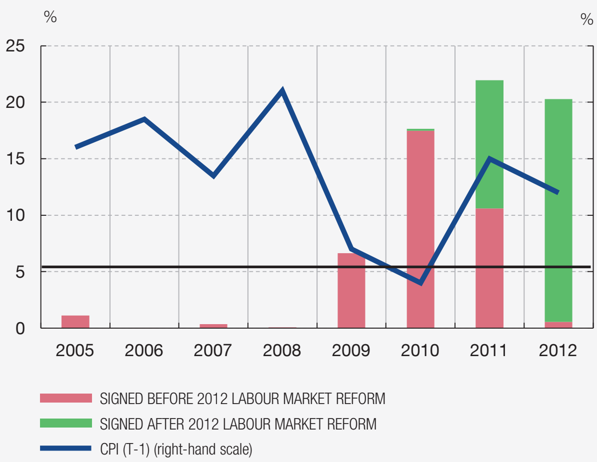
1 WAGE SETTLEMENTS



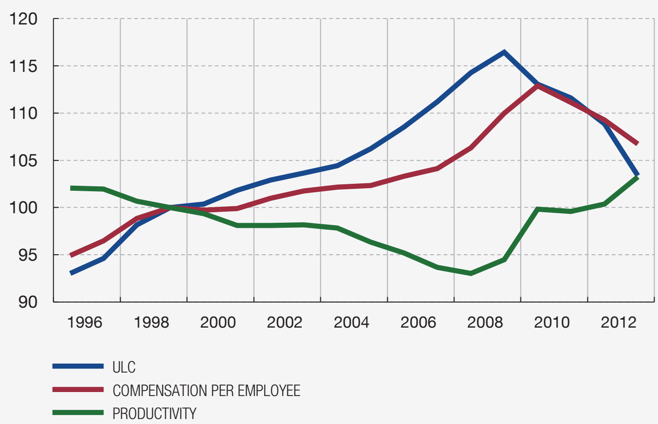
2 PERCENTAGE OF WORKERS WITH WAGE INDEXATION CLAUSES



3 PERCENTAGE OF NEWLY SIGNED AGREEMENTS WITH WAGE FREEZE OR REDUCTION



4 UNIT LABOUR COSTS RELATIVE TO THE EURO AREA
1998 = 100



SOURCES: Ministerio de Empleo y Seguridad Social and Eurostat.

of practically zero in the private sector in the last three quarters and less nominal inertia in collective bargaining. In fact, wage settlements fell to 1.3% in December 2012, from 2.5% a year earlier, while the data available for 2013, albeit still very unrepresentative, show a reduction in the average wage settlement to 0.6%. Analysing the data for 2012 in greater detail, the wage moderation was observed both in revised agreements and in newly signed ones, but especially in the latter kind, in which the wage settlement stood at 0.7% in December 2012. This wage settlement is close to the recommendations agreed by the social agents at the beginning of the year (0.5%) and is well below the rate of inflation. Also, in these new agreements, a certain increase in wage dispersion[1] can be seen, as well as a higher proportion of agreements with nominal wage reductions or freezes, despite the rise in inflation at the end of 2012 (see Panel 3). In relation to 2013, the information for the period to April shows very low wage settlements in newly signed agreements (0.2%), which would indicate further wage moderation in this year's collective bargaining, although these agreements still only affect a small group of workers (383,000).

1 Measured by the coefficient of variation of wage settlements in newly signed agreements.

At the same time, a gradual decline is observed in the extent of wage indexation, as measured by the percentage of workers covered by indexation clauses. This percentage, which has traditionally stood between 60% and 70%, fell to 45% in 2012. The reduction was more pronounced in the case of newly signed agreements, the percentage of those with indexation clauses falling to 33%. Among these newly signed agreements, it can be seen that around 75% of them observe, at least partially, the recommendations of the Employment and Collective Bargaining Agreement (AENC) signed by the social agents at the beginning of the year. In particular, an analysis of newly signed agreements since the beginning of 2012 shows that around half only provide for activation of indexation clauses from 2%, while around 25% use European instead of Spanish inflation as their nominal reference, which further reduces the indexation of wage increases. According to the first available data, these developments have translated into a considerably lower impact of indexation clauses in 2012 (0.25 pp), when, given the rise in inflation at end-2012 (2.9%), an impact of close to 1 pp would have been expected if the behaviour of previous years had remained unchanged. All in all, wage developments are beginning to reflect a greater response to the specific situation of firms and sectors of activity, in line with the objective pursued by the labour reform. However no significant changes are observed in the structure of bargaining, the relative weight of firm-level

EMPLOYMENT AND UNEMPLOYMENT OUTFLOWS, IN DIFFERENT PHASES OF THE CRISIS (a)

	2008 Q2 - 2010 Q1	2010 Q2 - 2011 Q1	2011 Q2 - 2012 Q1	2012 Q2 - 2012 Q4
Employment outflows (% employment in t - 1)				
Total	7.8	7.4	7.8	7.8
Market	8.5	8.0	8.4	8.4
Non-market	4.3	4.7	5.3	5.1
Employment outflows by type of contract (% employment in t - 1)				
Permanent	1.8	1.5	1.7	1.9
Temporary	12.8	14.5	15.8	17.1
Employment outflows by type of contract and sector (% employment in t - 1)				
Permanent-market	2.1	1.9	2.1	2.3
Temporary-market	14.1	15.8	17.1	18.6
Permanent-non-market	0.2	0.2	0.2	0.3
Temporary-non-market	7.1	9.4	10.6	11.3
Unemployment outflows (% unemployment in t - 1)				
Total	39.7	32.7	30.4	28.7
To employment	23.0	18.4	16.8	15.7
To temporary employment	18.2	15.0	13.7	12.8
To permanent employment	1.7	1.3	1.3	1.2

SOURCE: INE (EPA).

a Average for each period of quarterly rates of employment and unemployment outflows calculated drawing on EPA flows.

agreements being very similar to that observed previously. Also, the information to assess the effectiveness of the set of measures adopted to facilitate opt-outs from sectoral agreements and to modify the labour conditions agreed in collective agreements is still very limited.

By contrast, in the employment sphere no changes are observed in recent patterns of employment creation and destruction. In particular, outflows from employment (see adjoining table) have remained at very high levels and are characterised by significant numbers of temporary employees, both in the public and in the private sector. As regards workers' characteristics, outflows remained higher for foreign employees, partly owing to the greater intensity of job losses that continued to be seen in the construction sector. With regard to employment creation, the downward trend in the rate of outflow from unemployment has been maintained. In this respect, it might be thought that more time is needed to begin to detect changes in the labour market adjustment dynamics, since the different changes introduced, in relation to both collective and individual dismissals, and their interaction with the wage bargaining process should lead to a more balanced division of adjustment between temporary and permanent workers, reducing the high degree of duality that characterises the Spanish labour market. The information available is still very preliminary, although it suggests that changes in the definition of dismissal on economic grounds would have permitted around 40% of the individual dismissals to be carried out on these grounds (as against 10%-15% in the first phase of the crisis), while the data on the composition of collective dismissals show that most of them are not redundancies, but reductions in hours worked (22%) and temporary lay-offs (61%).

In short, in recent quarters a pattern of wage moderation has been observed, the continuation of which is vital to accelerate the reversal of competitiveness losses in the Spanish economy and, thereby, establish the foundations for higher economic growth in future, permitting a lasting reduction in the rate of unemployment.

The double-dip recession reached its nadir in the transition from 2012 to 2013, and this episode may be expected to be gradually overcome during the present year. The prospect of a recovery taking root depends on the external setting and on progress in the adjustments under way in the Spanish economy, which are pivotal to confidence being restored and external funding being maintained.

3 Progress in adjustment processes

The economy is in the midst of an adjustment process under very strict financial conditions, in which supply-side and structural reform policies must play a key role in restoring confidence and boosting growth

The Spanish economy is immersed in a far-reaching adjustment process under highly adverse circumstances. Financial conditions remain very strict despite the receding of tensions in the euro area, and there is no significant leeway to resort to demand-stimulating macroeconomic policies other than that potentially stemming from the normalisation of the monetary policy transmission mechanism, which at present is still impaired. It will fall on supply-side and structural reform policies to play a decisive role in restoring domestic and external confidence and in boosting medium and long-term growth, helping ease the short-term effects of the adjustment process.

The sustainability of the recovery will depend on the pace and scope of the adjustments pending

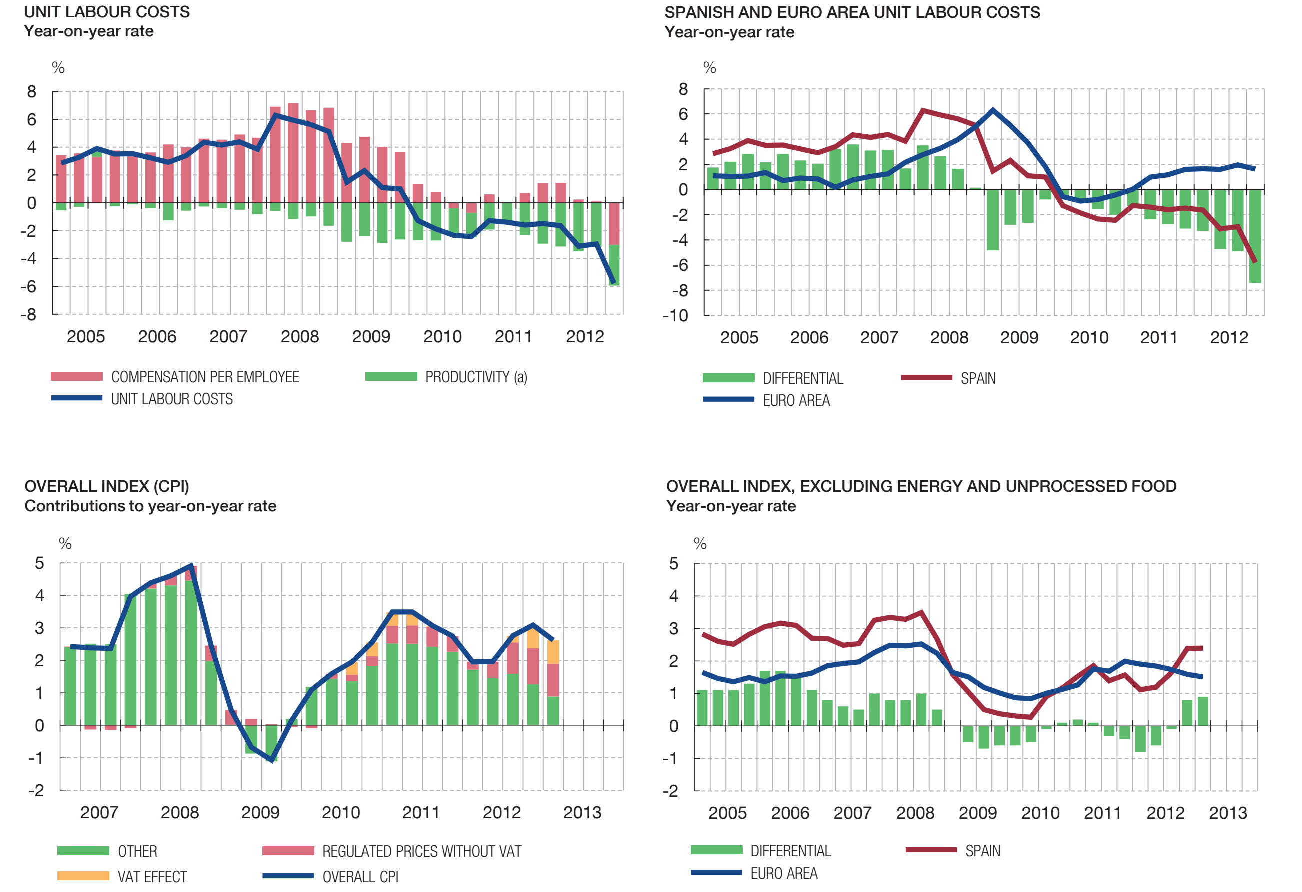
The pace and scope of adjustments will be the chief determinants of the strength and sustainability of the recovery. Assessing these processes is the most important aspect of the analysis of current economic conditions and of the outlook for growth. There follows a selective analysis of these adjustments, successively addressing external re-balancing, budgetary consolidation, private-sector deleveraging and, lastly, the restructuring of the banking system.

3.1 RESTORING COMPETITIVENESS AND EXTERNAL RE-BALANCING

The loss of competitiveness, the swollen external imbalance (driven, in part, by the pressure of domestic spending) and high dependence on external saving were key ingredients in the deterioration in the Spanish economy once the international financial crisis, the great recession and the sovereign debt crisis changed investors' attitude to risk and prompted

LABOUR COSTS AND INFLATION

CHART 1.6



SOURCES: Eurostat and Banco de España.

a Year-on-year rates with sign changed.

Improved competitiveness and the correction of the external imbalance are central objectives of economic policy

a major redeployment of cross-border financing. In these conditions, improved competitiveness and the correction of the external imbalance have become fundamental requirements for recovery in the Spanish economy.

Headway in competitiveness will make the external sector the engine of growth and will help in the difficult task of attaining a lasting improvement in the external accounts

Achieving substantial improvements in competitiveness is vital for ensuring that the external sector can continue to cushion the impact of domestic demand, which will be subject, for some time, to the effects of private-sector deleveraging and of budgetary consolidation. Looking ahead to the medium term, a more export-oriented productive model in which the weight of tradeable activities is greater will promote a more balanced allocation of productive resources and this, in turn, will be conducive to less import dependence. In addition, to resolve the problem of excessive external debt, it is vital to sustainably redress the balance of payments situation.

Restoring competitiveness within the euro area requires adjustments, in comparative terms, of wages, productivity and margins

Within the euro area, and without the possibility of using the exchange rate as an economic policy instrument, the only means of restoring competitiveness and reabsorbing the misalignments of relative prices to countries belonging to the euro area is by means of an adjustment of costs and prices, along with productivity gains, derived from more efficient economic functioning.

The price-competitiveness indices show improvements,

In Spain, the losses in competitiveness were most sizable during the first decade of euro area membership, against a background in which the characteristics of product more markedly so in terms of unit labour costs

and factor markets prevented the adjustment channel of relative prices and costs from operating properly. This lack of response by nominal variables to cyclical requirements continued during the initial years following the international financial crisis, contributing to deepening the job destruction process. That meant that the incipient improvements in the competitiveness indices resided solely on the productivity gains generated by such job reduction. Subsequently, wages moved onto a path of moderation, which became steeper in 2012, while productivity continued to increase over these years, in tandem with the prolongation of the negative labour market trajectory. Margins, for their part, have followed a countercyclical path, partly owing to the aim of companies to restore health to their balance sheets and be better placed to withstand the difficult financial situation, although increases in margins also reflect the persistence of a lack of competition in certain sectors.

Overall, the various indices approximating developments in price-competitiveness encompass improvements of differing degrees of intensity, which are more pronounced when unit labour costs (ULCs) are used. For the market economy as a whole, ULCs have shown a 7 pp decline since 2009 Q3 (when they began their declining course), which entails a correction of two-thirds of the difference with the euro area that had built up since the start of EMU. In turn, the correction of the difference in terms of ULCs for the whole economy was already completed in 2012, although behaviour in this latter year was much influenced by the decline in public-sector wages.

The reduction of the external deficit quickened in 2012, to the point of its virtual elimination

The correction of the external deficit that began mutedly in 2007 was much more forceful in 2012, with the balance of this item standing at -0.2% of GDP. The projections available suggest that the surplus on the balance of payments in the final stretch of last year will firm, and that this trajectory will run into 2014.

Since 2007, only investment income and the energy bill have checked the improvement in lending capacity

A component-by-component analysis shows that the reduction in borrowing requirements since 2007 (of 9 pp of GDP) has been chiefly based on the improvement in the trade balance of non-energy goods, the deficit on which has been cut by 6.5 pp to turn into a surplus in 2012. Foreign trade in services has contributed in the same direction, albeit for a lesser amount (1.5 pp), owing to the change of sign in the balance of non-tourist services and to the maintenance of a surplus on tourist services corresponding to pre-crisis levels, albeit with some oscillations over the course of these years. Conversely, the considerable weight accounted for by the energy deficit and the income deficit act as a brake on the room available for lending capacity to improve.

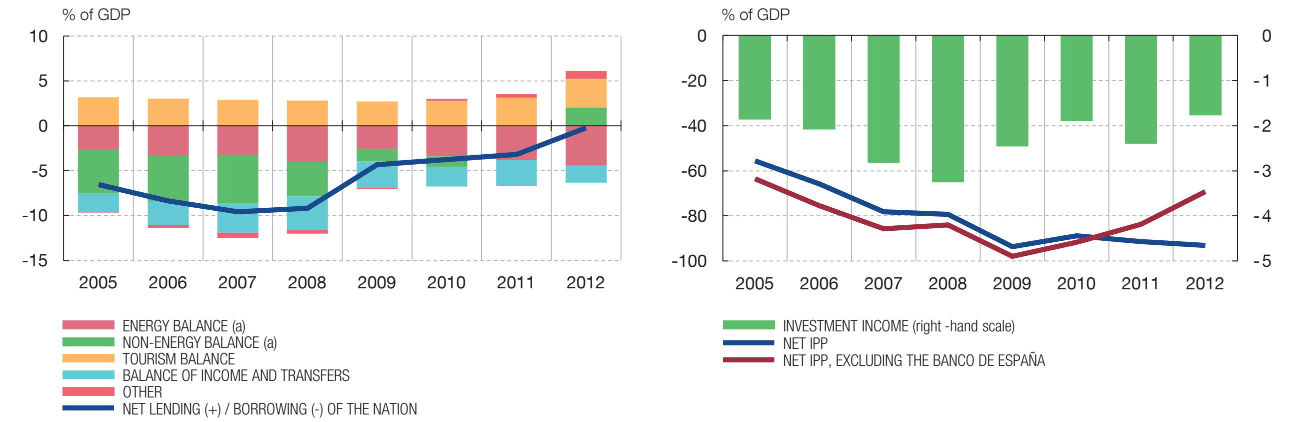
The reduction in net borrowing in 2012 followed a similar pattern to that described for the period as a whole, except as regarded the investment income deficit, which fell as a result of lower interest rates and the change in the composition of the International Investment Position (IIP), both of which factors are essentially temporary in nature (see Chart 1.7).

The external sector adjustment has been underpinned by the weakness of domestic spending but also by the gains in competitiveness

From the standpoint of the relative contribution of exports and imports to the improved foreign trade balance, somewhat more than two-thirds of this reflects the increase in exports (with an increase in the intensive margin but also in the export base), and the remainder the fall in imports, chiefly as a result of weak demand. This development, combined with the information provided by indicators of the more or less structural nature of the adjustment, indicates that cyclical factors have played a key role in this adjustment, although the weight of the gains in competitiveness is acquiring increasing significance in the correction of the external imbalance.

NET BORROWING OF THE ECONOMY AND INTERNATIONAL INVESTMENT POSITION

CHART 1.7



SOURCES: INE, Customs and Banco de España.

a The energy and non-energy balance are a Banco de España estimate drawing on Customs data.

The increase in net external debt has been halted, but its reduction in a phase of higher growth must be ensured

The reduction in the external deficit has provided for a halt in the expansionary dynamic of the external liabilities position, which peaked at almost 94% of GDP in 2009, one of the highest in the euro area. However, in 2012 the IIP was still at over 90% of GDP. The foreign trade balance, once the income deficit was stripped out, posted a surplus of around 1.6% of GDP, placing the Spanish economy in a sound position to begin to correct the debit balance. Nonetheless, given the foreseeable course of the energy and income sub-balances in the short run, and the fact that their deficit may only be corrected gradually, it is vital to continue generating gains in competitiveness that boost net goods and services exports and increase the primary balance of payments.

In sum, despite the sharp correction in the external imbalance, the sector shows a series of fragilities that must be overcome to ensure that the surplus and the reduction in the international debit position can be maintained in a higher growth phase.

3.2 FISCAL CONSOLIDATION

Budgetary consolidation progressed in 2012, in a process that is proving costly…

The fiscal consolidation process that had begun in 2010 continued in the Spanish economy in 2012. General government borrowing amounted to 10.6% of GDP, though it should be borne in mind that this figure includes the impact arising from the aid granted to financial institutions, which increased public spending through the capital transfers item, by 3.6% of GDP. If this effect is stripped out, the general government deficit fell from 2009 by 4.2 pp to 7%, while the public debt ratio climbed by 50 pp, from its 2007 minimum to 84.2% of GDP in 2012 (a rise of 30.3 pp since 2009) (see Chart 1.8).

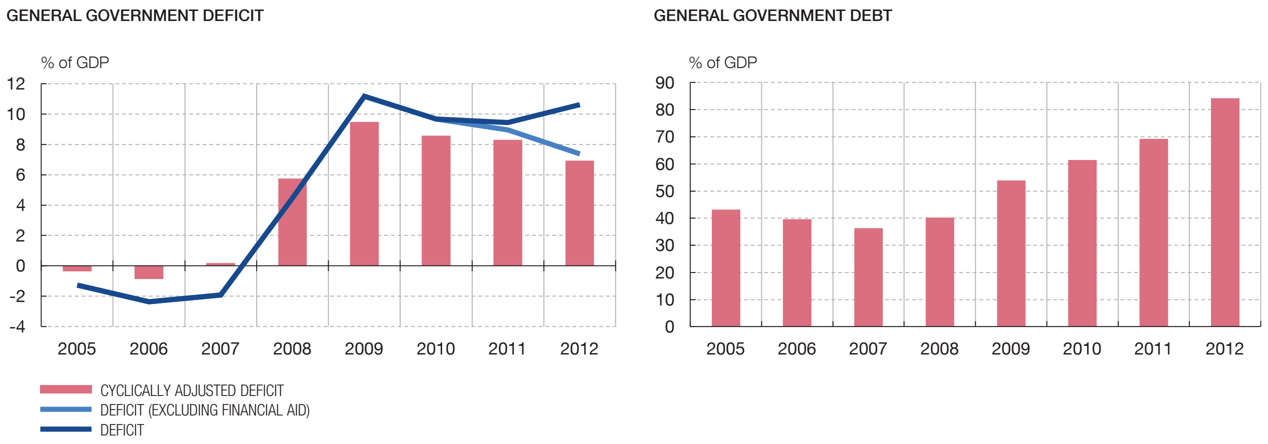
Reducing the budget deficit is proving costly, as shown by the fact that the major measures adopted, both in terms of the range of budgetary items affected and of the scale of the adjustments implemented, have translated into limited advances, with a still-high deficit figure (see Box 1.2). The reduction since 2009 in the primary structural deficit, totalling 6.5 pp when the financial aid is not included, illustrates most clearly the magnitude of the fiscal effort made.

… as a result of the growing weight of the interest burden, adverse cyclical conditions and the characteristics of the process of adjustment in the economy

Among the difficulties the budgetary consolidation is facing, mention should first be made of the growing weight of the interest burden, which has doubled as a percentage of GDP (up to 3% in 2012). Secondly, the fact that this process is unfolding under highly adverse economic conditions entails an acceleration in the spending items most linked to the business cycle (essentially unemployment benefits) and a reduction in

GENERAL GOVERNMENT DEFICIT AND DEBT

CHART 1.8



SOURCES: IGAE and Banco de España.

revenue-raising capacity. And it is along these same lines that the characteristics of the process of adjustment in the Spanish economy are acting; as indicated, the external sector is proving to be the only source of improvement in activity, which limits the expansion potential of tax receipts.

The adjustment has been greater on the expenditure than on the revenue side, albeit with a sizeable bias towards capital spending

Fiscal consolidation has to date been concentrated to a greater extent on the side of public spending than on that of revenue, with a very high weight of the adjustment in capital spending (in particular in public investment and, to a lesser extent, in employee compensation, which stood in 2012 at 40% and 90%, respectively, of their 2009 levels). In the case of tax, there were across-the-board increases under all headings, albeit with a bias towards indirect as opposed to direct taxation.

In terms of agents, the reduction in the general government deficit was the outcome of the drive to contain the various sub-agents, except the Social Security system

The adjustment drive was initially concentrated on central government, and in particular in 2012 this extended to regional and local government, which significantly reduced their imbalances that year following the doubts raised about their adjustment capacity in the previous years. Conversely, there has been a gradual deterioration in the Social Security balance, which went into deficit in 2012 (-1% of GDP, or -3.2% net of transfers received mainly from the State), as a result of the combination of the upward dynamics in pension spending – determined essentially by demographic trends – and the impact of adverse labour market developments on social security contributions and unemployment benefits.

The new Law on Budgetary Stability and Financial Sustainability was applied for the first time in 2012

The new Law on Budgetary Stability and Financial Sustainability contributed in its first year to reinforcing transparency in respect of the information on regional governments' budget outturns, which should facilitate the application of the law's preventive arm. The latter includes procedures to correct marked budgetary slippage, which have not been applied yet.

Regional governments' difficulties in obtaining funding on the markets and the delays in payments to suppliers have been addressed by setting in place various central government-intermediated financial support funds for regional and local government (the Regional Government Liquidity Fund and the Plan for Payments to Suppliers), whose use entails complying with the agreed adjustment plans. The balanced implementation of the mechanisms provided by law in cases where there is observed slippage from the objectives set in the aforementioned adjustment plans is vital for preventing this type of aid from generating inappropriate incentives.

The deterioration of the fiscal position has been one of the most widespread consequences of the economic and financial crisis among the developed countries. In the specific case of the euro area, this deterioration, along with doubts about growth prospects, uncertainty about the costs of bank system restructuring and shortcomings in euro area governance, was the event that triggered the sovereign debt crisis which commenced in Greece and subsequently spread to the other peripheral countries. The European authorities understood from the outset that a number of measures would be required to overcome the crisis, including, as a priority, the monitoring of fiscal consolidation, which most countries started in 2010 to regain the confidence of international markets and ensure that public debt dynamics do not become unsustainable.

The implementation of fiscal consolidation has been subject to difficulties, resulting in many cases in repeated failure to achieve the fiscal targets initially set. Against this background, there has been an intense debate over the appropriate speed and extent of fiscal adjustment. An important part of this debate has focused on analysis of the value of so-called “fiscal multipliers”. This box analyses this question, providing empirical evidence for the case of Spain and discussing its implications for the pace of fiscal consolidation.

The high degree of uncertainty regarding the macroeconomic effects of fiscal policy should be recognised. In particular, the short-run impact of the budget deficit on the growth rate depends on a very broad set of conditions, such as the composition of the adjustment (how it is distributed between spending cuts and tax increases), the cyclical position, the initial levels of debt, the behaviour of monetary policy and the exchange rate regime. The literature has emphasised the possibility that the so-called “fiscal multipliers” are greater in macroeconomic situations like the current ones, of economic recession and/or financial crisis, as there are more idle resources in the economy and/or agents may be more constrained, or in which monetary policy is unable to offset the effects of the fiscal contraction, because nominal interest rates are close to the zero lower bound. For the specific case of Spain, these fiscal multipliers have been estimated under different circumstances (see accompanying table). In general, the importance of taking macroeconomic conditions into account when anticipating the effects of fiscal policy is confirmed. In particular, it can be seen that public spending multipliers (consumption and public investment) are higher at times of economic recession and financial stress, although the differences in their value compared with expansionary phases are lower than those estimated for the United States.[1]

Likewise, Blanchard and Leigh (2013), in a recent influential paper, provide evidence to show that during the economic crisis the IMF’s macroeconomic projections have been systematically optimistic and that these errors are correlated with the magnitude of the planned fiscal adjustment. This would suggest that the restrictive effects of fiscal consolidation are proving to be greater than those derived from the multipliers used in the macroeconomic projection models (which, although it depends on the fiscal instrument used, would generally be less than 0.5). However, the evidence provided seems to suggest that these conclusions cannot be extrapolated to all the countries analysed. In this respect, a similar analysis has been performed for Spain, in which, first, the forecast errors observed for the Spanish economy in the Eurosystem forecast exercises are calculated, correcting them for the impact of the observed changes in the external assumptions, including the fiscal ones, with respect to those used at the time the forecasts

1 When estimating the multipliers for states of economic expansion/recession, financial stress/no financial stress and fiscal stress/no fiscal stress shown in the table below, such states were approximated on the basis of the output gap, the aggregate default rate and changes in the level of public debt, respectively. The states of expansion/recession were alternatively approximated on the basis of real GDP growth and the unemployment rate, the financial crisis/no financial crisis ones on the basis of the flow of credit to the private sector and the fiscal stress /no fiscal stress ones on the basis of the ratio of public debt to GDP and the budget deficit, and the results did not change significantly. On the other hand, the differences between regimes in the multipliers presented in the table are, generally, statistically significant.

	Multiplier for a negative public spending shock (a)	
Regime	four quarters after shock	eight quarters after shock
Expansion	-0.47 *	-0.25 *
Recession	-1.15 *	-1.67 *
No fiscal stress	-0.73 *	-0.31 *
Fiscal stress	-0.12	-0.16
No financial stress	-0.61 *	-0.06
Financial stress	-0.96 *	-0.89 *

SOURCES: Hernández de Cos and Moral-Benito (2013).
NOTE: * statistically significant to 5%.

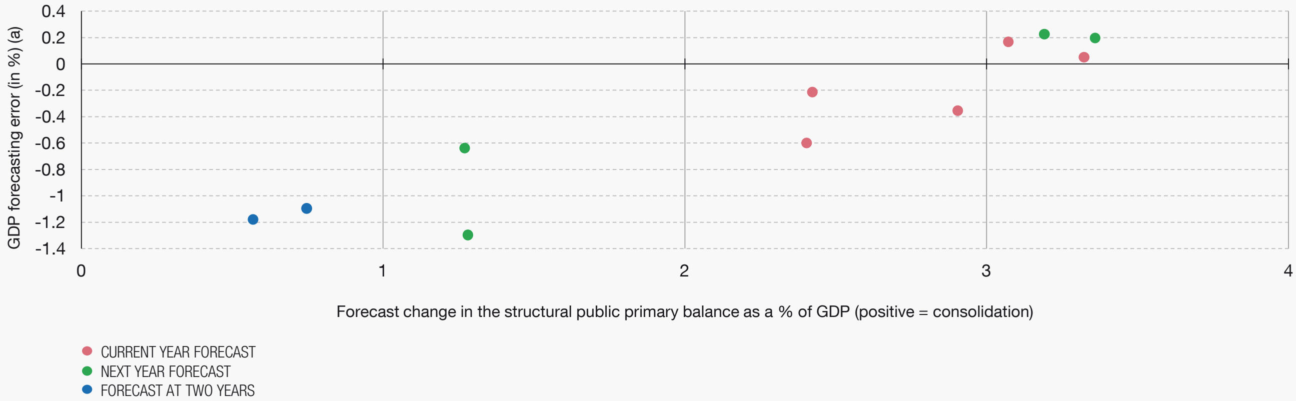
a The multipliers in the table show the response by GDP to a €1 reduction in public spending.

were made (see Panel 1). The conclusions of this analysis are, first, that the forecast errors have not always had the same sign and, second, that these forecast errors are not negatively correlated with the fiscal consolidation initially planned, which does not provide support, in the Spanish case, for the idea that the multipliers may be significantly higher in the current situation than the ones incorporated in the forecast models.

Given the possible effect of fiscal policy on agents' confidence, the literature has also emphasised the possibility that multipliers may be lower, or even negative, in situations of fiscal stress, which may also be relevant in the current situation given the observed increases in public debt-to-GDP ratios and risk premiums. In this respect, evidence is found, for the Spanish case, that multipliers are lower in situations of fiscal stress identified by abnormally large increases in the level of government debt (see accompanying table).

The determination of the level of fiscal stress is related to the concepts currently being discussed in the economic literature of

1 REAL GDP FORECASTING ERRORS AND FISCAL CONSOLIDATION. THE SPANISH CASE

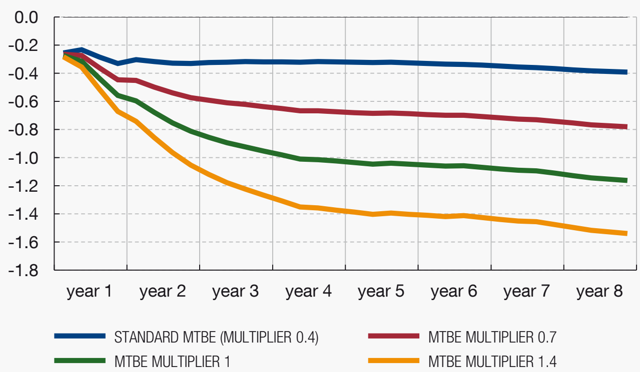


SOURCE: Banco de España.

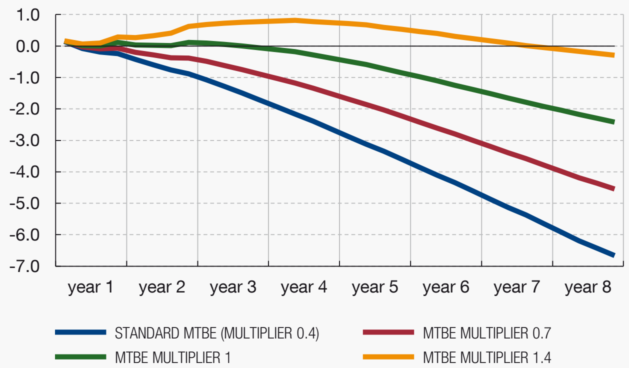
a Adjusted for slippage in the exogenous assumptions: the MTBE is used to approximate how the forecast would have changed had correct assumptions originally been available for the external sector, interest rates, and the amount and composition of the fiscal consolidation finally observed. The results are similar if this adjustment is not applied.

2 FISCAL CONSOLIDATION, VALUE OF THE MULTIPLIERS AND CHANGES IN PUBLIC DEBT/GDP RATIO. THE SPANISH CASE (a)

2.1 MULTIPLIER (GDP RESPONSE TO FISCAL SHOCK)



2.2 PUBLIC DEBT RESPONSE TO FISCAL SHOCK (DIFFERENCE % OF GDP)



SOURCE: Banco de España.

a Response by GDP and by the GDP/debt ratio to a fiscal shock based on tax increases and spending cuts, simulated with different values for the fiscal multiplier (MTBE standard is the value habitually used, while the remaining results are obtained by adding to this simulation a negative response —of differing intensity— by household and business confidence to the fiscal shock, which generates higher multipliers).

"fiscal limit" and "debt threshold". The latter may be defined as the level of government debt that the markets implicitly take as a reference, above which an economy would begin to find itself having difficulty financing itself on the markets at costs compatible with its fundamentals, insofar as above that debt limit agents would begin to perceive risks to the sustainability of the country's public finances. The evidence available for Spain on this question [see Andrés et al. (2013)] suggests that the current level of public debt is close to this threshold, so that anchoring the expectations of agents to the stabilisation of debt at these or lower levels would help to mitigate the pressures on their financing costs.

Given these considerations, it may be concluded that the fiscal adjustment strategy should take into account not only the behaviour of economic activity, but also the costs of excessive delays in consolidation, in terms of risks to credibility and their impact on agents' confidence. In this respect, it is important to ask how high fiscal multipliers would need to be in order for fiscal consolidation to generate an increase in the public debt-to-GDP ratio, i.e. to have the opposite impact to that intended (known as a "self-defeating consolidation"). For this purpose a simulation exercise was performed using the quarterly model of the Banco de España (MTBE), in order to analyse the effect of a fiscal adjustment based equally on reductions in spending and transfers and increases in taxes, with different assumptions for the values of fiscal multipliers (ranging from 0.4 to 1.5). The results show that in all cases the debt-to-GDP ratio is reduced in the medium and long-term, although when the ex-ante multiplier reaches 1.5 (which is achieved by imposing a very negative reaction of agents to the adjustment),[2] the public debt ratio may temporarily rise in the short term (see Panel 2). The conclusion of this analysis is that, although multipliers are higher than on average in the past, they are still within reasonable ranges, so that in general self-defeating consolidations should not be expected in the case of Spain.

[2] The extreme nature of this simulation with a multiplier of 1.5 is apparent in the fact that the fall in activity is so marked that the ex-post budget deficit is hardly reduced, owing to the negative effect on taxes and benefits. The fact that in recent years a significant reduction in the budget deficit has been observed in Spain would be a further indication that the fiscal multiplier for the measures adopted has not reached such high levels.

Despite the effort made the size of the adjustment pending remains significant, but unavoidable

The fiscal assumptions used in the latest "Spanish economic projections report" in the March *Economic Bulletin* placed the budget deficit at around 6% of GDP over the projection horizon (2013 and 2014), figures which, should they materialise, would not allow the growing trend of the public debt/GDP ratio to be curbed in the immediate future. This fiscal scenario reveals that, despite the intense fiscal consolidation undertaken, the scale of the adjustment pending is still most significant if it is intended to initiate a lasting reduction in public sector debt that is consistent with the requirements of the Law on Budgetary Stability and Financial Sustainability and with the commitments entered into in the Stability and Growth Pact.

3.3 CLEAN-UP, RECAPITALISATION AND RESTRUCTURING OF THE BANKING SYSTEM[2]

The double-dip recession in the Spanish economy and the euro confidence crisis increased pressure on the banking system

The adjustment of the imbalances accumulated in the Spanish banking system during the economic upturn was adversely affected by the concurrence of the double-dip recession in Spain and the euro confidence crisis. The quality of banking assets was further impaired and the capacity of Spanish banks to gain access to international funding markets was severely constrained. As has been the case since the start of its banking crisis, the tensions exerted very different effects from bank to bank.

The ongoing clean-up, recapitalisation and restructuring of the system

The worsening of the situation meant that the clean-up, recapitalisation and restructuring of the banking system had to be accelerated. One significant course of action turned on the clean-up of bank balance sheets. Royal Decree-Laws 2/2012 and 18/2012 laid down a swift

2 For a more detailed analysis of the financial position of Spanish banks, see the 2011 Annual Report, the Financial Stability Report and the Report on Banking Supervision in Spain, published by the Banco de España, where these issues are addressed in greater depth.

was expedited by means of a strategy based on four pillars…

and transparent process of cleaning up potential capital losses associated with real estate assets, raising the levels of specific and general provisions. Subsequently, a detailed and rigorous stress test was conducted to evaluate the capacity of each individual bank to withstand reasonably extreme situations involving a further heightening of difficulties. Once the capital requirements to shore up each bank had been identified in this way, the following step of the strategy consisted of designing a mechanism and specific conditions for the recapitalisation and restructuring of the banks in question, and for the orderly resolution of those that were not viable. In parallel, procedures were set in place for the segregation and transfer out of banks under restructuring of assets and real estate loans. Finally, the finishing touches were provided by the launch of a substantial reform of current regulations. Box 1.3 sets out the key aspects of these measures in greater detail.

… which had the financial assistance of the ESM

Against an exceptionally fragile economic background in the euro area, dominated by the feedback loop between sovereign and banking risk, the Spanish economy's capacity to finance this strategy through its own means was very limited. The Spanish government requested the support of its European partners and, in July, a financial assistance programme for the recapitalisation of ailing Spanish banks was formalised. The programme was endowed with maximum resources totalling €100 billion and the conditions for the disbursement of the funds were set out in a Memorandum of Understanding (MoU), giving expression to the courses of action described above.

Major progress has been made

The MoU laid down a demanding timetable for compliance with the conditions established, which has been strictly followed. In 2012 Q4 and 2013 Q1, the programme was reviewed, as stipulated in the MoU. And on both occasions, the joint European Commission, ECB, European Stability Mechanism (ESM) and European Banking Authority (EBA) missions delivered a positive assessment of fulfilment of the conditions, thereby enabling the effective disbursement of the funds.

The funds contributed by the ESM ultimately amounted to slightly over €41 billion. Of this amount, €39 billion were earmarked for recapitalisation by the FROB of the banks that could not cover their capital needs by their own means (the so-called "Groups 1 and 2", following the MoU terminology). The remainder has financed the FROB's participation in Sareb, the company created to manage the real estate assets segregated from bank balance sheets.

Among the recapitalisation efforts made in this new phase are private capital increases and the sales of assets by the Group 3 banks[3] which, in this way, covered the capital shortfall estimated in the stress tests without resorting to public aid. The need for public injections also diminished as a result of the assumption of losses by shareholders and holders of hybrid instruments. Furthermore, the regulatory reforms undertaken include the requirement, for all banks, of a minimum core capital ratio of 9% from January this year.

Greater impetus was also given to the downsizing of banking activity as a result, among other factors, of the restructuring plans approved for the banks in Groups 1 and 2. In terms of offices, employees and assets, these plans envisage reductions for end-2017 which, on average, range between 40% and 60% compared to the situation in 2010. The same can be said regarding the clean-up process which, as a result of the various measures adopted, has entailed a reduction in just one year of at least half of Spanish banks' exposure, net of provisions, to the real estate sector.

3 Banks for which capital needs were identified, but which could be covered by their own means.

PROGRESS MADE IN THE BALANCE-SHEET CLEAN-UP, RECAPITALISATION AND RESTRUCTURING OF THE SPANISH BANKING SYSTEM

BOX 1.3

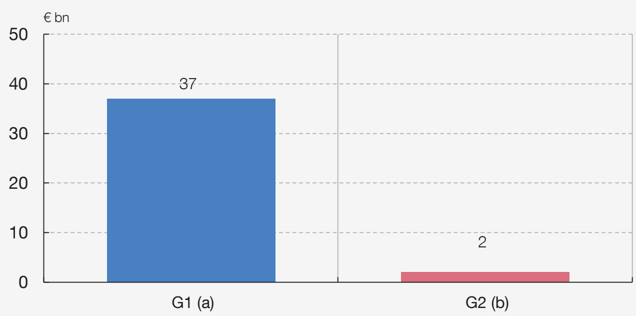
During 2012 and the first few months of 2013 very significant progress was made in the process of balance-sheet clean-up, recapitalisation and restructuring of the Spanish banking system, based essentially on four courses of action: identification of the individual capital needs of each bank; recapitalisation and restructuring (or in the event of non-viability, orderly resolution) of those institutions in situations of greatest vulnerability; write-downs, separation and transfer of assets related to the real-estate sector and, finally, a significant regulatory reform.

Given that this plan of action required the mobilisation of public funds and that the financial tensions and heavy financing requirements of the public sector limited the capacity to obtain funds at reasonable prices on the markets, the Spanish government requested financial assistance from its fellow EU members to carry it out. Specifically, the aid took the form of a financial assistance programme to recapitalise those banks that needed to be recapitalised, with funds available of up to €100 billion. The related conditionality for the financial system was contained in the Memorandum of Understanding (MoU) signed on 20 July 2012. This document established the specific measures that would have to be adopted in two spheres: that relating to those institutions that have required public aid and that relating to the sector as a whole. The final objective of all these measures is to increase the resilience of the financial system to adverse shocks.

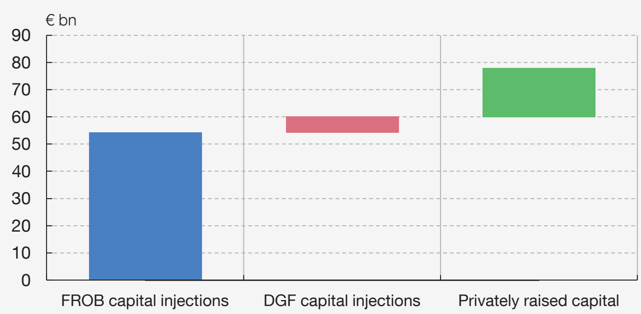
In order to determine capital needs, the authorities commissioned independent experts to perform two stress tests. The first one, carried out in June 2012 by two consultancy firms, was an aggregate top-down test in which Spanish banking groups that together accounted for around 90% of the assets of the sector participated. Two macroeconomic scenarios were considered: a so-called baseline scenario, assumed to have a high probability of occurrence, under which a core capital ratio (as defined by the European Banking Authority) of 9% was required to be met as at the end of 2014, and another adverse scenario, considered very unlikely to occur (its probability of occurrence was estimated to be less than 1%), under which the level of ratio had to be at least 6% as at the same date. According to the results, published on 21 June, the system was estimated to need additional capital of €16-26 billion under the first scenario, and €51-62 billion under the second one.

After this initial work, which served to put an upper limit on the system's overall capital shortfall, the second stress test was

1 PUBLIC CAPITAL AID AFTER THE STRESS TEST

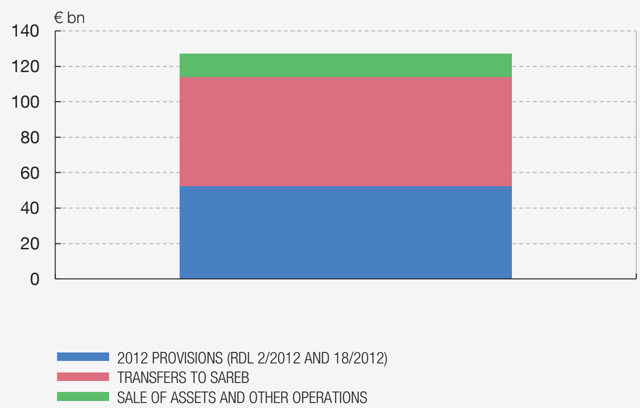


2 CAPITAL INJECTIONS DURING THE CRISIS



3 EXPOSURES NET OF PROVISIONS TO THE REAL ESTATE SECTOR

4 REDUCTION IN EXPOSURES TO REAL ESTATE SECTOR IN 2012



SOURCE: Banco de España.

a Banks with a FROB majority shareholding.
b Other banks with additional capital needs.
c Assets transferred to SAREB in February 2013 by Group 2 banks are not included.

carried out between July and the end of September, to determine the capital needs of each institution (bottom-up exercise). The scenarios, capital requirements and institutions considered were the same as in the first test and one of the consultancy firms that performed the first test was commissioned to conduct it, along with the four main Spanish audit firms and six domestic and international real estate valuation companies. The test was conducted very rigorously, using very exhaustive information, with strict control of the process, the governance of which involved both the Spanish authorities (Banco de España, Ministry of Economic affairs and competitiveness and the FROB) and international authorities (European commission European Central bank, European banking authority and the International Monetary Fund, in an advisory role). According to the results, which were published on 28 September, the maximum total capital needs were estimated to be €57 billion under the adverse scenario, which were distributed across the institutions very unevenly. More specifically, of the 17 groups analysed, seven (which accounted for 62% of the loan portfolio), had no need for additional own funds, while in the case of the other ten, the needs identified were concentrated (86% of the total) in four institutions in which the FROB already had majority holdings at the time.

The second component of the strategy has been the recapitalisation of viable entities identified as having a capital gap. Of the ten institutions in that situation, two were capable of covering the gap on their own by means of capital increases, subordinated debt repurchases and asset liquidation. The others needed public aid provided by the FROB and financed through the MEDE, within the framework of the approved financial assistance programme. The volume finally injected was, however, lower than that estimated in the stress tests, as a result of the application of a number of measures, in line with the agreements contained in the MoU, including the assumption of losses by the holders of shares and hybrid instruments, the transfer of assets to the institution set up for their management and sale (asset management company for assets arising from bank restructuring (SAREB)) and the divestment of other assets. Following these adjustments, public aid was €39 billion (see Panel 1), of which €37 billion was given to the institutions in which the FROB had a majority holding (Group 1), and the rest, to those other banks that could not cover their capital needs on their own and that make up the so-called "Group 2". The injections were completed in December 2012, in the first case, and March 2013 in the second (except in the case of one institution, for which the injection was made in April). The institutions that received public aid have presented, in accordance with the provisions of the MoU, restructuring plans that contain commitments to make very significant reductions in the number of offices, employees and risk-weighted assets during the period 2010-2017 (of 60%, 50% and 60%, respectively, in the case of the Group 1 institutions, and 40%, 40% and 50% in that of the Group 2 institutions). These plans have already been approved by the Banco de España and the European Commission.

Following these new contributions from the FROB, the total amount of public aid provided in the form of capital since the start of the crisis amounts to €54 billion. In addition, the Deposit Guarantee Fund (DGF) had already carried out recapitalisations of €6 billion, to which must be added the private capital increases, which have involved a further €18 billion. In total, the recapitalisation of the financial system during this period exceeds €78 billion (see Panel 2).

The objective of the third pillar of the strategy was to clean up bank balance sheets and reduce their exposure to the real-estate sector. Royal Decree-Laws 2/2012 and 18/2012 introduced measures to ensure a rapid and transparent recognition of possible capital losses associated with real-estate assets, increasing the levels of the specific and general provisions and establishing the need for an additional capital buffer to cover possible losses associated with assets relating to land. With the application of the new rules, the coverage of assets relating to real-estate development would reach 45% of their total amount, and 80% in the case of land.[1] Subsequently, and in accordance with the MoU, in December 2012 the SAREB was set up, a company whose purpose is to manage real-estate assets, which currently has a capital of €4.8 billion, 44% of which is held by the FROB (the rest being mostly held by private investors, banks and insurance companies). The institutions that have received new public aid have been required to transfer to this company all their foreclosed real-estate assets and loans to developers with a net book value of more than €100,000 and €250,000, respectively, as well as controlling shareholdings linked to the real-estate development sector. The transfer price was calculated, following the conditions of the MoU, according to the economic value of the assets, to which some additional adjustments were applied, with an average cut of 65% in relation to the book value for the foreclosed assets and 48% of loans. In December 2012 and February 2013 the assets of the Group 1 and 2 institutions were transferred, respectively, with a total effective amount of €51 billion.[2] For the SAREB a business plan has been designed with a 15-year horizon and its management is supervised by the Banco de España, along with other domestic and international authorities.

As a result of all these measures and, to a lesser extent, the sale of assets and other actions, the total net exposure (after applying provisions) of the bank balance sheets to the real-estate sector has been reduced, during 2012, by €127.2 billion, as may be seen in Panels 3 and 4.[3]

Finally, the fourth component of the strategy was focused on regulatory reform. Specifically, RDL 24/2012, approved on 31 August

1 This limit was reached through the requirement for an additional capital buffer. However, as this requirement was lifted by RDL 24/2012, the coverage of land is now 60%.

2 The assets were recorded on the balance sheets of institutions with a gross amount of €106 billion.

3 In order to calculate this amount the transfer to the SAREB of the Group 2 assets, which took place in February 2013 has been taken into account.

PROGRESS MADE IN THE BALANCE-SHEET CLEAN-UP, RECAPITALISATION AND RESTRUCTURING OF THE SPANISH BANKING SYSTEM (cont'd)

BOX 1.3

2012, established a modern framework for the management and resolution of banking crises (with more rapid intervention by the Banco de España in the event that difficulties are detected at an institution), delimited the competencies of the FROB and of the DGF and strengthened the tools of the former in all phases of crisis management. In addition, the Banco de España assumed the power to authorise and sanction credit institutions (a function previously performed by the Ministry for Economic Affairs and Competitiveness), and a more demanding capital requirement was established that credit institutions had to meet from 1 January of this year, a minimum level being set for core capital[4] of 9%. This royal decree also addresses other aspects, such as placing limits on the remuneration of the directors of institutions that have received financial support and improving the mechanisms for protecting retail investors, by requiring greater transparency in the marketing of products not covered by the DGF. More recently, Circular 6/2012 was approved, which introduced greater transparency into the financial reporting of institutions, especially in relation to real-estate exposures and refinanced and restructured loans. In the coming months new legislation is expected to be approved to convert savings banks, whose activity is now carried out through commercial banks in practically every case, into foundations, which will have significant incentives to reduce their holdings in such commercial banks below controlling levels, thereby completing the process of reform of the model of governance of this type of institution that was commenced in 2010. Finally, work is currently done to improve the supervisory methods of the Banco de España and the system of provisions for loan impairment.

4 As defined by the European Banking Authority.

In any event, challenges remain; and these must be tackled to entrench the success of the process

In an economy such as Spain where banks are so prevalent and strongly established, the successful culmination of the clean-up, recapitalisation and restructuring of banks is a vital condition for being able to raise under reasonable conditions the external funds needed and for these funds to be efficiently channelled towards private-sector spending projects. Precisely for this reason, the significant progress in recent months should serve to further the strategy adopted and to address the challenges remaining, including most notably those associated with the uncertainty over the future course of the fragile macroeconomic environment.

3.4 THE DELEVERAGING OF HOUSEHOLDS AND FIRMS

The double-dip recession weighed down on household and corporate deleveraging, which continued to reside essentially on the fall-off in credit

The unfavourable course of Spanish household and corporate income weighed down for yet another year on the ongoing reduction of their related debt ratios, a process which continued to be relatively slow. In the current settings of the Spanish economy, which is immersed in a double-dip recession and in the process of restoring lost competitiveness and reinforcing the banking system, neither growth, inflation nor the restructuring of debt offer viable alternatives in the short term to cutting the non-financial private sector's leverage ratios. Their reduction, therefore, is drawing in the main on the contraction of credit flows, which restricts the speed at which the process may advance, particularly in the case of household mortgage debts.

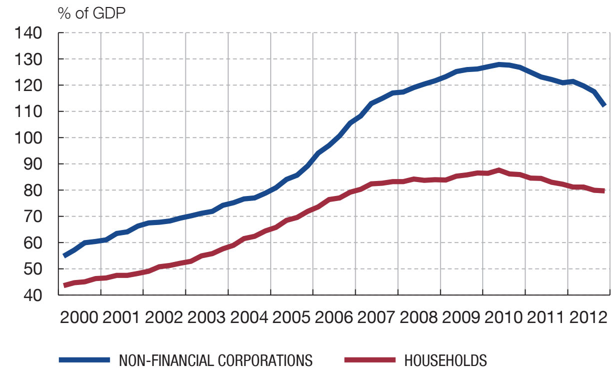
The financing received by households and firms fell, in fact, by around 5% over the year as a whole (see Chart 1.9). Along with the need for the sector to deleverage, other factors also influenced financing. On one hand, the weak economic outlook had a negative effect on the demand for new loans and on the creditworthiness of borrowers. On the other, the strict funding conditions for Spanish banks on international markets, though mitigated in part by the ECB's decisions, were reflected in their lending policies, thereby shaping a markedly restrictive setting for the granting of loans. As is habitual in these circumstances, the effects of these developments have tended to be asymmetrically distributed among the different borrowers, particularly affecting those which, as is the case with SMEs, face greater structural difficulties in overcoming such effects.

The implementation of the bank restructuring plans might, in principle, accelerate the contractionary trend of credit, although their quantitative influence need not, a priori, be very

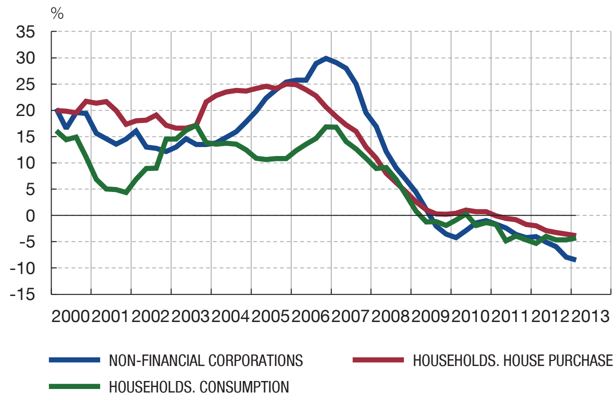
DEBT RATIOS AND CREDIT GROWTH

CHART 1.9

DEBT RATIOS



CREDIT TO NON-FINANCIAL PRIVATE SECTOR
(Year-on-year growth)



SOURCES: INE and Banco de España.

significant. The banks affected account for only around one-third of the system's total credit portfolio and the remaining banks could absorb and offset part of this impact. However, and above all, the bank restructuring plans, under the overall strategy of placing the economy back on a normal footing, will contribute to restoring investor confidence in Spanish banks as a whole, thereby broadening their possibilities of raising, under accessible conditions, the funds that they can then lend to the private sector.

The short-term costs of the necessary aggregate deleveraging will also depend on how this is distributed among individual debtors

Correcting Spanish households' and firms' excess indebtedness is, in any event, a necessary step for upholding the sustained recovery in domestic demand, although in the short run it may restrict the sector's spending potential. This effect will, in any case, depend on how the aggregate contraction in credit is distributed across the different sectors and types of debtors. The data on the distribution of debt show that there is a high degree of heterogeneity among both households and firms. And some recent studies suggest for example that, in the case of corporations, the deleveraging observed at the aggregate level in recent years has been compatible with an increase in the credit received by corporations starting from a healthier position.[4]

4 The role of economic policy

Economic policy has a key role to play in laying the foundations for a sustainable recovery

Economic policy has a pivotal role to play in seeing through the adjustments, dispelling uncertainty and laying the foundations for a sustainable recovery that allows for an increase in the economy's growth capacity in the medium and long term. Restoring confidence and overcoming the current tensions, which have a significant external component linked to the euro crisis, depends on the progress made towards a more complete and sustainable economic union, which is beyond the scope of the national authorities. But the speedier the adjustment of the Spanish economy and the headway on reforms, the greater will be the protection afforded against external shocks and the possibility of benefiting from European progress.

As highlighted throughout this chapter, the adoption of extraordinary economic policy measures helped stave off the dangers of the serious confidence and external funding crisis undergone by the Spanish economy amid the most acute tensions experienced by the euro area since it was founded. There has been progress on fiscal consolidation and

4 See, for example, A. Menéndez and Méndez, M. (2013): "Spanish non-financial corporations' debt since the start of the crisis. A disaggregated analysis", Economic Bulletin, January, Banco de España.

MAIN INDICATORS OF THE SPANISH ECONOMY (a)

TABLE 1.1

	2007	2008	2009	2010	2011	2012
DEMAND AND OUTPUT (b)						
GDP	3.5	0.9	-3.7	-0.3	0.4	-1.4
Private consumption	3.5	-0.6	-3.8	0.7	-1.0	-2.1
Government consumption	5.6	5.9	3.7	1.5	-0.5	-3.7
Gross capital formation	4.2	-4.2	-17.9	-5.5	-5.5	-8.7
Equipment investment	10.2	-2.9	-23.9	2.6	2.3	-6.6
Construction investment	2.4	-5.8	-16.6	-9.8	-9.0	-11.5
Housing	1.4	-9.1	-23.1	-10.1	-6.7	-8.0
Other construction	3.6	-1.6	-9.1	-9.6	-11.0	-14.6
Exports of goods and services	6.7	-1.0	-10.0	11.3	7.6	3.1
Imports of goods and services	8.0	-5.2	-17.2	9.2	-0.9	-5.0
Contribution of national demand to GDP growth	4.3	-0.6	-6.6	-0.6	-1.9	-3.9
Contribution of net external demand to GDP growth	-0.8	1.5	2.9	0.3	2.3	2.5
EMPLOYMENT, WAGES, COSTS AND PRICES (c)						
Total employment	3.0	-0.2	-6.3	-2.5	-1.7	-4.4
Employment rate (d)	66.6	65.3	60.6	59.4	58.5	56.2
Unemployment rate	8.3	11.3	18.0	20.1	21.6	25.0
Compensation per employee	4.7	6.9	4.2	0.3	0.7	-0.3
Apparent labour productivity	0.5	1.1	2.7	2.3	2.2	3.2
Unit labour costs	4.2	5.7	1.5	-2.0	-1.4	-3.4
GDP deflator	3.3	2.4	0.1	0.4	1.0	0.1
Consumer price index (12-month % change)	4.2	1.4	0.8	3.0	2.4	2.9
Consumer price index (annual average)	2.8	4.1	-0.3	1.8	3.2	2.4
Consumer price differential with the euro area (HICP)	0.7	0.9	-0.5	0.4	0.3	-0.1
NET LENDING (+) OR NET BORROWING (-) AND FINANCIAL BALANCE (e)						
Resident sectors: domestic net lending (+) or net borrowing (-)	-9.6	-9.2	-4.3	-3.8	-3.2	-0.2
General government	1.9	-4.5	-11.2	-9.7	-9.4	-10.6
General government (without aid to financial institutions)	1.9	-4.5	-11.2	-9.7	-9.0	-7.0
Households and NPISHs	-2.7	1.2	6.6	3.9	2.4	0.9
Companies	-8.8	-5.9	0.2	2.0	3.8	9.5
Financial institutions	1.9	1.8	1.3	0.9	2.0	6.1
Non-financial corporations	-10.7	-7.7	-1.1	1.1	1.8	3.5
Net international investment position	-78.1	-79.3	-93.7	-88.8	-91.3	-93.0
General government gross debt	36.3	40.2	53.9	61.5	69.3	84.2
MONETARY AND FINANCIAL INDICATORS (f)						
ECB minimum bid rate on MROs	3.9	3.9	1.2	1.0	1.3	0.9
Ten-year governemnt bond yield	4.3	4.4	4.0	4.2	5.4	5.8
Synthetic bank lending rate	5.7	6.2	3.8	3.3	4.1	4.1
Madrid Stock Exchange General Index (Dec 1985 = 100)	1.631.8	1.278.3	1.042.4	1.076.5	971.8	767.5
Dollar/euro exchange rate	1.4	1.5	1.4	1.3	1.4	1.3
Nominal effective exchange rate vis-à-vis developed countries (g)	101.9	103.3	103.4	101.9	101.7	100.3
Real effective exchange rate vis-à-vis developed countries (h)	114.9	119.1	116.3	112.8	109.8	102.8
Real effective exchange rate vis-à-vis the euro area (h)	112.7	115.1	111.8	110.3	107.5	102.1
Households: total financing	12.5	4.4	-0.3	0.2	-2.4	-3.7
Non-financial corporations: total financing	17.7	8.2	-1.4	0.6	-2.0	-6.2

SOURCES: INE, IGAE, AMECO and Banco de España.

a Spanish National Accounts data, base year 2008.
b Volume indices. Rate of change.
c Rate of change, except the unemployment rate, which is a level.
d Employment rate (16-64).
e Levels as a percentage of GDP.
f Annual average levels for the Madrid Stock Exchange General Index, interest rates and exchange rates, and rates of change for finanancial assets and liabilities.
g 1999 Q1 = 100.
h 1999 Q1 = 100. Measured with unit labour costs.

labour market reform, and important steps have been taken to restructure the credit system, although there are adjustments outstanding and the culmination of the process will not be free from difficulties. Elsewhere, the reforms in the goods and services markets have made less impact. Against this background, restoring growth foundations in a lasting way requires furthering the effort expended and finalising the adjustments under way, in line with the recommendations of the European Commission for Spain under the Macroeconomic Imbalances Procedure. The aim is to prevent the risk of the imbalances detected proving excessive. The high dependence on external funding is a factor of vulnerability that requires the careful handling of all the economic policy instruments available to prevent new bouts of financial instability from exerting adverse effects on confidence and on the availability and cost of funding in Spain.

Economic policy should ensure that equilibria, the financing of the economy and the flexible functioning of the markets for factors, goods and services that growth within the Monetary Union requires are all restored.

It is vital to complete the bank restructuring process

Notable among the many economic policy requirements is the need to complete the restructuring of the banking system, under the strategy adopted, to normalise the necessary financing of domestic expenditure.

It is imperative to persevere with supply-side and structural reform measures…

Maintaining adjustment and growth-boosting policies via supply-side and structural reform measures, in an economic setting of high unemployment and flat income, is very costly in the short term and entails considerable risks of fatigue that may erode the capacity to act. The types of measures needed to restore the foundations of growth require time for their effects to work through, and they should not be judged against the weakness of the economy in circumstances still dominated by the problems built up in the past and the uncertainty surrounding the European project. The experience of previous critical episodes taught us that perseverance with adjustment measures, even though initially costly, managed to contain investor and market mistrust and to redress complex and dangerous situations.

… so that the adverse trajectory of the labour market may be reversed…

After five consecutive years of job destruction, the unemployment rate has reached unacceptable levels and the risk of long-term unemployment becoming chronic is a very serious concern, all the more so if the high incidence of youths and the least-skilled in this group is considered. The achievements of the labour reform in respect of internal flexibility and wage restraint are encouraging, but the results obtained in fomenting new hires are still not sufficient, although this is probably one of the areas in which the measures need time to work through in full. Nonetheless, the seriousness of the labour market situation advises maintaining and intensifying reform momentum through the adoption of additional measures to promote job creation in the short term and to facilitate wage flexibility. Here it would be worth exploring the possibility of establishing new formulas that would allow, in special cases, temporary departures from the conditions laid down in collective bargaining agreements, or exceptional mechanisms to prevent the minimum wage from acting as a constraint on specific groups of workers with most difficulties in terms of employability. Further steps should also be taken to ensure that the diminished scope of the wage indexation clauses is not reversed in phases of economic growth.

… so that competitiveness is boosted through the greater adjustment capacity of relative

Improving competitiveness is a fundamental objective for boosting growth. Economic policies should promote a greater sensitivity of prices, margins and wages to cyclical conditions to smooth the reallocation of resources towards projects and sectors with more prices, margins and costs and genuine productivity gains…

growth potential. Likewise, policies geared to promoting productivity gains arising from genuine improvements in productive efficiency are essential for ensuring that gains in competitiveness are lasting and lay the foundations for growth in the medium and long term. It should be borne in mind that gains in competitiveness must come about in a contractionary setting for domestic spending and at the same time as the high levels of debt of various institutional sectors are being reduced, which underscores the leading role supply-side and structural reform policies must play here.

In this area, however, reforms have been less penetrating or are at a more incipient stage, although the National Programme of Reforms (NPR), approved on 30 April, sets out a series of measures and a timetable for their implementation in 2013 that may resolve some of the most pressing issues outstanding. Indeed, as the NPR acknowledges, the bodies entrusted with overseeing competition and with regulating the network industries are under review. The new law, envisaged for June this year, should shore up their independence and improve their functioning, in order to ensure competition and to push through further sectoral liberalisation. In this respect, certain liberalising measures have been adopted in the services sector. These include most notably the substitution of prior communications for authorisations or licences in the case of small retail outlets, the extension of trading hours and the liberalisation of retail trade sales periods, and the lifting of obstacles to the setting up of service stations, among other measures, in the case of oil and fuel retailing. The draft bill for ensuring a single market envisages a single licence throughout Spanish territory for access to business activity, which would help significantly lessen the administrative burden on corporations, and which should be completed by making the array of regulations from one region to another uniform in relation to the carrying out of economic activities. Also pending is the liberalisation of professional services, though it does feature among the reforms envisaged by the NPR over the next 12 months. In the case of the energy industry, despite the various measures adopted to reduce the tariff deficit, a far-reaching reform of the electricity sector is needed to ensure sustainability and the degree of competition. Finally, regarding the housing market, recent tax changes have contributed significantly to bringing the tax treatment of owner-occupancy and rentals onto an equal footing. In combination with the new Law on Urban Rentals in passage through Parliament, which adds flexibility to contractual terms and the setting of rents, this should contribute to achieving a more balanced mix between owner-occupancy and rentals.

… and so that the credibility gains achieved in the fiscal field become entrenched

The reduction in the deficit in 2012 by more than 2 pp of GDP, against a background of economic recession and a strong increase in the public debt interest burden, has significantly enhanced the credibility of the fiscal consolidation process; not only because of the scale of the adjustment made, but also because the effort has been across all tiers of government, in particular local and regional government, where doubts had arisen concerning their capacity to make the adjustment required.

However, in a setting such as the present, in which economic agents and financial markets remain highly sensitive to fiscal and macroeconomic developments in the different economies, it is very important to entrench the gains in credibility attained. What would contribute to this would be the setting of a medium-term budgetary horizon that provided sufficient details on the necessary measures which, in a lasting way, were to allow the fiscal consolidation process to be culminated. Such measures should furthermore be based on a deep-seated review of the size of the public sector, of the different spending programmes and of the tax system, so as to ensure not only the success of the process but also an improvement in the quality of public finances. The rigorous and transparent application of the instruments included in the Stability Law, for instances in which non-compliance with the objectives set are observed, would likewise help attain this objective, all the more so following the approval of various funds supporting the financing of local and regional government by the State. The budgetary framework should also emerge stronger following the setting up of an Independent Fiscal Responsibility Authority, before the end of the year, under the commitment entered into in the latest Updated Stability Programme 2013-2016 sent by the government to the European Commission on 30 April. The mandate, resources and governance of this Authority should be defined in keeping with international standards.

Additional measures should be taken to ensure the sustainability of the pensions system

The foregoing measures should be accompanied by new ones aimed at ensuring the sustainability of the pensions system, measures that would complement those needed in the labour market. Such measures would be very powerful in terms of the sustainability of public finances and would afford great certainty as to the reformist resolve of economic policy, without an appreciable impact on current labour and social conditions. In particular, and as envisaged in the Updated Stability Programme, an appropriate definition of the so-called "sustainability factor" should be approved so as to enable automatic modifications of the parameters of the system that guarantee its sustainability in the medium and long term. It would further be advisable to bring forward the entry into force of the later retirement age and the lengthening of the period for calculating the regulatory base, both of which were approved in the last pensions system reform. This is because, in light of the heightening of the problem since the last reform was enacted, the phase-in period agreed is overly long.

Foreseeably, furthering the scope of these priority economic policy measures will allow a gradual recovery in internal and external confidence, and the normalisation of the funding of the economy. It will also lay the foundations for resuming economic growth in the medium term, thereby providing for improved expectations, the clean-up of private-sector balance sheets, the soundness and profitability of the banking system and the sustainability of public finances.

1 Introduction

The global crisis that began to break as from summer 2007 and which ultimately evolved into a sovereign debt and balance of payments crisis in much of the euro area has revealed the limitations of the institutional design and governance of EMU agreed at the time of its inception. Last year, this common European project was subjected to an unprecedented degree of tension and the European authorities responded by designing a roadmap for the far-reaching renewal of the institutional arrangements underpinning EMU and its governance.

It was expected in the original design of EMU that the use of stability-oriented national economic policies and the disciplining capacity of the financial markets would ensure the continuity of the convergence process

At the time EMU was instituted, the Member State economies did not meet the requirements to form what is known in the literature as an optimal monetary area, but there was confidence that the very functioning of the union would ultimately generate the incentives to move in that direction. The economic governance of EMU was underpinned by the principle of subsidiarity, under which the ultimate responsibility for preventing and, where appropriate, correcting any domestic economic imbalance lay with the authorities of the country concerned. Fiscal policy and, generally, supply-side policies thus remained in the hands of each Member State, with coordination or monitoring mechanisms at area level proving rather limited. The design assumed that there would be continuity to the momentum that had enabled the economies of the founding members to meet entry requirements, paving the way for deeper and more satisfactory convergence. The proper management of the non-monetary economic policies of each Member State would thereby replace the interest rate and the exchange rate as the main tool of macroeconomic stabilisation.

This original framework, which ruled out the possibility of the bail-out of a Member State by the area as a whole (in keeping with the related clause in the Treaty), was also underpinned by confidence that the efficient functioning of financial markets would be capable of suitably calibrating the risks of instability of each national economy. Interaction between the institutional design and market actions would reward the policies most firmly geared to ensuring stability and growth, and would penalise behaviour incompatible with membership of a monetary union, providing for the early correction of imbalances that might emerge.

However, neither national economic policies nor the financial markets played the stabilising role expected

The creation of the monetary union fuelled expectations of higher potential growth across the area and, most particularly, in those economies starting from lower per capita income levels. In turn, the disappearance of exchange-rate risk and growing financial integration provided for the capital flows that would fund the move in that direction. Nonetheless, current-account imbalances and divergences in international investment positions among the member countries built up, rising to very high levels.

The scope and potential consequences of these dynamics were not correctly diagnosed. Far from persevering with the stabilising efforts that had allowed them to join the euro area from the outset, some national governments did not pursue the fiscal policies and structural reforms needed to curb the destabilising risks associated with very lax financing conditions. These were conducive first, to excessive dependence on external funding; further, to an allocation of resources that did not always prioritise their most efficient use; and finally, to growth expectations that could hardly be met without such policies.

All these developments unfolded against a global background of underpriced risk and of complex and relatively opaque financial innovations, in which international investors also failed to play the moderating role expected of them and, in short, allowed funds to flow generously and without sufficient discrimination in terms of the risk inherent in the various investment projects. The absence of macroprudential financial regulatory and supervisory mechanisms further hampered the early detection of these excesses.

The outbreak of the crisis exposed the shortcomings of these institutional arrangements

The US subprime mortgage market crisis from mid-2007 and, above all, the bankruptcy of Lehman Brothers in September 2008 triggered a far-reaching process of financial risk re-pricing. The global recession accompanying the financial crisis significantly, though unevenly, affected the euro area economies and detracted from the asset quality of its banks. The public programmes of aid to the financial system, including nationalisations such as that of the Anglo Irish Bank in Ireland in early 2009, soon revealed that the tensions in banking systems would have considerable repercussions on the public finances of the countries concerned. These effects would compound those arising from the fiscal policy response to the crisis (by means both of the automatic fiscal stabilisers and of the discretionary spending measures which, in the early stages of the crisis, increased budget deficits).[1]

Growing asymmetry thus arose among the euro area economies. Private-sector over-indebtedness, banking system vulnerabilities, public finances sustainability problems, excessive dependence on external saving, losses in competitiveness and a poor growth outlook affected several of the Member States to differing degrees and tended, moreover, to fuel one another in a contagious feedback loop, generating destabilising spirals.[2] The firms, households, general government sectors and financial intermediaries of the countries with surplus saving were able to continue funding themselves under relatively advantageous conditions, better even than during the upturn, while those located in countries with high external deficits had to withstand a notable reduction in the supply of financial resources and high increases in their funding costs (see Chart 2.1).[3] The euro area was subjected to fragmentation incompatible with the integration proper to a monetary union, which inevitably posed credibility problems for the overall European project.

The crisis has necessitated specific measures to address the most extreme tensions, but it requires, above all, a far-reaching review of the institutional framework and the governance of the area

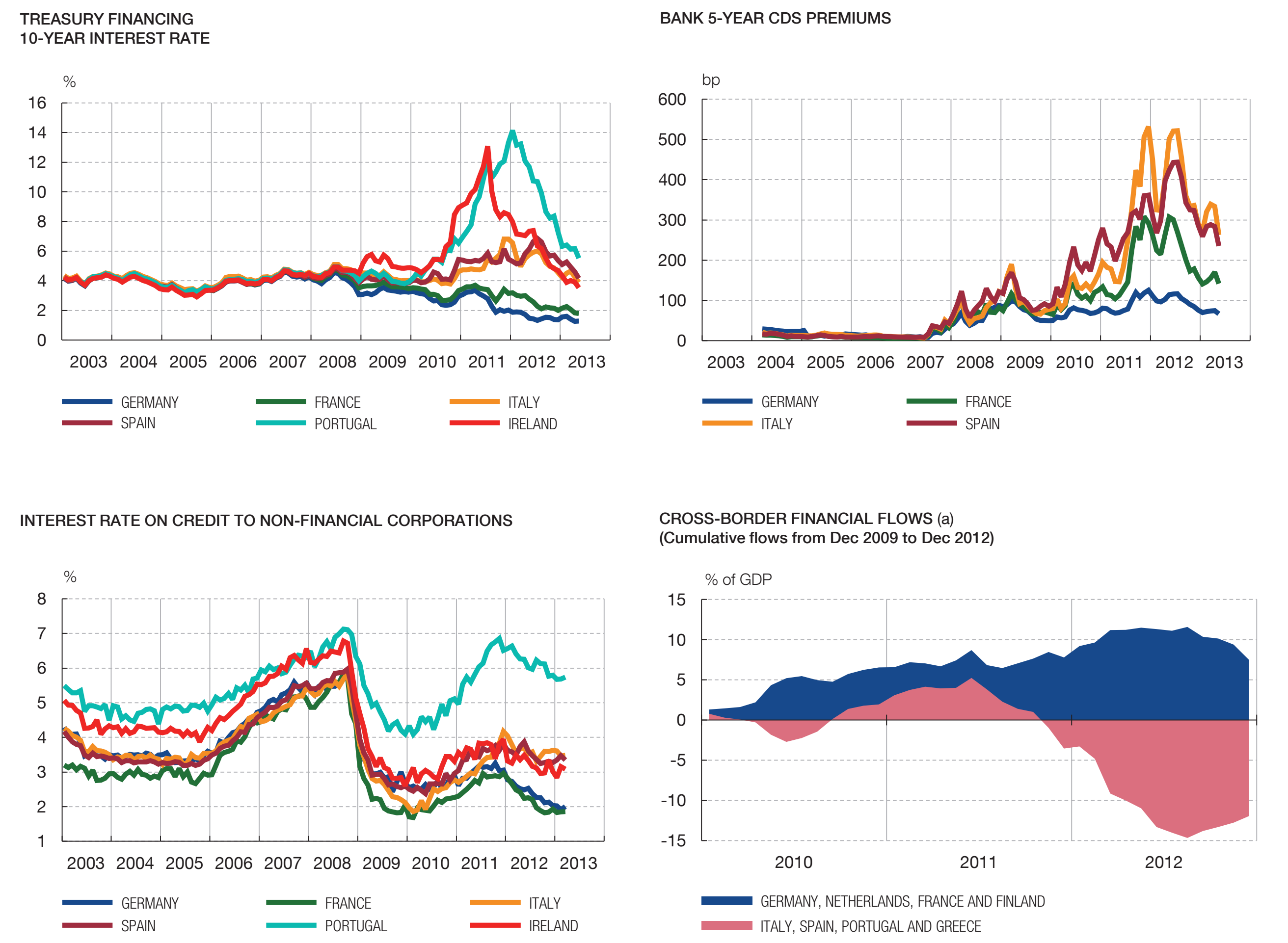
The euro area was lacking the wherewithal to face a situation such as that described. The design agreed in the Maastricht Treaty did not envisage mechanisms to implement a coordinated and joint response by the national authorities to the imbalances and nor did it include common crisis-management instruments to alleviate the consequences. In the short run, while such mechanisms and instruments have taken shape, the ECB has provided what has proven crucial support to ensure the irreversibly of the euro, giving the authorities entrusted with their development the time needed to design and apply the changes that the situation requires.

The crisis has evidenced the pressing need for resolute progress towards a euro area that is more complete than that designed in the late 1990s, and one that is equipped with new and better instruments for economic stabilisation and crisis-prevention and resolution. To tackle the cracks that have emerged, the new institutional design should reconsider the tools for fiscal control and coordination among the member countries, incorporating common financial system supervision mechanisms and sharing more closely the management of the main risks. Along with this, new instruments will be needed to promote convergence

1 For a description of the events that have marked the euro area crisis, see P. Lane (2012), "The European Sovereign Debt Crisis", *Journal of Economic Perspectives*, vol. 25, no. 3, pp. 49-68.
2 See J.C. Shambaugh (2012), "The Euro's Three Crises", *Brookings Papers on Economic Activity,* spring.
3 See M. Bruche and J. Suárez (2009), *The Macroeconomics of Money Market Freezes,* CEPR Discussion Paper no. 704.

FINANCING CONDITIONS IN EURO AREA COUNTRIES

CHART 2.1



SOURCES: ECB and Datastream.

a Capital movements reflect the stock of portfolio investment and other investment of the Balance of Payments, excluding the Central Bank. A positive (negative) figure denotes capital inflows (outflows).

among the member countries, to prevent competitive mismatches and to properly mutualise the consequences of potential future shocks. Pivotal to all these reforms will be progress in transparency and democratic legitimacy to ensure the credibility of the new institutional framework and compliance with the agreements reached.

Considerable steps have already been taken along these lines, but the challenges ahead remain significant. This chapter reviews in detail the reasons why the global crisis has had such a differentiated and singular impact on the euro area; it discusses the main progress made in redesigning the euro; and it reviews the major challenges ahead for the area to restore the successful path of convergence that characterised its early years of existence.[4]

2 The impact of the crisis on the euro area

During the first eight years of the euro area, an increase in convergence across the member countries' per capita income was recorded, along with greater economic and financial flows within the area. Notwithstanding, the convergence attained was still incomplete and the situation in the member countries was still fairly uneven in terms of competitiveness,

4 Conjunctural developments in macroeconomic imbalances in 2012 and monetary policy conduct that year are analysed in detail in chapter 4 of the Spanish version of the *Annual Report*.

debt levels and unemployment rates. This heterogeneity was amplified by the crisis[5] and ultimately became a key determinant of the serious tensions that arose and of the need to redesign the institutional framework and governance of the euro area.

2.1. THE SOURCE AND THE UNEVEN IMPACT OF THE CRISIS ON THE EURO AREA COUNTRIES

The crisis has taken the form of a series of financial tensions, competitive mismatches, growth constraints and problems with sovereign debt that have affected with particular virulence the countries most dependent on external funding or those with the most significant structural shortcomings, such as Greece, Ireland, Portugal, Spain and Italy. This asymmetrical impact can be explained in terms of three fundamental and closely interrelated factors: the imbalances built up during the expansion, the economic policies pursued both before and in response to the crisis, and the uneven pass-through of the shocks via the various domestic markets.

The euro area countries faced the financial crisis from very different positions…

Following the creation of EMU, some of the member countries enjoyed a forceful reduction in the cost of financing and increased their foreign debt to unprecedented levels. The funds were essentially from other member countries with current account surpluses and moderate economic growth rates. And, as befits financial systems in which banks are so strongly rooted and prevalent, as are those of the euro area, these flows were intermediated by credit institutions. The latter, in turn, also benefited from lax funding conditions on wholesale international markets, prompted by low interest rates, the widespread under-pricing of credit risk and ample facilities for the securitisation of loans extended (see Chart 2.2).

Capital flows from countries with excess saving towards those with a lower level of income and with scant resources are conducive, in principle, to economic convergence within the euro area. But for this to occur the funds must be channelled towards those activities with most potential for increasing the economy's productive capacity. In the euro area, however, a sizeable portion of financial investment was earmarked for real estate activities, which ultimately fuelled unsustainable increases in the prices of these assets. In parallel, the recipient countries reallocated resources from the tradeable to the non-tradeable goods sector, prompting the build-up of high current-account deficits (see Chart 2.2). The subsequent dependence on external financing placed these economies in a position that proved particularly vulnerable to changes in financial conditions.

… partly because domestic economic policies did not contribute to preserving convergence within the euro area…

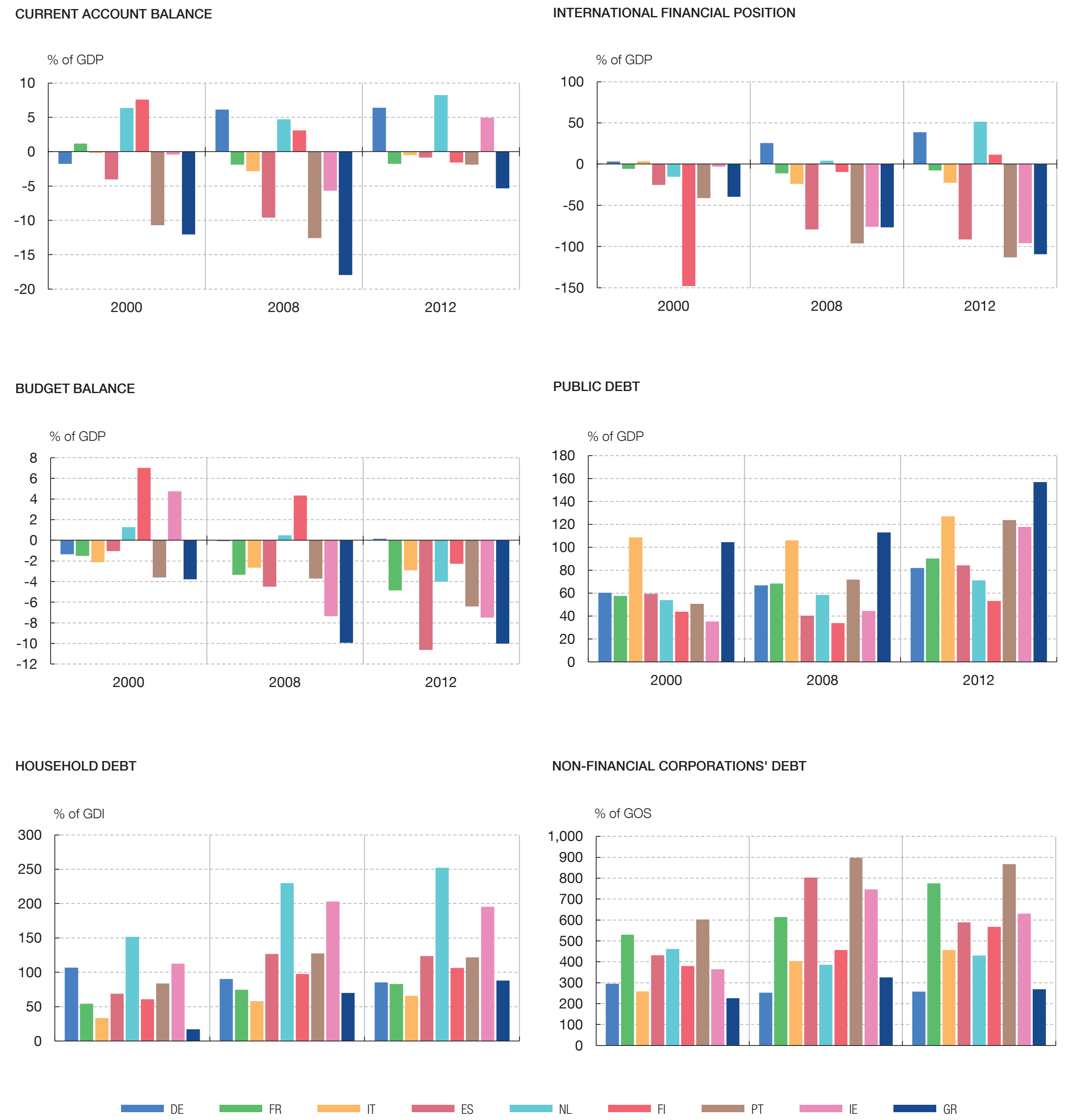
Following the nominal convergence phase to meet the EMU entry criteria, the differences in inflation rates across the member countries did not continue narrowing. With a common nominal interest rate, the countries with the highest inflation rates experienced lower real interest rates, which boosted consumption, investment and the demand for credit. The absence of structural reforms in these economies limited the responsiveness of supply to this boost in demand, thereby feeding back into the cross-country inflation differences. Nor was proper use made of fiscal policy to temper the strong expansion in demand. The generous financing conditions took the pressure off governments as regarded their spending policies, and the horizontal mechanisms for controlling public finances envisaged in the Stability and Growth Pact were inoperative.

Despite the real exchange rate appreciation in the countries with the highest inflation rates, the effects on consumption and investment arising from the cuts to real interest rates and

5 See A. Estrada, J. Galí and D. López-Salido (2013), *Patterns of Convergence and Divergence in the Euro Area,* working paper presented at the IMF Thirteenth J. Polak Annual Research Conference, November 2012.

ACCUMULATED IMBALANCES IN EURO AREA COUNTRIES

CHART 2.2



SOURCES: EC and ECB.

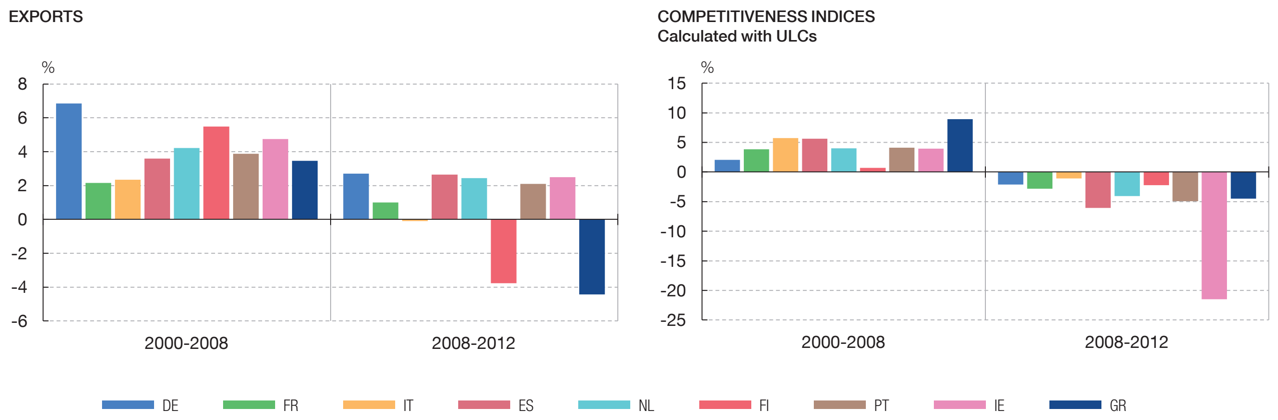
from real estate inflation proved to be very expansionary; accordingly, swollen external deficits built up which were generously financed by the easy conditions then prevailing.

… and partly because the financial markets also failed to impose the discipline expected

The financial markets, given their known tendency to overreact, also contributed to fuelling and amplifying the imbalances. In the early years of EMU, they underestimated – like everybody else – default risk. In the particular case of the Member States' sovereign debt, and despite the no-bail-out clause, they did not distinguish between different issuers, meaning that the risk premia associated with these instruments practically disappeared. During the crisis, this same tendency to overreact worked in the opposite direction, raising risk premia

AVERAGE ANNUAL GROWTH OF EXPORTS AND COMPETITIVENESS

CHART 2.3



SOURCES: EC and ECB.

above what was attributable to the fundamentals of the economies concerned and seriously jeopardising the very functioning of the euro area.[6]

The uneven progress in introducing structural reforms also contributed to amplifying divergences

The mismatches in competitiveness across the euro area countries widened owing to the differences in how wages and productivity trended. These differences were, in part, closely related to the diversity in the institutional configuration of the labour and product markets, and in the time and manner in which these countries applied the structural reforms needed to add flexibility to their economic structures. At the onset of EMU, wage growth-restraining labour reforms and productivity-boosting product market reforms were introduced, to a greater extent, in the countries where demand-side pressures were less, and in particular in Germany, where the reduction in ULCs and the growth of exports were very high (see Chart 2.3). Conversely, in other member countries the reform momentum demanded by the EMU entry convergence requirements faltered and has only picked up, in part, following external pressures derived from the unfolding and the management of the sovereign debt crisis (see Box 2.1).

As a result, developments in the productive structures of the member countries were uneven…

As a result, member countries' productive structures diverged during the upturn and only the strong adjustment imposed by the crisis on certain sectors, such as real estate, has recently corrected – albeit only partially – this tendency. The disparity explains, at least in part, why the nature of the crisis has differed in each case and also why the dispersion of GDP growth rates across the euro area countries has been much more marked in the two recent recessions (2008 Q1-2009 Q2 and that which began in 2011 Q3) and in the muted recovery between both (2009 Q3-2011 Q2) than in the recessions and expansions recorded in previous periods.[7]

… as was too the course of private and public debt…

Debt levels within the euro area are also very different from one country to another. Household debt, which accounted in the area as a whole in 2007 for 95% of gross disposable income, increased to 100% at the end of last year. At the start of the crisis, these ratios stood at 126% in Portugal, 130% in Spain, 205% in Ireland and 222% in the Neth-

6 See E. Alberola, L. Molina and Pedro del Río (2012), *Boom-bust cycles, imbalances, and discipline in Europe.* Documentos de Trabajo, no. 1220, Banco de España.

7 Also compounding this was the uneven impact on current- and capital-account balances of the growth of the emerging countries, the integration of the Central and Eastern European countries, and the nominal appreciation of the euro. See R. Chen, G. M. Milesi-Ferreti and T. Tressel (2013), "External imbalances in the euro zone", *Economic Policy* (January), pp. 101-142.

One of the requirements for a monetary union to function properly is that price and wage setting in member countries should be flexible enough to accommodate asymmetrical shocks without them resulting in a high and lasting reduction in economic activity. During the transition process towards EMU, many of the countries aspiring to membership implemented product and factor market reforms to achieve this flexibility. Furthermore, there was the hope that euro area membership in itself would accelerate the reforms.

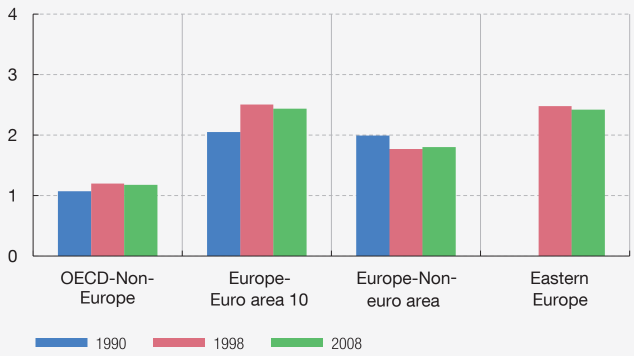
However, during the period 1999-2007 the intensity with which Member States addressed structural reforms was very mixed. This was partly attributable to the need for reforms being perceived with less urgency in times of economic growth. In fact, after EMU was launched, structural reforms were postponed in the majority of countries where they were needed most and have only been taken up again recently under the pressure of events. This is what the findings available in the literature indicate which, although they do not provide definitive conclusions, they have not found favourable evidence of the idea that EMU has favoured the reform process, but rather the opposite.[1]

These papers usually employ indicators on competition and labour regulations compiled from a systematisation of the poten-

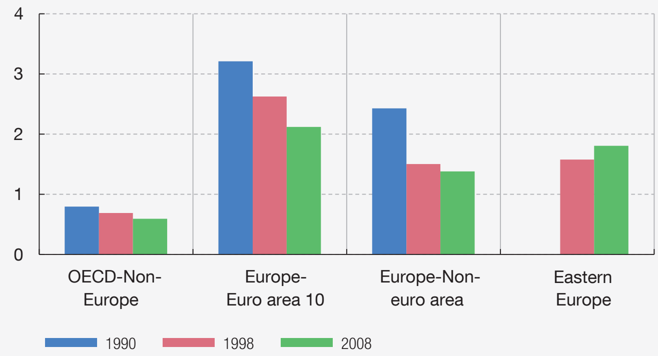
1 For a description of how the labour market reform process has developed in Spain, see S. Bentolila, J. J. Dolado and J. F. Jimeno (2012), “Reforming an insider-outsider labor market: the Spanish experience”, *IZA Journal of European Labor Studies 2012,* 1:4 (December).

LABOUR REGULATION INDICATORS (a)

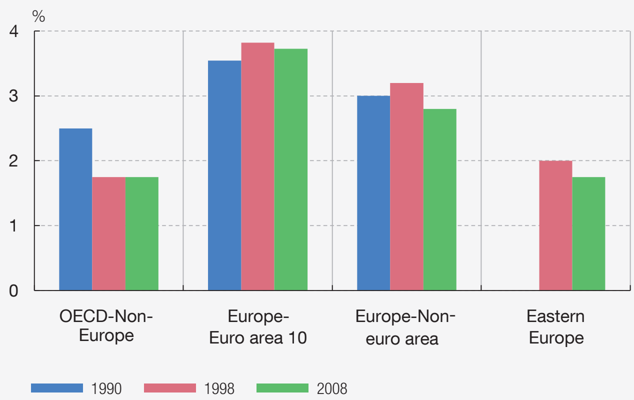
1 EMPLOYMENT PROTECTION (PERMANENT EMPLOYEES) (b)



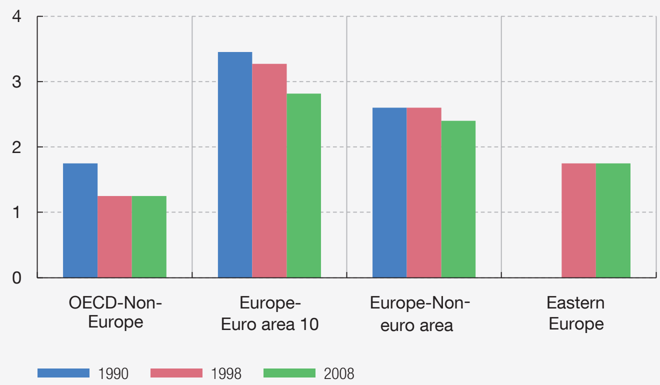
2 EMPLOYMENT PROTECTION (TEMPORARY EMPLOYEES) (b)



3 COLLECTIVE BARGAINING (ORGANISATION) (c)



4 COLLECTIVE BARGAINING (LEVEL) (c)



SOURCE: *OECD Indicators of Employment Protection.*

a The countries in each group are as follows:
OECD-Non-Europe: Australia, United States, Canada and Japan.
Europe-Euro area 10: Germany, Austria, Belgium, Spain, Finland, France, Greece, Netherlands, Ireland and Portugal.
Europe-Non-euro area: Denmark, Norway, United Kingdom, Sweden and Switzerland.
Eastern Europe: Slovakia, Hungary, Poland, Czech Republic and Turkey.
b Employment protection is the degree of rigidity (on a scale of 1 to 6, from least to most rigid) of employment protection legislation.
c Excluding Turkey.

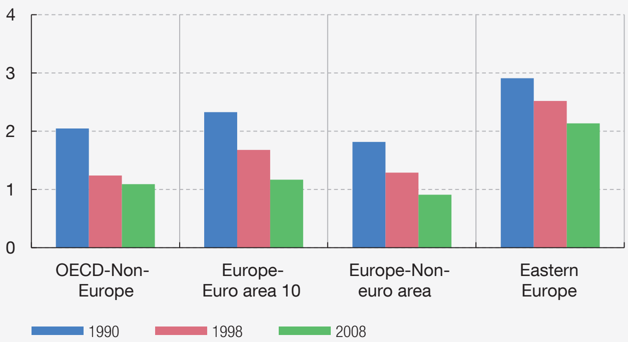
tially most influential aspects in determining prices and wages.[2] Some of the most frequently used indicators are the OECD's indicators on employment protection legislation and product market regulation and the *ICTWSS*' indicators on trade union membership and collective bargaining from the *Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts*. Panels 1 and 2 show some of these indicators grouped for comparison purposes into four geographical areas.[3]

2 Summarising the full complexity of competition and labour market regulations in quantitative indicators comparable across countries and over time is not without problems. Furthermore, in the case of regulations on competition the differences that may exist within each country as a result of the intervention of regional governments or federal states are not always included. Nevertheless, these indicators provide useful information on general trends and the main characteristics of national regulations on labour, goods and services markets.

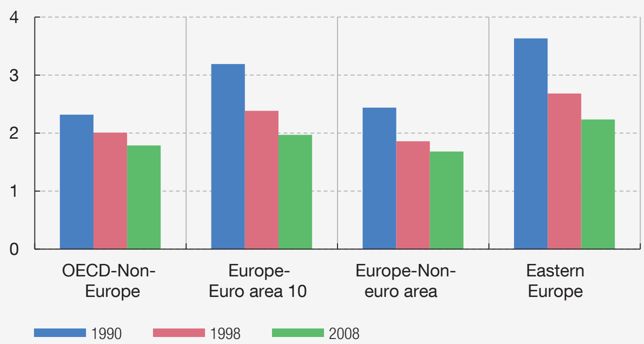
3 The collective bargaining indicators are defined as follows: Coordination: 5 = Centralised negotiations with the imposition of a nationwide agreement or wage guidelines established by the government. 4 = Mixture of sector and nation-wide negotiations in which central organisations reach agreements which are not necessarily applicable to all industries or in which certain trade unions and employer associations set guidelines for the economy as a whole. 3 = Sector bargaining with limited participation of national organisations with the possibility of negotiating at company-level. 2 = Mixture of sector and company-level negotiations with scant application of sectoral agreements . 1 = Fragmented negotiations, mainly at company level.
Level: 5 = National or central. 4 = National or central, with additional levels of sector and/or company. 3 = Sectoral. 2 = Sectoral, with additional level of company. 1 = Company.

PRODUCT MARKET REGULATION INDICATORS (a)

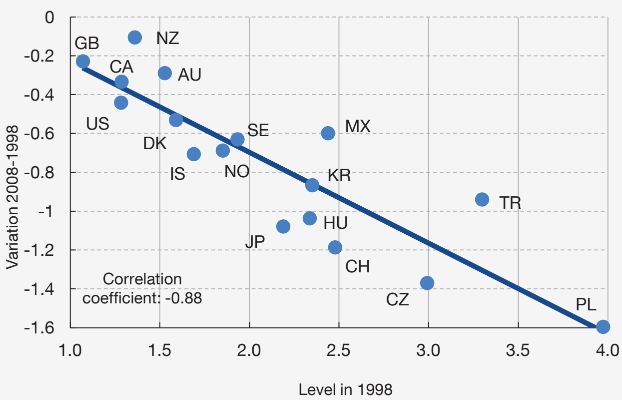
1 PRODUCT MARKET REGULATION (STATE/REGIONAL/LOCAL) (b)



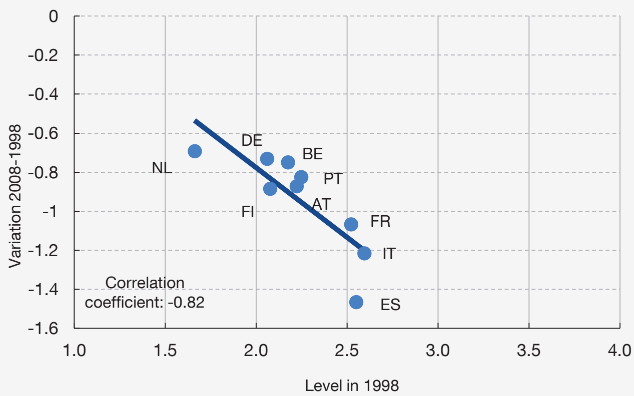
2 PRODUCT MARKET REGULATION (NATIONAL) (b)



3 CHANGES IN MARKET REGULATION OF NON-EURO AREA COUNTRIES (c)



4 CHANGES IN MARKET REGULATION OF EURO AREA COUNTRIES (c)



SOURCE: OECD, *Product Market Regulation Database.*

a The countries in each group are as follows:
OECD-Non-Europe: Australia, United States, Canada and Japan.
Europe-Euro area 10: Germany, Austria, Belgium, Spain, Finland, France, Greece, Netherlands, Ireland and Portugal.
Europe-Non-euro area: Denmark, Norway, United Kingdom, Sweden and Switzerland.
Eastern Europe: Slovakia, Hungary, Poland, Czech Republic and Turkey.
b Product market regulation is the degree of rigidity (on a scale of 0 to 6, from least to most rigid) of market protection legislation.
c Value of the indicator between 0 and 6, 0 being the least restrictive.

From the simple observation of these indicators robust conclusions cannot be obtained about the impact on EMU of the reform intensity of its Member States, given that the changes in the indicators are not very different from those seen either in the same countries prior to the onset of EMU or in countries which do not belong to that group that started out from similar situations. Consequently, it is necessary to turn to more elaborate analyses (multiple regression) in order to identify the possible differential factors. Noteworthy among the initial papers dedicated to testing the assumption of whether or not EMU has favoured structural reforms is that of Duval and Elmeskov (2005), who consider labour and product market reforms and find in general that the occurrence of economic crises, the incidence of high unemployment and a healthy fiscal position tend to give rise to the introduction of reforms, whereas belonging to a monetary union, perhaps, decreases reforming activity. They also find that reforms in the product market favour the introduction of labour market reforms and vice versa. A later paper by Høj *et al.* (2006) confirms that the occurrence of major crises is associated with more and better reforms, although, as regards employment protection and employee benefits, these usually occur to a greater extent in growth periods. More recently, Bertola (2010)[4] has found that in euro area Member States, employment protection legislation has been relaxed more, there has been a larger reduction in taxation of labour and a relative increase in the unemployment benefit replacement rate[5]. Finally, other narrative approaches concluded that the boom reduced incentives for introducing new reforms, which not only caused a decline in economic growth but it also prolonged the credit boom and delayed economic policy responses to the crisis[6].

The indicators shown – available to 2008 – do not yet reflect the impact of recent reforms, but the information from other sources suggests that the structural reform process of euro area economies seems to have quickened during the crisis,[7] in particular in those countries which are more reliant on external financing and in certain specific areas such as collective bargaining and unemployment benefit systems and pension and employment protection systems. However, differences between Member States as regards the regulation of product and labour markets continue to be very pronounced.

4 See G. Bertola (2010), "Labour markets in EMU: What has changed and what needs to change", in M. Buti, S. Deroose, V. Gaspar and J. Nogueira Martins (Eds.), *The euro: the first decade,* Cambridge University Press, Cambridge, pp. 715-758, and G. Bertola and A. Lo Prete (2010), *Whence Policy? Government Policies, Finance and Economic Integration,* CEPR Working Paper No. 7820.

5 A common trend in euro area countries is the gradual replacement of employment protection (making external flexibility easier) by unemployment protection (higher replacement rate of unemployment benefits). In the goods and services markets, the reforming efforts centre on some specific sectors (such as network industries) and the removal of administrative barriers; conversely, hardly any far-reaching reforms of education systems, of innovation and of professional services have been seen.

6 See J. Fernández-Villaverde, L. Garicano and T. Santos (2013), *Political Credit Cycles: The Case of the Euro Zone,* NBER Working Paper No. 18899.

7 OECD (2013), *Going for growth*, Paris.

erlands. And since then they have held relatively constant in Portugal (122% in 2012), Spain (123%) and Ireland (205%), and increased in the Netherlands (249%). The microeconomic data available, drawn from the recently published Eurosystem Household Finance and Consumption Survey, likewise show high cross-country heterogeneity (see Chart 2.4).

The increase in non-financial corporations' debt also arose with uneven intensity: while in 2007 companies' debt in the euro area on average was equivalent to 4.4 times their gross operating surplus, in some of the countries now subject to greater financial stress, that rate was notably higher (7.7 in Portugal, 4.9 in Ireland and 8 in Spain). At present, the euro area average for corporate debt is equivalent to 5.1 times the gross operating surplus (8.6 in Portugal, 6.8 in Ireland and 6 in Spain).

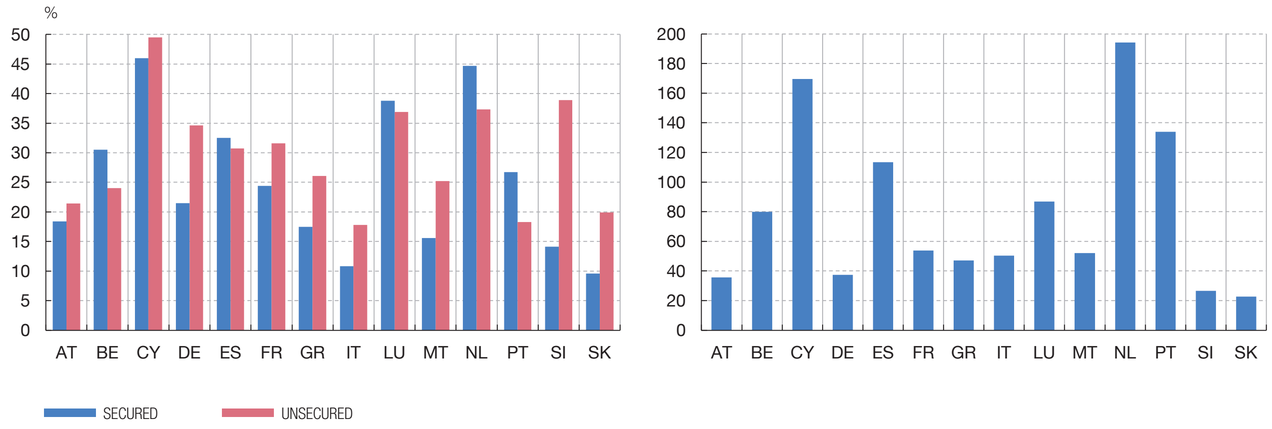
In terms of the public-sector rate of indebtedness, the increases during the crisis, arising both from the primary deficits built up and from the higher cost of debt financing and lower GDP growth, were particularly marked in the Southern European countries. The exceptions were Italy, whose point of departure was already a debt rate higher than 100%, and Ireland, where the biggest impact stemmed from the clean-up of the banking sector (see Chart 2.5).

HOUSEHOLD DEBT IN THE EURO AREA

CHART 2.4

PERCENTAGE OF INDEBTED HOUSEHOLDS

DEBT/INCOME RATIO FOR HOUSEHOLDS WITH MEDIAN DEBT



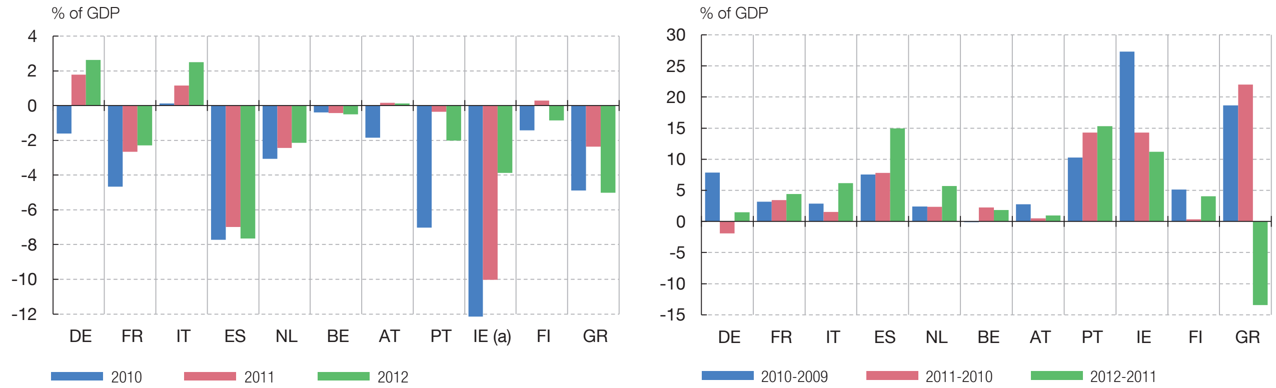
SOURCES: European Survey of Household Finances and Banco de España.

PUBLIC FINANCES IN THE EURO AREA

CHART 2.5

EURO AREA PRIMARY BUDGET BALANCE

EURO AREA PUBLIC DEBT (CHANGE)



SOURCE: Eurostat.

a Ireland's primary deficit in 2010 is 27.7%

… and, especially, the behaviour of labour markets

Sufficient price and wage flexibility, and high mobility of the factors of production are two of the characteristics proper to an optimal monetary area. During the expansion that followed the creation of EMU, few labour reforms were introduced that succeeded in improving the institutional configuration of the labour market in those countries that had historically shown greater price and wage rigidity and limited labour mobility (see Box 2.1). Consequently, the crisis has had a very uneven impact on unemployment, with an increase from 2007 to 2012 of 3.8 pp in the euro area as a whole, but of 16.8 pp in Spain, 16 pp in Greece and 10.2 pp in Ireland.

These changes are the result of very different labour market performances, which are much more clearly manifest when flows in job creation (labour flows from inactivity and unemployment to employment), job destruction (labour flows from employment to unemployment and inactivity) and labour market exits (flows from employment and unemployment to inactivity) are observed (see Chart 2.6).

INCREASE IN THE PROBABILITY OF TRANSITING BETWEEN LABOUR MARKET STATUSES
(Differences relative to the period 2006-2008)

CHART 2.6

SOURCES: Labour Force Survey (Eurostat) and Banco de España.

2.2. THE LIMITATIONS OF EMU

The crisis has highlighted four basic areas in which the initial institutional design and governance of the euro area have proven insufficiently sound: i) the identification and correction of macroeconomic imbalances; ii) the implementation of the agreed fiscal discipline principles; iii) the consequences of growing financial integration, and iv) the non-existence of common crisis-resolution mechanisms.

The macroeconomic divergences between the euro countries may have serious consequences if not curbed in time

The main divergences in the euro area reflected, as explained, the build-up of macroeconomic imbalances that would need, sooner or later, to be corrected. The countries with higher growth in external debt were, indeed, those which posted lower growth in productivity. This is contrary to what characterises a natural process of economic convergence within a common monetary zone, where the higher future growth of productivity in the country with the lowest income warrants its indebtedness against the country with the highest income while such convergence is coming about.[8]

The Maastricht Treaty laid down oversight procedures and corrective mechanisms for excessive budget deficits and public debt, although they were relatively inoperative, as

8 See F. Giavazzi and L. Spaventa (2011), “Why the current account may matter in a monetary union: lessons from the financial crisis in the euro area”, in M. Beblavy, D. Cobham and L. Ódor (eds.), *The Euro Area and the Financial Crisis*, Cambridge University Press.

discussed below. But other potential macroeconomic imbalances (e.g. unemployment and the current-account balance) were scarcely catered for.

The fiscal disciplining mechanisms were not effective…

One of the potential vulnerabilities of EMU which was identified early on is that derived from the incentive to pursue overly lax fiscal policies if it is expected that the other member countries will come to the rescue in times of need. To correct this, the Treaty set caps on budget deficits and public debt through the Stability and Growth Pact, which also envisaged fining the countries that exceeded these ceilings. The Treaty likewise warned members that they should meet their debt obligations exclusively through their own resources.

However, during the 1999-2007 period, in a setting of growth and low funding costs, the fiscal imbalances of some of the euro area countries were masked by extraordinary revenue, which was used to lower taxes or to increase public spending. This did not give rise to any warning by international agencies, which did not identify the underlying imbalances and their risks for debt sustainability. In other countries which did not benefit from this type of revenue, such as Germany and France, but which did exceed the deficit ceilings set under the Stability and Growth Pact, the procedures established were not applied with due diligence. Ultimately, this diminished the capacity of the Pact to redress situations of risk.

… as a result of which the fiscal room for manoeuvre in the face of the crisis was very rapidly exhausted

The strong dependence on extraordinary revenue, the increase in public spending during the first phase of the crisis, the expenses arising from the clean-up of the financial sector and the marked rise in financing costs all induced a rapid increase in budget deficits (see Chart 2.2). Indeed, the most vulnerable economies saw how the fiscal instruments for economic stabilisation lost their power precisely when it was most needed; accordingly, the capacity to use a countercyclical fiscal policy was much diminished. Growing funding difficulties were exacerbated when the necessary fiscal consolidation measures began to produce negative effects on economic activity in the short run. This has given rise to heated debate on the magnitude of the "fiscal multipliers" and the room for potential gradualism in the reduction in public spending that is compatible with the least costly exit from the crisis (see Box 1.2). In any event, the funding difficulties that countries with severe fiscal problems are facing and uncertainty over the magnitude of these multipliers means more efficient forms of reducing public spending and increasing revenue must be found, amid the difficulties of a setting marked by low growth and the need for the deleveraging of both the public and private sectors.

In this setting, neither the consequences of growing financial integration nor how to tackle bank crises had been foreseen

In the initial design of EMU, the supervision and regulation (in some of its elements) of the financial system remained within the national realm, despite the expected increase in financial integration in the area. The consequences were dramatically highlighted by the crisis, as governments had to individually assume the cost of cleaning up financial institutions whose economic activity and repercussions went beyond national borders. This ultimately created a "diabolical link" which has magnified the relationship between sovereign and banking risks, especially in those countries with lower growth potential and a higher rate of indebtedness.[9]

The resolution mechanisms for banking and sovereign debt crises have only been launched *a posteriori*

As the financial difficulties heightened, Greece (owing to its public debt sustainability problems), Ireland (the fiscal consequences of its bank bailout) and Portugal (mainly its weak growth potential) had to request financial assistance from their partners. During 2012, Cyprus also formally requested a support programme and Spain agreed on a financial

9 See A. Mody and D. Sandri (2012), "The euro zone crisis: how banks and sovereigns came to be joined at the hip", *Economic Policy* (April), pp. 199-230.

aid package for the recapitalisation of part of its banking sector. The mechanisms to implement the financial aid, which is subject to strict conditionality tailored to each case, were primarily formalised ad hoc (Greece) and, later, through the European Financial Stability Fund. Finally, March 2011 saw the approval of the creation of the European Stability Mechanism (ESM). This is a permanent financial crisis-resolution mechanism for the euro countries which began to function last September and will be fully operational from July 2013.

The ECB has made up, in part, for these insufficiencies through the intensive use of its unconventional tools

The actions of the ECB have helped mitigate in part the consequences of the aforementioned institutional weaknesses, both through the use of conventional tools and, above all, through the implementation of a broad set of unconventional measures. The generous liquidity-provision policy by means of fixed-rate tenders with full allotment, broader eligibility criteria for the collateral for lending operations and the extension to three years of its long-term refinancing operations are significant examples here. The actions by the ECB have, at different times, allowed tensions to be alleviated and have bought the necessary time so that measures in other areas may bear fruit. The efficient design of the ECB's operations made the taking of these decisions easier.[10] The securities purchase programmes aimed at restoring the transmission mechanism and, most particularly, the announcement of the so-called "outright monetary transactions" also contributed substantially to lessening the risks of growing sovereign risk premia spirals associated with the increase in uncertainty over the irreversibility of the euro. In any event, it is clear from the description of the sources of this crisis that resolving the underlying problems cannot be done by the instruments available to the monetary authority, meaning that their role cannot stand in for an improvement in the governance and institutional design of EMU.

3 The way forward in resolving the shortcomings of the euro area

To tackle the problems at the root of the crisis affecting the euro area, the member countries must pursue decisive and convincing measures. Governments have to accept that, in a monetary union, domestic policies must be unequivocally geared to increasing the adjustment capacity of their economies, raising productivity and ensuring macroeconomic stability. That requires headway in the consolidation of public finances and undertaking reforms that raise the potential growth and competitiveness of the member economies and provide, at the same time, the necessary flexibility within a monetary union to make good the lack of certain traditional stabilisation instruments, such as the interest rate, the exchange rate and also fiscal discretionality.

But that is not enough. Also needed are resolute area-wide measures. The realisation that the initial design of the monetary union was not sufficiently sound has made reform a vital prerequisite for restoring credibility in the continuity of the project.

The reform of governance began with the strengthening of economic policy surveillance instruments

Initially, the reform of the euro area's institutional architecture focused on strengthening budgetary policy surveillance mechanisms, extending the oversight perimeter subsequently to the macroeconomic imbalances (see Table 2.1). The reform of micro and macroprudential policies was also launched, to redress the flaws that had allowed an excessive build-up of risk in most euro area banking systems.

The Stability and Growth Pact was revised, introducing the Fiscal Compact and the new Macroeconomic Imbalances Procedure…

A far-reaching review of the Stability and Growth Pact was conducted, laying down new spending and debt-reduction rules along with a more extensive and harsher set of sanctioning mechanisms. Further, the European Commission was empowered to intervene in the design phase of national budgets (the two-pack rules). To improve the national anchoring

10 For a comparison of the responses by the Federal Reserve, the Bank of England and the ECB to the financial crisis, see M. Lenza, H. Pill and L. Reichlin (2010), *Monetary Policy in Exceptional Times,* ECB Working Paper, 1253.

EUROPEAN GOVERNANCE REFORM: ECONOMIC POLICY MONITORING INSTRUMENTS

TABLE 2.1

First phase of the reform (six-pack)	Strengthening of the Stability and Growth Pact. In addition to the cap of 3% of GDP for the deficit and the commitment to converge by at least 0.5 pp of GDP (in structural terms) towards the medium-term objective, the following are introduced: ceilings on spending growth, a rule for debt reduction (1/20 per annum) and more extensive sanctions that could be applied at an earlier phase of the procedure; reverse voting rules are also introduced, whereby the Commission's recommendations are considered to be approved unless the Council voices its disagreement within a specified period.
	Creation of the Macroeconomic Imbalances Procedure, for the prevention and correction of macroeconomic imbalances. Drawing on a set of indicators (Alert Mechanism), it will be determined which countries have or risk having excessive imbalances. These countries would be subject to an "in-depth analysis", which will conclude with recommendations. If these recommendtions are not reiteratedly met, the procedure might conclude with the imposition of sanctions.
Other elements of the reform (two-pack)	European Commission Regulation that grants it power to issue an opinion on national budgets before these are approved in Parliament and which recommends establishing independent national fiscal councils.
	European Commission Regulation that introduces the enhanced monitoring procedure for countries that have applied for financial assistance or that evidence instabilities which may jeopardise the area's financial stability.
Other inter-governmental mechanisms	Treaty on Stability, Convergence and Governance. Under the so-called "Fiscal Compact" it is obligatory to transpose to national law, preferably to the Constitution, the commitment to a balanced budget throughout the cycle and to introduce an automatic correction mechanism for potential slippage.
	Euro-Plus Pact (inter-governmental agreement whereunder countries undertake to set specific reform commitments to increase tax harmonisation, competitiveness and financial restructuring).

SOURCE: Banco de España.

of fiscal policies, the Treaty on Stability, Coordination and Governance was introduced, an inter-governmental pact known as the Fiscal Compact, which makes it obligatory to transpose into national law, preferably the Constitution, the commitment to maintain a balanced budget throughout the cycle. And to prevent other-than-fiscal macroeconomic imbalances from emerging, the Macroeconomic Imbalances Procedure was set in place and the Euro Plus Agreement was signed, whereunder euro area governments undertake to set in place competitiveness-enhancing wage and structural reform policies.

... and a new area monitoring systemic financial risks was opened up: macroprudential policy

At a relatively early stage, the governments also agreed on the reform of the financial supervision framework in the European Union, with the creation of sectoral supervisory authorities and, more prominently, of the European Systemic Risk Board (ESRB), the new body entrusted with macroprudential supervision. The main aim of the ESRB is to examine the financial system as a whole, ensuring that the growing interrelatedness and complexity of operations does not result in systemic risks. The ESRB recommended that all Member States establish national macroprudential authorities, in accordance with a series of core principles. The Banco de España has created a high-level working group, with the participation of the Treasury, to draw up specific proposals in this respect.

Permanent financial assistance mechanisms for countries with market-access difficulties were also established

The development of these new surveillance mechanisms for domestic economic policies helped overcome the reluctance of some countries to set in place financial assistance mechanisms for the countries experiencing difficulties in raising financing on the markets. The tensions in reaching an agreement on how to channel the financial assistance to Greece highlighted the need for a permanent instrument, with defined rules of conduct providing for diligent action so as to avoid contagion to other economies. But the fear that this instrument might weaken the incentives to pursue more disciplined policies meant that the starting point was a minimum-based initial approach, which had to be rectified as the successive waves of financial tensions highlighted the need for much more powerful firewalls that would be flexible

TOWARDS A MORE COMPLETE EMU
MAIN ELEMENTS OF THE COMMISSION'S AND EUROPEAN COUNCIL'S PROPOSALS

TABLE 2.2

	Short term (next 18 months)	Medium term (18 months-5 years)	Long term (over 5 years)
Banking union	Single supervisory mechanism and single resolution mechanism		Full banking union in which, in keeping with initial proposals, there is scope for a common deposit guarantee fund
Fiscal union		Fiscal capacity to soften asymmetrical shocks. Debt Redemption Fund. Pooled short-term debt issues (eurobills). European Treasury.	Full fiscal union, with the creation of a European Budget and the introduction of eurobonds
Economic union	Full implementation of the European Semester, of the six-pack and rapid agreement on the two-pack. Creation of a convergence and competitiveness instrument (contractual reform commitments)	Greater coordination of employment and tax policies	Greater coordination of economic policies
Political union	Greater democratic legitimacy will be sought throughout the process, enhancing accountability to the European Parliament		

SOURCE: Banco de España.

enough to tackle the specific obstacles of each situation. Following the reform of the Treaty on the functioning of the EU, the ESM – a permanent institution designed to channel financial assistance to the euro area countries that require it, subject to strict conditionality – commenced operating on 27 September 2012. The ESM will be fully operational from summer this year.

But these instruments were not sufficiently powerful to short-circuit the spirals of instability to which the euro area continued to be vulnerable

The tensions experienced during 2012 reveal that strengthening the surveillance mechanisms was, while necessary, in itself insufficient. The challenges for the integrity of the euro area do not arise only from the inflexibility of labour and product markets, the dispersion of financial regulation and supervision and the absence of fiscal discipline. Events last summer highlighted the fact that, in an imperfect monetary union, the member countries are vulnerable to self-fulfilling prophecies which may ultimately convert an economy's liquidity problems into a confidence crisis that spreads rapidly to other countries in the area and which may jeopardise the very viability of the project.[11]

A move towards greater fiscal, economic and financial integration became necessary

The rise in 2012 of so-called "redenomination risk", associated with the possibility of the single currency breaking apart, made a qualitative leap in the reform of governance necessary. In late June 2012, the Euro Area Heads of State and Government added a new dimension to the process and agreed to move towards a new Union envisaging the transfer within the area of a large share of credit institution-supervision and bank crisis-management responsibilities (banking union); a system of incentives to promote structural reforms and greater policy coordination (economic union); sufficient fiscal capacity to help withstand shocks more of a domestic nature and to prevent them from spreading to the other countries (fiscal union); and mechanisms ensuring the democratic legitimacy of the entire process (political union).

Despite the strong interdependence and synergies between these four pillars, the process will evolve in different phases (see Table 2.2), although there is still much uncertainty about

11 P. de Grauwe (2011), *The governance of a fragile Eurozone*, University of Louvain and CEPS.

the scope of the proposals in several of these areas, particularly concerning the initiatives that entail a degree of mutualisation of risks. Even so, discussions have been set under way along with reflection about the architecture needed for the long-term stability of the euro area, and a roadmap has been laid down to move towards this new model.

In parallel, the absorption of the imbalances built up in the past must be tackled in the short term

While the design of this roadmap has allowed governments to reinforce their commitment to the continuity of the European project, it should not be forgotten that, in the short term, resolving the crisis also requires specific measures that help correct the imbalances that have led to it (legacy issues), alleviate adjustment costs and allow a growth path to be promptly resumed.

3.1 BANKING UNION

Financial integration in a monetary union requires greater co-responsibility in supervision and in bank resolution…

At the height of the crisis, the vulnerability that arises from the coexistence of a single monetary policy with financial systems in which the ultimate responsibility for the supervision and resolution of banks falls on national governments became evident. In the analytical literature, this phenomenon is called a "financial trilemma", under which maintaining the autonomy of national financial policies in the presence of a supranationally integrated financial system will ultimately generate instabilities that may degenerate into serious banking crises.[12]

… in order to prevent systemic risks and the feedback loop between sovereign and banking risk

The capacity of national governments to ensure financial stability within a monetary union is limited by the possibility of a perverse feedback dynamic arising between banking and sovereign risk. The capacity of financial supervision exercised at the national level is also limited when it comes to tackling the systemic consequences proper to an integrated financial area and the coordination difficulties that arise in the case of banks with strong cross-border links, which may prolong the process and increase restructuring or resolution costs, as occurred with certain European groups.

In June 2012 it was agreed to move towards a banking union

The foregoing developments have forged a growing consensus about the need to progressively transfer essential aspects of banking policy to the supranational level.[13] To this end, the European governments agreed in June 2012 to move towards establishing a banking union, capable of rebuilding confidence in the soundness of the banking system, eliminating the fragmentation of markets and restoring the monetary policy transmission channels. Under the initial agreement reached, this union would be based on three essential pillars: a single supervisory mechanism, a management and resolution mechanism for banks in crisis and, finally, a common deposit guarantee fund.

Priority was granted in December to setting up a single supervisor, comprising the ECB and the national supervisors

In the face of the serious instability experienced in the summer of 2012 and the political difficulties of pushing through the other two pillars of the banking union owing to their potential fiscal implications, progress has been brisker in establishing the single supervisory mechanism (SSM), which will foreseeably come into force during 2014. The SSM will comprise the national supervisory authorities and the ECB, which will be entrusted with directly supervising the biggest banks and those that have received European financial support. To avoid the conflict that may arise between the ECB's monetary policy decisions and supervisory actions, functional barriers will be set in place within the institution; more specifically, through the creation of a new supervision board, whose decisions shall be considered as adopted provided that the Governing Council lodges no objection. The national supervisory authorities will, in any event, continue to play a significant role in the SSM, enabling their better knowledge of local markets to be harnessed.

12 D. Schoenmaker (2009), *The Trilemma of Financial Stability*, working paper 1340395, SSRN.

13 See T. Beck (ed.) (2012), *Banking union for Europe: risks and challenges,* VoxEU Book, and J. Pisani-Ferry, A. Sapir, N. Verón and G.B. Wolff (2012), *What kind of European banking union?,* Bruegel Policy Contribution 2012/12.

The common management and resolution mechanism for banks in crisis will entail sharing sovereignty in exchange for a greater mutualisation of risks

Achieving a genuine banking union involves not only centralising responsibility for the prudential supervision of banks, but also setting in place an integrated restructuring and resolution mechanism for ailing banks, with sufficient fiscal capacity to isolate outbreaks of instability when prevention is not enough and banking crises arise.[14] Only with this supranational approach can problems be addressed with the necessary speed, preventing the difficulties that may arise in certain banks from distorting the public finances of the States where they are located and from projecting mistrust about the entire financial system.

The proposals based on a greater coordination among the national authorities responsible for resolution, even when they envisage pre-set rules for the distribution of costs in the case of cross-border banks, are not powerful enough to eliminate the link between banking risk and sovereign risk.[15] Mindful of this, a compromise was reached at the December 2012 Summit of euro area Heads of State and Government to move ahead in the design of a new instrument during 2013, on the basis of a proposal to be drawn up by the European Commission. Evidently, a mechanism of these characteristics involves pooling decisions with fiscal and political implications. But setting in place an incomplete banking union would have harmful effects for financial stability, as it would not only not eliminate the destabilising link between sovereign and banking risk, but it would also prompt strong institutional tensions between the supranational body that decides which banks may or may not be viable and the States that would have to individually tackle their restructuring or resolution.

To minimise the risk of weakening the incentives to maintain prudent bank practices in the new setting of greater risk mutualisation, a clear regulatory framework is necessary. This will guarantee that any euro area bank is resolved following uniform criteria, which ensure that shareholders and private investors share losses and under the premise that any support will be recouped or indeed pre-financed by the private financial sector itself.[16]

Setting in place an integrated deposit guarantee scheme will also be tackled later

The third pillar of the complete future banking union is the creation of a common deposit guarantee scheme, on which consensus has not yet been forged. Currently, various guarantee funds exist alongside one another in the euro area countries, and they are not perfectly harmonised, especially as regards how they are funded. The implicit support of the national Treasury should the accumulated funds prove insufficient in the event of systemic-like crises explains why this element is a significant link in the chain existing at present between sovereign risk and banking risk.

While the European directives under way will entail a greater harmonisation of these arrangements, the estimates available on the costs of bank crises highlight the limitations a national fund may display in checking processes involving losses in confidence that may result in a massive withdrawal of deposits.[17] Some proposals suggest establishing lending arrangements between the respective national firms, which would increase intervention power, although this might not be enough if the lack of confidence spread to a large number of countries. Another possibility is to create a supranational guarantee fund, which would exist alongside the current national funds and would only act when the fund of the country concerned had exhausted its resources.

14 See, for example, D. Gross and D. Schoenmaker (2012), *A European Deposit Insurance and Resolution Fund,* CEPS working paper no. 364.

15 C. Goodhart and D. Schoenmaker (2009), “Fiscal Burden Sharing in Cross-Border Banking Crises”, *International Journal of Central Banking.*

16 J. Pisani-Ferry and M. Wolf (2012), *The fiscal implications of a banking union,* Bruegel Policy Contribution 2012/06.

17 L. Laeven and F. Valencia (2012), *Systemic Banking Database: an update,* working paper 12/163, International Monetary Fund.

3.2 ECONOMIC UNION

The proper functioning of the euro area requires countries to set in place measures to prevent imbalances emerging and to increase the effectiveness of the adjustment mechanisms

The design of the Macroeconomic Imbalances Procedure responds to the need for early detection of imbalances that may jeopardise the stability of the euro area. Acknowledging that euro area members are not free from the risk of a balance of payments crisis[18] advises the adoption of more proactive mechanisms that prevent imbalances emerging and bolster the channels that allow for their adjustment. The Euro 2020 Strategy and its forerunner, the Lisbon Agenda, have not so far managed to drive the reform processes that would have allowed the current shocks to be tackled with greater flexibility.

The future European Convergence and Competitiveness Mechanism introduces contractual reform commitments with financial incentives…

The euro area Heads of State and Government agreed to create the so-called "European Convergence and Competitiveness Mechanism", whose main objective is to drive economic reforms through entering into contractual commitments with financial incentives. What is involved here, in any event, is a complex instrument that ultimately resides on a contract between international and national institutions.

… to which the Community-designed and managed convergence instruments should be added…

Alternatively or additionally, programmes funded exclusively by Community bodies could be developed and offered to member countries under the principle that such instruments would be available provided any institutional constraints that might detract from their effectiveness were eliminated. The re-routing of structural funds might be permitted, along with new contributions by the member countries to that end. Initiatives could focus on improving the working of labour markets which, as has been manifest throughout the crisis, crucially determine each country's response in the face of a shock.

… along with the full implementation of the Services Directive and tax harmonisation

There is also a need for more resolute progress towards eliminating the barriers still hampering trade and the international provision of services, and towards greater tax harmonisation to prevent distortions to business competition.

3.3 FISCAL UNION

The need for a European budget arouses much controversy

As a complement to reinforcing national fiscal policy coordination and oversight instruments, extending the capacity of the European budget to act as a stabiliser would help soften the economic impact of asymmetrical shocks. However, extending the size and functions of the European budget is a heavily controversial subject.

Firstly, there is no consensus on the ability of potential supranational fiscal stabilisers to absorb the impact of specific asymmetrical shocks across the euro area countries. Although some empirical research points to the significance of this type of asymmetry as an explanatory factor of cyclical differences within the euro area[19], it is not clear whether this instrument is suitable when divergences reflect differentiated responses to a common shock, as a consequence of national particularities whose origins lie, for example, in the poor functioning of the labour market.

Further, there is evidence that, in the United States and in other federal countries, it is financial channels which soften a large portion of asymmetrical shocks, while the cushioning role of fiscal transfers is less substantial, although significant.[20] But it is not clear that the experience of these federations can be extrapolated to the euro area. The crisis has

18 S. Merler and J. Pisani-Ferry (2001), *Sudden stops in the euro area,* Bruegel Policy Contribution 2012/06.

19 A Belke and D. Gross (1999), "Asymmetric shocks and EMU. Is there a need for a Stability Fund?", *Intereconomics,* 1998.

20 P. Asdrubali, B. E. Sorensen and O. Yosha (1996), "Channels of interstate risk sharing: United States (1963-1990)", *The Quarterly Journal of Economics,* November, pp. 1081-1111. M. Hoffmann and B. E. Sorensen (2012), "Don't expect too much from EZ fiscal union – and complete the unfinished integration of European capital markets!", *VoxEE,* November.

shown that the euro area is highly vulnerable to losses of confidence that can ultimately lead to the redeployment of foreign capital and the fragmentation of financial markets which, far from dampening the shocks, may exacerbate them. Progress towards a banking union will help mitigate the risks of fragmentation; but even so, the distribution of financial assets in Europe shows a greater national bias than in other federal states, without there being any evidence quantifying the factors explaining this.

The European budget, in any event, would not extend the income redistribution functions envisaged under the current framework and it would be smaller than that of other federations

The size of the common European budget might, in any event, be smaller than that of other federations, since it would not perform income redistribution functions other than those currently envisaged under the framework of convergence-promoting policies, and it would confine itself to stabilising or structural reform-boosting functions (in the case of the competitiveness and convergence mechanism, for instance). Nonetheless, some more ambitious proposals call also for greater capacity to face severe recessions affecting the euro area as a whole and to preserve financial stability, albeit while constantly maintaining financial equilibrium over the cycle to prevent permanent income transfers (see Box 2.2).[21]

The distribution of funds might be linked to unemployment or to the output gap

To exercise this stabilising function, various options have been considered.[22] These include most notably establishing an unemployment insurance tranche funded by the European budget or by a system of payments linked to changes in the output gap. Financing could be through direct government contributions or with funds from specific taxes.

A fiscal union could be completed with the joint issuance of debt

A more advanced step in the fiscal union realm is the joint issuance of some type of pooled debt that helps mitigate the vulnerability of individual issues to losses of confidence such as those experienced during the crisis. In this respect, the possibility of the joint issuance of short-term debt instruments (Treasury bills), in a limited fashion and subject to strict conditionality[23], has been envisaged. Over a longer term, the European Commission and Council have considered introducing eurobonds, although this initiative has met strong rejection in some countries owing to its potential risk of weakening the incentives to pursue disciplined fiscal policies. Accordingly, alternatives have been offered which seek to introduce additional disciplining elements [Delpla et al. (2010), Euronomics Group (2011)] that complement the framework of rules derived from the recent reform of governance.[24]

3.4 THE NEED TO ABSORB THE IMBALANCES THAT HAVE BUILT UP

International cooperation is vital to address the resolution of legacy problems…

Along with further progress towards greater economic, fiscal and financial integration, a high degree of corporation is also needed in the short term to eliminate the accumulated imbalances and to design strategies that provide for the restoring of confidence and economic growth to smooth the transition towards the new euro area model.

… firstly, providing for fiscal consolidation in the countries with bigger public finances imbalances…

In the fiscal arena, progress in the consolidation of public finances is proving notable in most countries. But the difficulties in reducing debt to more moderate levels, against a background of high sovereign debt funding costs and of sluggish economic growth, are evident. In this respect, proposals have been tabled, such as that originally made by the German Council of Economic Experts for the creation of a debt repayment fund, which

21 G.B. Wolff (2012), *A budget for Europe's monetary union,* Bruegel Policy Contribution 2012/22.

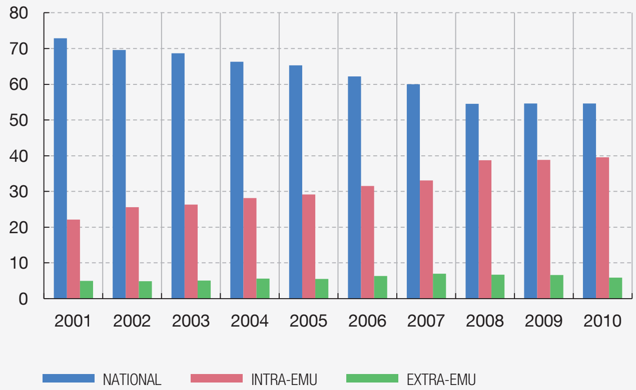
22 J. Pisani-Ferry, E. Vihriala and G.B. Wolff (2013), *Options for a Euro Area fiscal capacity,* Bruegel Policy Contribution 2013/1.

23 Based on an original idea by C. Hellwig and T. Philippon (2011), "Eurobills, not Eurobonds",, *VoxEU,* who propose a limit of 10% of GDP for all countries.

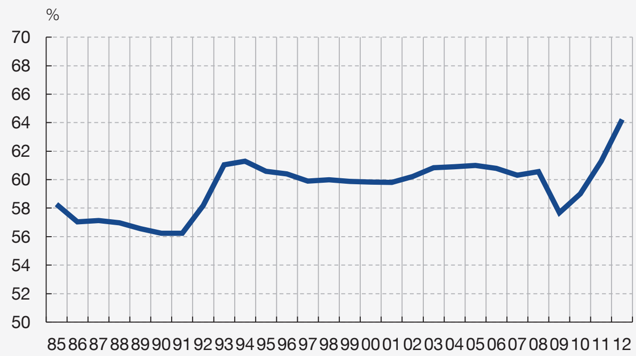
24 See J. Delpla and J. von Weizsacker (2010), *The Blue Bond Proposal,*Bruegel Policy Brief 420, and Euronomics Group (2011), *European Safe Bonds(ESBies), The Euronomic-group.*

The literature on monetary unions indicates that the main channels for cushioning or sharing risk when a country in the union experiences an asymmetrical shock are migratory flows, fiscal transfers and financial markets. When a country (or region) is subject to a shock, the consequences can be reduced if part of its population emigrates to other regions. The shock can also be cushioned by government intervention through fiscal transfers from the federal budget, as in the case of the United States (fiscal channel). Furthermore, the fall in GDP does not necessarily have to feed through in full to residents' income if capital ownership is diversified so that part of the productive capital of that economy is owned by non-residents while, at the same time, residents obtain income from

1 NATIONAL BIAS IN EQUITY ISSUES (a)



2 UNSHARED RISK (b)



3 RISK-SHARING MECHANISMS (c)

	EMU estimates			EC-8 (d)	United States (e)	Canada (f)	Germany (g)
	1970-2012	1999-2007	1999-2012	1966-1990	1963-1990	1961-2006	1995-2006
Capital markets	-0.03	0.03	-0.09	0.00	0.39	0.26	0.51
	(-1.76)	(0.29)	(-0.97)	(1.00)	(3.00)	(7.15)	(6.80)
Depreciation	-0.10	0.00	-0.13	-0.04	--	--	--
	(-6.23)	(-0.20)	(-3.38)	(-2)	--	--	--
Transfers	0.01	-0.11	0.09	0.00	0.13	0.26	0.11
	(0.38)	(-1.43)	(1.01)	(2.00)	(1.00)	(6.63)	(1.58)
Credit channel	0.47	0.54	0.49	0.46	0.23	0.18	0.18
	(7.84)	(2.46)	(4.23)	(6.00)	(6.00)	(9.78)	(3.13)
Unshared risk	0.64	0.54	0.63	0.57	0.25	0.30	0.21
	(9.70)	(6.06)	(5.74)	(6.00)	(6.00)	(4.07)	(3.01)

SOURCES: ECB, Banco de España and other.

a Percentage held by residents in the country, in the euro area and outside the euro area.
b Estimated according to the methodolgy of Asdrubali *et al.* (1996).
c t-ratios in brackets. The system estimated is:
(1) $\Delta GDP_t - \Delta GNP_t = V_{1t} + \beta_1 \Delta GDP_t + \varepsilon_{1t}$
(2) $\Delta GNP_t - \Delta NNP_t = V_{2t} + \beta_2 \Delta GDP_t + \varepsilon_{2t}$
(3) $\Delta NNP_t - \Delta NNI_t = V_{3t} + \beta_3 \Delta GDP_t + \varepsilon_{3t}$
(4) $\Delta NNI_t - \Delta C_t = V_{4t} + \beta_4 \Delta GDP_t + \varepsilon_{4t}$
(5) $\Delta C_t = V_{5t} + \beta_5 \Delta GDP_t + \varepsilon_{5t}$,
where GDP is gross domestic product, GNP is gross national product, NNP is net national product, NNI is net national income and C is total consumption. All the variables are expressed in logarithms and the coefficients β_1, β_2, β_3, β_4 approximate the shared risk through capital markets, depreciation, fiscal transfers and credit markets, respectively. The coefficient β_5 measures the unshared risk.
d B. E. Sørensen and O. Yosha (1998), "International risk sharing and European monetary unification", *Journal of International Economics,* 45, pp. 211-238.
e P. Asdrubali, B. E. Sørensen and O. Yosha, "Channels of interstate risk sharing: United States (1963-1990)", *The Quarterly Journal of Economics,* 111 (4), pp. 1081–1111.
f S. Basher, F. Bali and L. Rosmy (2009), *Channels of risk sharing among Canadian provinces: 1961-2006.*
g R. Heppe and J. von Hagen (2010), *Interstate risk sharing in Germany,* 1970-2006. University of Connecticut Working Paper 13.

other countries (regions) that are not affected by the shock — in this literature this channel is usually called "capital markets". Finally, the households and firms of that economy can moderate their consumption by turning to the credit market (credit channel).

Several empirical papers have attempted to quantify the extent of risk-sharing which each of these channels can provide based on the experience of previously existing federal unions. The methodology usually employed is that proposed by Asdrubali et al. (1996),[1] which endeavours to quantify to what degree the variance in a State's gross domestic product is reflected in the variance in that State's total consumption.[2]

As can be seen in the accompanying table, the evidence available for the United States and other federal States indicates that a large share of the shocks are cushioned by capital markets (around 40%). Credit markets also play an important role as a risk diversification channel (buffering around 20% of the shocks), whereas the impact of fiscal transfers tends to be more moderate, below 20%, but economically significant. Approximately 20-30% of the magnitude of the shocks is not shared or diversified in those States.

In the case of the euro area countries, Sørensen and Yosha (1998) show that the credit channel has been the only way to cushion shocks between EU countries, although some more recent papers[3] suggest an increase in the strength of risk-sharing through the capital markets channel. A possible contributing factor here is that financial integration has reduced the national bias of business ownership as seen in Panel 1, which presents the percentage of equities issued by euro area residents and acquired by national residents, residents of other euro area countries and those of third countries.

However, the strength of this channel is still comparatively very low. The accompanying table shows various estimates made for all the euro area countries with data available from 1970 to 2012 (first column in the table), from the onset of EMU to 2012 (second column) and to the year before the outbreak of the crisis (third column). The findings show, firstly, that compared with other federal States the percentage of risk that is not shared or mutualised (last line of the table) is much higher in the euro area, and that is due both to the absence of fiscal transfers and the lower strength of risk sharing through capital markets in the euro area. The justification of the latter may lie, on one hand, in the persisting greater national bias of investments compared with other monetary unions and, on the other, in the existence of a more asymmetrical distribution of ownership since only a few countries concentrate most of the cross-border investments (within the euro area itself)[4]. Secondly, the credit channel is the only buffer within EMU, which confirms the previous evidence obtained by Sørensen and Yosha (1998). However, the strength of this channel seems to have waned during the crisis years. As seen in Panel 2 and in the accompanying table, the estimated regressions seem to indicate an increase of the amount of "unshared" risk during the crisis years.

Several authors underline how, in the case of the United States, the banking crises of certain States were handled and resolved more swiftly and with lower losses by a federal institution, the FDIC (Federal Deposit Insurance Corporation) without jeopardising the stability of the whole.[5] By contrast, in EMU the absence of a banking union with crisis management institutions that have sufficient fiscal backing left it exposed to the loss of confidence that ultimately fragmented financial markets with the result that they decreased their shock stabilising role.

In conclusion, EMU does not have the adjustment channels existing in other unions of federal States and its main channel, the credit one, may lose strength when there is a loss of confidence such as that experienced during the current crisis. The development of a full banking union with crisis management instruments that avoid the fragmentation of financial markets, is pivotal for the stability of the European project. Also, to supplement this, it would be appropriate to increase the strength of the fiscal channel which is currently non-existent, by designing a European budget for stabilising purposes.

1 P. Asdrubali, B. Sørensen and O. Yosha (1996), "Channels of interstate risk sharing: United States (1963-1990)", *The Quarterly Journal of Economics*, November, pp. 1081-1111.

2 In order to quantify the stabilising effect of these channels a regression analysis is used between GDP and GNP (GDP less income from labour and net investment from the rest of the world), income available for consumption before and after taxes and total consumption, plus the depreciation of an economy's assets in order to take into account the difference existing in national accounts between gross and net domestic product. Although this analysis does not permit consideration of the possible stabilising effect of migratory flows (beyond the effects which may arise from migrants' remittances), in the specific case of EMU this channel was not relevant.

3 B. E. Sørensen and O. Yosha (1998), "International risk sharing and European monetary unification", *Journal of International Economics*, 45, pp. 211-238. D. Giannone and L. Reichlin (2006), *Trends and cycles in the euro area*, ECB Working Paper 595. Y. Demyanyk, C. Østergaard and B. E. Sørensen (2008), *Risk sharing and portfolio allocation in EMU*, European Economy Policy Paper 334. For an analysis of the risk mutualisation mechanisms across Spanish regions, see E. Alberola and P. Asdrubali (1997), *How do countries smooth regional disturbances? Risk sharing in Spain: 1973-1993*, Documentos de Trabajo, No. 9724, Banco de España.

4 H. Zemanek (2010), *Asymmetric International risk sharing in the Euro Area*, Institute for Economic Policy, Germany.

5 D. Gross (2012), "Banking Union: If Ireland were Nevada", VoxEU, and M. Hoffmann and B. E. Sørensen (2012), "Don't expect too much from EZ fiscal union – and complete the unfinished integration of European capital markets!", *VoxEU*.

merit in-depth analysis.[25] This specific proposal involves the creation of a fund (European Redemption Fund) of limited duration and amount, which during its early years of operation would progressively assume the debt maturities of each country that exceed 60% of GDP, refinancing them through pooled issues (which would bear notably lower interest rates than those most countries currently face). In exchange, strict conditionality would be demanded, in the form of specific commitment to fiscal consolidation and structural reform. In the following years, the fund would progressively redeem its debt issues, by means of the contributions previously made by each country.

... the direct recapitalisation of European banks…

The underlying problems in the banking system hampering the normalisation of financial conditions must also be addressed. The possibility that the ESM may directly recapitalise ailing banks, acting as a bridge towards the future management and resolution mechanism, would contribute to restoring confidence in the banking system, facilitating the return to funding markets that must be faced by countries that have received financial support.

… and, in short, eliminating any type of drag on growth…

It will in any event be necessary to apply growth-promoting policies that enable the high levels of unemployment built up during the crisis to be reabsorbed. Initiatives such as the Pact for Growth that have been pursued to date have proven clearly insufficient. The correction of competitive mismatches would also be made easier by measures that were to re-balance aggregate demand within the euro area, with bigger increases in domestic demand in those countries running current-account surpluses and a healthier international external position, and bigger increases in external demand in the others.

… in an environment based on transparency and accountability

Progress towards a more complete union will have to be made at what is a complicated time for the European project, with surveys revealing a growing lack of confidence among citizens. Accordingly, the process will have to be accompanied by transparency and the setting in place of accountability mechanisms at the appropriate level so as to allow citizens' confidence in the euro to be restored.

25 *The European Redemption Pact: An illustrative guide,* German Council of Economic Experts, and C. M. Schmidt and B. Weigert (2013), *Weathering the crisis and beyond: Perspectives for the euro area,* CEPR Working Paper 9414.

BOXES

The Great Recession was preceded by a protracted period of high growth accompanied by low and stable inflation. Both factors were widely interpreted as signs that the growth was based on sound economic fundamentals. However, in that period, the indicators of internal and external imbalances such as current account deficits and private-sector borrowing needs experienced sharp increases in many countries, and were considerably up on their historical averages. Although warnings were issued in various quarters about the risks associated with these imbalances,[1] the overriding perception was that the high growth rates would continue over time, which was reflected in the gradual increase in the estimated potential growth rate.

In principle, potential growth is identified with a growth rate that an economy is capable of sustaining with its production factors. Usually, potential growth – and the corresponding output gap – is estimated as output growth compatible with stable inflation, in keeping with the notion of the Phillips curve and the concept of the non-accelerating inflation rate of unemployment (NAIRU). Consequently, in the habitual potential growth estimate the only imbalance considered is related to unemployment which takes the form of inflationary pressures. However, for various reasons – including the credibility gained by central banks in their ability to maintain price stability and the globalisation of economic activity – in recent years inflation has become less closely related to fluctuations in developed economies' activity than in the past as shown in Panel 1. Furthermore, inflation seems to have decoupled from other indicators of external imbalances – such as a very high current account deficit – and of internal imbalances – accelerated growth of credit or of asset prices – with the result that inflation is no longer a sufficient synthesis of other imbalances in the economy.

The limitations of the potential output methodology for adequately approximating the growth that an economy is capable of sustaining are illustrated by certain stylised facts. First, real time potential growth estimates show a significant relationship with various measures of external imbalances (such as the current account balance) and of internal imbalances (for example, with residential investment and private-sector borrowing needs), particularly in the last decade and they are subject to considerable revisions expost. Second, the potential growth estimates tend to increase when imbalances are generated and to decrease when they are corrected. Panel 2 shows changes in the current account balances and estimated potential growth, whereas Panel 3 shows the correlation between the two and the correlation of other imbalances with estimated potential growth, a correlation which is significant in all cases in the pre-crisis years.

These considerations indicate the appropriateness of developing growth indicators that take into account the relevant imbalances which have built up. In this vein, an alternative concept of growth adjusted for imbalances, similarly to that of habitual potential growth, is defined as the GDP growth rate which does not widen or generate macroeconomic imbalances, identified in this case through a broad set of indicators and not only inflation. The macroeconomic imbalances considered include the current account balance, the real effective exchange rate and the international investment position as external imbalances, and public and private-sector saving and investment, public and private-sector balances, residential investment and the weight of the non-tradable sector as internal imbalances.[2]

The exercise is performed for certain countries which had high external and private-sector borrowing needs prior to the crisis (United States, United Kingdom and Spain) and for others in the opposite situation (Germany and China), between 1970 and 2011. The results of this approach confirm, on one hand, the significance of external and of institutional sectors' balances as indicators of imbalances and, on the other, the greater stability of growth estimates adjusted for imbalances with respect to potential growth estimates. The most important imbalance indicators are the current account balance and private-sector financing needs, and, in certain cases, public-sector ones. The resulting estimates of adjusted growth are not correlated to the imbalance indicators and consequently, it could be expected that they are subject to lower ex-post revisions than potential growth ones. However, this approach is not free from limitations either and, hence, the results should be interpreted with caution.

Among the results by group of countries, the growth estimates adjusted for imbalances for countries with borrowing needs are lower than the pre-crisis estimates of potential growth, resulting in positive output gaps estimated for that period which are substantially higher, as seen in Panel 4. Conversely, growth adjusted for imbalances declines to a lesser degree than potential growth after the adjustment for external imbalances has been made, as has occurred in most of these countries in the wake of the crisis.

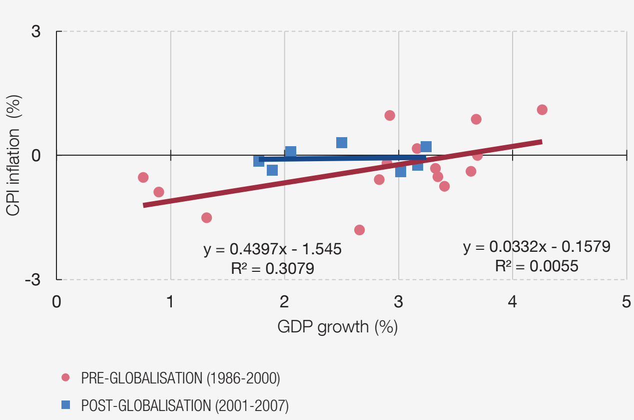
In short, the crisis – its precedents, origin and development – has revealed the limitations of the potential growth methodology for evaluating the capacity for growing sustainedly and the appropriateness of incorporating a wider set of imbalances into the analysis and assessment of the cyclical position of the economy,

1 For instance, the IMF and Bank for International Settlements repeatedly underlined that global financial imbalances represented a risk to the continuity of world growth and vast literature, based on emerging economies, demonstrated that the build-up of imbalances usually led to a crisis. In-house, other papers showed that the imbalances built up by the Spanish economy and its long-term growth outlook were incompatible. See Campa and Gavilán (2006), *Current accounts in the Euro area: an intertemporal approach,* Documentos de Trabajo, No. 0638, Banco de España, and Estrada, Jimeno and Malo de Molina (2009), *The Spanish economy in EMU: the first ten years*, Documentos Ocasionales, No. 0901, Banco de España.

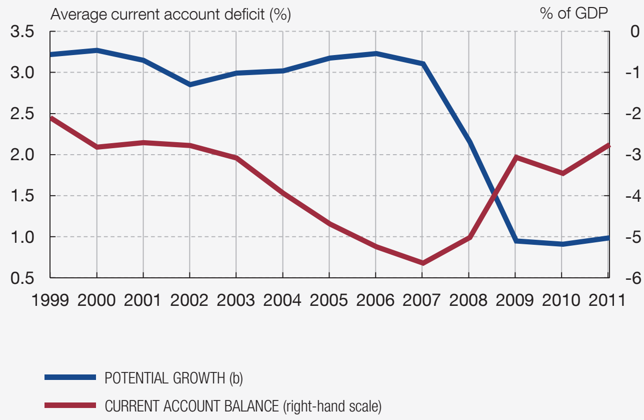
2 For more details see Alberola, Estrada and Santabárbara (2013), *Growth Beyond Imbalances. Sustainable Growth Rates and Output Gap Reassessment*, Banco de España, mimeo.

understood in a broader sense than the business cycle. The development of alternative indicators is a useful device for improving economic policy design, both in the more traditional area of cyclical stabilisation – monetary and fiscal policies – and in the area of other broader policies, such as macroprudential or structural policies.

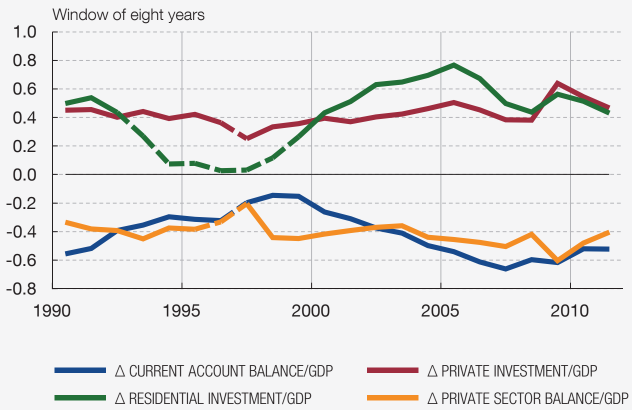
1 GDP GROWTH AND INFLATION IN ADVANCED ECONOMIES (a)



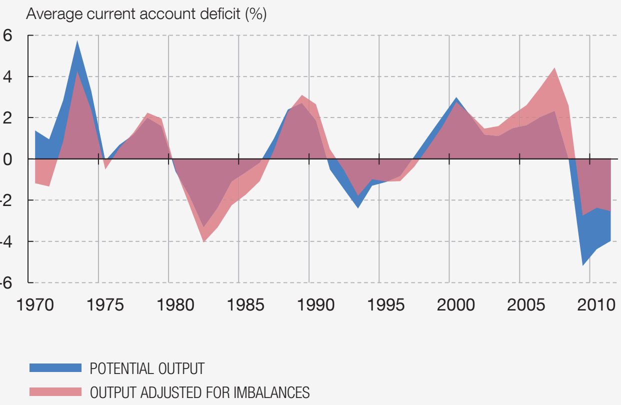
2 POTENTIAL GROWTH AND CURRENT ACCOUNT BALANCE



3 ROLLING CORRELATION BETWEEN POTENTIAL GROWTH AND IMBALANCES (c)



4 OUTPUT GAP BASED ON GROWTH ADJUSTED FOR IMBALANCES AND ON POTENTIAL GROWTH



SOURCES: AMECO, European Commission, IMF and US Congressional Budget Office.

a Average of the advanced economies.
b Potential growth estimated in the reference year.
c The broken line indicates that the correlations are not significant at the 95% confidence interval. Countries included: United States, United Kingdom, Spain and Germany.

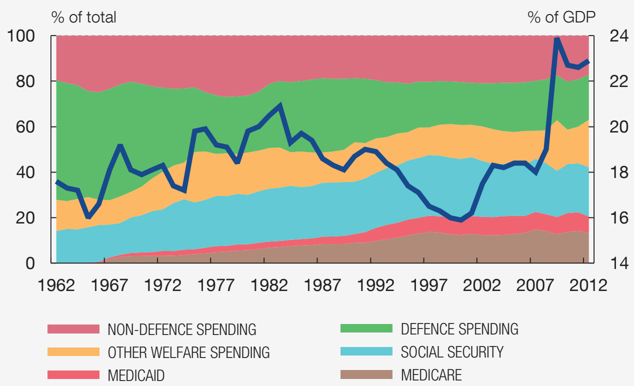
US public finances must address in the medium term the process of an ageing population and the resulting increase in spending on welfare. Additionally, the sharp deterioration of the public balance in the wake of the crisis has brought to the fore the need to provide a lasting solution to this problem. Although this situation is shared, even much more pressingly, with other advanced economies, the political polarisation surrounding this issue makes it particularly important in the US case.

While the fiscal structure of the United States is relatively decentralised in territorial terms,[1] the analysis of public finances at the federal level provides a suitable proxy to this matter. Primary public spending of the federal government can be divided into a discretionary component, which includes defence and non-defence spending and must be approved annually by Congress, and a mandatory component linked to the Social Security programmes, Medicare – healthcare coverage for the elderly – and Medicaid – for individuals with low income and resources or with certain disabilities – among others. In order to change these programmes the law must be specifically amended or repealed. The third component of federal public spending is interest payments, which in 2012 represented 1.4% of GDP (considerably below the average of recent decades), since although public debt is at a peak since the Second World War, the interest rate remains at a historical low.

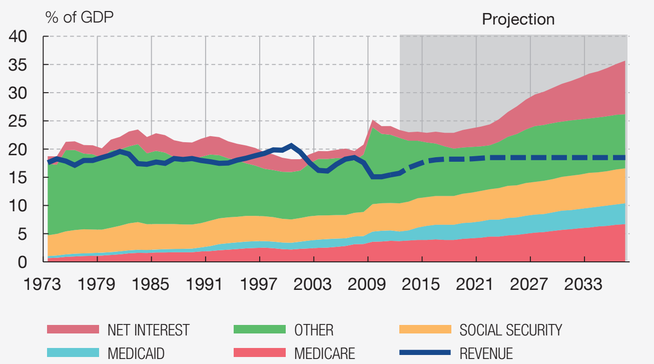
As shown in Panel 1, in the last four decades, mandatory spending has increased from 28% to 63%, as a percentage of the federal government's primary public spending, as a result of demographic trends and the increase in spending on health. Conversely, the weight of the discretionary component has declined,

1 In 2012, federal government spending (22.8% of GDP) accounted for around 58% of total public spending; state and local government spending accounted for the remaining 42%.

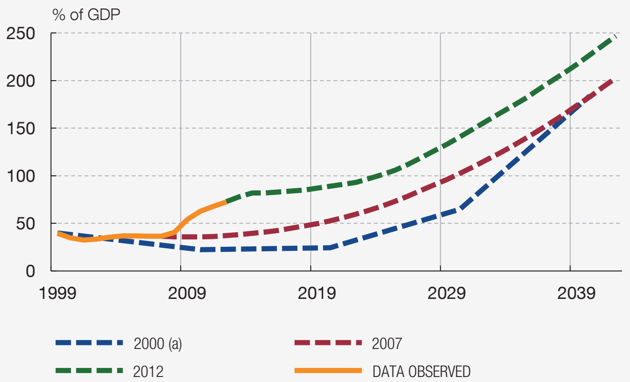
1 PRIMARY PUBLIC SPENDING



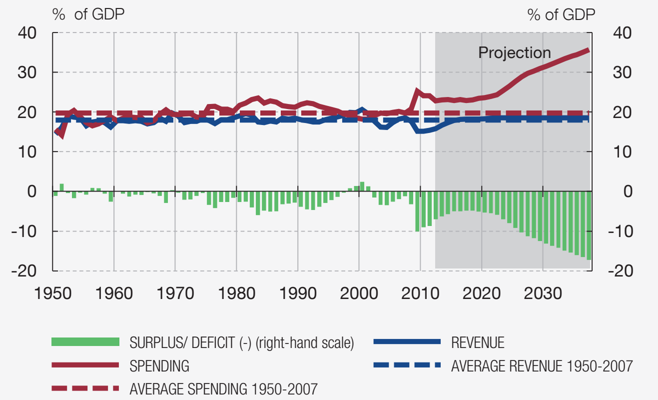
2 SPENDING BY TYPE AND TOTAL REVENUE



3 CHANGES IN AND PROJECTIONS OF FEDERAL GOVERNMENT DEBT HELD BY THE PUBLIC



4 REVENUE, SPENDING AND SURPLUS/DEFICIT (b)



SOURCES: Office of Management and Budget, *The Budget and Economic Outlook: Fiscal Years 2013-2023* (Congressional Budget Office, February 2013) and *The Long-Term Budget Outlooks* (Congressional Budget Office, October 2000, December 2007 and June 2012).

a Under the "Saving no surpluses" scenario.
b Under the Congressional Budget Office's *Extended Alternative Fiscal Scenario*, which includes the assumption that policies in place in the past, but scheduled to expire, are extended in the future.

not only in terms of federal public spending but also as a percentage of GDP and is expected to continue to do so in the future. The baseline scenarios projected under the assumption that current legislation remains the same, which take into account the retirement of the baby-boomers, the increase in life expectancy and the rise in spending on health at higher rates than that of GDP – despite the improvement in recent years – indicate that mandatory spending would increase from around 10.5% of GDP in 2012 to approximately 16.5% in 25 years (see Panel 2)[2] and to almost 20% within 50 years[3].

Although these exercises are subject to notable uncertainty – associated with healthcare spending, migratory flows and economic conditions – the magnitude of the problem is included in the projections of rising budget deficits, despite the gradual decrease expected in discretionary spending. The foregoing, together with growing interest payments would lead government debt held by the public onto an upward path (see Panel 3). Consequently, since the room for manoeuvre in discretionary spending is becoming smaller and smaller, projected budget deficits can only be mitigated by legislative changes reducing welfare benefits or increasing revenue, which in the United Sates are lower than in other developed countries[4]. Accordingly, numerous, notably different, proposals have been presented in recent years with very different redistributive effects and which ultimately reflect the opposing views on the role that the public sector should play in the economy. In their extreme versions, these views can generally be identified with the positions of each of the two major political parties. These differences encapsulate the difficulty of controlling public debt in the medium term.

At the beginning of the millennium, these problems in public finances did not seem imminent (see Panel 4) and debate was focused on the allocation of the projected budget surpluses. In that context, temporary tax cuts were adopted (that were passed in 2001 and 2003, and should have ended in 2010) and there was a change in Medicare (in 2003), which included a programme to subsidise drugs. These regulatory amendments together with the rise in discretionary military spending in Afghanistan and Iraq, led to substantial changes in the projections of the federal government's budget balance and debt (see Panel 3). Furthermore, the crisis and the economic policy decisions adopted to tackle it led to even more important changes in the fiscal outlook after 2008. The large budget deficits recorded, at close to 10% between 2009 and 2011 (see Panel 4) – the highest levels since the Second World War, contributed to doubling public debt in terms of GDP to 72.5% between 2007 and 2012, whereas before the beginning of the crisis it was projected to stand at 37% of GDP in 2012.

The extreme political polarisation of recent years has prevented the conclusion of a bipartisan agreement to establish a path of fiscal consolidation and has given rise to a succession of crises and partial temporary solutions with negative effects on financial markets. Thus, in the debt ceiling crisis of summer 2011 the Budget Control Act (BCA) was approved. This introduced public spending cuts in the subsequent ten years, setting limits on the growth of discretionary spending, and the creation of a bipartisan congressional committee (known as the "Super Committee"), that had to propose a plan to reduce government deficits in the same period. If an agreement was not reached by this committe, as in fact happened, the law envisaged sequestration, a mechanism of automatic discretionary spending cuts for the period 2013-2021, which was activated in March 2013. Also, on 1 January the American Taxpayer Relief Act (ATRA) was approved within the deadline thereby avoiding the so-called "fiscal cliff"[5]. The tax cuts approved at the beginning of the last decade, which had been extended until the end of 2012 as part of the stimulus plan, were consolidated by this legislation for most of the population.

High and rising public debt such as that projected for the United States has serious adverse consequences. The first consequence is the growing weight of debt servicing, a problem which has currently been eased considerably because the backdrop of high risk aversion, that makes government debt a safe-haven asset, and monetary policy actions maintain interest rates at historical lows. Additionally, the crowding out effect on private investment and the notable reduction in the capacity to respond to negative shocks should be mentioned as negative consequences of high and rising public debt. It does not seem likely, however, that in a short-term horizon there will be a loss of investor confidence in US government debt, which would make refinancing difficult and would substantially raise its rates at issue. The fact that there has never been a default in the country's history, the dollar's unique status as a global reserve currency and the consideration of US government debt as the safe-haven asset *par excellence* suggest that the thresholds of the government debt to GDP ratios usually considered as the triggers of a fiscal crisis are higher in the US case. These circumstances buy the United States some time to take a series of unavoidable crucial decisions, although the prevailing political circumstances are not very conducive to a rapid solution.

2 The projections from 2013 onwards are made by an independent agency, the Congressional Budget Office (CBO) under the Extended Alternative Fiscal Scenario, which includes the assumption that the policies in place in the past but scheduled to expire will be extended in the future. For more details see http://www.cbo.gov/publication/43288.

3 For an international comparison of the projected increase in spending on pensions and healthcare, see Chart 2.4 ("Increase in Entitlement Spending, 2011-2030"), in the April 2013 edition of the IMF's Fiscal Monitor. This chart underlines the expected increase in US healthcare spending of more than five points of GDP until 2030.

4 See Statistical Table 3 of the April 2013 edition of the IMF's Fiscal Monitor for a comparison with other advanced economies.

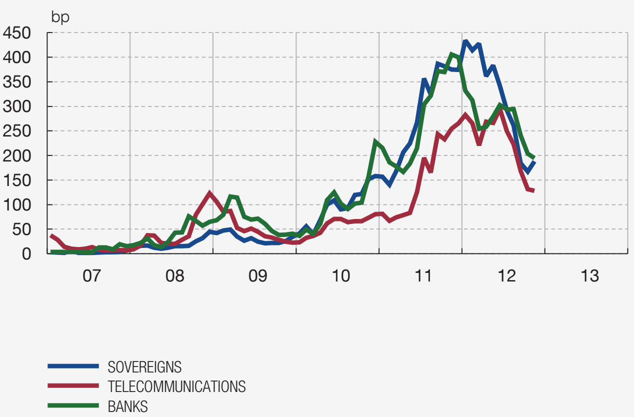
5 The term "fiscal cliff" was coined to refer to the sharp fiscal adjustment envisaged in the absence of an agreement by the two main parties on 31 December 2012. This was the result of a series of temporary stimulus packages and tax cuts (approved over the last ten years) expiring automatically and the implementation of the automatic reduction in public spending (sequestration) established in the Budget Control Act of 2011.

Financial integration is a basic pillar of the common monetary policy because it permits an effective and uniform transmission of the loosening or tightening effect of the central bank's decisions on economic activity to all Member States. When financial markets are integrated, the location of economic agents is no longer a determining factor in the terms of access to financing. In the euro area, although retail banking activity has remained mostly confined within national borders and their cross-border presence has been very limited, the integration that had been achieved in interbank and debt markets was sufficient to ensure, before the crisis, a uniform transmission of the monetary policy stance to the cost of borrowing for households, firms, general government and financial intermediaries throughout the area.

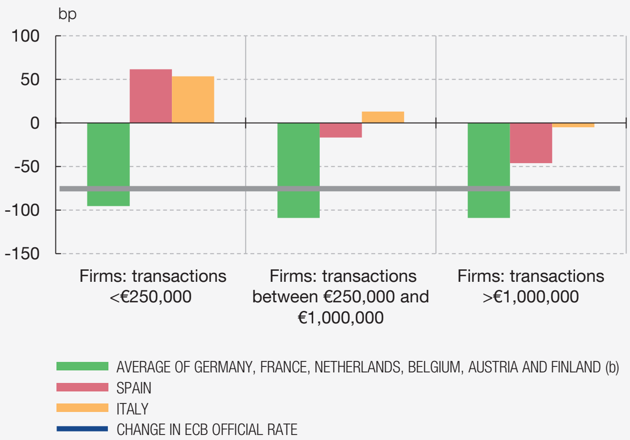
The financial crisis has introduced an essential change in this situation since it has triggered a pronounced fragmentation of the euro area's financial system and has jeopardised the uniqueness of monetary policy. In its initial phase, the crisis affected a fundamental channel for the transmission of monetary policy impulses: the interbank markets which lost their capacity to intermediate liquidity within the euro area. The unconventional measures deployed by the ECB through the provision of ample liquidity led it to replace this function of intermediation and to ease the possible tightening effects on the credit supply.

The unfolding of the crisis and its transformation in 2010 into a sovereign debt crisis stepped up the process of market segmentation which, once triggered, created a feed-back loop as a result of sovereign risks, bank risks and economic developments at national level becoming increasingly interconnected (see Panel 1). The issuer's nationality became an essential determinant in the cost and terms of access to financing.

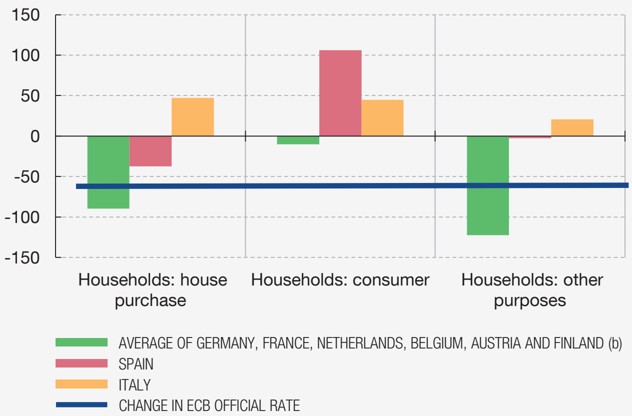
1 CROSS-COUNTRY DISPERSION OF RISK PREMIA (a)



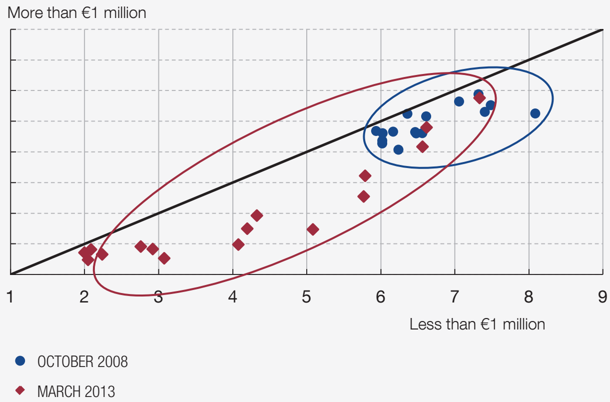
2 BANK RATES ON NEW LOAN TRANSACTIONS. CHANGE BETWEEN JULY 2011 AND MARCH 2013



3 BANK RATES ON NEW LOAN TRANSACTIONS. CHANGE BETWEEN JULY 2011 AND MARCH 2013



4 INTEREST RATE BY COUNTRY. NEW LOAN TRANSACTIONS TO NON-FINANCIAL CORPORATIONS (%)



SOURCE: ECB.

a Standard deviation of five-year credit default swap premia.
b Weighted average by volume of new transactions.

The heterogeneity of the cost of financing across the euro area partly reflected genuine differences in credit risk levels. However, the interest rate spreads reached considerably higher levels than could be determined by economic fundamentals [see, for example, the evidence of the IMF (2012)[1] and D'Agostino and Ehrman (2013)[2] in the case of sovereign debt]. Underlying that, was a crisis of confidence in the euro in which scenarios of the monetary area breaking up were even considered and which conditioned the behaviour of international investors.

All these circumstances prevented a homogeneous transmission of monetary policy impulses through the interest rate channel. As shown in Panels 2 and 3, for example, the reduction of official interest rates by 75 bp between December 2011 and July 2012 fed through in full to the interest rates of new loan contracts in the group of countries least exposed to the financial strains. By contrast, in Italy, the cost of bank loans, irrespective of their purpose, increased, as also occurred in Spain in the case of consumer financing and loans to a sub-sector of non-financial corporations. It is precisely in the area of corporate lending where the divergences in the cost of financing are greatest, as seen in Panel 4. These divergences are especially important in the case of smaller loans since most of them are to SMEs which, unlike large corporations, do not have alternative channels of external financing.

The authorities' response (and, in particular, the introduction by the ECB of additional measures such as the OMT programme) made it possible to rein in and partially correct the trends towards financial fragmentation in the euro area from mid-2012. Recovering a sufficient degree of financial integration is essential for restoring the proper functioning of monetary policy transmission channels. That requires progress on very diverse fronts which, ultimately, permit the euro area to advance towards a genuine economic union.

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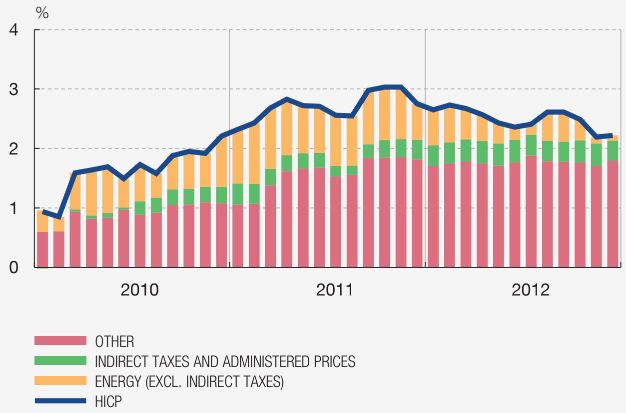
1 *Global Financial Stability Report*, October 2012, Box 2.2, "Why Are Euro Area Periphery Sovereign Spreads So High?".

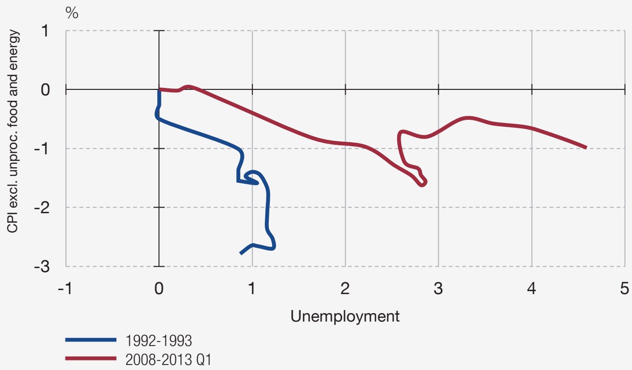
2 *The Pricing of G7 Sovereign Bond Spreads: The Times, They Are A-Changin,* ECB Working Paper No. 1520, March 2013.

Throughout the crisis, and despite the high degree of slack in the economy, euro area inflation has evidenced notable downward stickiness. This was particularly the case in 2011 and 2012, when for many months inflation exceeded 2.5%, driven not only by dearer commodities and the rise in certain indirect taxes, but also by price rises in the other components. More recently, the growth

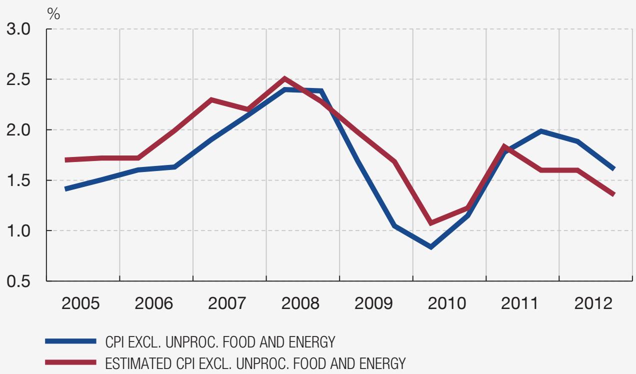
1 CONTRIBUTION OF ENERGY AND INDIRECT TAXES TO THE YEAR-ON-YEAR RATE OF THE HICP



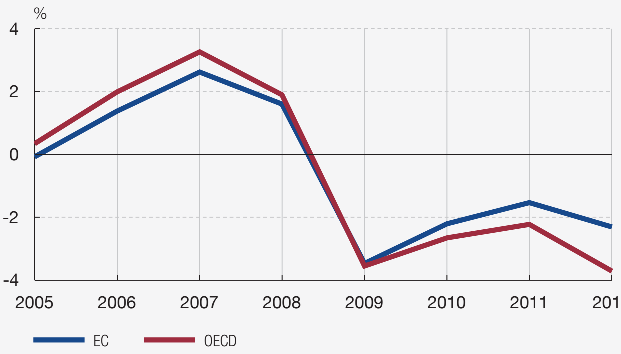
2 INFLATION AND UNEMPLOYMENT IN THE LAST TWO RECESSIONS (a)
(Change since the start of the recession, quarterly data)



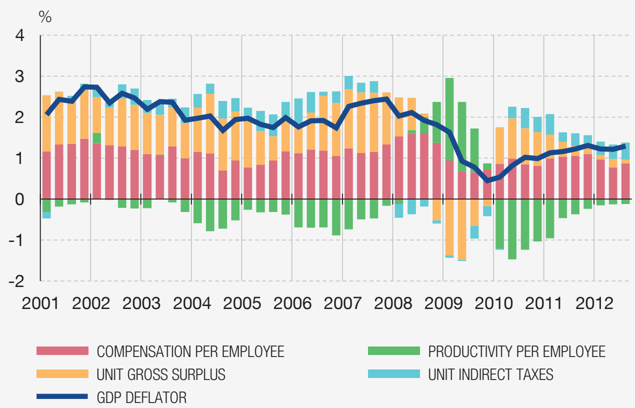
3 INFLATION ESTIMATES BASED ON THE PHILLIPS CURVE



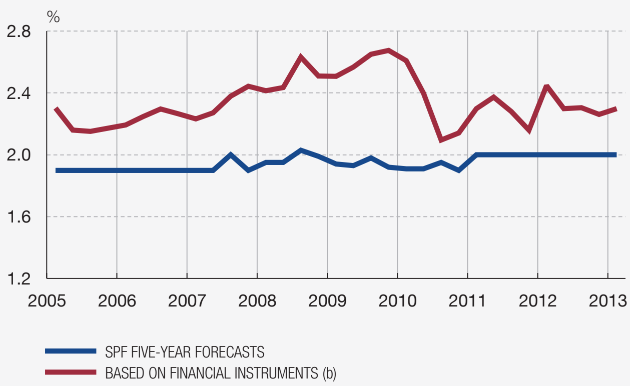
4 OUTPUT GAP ESTIMATES



5 CONTRIBUTIONS TO THE YEAR-ON-YEAR CHANGE IN THE GDP DEFLATOR



6 INDICATORS OF LONG-TERM INFLATION EXPECTATIONS



SOURCES: Eurostat, ECB and Banco de España.

a The inflation rate and unemployment at the start of the 1992-1993 recession stood at 4.11% and 9.63%, respectively, while the related figures for the recession commencing in 2008 were 2.48% and 7.32%.
b Inflation swaps. The level is skewed on the upside owing to the influence of the risk premia.

rate of the HICP has moved onto a declining course, owing essentially to the behaviour of the more volatile components, although the contribution of inflation excluding energy and taxes has not fallen back (see Panel 1).

The scant response by the pace of prices in recent years is in contrast to the previous recession, when modest increases in unemployment were accompanied by sizeable reductions in inflation (see Panel 2). This reluctance of inflation to fall can also be seen when a comparison is made with inflation estimated using a neo-Keynesian Phillips curve, which relates the behaviour of prices to inflation expectations and the economy's degree of slack, and which predicts, from end-2010, increases in prices lower than those observed (see Panel 3). Along these same lines are recent studies that have estimated Phillips curves with time-variant parameters, concluding that the inflation response to changes in cyclical unemployment and to expectations has diminished gradually in recent decades, especially in the advanced economies (i.e. they detect a flattening of the Phillips curve[1]).

There are three leading reasons that may help explain this result: uncertainty over the level of slack in the economy; the significance of nominal price and wage rigidities; and the adoption of clearly defined price stability objectives and the credibility of the developed economies' central banks.

Firstly, mention should be made of the sizeable methodological discrepancy surrounding the measurements drawn up by international organisations on the degree of slack in the euro area economy, at a time of great uncertainty such as the present (see Panel 6). Hence, a lower level of slack, as a result of a lower estimate of potential growth, would help us understand why the downward pressures on prices have been low. The possible structural nature of the increase in unemployment in this crisis, the increase in capital costs and agents' greater risk aversion may be some of the factors justifying a level of potential growth in the euro area lower than that estimated by international organisations and agencies (see Panel 4). But, in turn, in a more globalised environment, inflation developments in the euro area appear to respond increasingly to global determinants, which might help explain their lesser sensitivity to domestic factors.

Secondly, the scant adjustment of prices and wages to changes in the levels of economic slack, known as "nominal rigidities", might also help explain the downward stickiness of inflation in a setting such as the present. Drawing on the decomposition of the GDP deflator, it can be seen that, since the onset of the crisis, there have been substantial changes in the contribution of productivity and of the gross operating surplus, whereas the contribution of compensation per employee has trended much more steadily (see Panel 5). This behaviour by wages, which might be attributable to the presence of nominal rigidities, would help explain the downward stickiness of euro area core inflation. This result is consistent with recent microeconomic evidence, which suggests that wage cuts were infrequent in the euro area at the onset of the crisis.[2]

Finally, the firm anchoring of inflation expectations as a consequence of the improved credibility of monetary institutions in the advanced economies might have contributed to the stability of inflation in recent years and to a lesser response by it to changes in the business cycle. In this situation, economic agents perceive that inflation will hold in the medium term within the target range set by the monetary institution; accordingly, they will have fewer incentives to alter prices and wages. In the case of the euro area, the habitual indicators tend to confirm this more entrenched anchoring of expectations (see Panel 6), while the less volatile components of inflation have tended to stabilise at levels relatively compatible with the definition of price stability governing ECB conduct.

1 See World Economic Outlook (2012), *The dog that didn't bark: Has inflation been muzzled or was it just sleeping?*, International Monetary Fund, chapter 3.

2 See Messina and Rõõm (2010), *Downward Wage Rigidity during the Economic Crisis*, Wage Dynamics Network (ECB), mimeo.

The Spanish general government sector is immersed in what is an unprecedented fiscal consolidation drive in our country. The process has enabled the budget deficit to be cut from 11.2% in 2009 to 7% in 2012 (10.6% if the impact of the support to the financial sector is included). Despite the adjustment made, the public debt/GDP ratio continued increasing, rising to 84.2% of GDP in 2012. This behaviour was habitual in larger-scale consolidation episodes observed in the past in the OECD.[1]

The fiscal adjustment is unfolding in a highly adverse macroeconomic environment, with very low or negative economic growth (which is most singularly affecting national demand), a high rise in unemployment and, following the onset of the euro area sovereign debt crisis, a significant increase in the cost of government debt issues. Against this backdrop, the reduction in the nominal budget deficit as a percentage of GDP does not properly reflect the consolidation drive undertaken. To better approximate this drive, resort is habitually had to measuring it on the basis of the change in the structural primary budget balance. This variable adjusts for the impact of the business cycle on public finances and strips out the effect of changes in the interest burden and of temporary measures, such as public support to the financial sector. According to this measure, the fiscal effort is estimated to have exceeded 6 pp of GDP between 2009 and 2012 (see Panel 1), in contrast to the actual reduction in the budget deficit of only 0.5 pp of GDP over the same period.[2]

Arguably, moreover, the foregoing measure does not reflect the impact of an aspect that is proving particularly significant in Spain: an economic growth composition that is especially “poor” in terms of public revenue-generation, given that the only dynamic factor stems from exports, while national demand continues to undergo heavy reductions. Indeed, the habitual calculations of the impact of the business cycle on public finances are based on the estimation of the cyclical budget balance through the application of output gap elasticities of public revenue (which are assumed to be constant over the course of the cycle). This effect may be approximated by drawing on the analysis of the residuals of the equations for the various public revenue items, defined as that part of their trend that cannot be explained by GDP growth and the effect of the different discretionary tax measures applied. Panel 2 plots the course of these residuals in Spain’s case over the period 1998-2012. It can be seen how, in the economic upturn prior to the current crisis, these residuals were constantly positive and on a high scale, which is associated, at least in part, with the positive impact on revenue-raising of the real estate boom and, in general, of the strong growth in assets prices and in corporate profits. From 2007, however, the estimated residuals turned negative, a development related, among other factors, to the decline in domestic demand and, in particular, to the adjustment observed in the real estate sector, as well as to the reduction in companies’ profits. In quantitative terms, the positive residuals accumulated during the expansionary phase stood at around 6 pp of GDP between 1995 and 2007, whereas from 2008 their negative cumulative amount would be 5.3 pp of GDP (around 1 pp between 2010 and 2012).

A complementary means of illustrating the impact of the current macroeconomic conditions on fiscal consolidation is through the breakdown of the changes in the public debt ratio into its main determinants (budget deficit, nominal GDP, interest burden and stock-flow adjustments) and comparison with what happened in other budgetary adjustment processes. To this end, Panels 3 and 4 compare the consolidation undertaken in Spain in the 1990s with that currently taking place. Specifically, for the 1990s episode, the trajectory of the public debt ratio is depicted between 1993, the year in which the budget deficit peaked (7.5% of GDP), and 1998, when it stood at 3% of GDP. As to the current consolidation process, and so as to enable a uniform comparison, a simulation is made assuming that the deficit-reduction period that began in 2009 (with a maximum imbalance of 11.2% of GDP) extends to 2013 and 2014, assuming on one hand a deficit of 4.5% in 2013 and a 2.8% in 2014, and, on the other, that nominal GDP will trend over this period as forecast in the Banco de España March 2013 “Spanish Economic Projections Report”[3], adjusted automatically by the impact of the differences between the fiscal forecasts incorporated into this report and that simulated here.[4]

Panel 3 shows there was a reduction in the deficit of 4.5 pp of GDP in the 1993-1998 period. This was enough to stabilise the public debt/GDP ratio and to set it on a declining course. As can be seen in Panel 4, public debt increased by 5 pp of GDP over the period, with a positive contribution resulting from the accumulation of budget deficits of 26 pp, which was offset by a downward effect of 21 pp stemming from nominal GDP growth, which ran at an average rate of 7.2% in that period, while the deficit/debt adjustments, which include – among other factors – the change in financial assets, made a zero contribution to the increase in debt. It should be borne in mind, moreover, that a privatisation programme for public corporations was pursued at that time, allowing revenue for almost 6 pp of GDP to be raised, and that the ongoing deficit reduction was also assisted by a slight decline in the interest burden of close

1 See H. Blöchliger, D. Song and D. Sutherland (2012), *Fiscal Consolidation: Part 4. Case Studies of Large Fiscal Consolidation Episodes,* OECD Economics Department Working Papers 935, OECD.

2 In this calculation, only the support to the financial sector has been taken as a temporary measure. However, some of the measures adopted in 2012, e.g. the suspension of the extra December payment for public-sector employees, have in principle been defined as temporary. If this temporariness were confirmed, or the measures were not replaced by others of an equivalent magnitude, the structural deficit-reduction effort in 2012 would be below the level of 3 pp of GDP included in Panel 1.

3 Banco de España *Economic Bulletin*, March 2013.

4 Indeed, according to the “Spanish Economic Projections Report”, the budget deficit would stand at 6% and 5.9%, respectively. In the simulation exercise presented in this box a (downward) adjustment has been made to economic growth derived from the greater fiscal consolidation that would be had meeting the deficit targets of 4.5% and 2.8%, respectively, applying a multiplier of 0.5. Further, the implied interest rate on public debt is assumed to hold at its 2012 level.

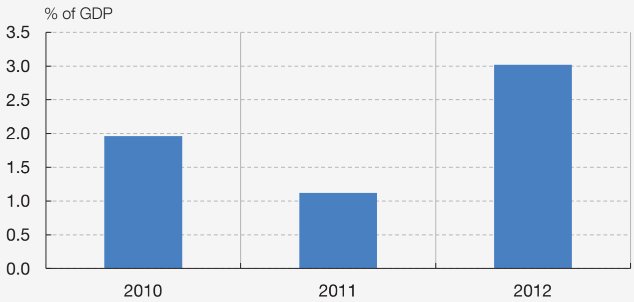
to 0.3 pp and, more significantly, in unemployment benefits, of 1.8 pp of GDP.[5]

In the case of the current consolidation process, and under the simulation made, there would be a reduction in the budget deficit of 8.4 pp of GDP from 2009 to 2014, which would not be capable of stabilising the public debt/GDP ratio over the period.[6] Specifically, the public debt ratio would increase by 40 pp as a result of the budget deficits accumulated (36 pp of GDP) and a likewise

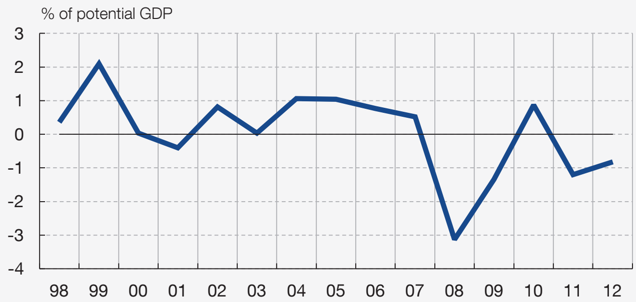
5 The first half of the 1990s saw regulatory changes that tightened benefit-eligibility requirements in respect both of contributory and assistance benefits, which was conducive to the decline in unemployment benefits during the period.

6 At the start of each of the two sub-periods analysed, the public debt/GDP ratio was higher in 1993 (59%) than in 2009 (54%). However, the budget deficit stood at 7.5% of GDP in 1993, significantly below the figure in 2009 (11.2%).

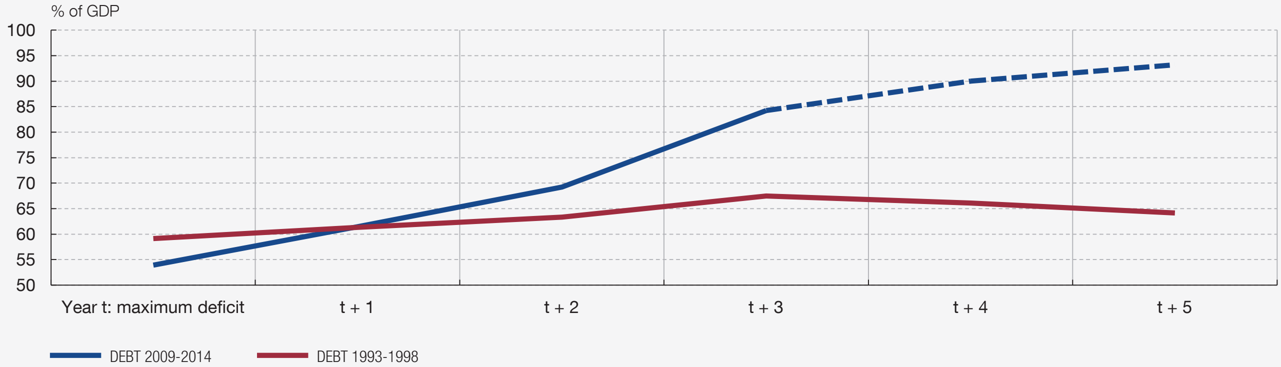
1 CHANGE IN THE CYCLICALLY ADJUSTED PRIMARY BALANCE (excl. support to financial institutions)



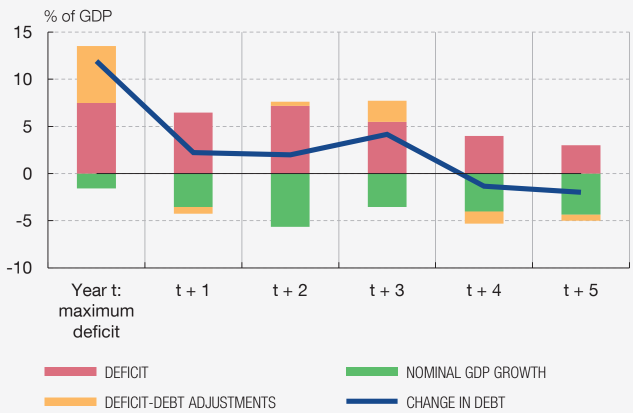
2 "RESIDUALS" OF THE PUBLIC REVENUE EQUATIONS



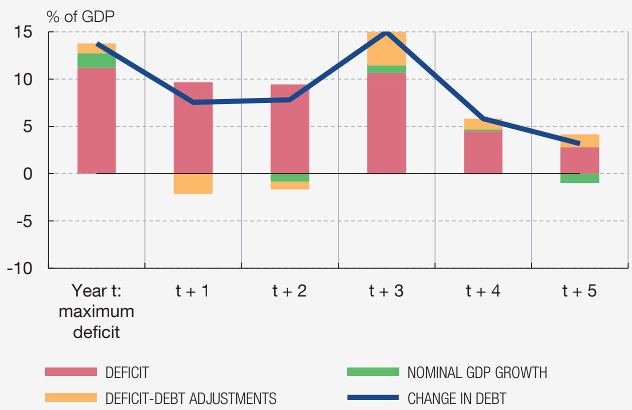
3 THE PATH OF PUBLIC DEBT IN THE CURRENT CONSOLIDATION PROCESS AND IN THAT OF THE SECOND HALF OF THE 1990s



4 DETERMINANTS OF THE CHANGE IN GENERAL GOVERNMENT DEBT. 1993-1998



5 DETERMINANTS OF THE CHANGE IN GENERAL GOVERNMENT DEBT. 2009-2014



SOURCES: IGAE and Banco de España.

positive contribution of nominal GDP, given its weak growth, and of the deficit/debt adjustment of close to 1 pp and 2 pp of GDP, respectively.[7] The interest burden would increase by close to 2 pp of GDP and, given the projected course of the unemployment rate, a significant reduction is not to be expected in unemployment benefits over the period.

In sum, it may be concluded from the foregoing analysis that the required fiscal adjustment to stabilise the public debt/GDP ratio in the current consolidation process must be on a sizable scale, since the prevailing macroeconomic background is particularly adverse.

7 A positive contribution of the deficit/debt adjustment to the increase in the public debt/GDP ratio of 0.5% in 2013 and 2014 is assumed, similar to the annual average observed in the past 10 years.

During the last upturn, the Spanish household saving rate remained stable, fluctuating moderately around values close to 11% of gross disposable income (see Panel 1). The onset of the crisis, however, notably altered the pattern of the household saving rate, which increased by 7.4 pp from 2008 to 2009 up to 17.8% of household income. This rise, which was also seen in other peripheral European economies, such as Portugal and Ireland, gave way from 2010 to a greater moderation in the Spanish household saving rate than that seen in other European economies. Specifically, at end-2012, the Spanish saving rate had fallen by 10 pp from its 2009 level, down to 8.2% of gross disposable income.

This irregular behaviour of the saving rate is indicative of the fact that some of the determinants of Spanish household consumption and saving decisions have exerted an effect of changing intensity and direction during the crisis. Among these determinants are two whose dynamics over the course of these years are particularly significant when it comes to explaining the fluctuations in the saving rate and projecting its future trajectory: household disposable income, and the sensitivity of consumption to changes in households' real spending capacity.

Panel 2 tracks income and its breakdown into consumption and saving. Of note, first, is the fact that, in the period from 2008-2009, nominal household income continued to increase, despite the impact of the financial and economic crisis. A particular contributing factor here was the positive sign of income from general government, through the dual channel of the effect of the automatic stabilisers and of certain discretionary tax measures adopted in 2008 which, overall, countered the negative contribution of employee compensation. This rise in nominal income was essentially assigned to increasing saving, a development that was particularly noticeable during 2009 when nominal consumer spending fell. The strong pace of the downturn in the labour market and, in general, the high aggregate uncertainty that began to become evident in the final stretch of 2008 would account for a substantial portion of the increase in the precautionary saving rate.

From 2010, household income began to diminish under the weight of the continuing forceful job destruction and the onset of fiscal consolidation. Since then, declines in income have been accompanied by sharp falls in funds earmarked for saving and, on the contrary, by increases in household nominal consumption (see Panel 2) which, however, have not sufficed to prevent the declines in real consumption since early 2011. The fact that the weakness of the labour market and, therefore, the uncertainty over future wage income are not clearly lower in this latest phase of the crisis than in its early stages indicates that, although the precautionary reasons that drove saving in 2008 and 2009 have not receded, some other factor operating in the opposite direction has prevailed since 2010, exerting a negative effect on saving.

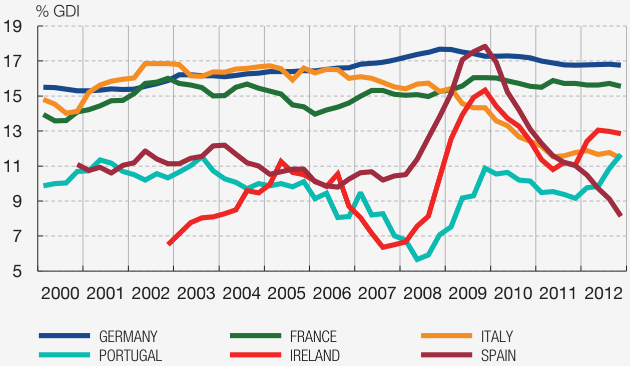
An initial factor to be taken into account in this respect concerns the role of saving as a stabilising factor of consumption over time. Insofar as agents assess positively a stable consumption path over time, the natural response to negative temporary shocks in their income and wealth levels is to reduce the saving rate. Likewise, the assumption about the presence of downward rigidities (non-linearities) in levels of real consumption, where the latter are already relatively low, in a setting of persistent declines in income, is one of the most plausible explanations for the recent decline in the saving rate. Indeed, the disaggregated information at the household level available in the Household Expenditure Survey reveals that, for households with relatively low levels of income, the propensity to increase saving when there is an increase in income is low, whereas the tendency to reduce it in the face of a decline in income is relatively high (see Panel 4). Thus, inasmuch as a high proportion of Spanish households have seen their income fall in the past three years, their saving rate and, therefore, the aggregate rate for the economy may have shrunk to a disproportionately large extent through a non-symmetrical pattern of behaviour such as that described.

The breakdown of consumption by type of good (durable and non-durable) is also highly illustrative of the possible nature of the downward rigidity in total household consumption. Specifically, the proportion of income earmarked for the consumption of non-durable goods, which normally encompass a greater proportion of essential goods than durables do, has increased continuously since 2010 (see Panel 3). The breakdown of the ratio into spending and non-durable goods and income reveals that the real consumption of these goods has shown oscillations, in both directions, of a limited amount. As a result, the reduction in the saving rate from 2010 is partly the outcome of the sustained increase in the prices of these goods as a consequence of the successive rises seen since then in VAT and in some regulated prices (such as electricity, certain public charges and transport prices). Also contributing to this has been the squeeze on income, which was particularly telling in 2010, following the reversal of some of the reductions in the tax burden that had been adopted in 2008, and in the final stretch of 2012, as a result of the greater wage moderation observed recently and of the elimination of the extra December payment for public-sector employees that year (see Panel 3).

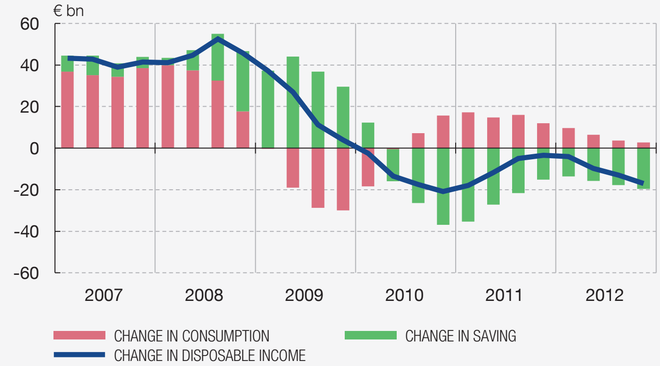
Hence, from the standpoint of consumption, the main factor positively influencing the saving rate in the latest phase of the crisis has been the strong decline in the real consumption of durable goods since the onset of the crisis, with the exception of the temporary rise in the consumption of these goods in the second half of 2009 (see Panel 3). The difference in the degree of sensitivity between both types of consumption (durable and non-durable) to changes in income becomes patent in the dynamic estimations of the respective elasticities in Panel 5. Whereas the income elasticity of real non-durable goods consumption has scarcely changed in the past decade, spending on durable goods has become notably more sensitive to fluctuations in household income during the crisis period. This latter effect, in turn, might reflect the tightening of lending standards applicable to households in recent years, insofar as the consumption of durable goods usually resides to a greater extent on the resort to this source of financing. Accordingly, diminished borrowing capacity would entail an increase in the proportion of spending on durable goods that has to be financed by households' own resources, which would mirror the greater sensitivity to income present in the data.

In short, it may be concluded from the foregoing analysis that the decline in the Spanish household saving rate in the past three years is partly due to weak income and to the dynamism of consumer prices, driven by tax increases and rises in certain regulated prices, in a setting in which the strong fall-off in the real consumption of durable goods has run in contrast to the marked stability of that of non-durable goods. Foreseeably, the weakness of incomes will continue to erode household resources and to diminish their saving capacity in the near future, while moderation in the pace of inflation, in the absence of further tax rises and against a background of relatively flat real consumption, should provide for the progressive stabilisation of the saving rate.

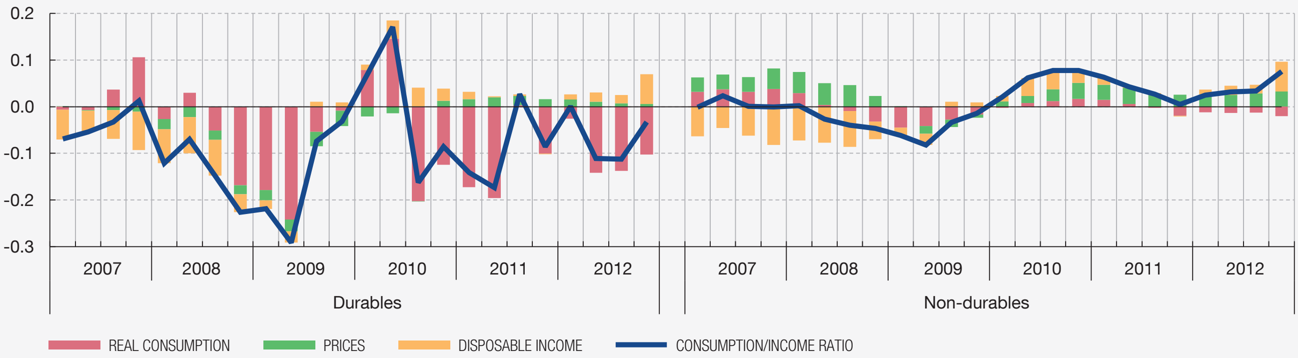
1 HOUSEHOLD SAVING RATE



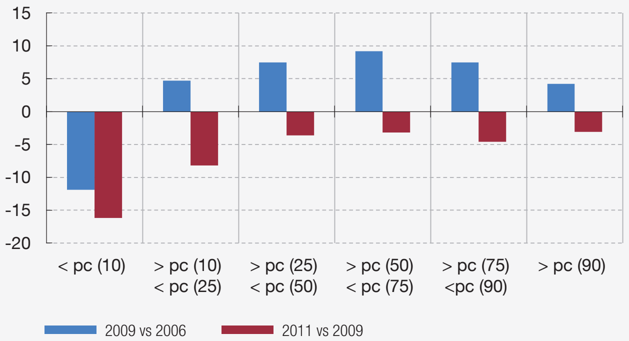
2 CHANGES IN SAVING



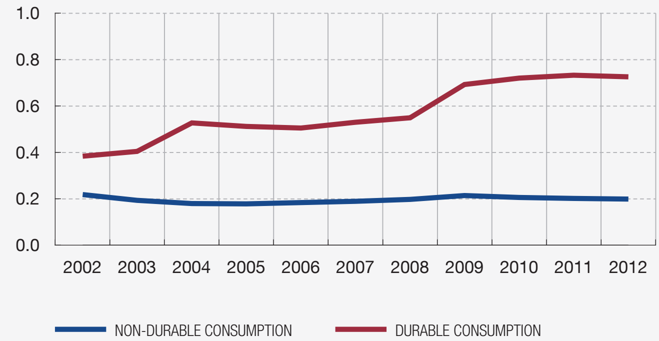
3 BREAKDOWN OF THE RATE OF CHANGE OF THE CONSUMPTION/INCOME RATIO INTO ITS COMPONENTS



4 CHANGE IN THE AVERAGE SAVING RATE PER PERCENTILE OF INCOME (a)



5 ELASTICITY OF CONSUMPTION TO INCOME (b)



SOURCES: INE and Banco de España.

a The blue (dark red) bars show the change in the average saving rate per percentile of income from 2006 to 2009 (from 2009 to 2011). Saving rates per household have been calculated using Household Expenditure Survey data.
Revenue and expenditure have been elevated to approximate National Accounts-analogous items and thus correct the under-reporting of revenue and expenditure in the Survey.
b See Gerlach and Bachetta (1997), "Consumption and credit constraints: international evidence", Journal of Monetary Economics.

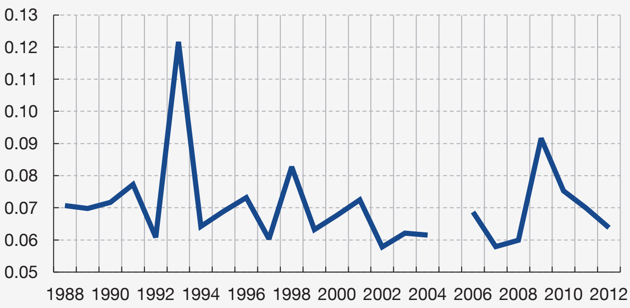
The crisis in Spain has been so intense that, since it broke out in 2008, around 7% of firms have closed[1] and employment has fallen by 20%. It is, however, important to determine whether these adverse effects at aggregate level have been across-the-board or, on the contrary, have been concentrated in certain sectors and/or firms and, in particular, whether a certain reallocation of economic resources to firms or sectors with higher productivity or potential future growth is under way. This Box analyses to what extent the crisis is giving rise to a reallocation of productive factors and attempts to characterise the sectors exhibiting a better relative performance since the crisis began. To do this, use was made of the financial and economic information available in the Banco de España's Central Balance Sheet Data Office on non-financial corporations and of the Instituto Nacional de Estadística's Central Companies Directory (DIRCE), with information to 2011, as well as information from the Spanish Labour Force Survey, available up to 2012, in its sectoral breakdown.

Broadly, it can be said that the impact of the crisis is relatively uneven across economic sectors. The construction sector, for example, has lost 25% of its number of firms and 60% of its jobs since 2008, while some non-market services sectors and the energy and recycling sector have seen net job creation and positive employment behaviour since the onset of the crisis. This unevenness in the behaviour of the various economic sectors is the result of a reallocation of productive factors across sectors. To approximate the rate at which this reallocation is occurring, various measures are used. First, an indicator is constructed to gauge the dispersion of the rates of change of employment across economic sectors. Chart 1 shows the behaviour of the weighted standard deviation of the rates of change of employment across sectors at

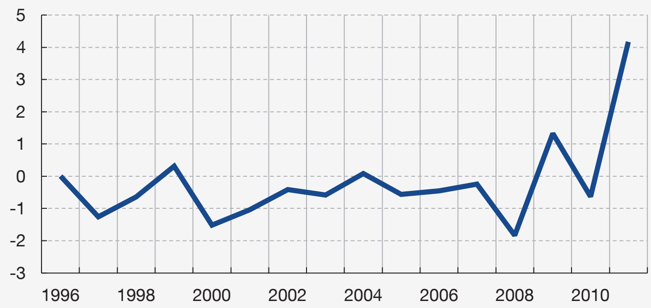
1 Taking into account both creation and destruction of firms in the period. The INE time series of firm demographics starts in 1995, so it contains no information on the destruction of firms in the early-1990's crisis for comparison with that of the current crisis. During the economic deceleration at the beginning of the 2000s, the stock of firms grew by around 10% with respect to the stock of firms in 1999.

DEGREE OF REALLOCATION OF PRODUCTIVE FACTORS BETWEEN SECTORS

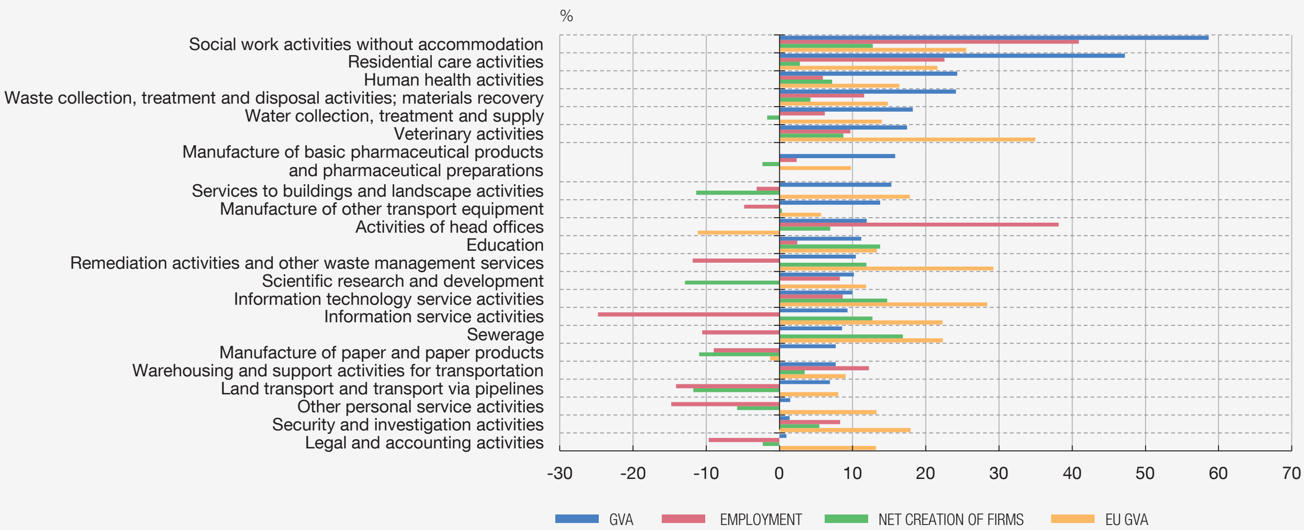
1 WEIGHTED STANDARD DEVIATION OF THE CHANGE IN SECTORAL EMPLOYMENT



2 FOSTER DECOMPOSITION FACTOR



3 CUMULATIVE RATE OF CHANGE FROM 2008 TO 2011



SOURCES: INE and Banco de España.

the two-digit level of disaggregation.[2] It can be seen that this dispersion remained relatively constant in the cyclical upturns, while it increased in the crisis periods, both that of 1993 and that since 2008. It should be noted, however, that according to this measure, the level of sectoral reallocation of employment was higher in the early-1990s crisis.

In a second approximation, an accounting decomposition of the observed productivity growth is carried out to determine the contribution of the transfer of resources to more productive sectors.[3] In other words, this measure reflects whether the higher-productivity sectors are the ones gaining weight in the economy, which, from an economic standpoint, entails an efficient reallocation of resources. As Chart 2 shows, an index of this measure calculated using the data of the Central Balance Sheet Data Office shows a very stable level throughout the whole expansionary cycle of the Spanish economy, which is consistent with the scant vigour of productivity observed in that period. However, the value of this index increases in 2009 and, above all, in 2011, which may be the first sign of a more efficient reallocation of resources in the crisis.[4]

In addition, to determine which sectors have shown the best relative performance since the crisis began, Chart 3 plots the growth rates between 2008 and 2011 of cumulative gross value added (GVA) in nominal terms and of employment, as well as the net creation of firms for the sub-set of sectors in which value added increased in 2011 with respect to 2008.[5]

In this chart a small group of sectors can be discerned whose activity indicators performed positively. Most of them belong to the services sector, including both non-market services (education, health care and social services) and some market services (business services, consulting, IT services and transport, among others), while in manufacturing the only sub-sectors belonging to this category are the manufacture of other transport equipment and the manufacture of basic pharmaceutical products and pharmaceutical preparations. Comparison with European countries shows that the economic sectors which have performed best in Spain have generally performed equally well in a sub-sample of euro area countries in the period analysed.[6] This high correlation would suggest that, at least partially, the movements between economic sectors in Spain and the rest of Europe are being driven by common trends.

Overall, the various results reported show that, although the crisis initiated in 2008 is having extremely negative effects on the number of firms and employment at aggregate level, there is a certain sectoral heterogeneity which reveals that some sectors, services in particular, are performing more favourable in terms of activity, employment and net creation of firms. Simultaneously, there is evidence of a certain sectoral reallocation of productive factors to sectors with higher productivity, which, if it continues and extends to a larger number of activities, might give rise to higher growth of aggregate productivity in the future.

2 Weighted by the share of each sector in total employment. The disaggregation corresponds to the two-digit level of the CNAE-93 between 1987 and 2008 and of the CNAE-2009 thereafter. The unweighted standard deviation gives similar results.

3 That component of the accounting decomposition of productivity growth is called "between term" and in this context has been calculated as the covariance between the increase in the weight of a certain sector, measured in terms of real value added, and its relative productivity. For more information, see Haltiwanger, Krizan and Foster (1998), *Aggregate Productivity Growth: Lessons From Microeconomic Evidence*, Working Papers 98-12, Center for Economic Studies, US Census Bureau.

4 This 2011 figure should be regarded with some caution because the year is not yet closed. In particular, it should be taken into account that the information for 2001 was based on 180,000 firms, compared with more than 300,000 for 2010.

5 These sectors are the two-digit disaggregation of the CNAE-2009. Financial and insurance activities have been excluded.

6 This sub-sample includes Germany, France, Italy and Portugal in the case of GVA, and France, Italy and Portugal in the case of employment. The information source is the BACH database.

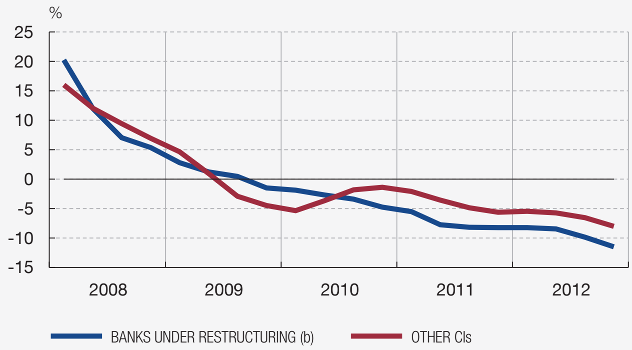
Recent developments in lending to non-financial corporations suggest that institutions in a situation of greater weakness have stricter lending policies.[1] In addition, the approval of the adjustment plans of institutions that have received public funds from the FROB obliges them to reduce their volume of lending further over the next five years. This raises the question of the extent to which firms that were, at the start of the financial crisis, obtaining funding from such banks are being adversely affected as a result and how far they are able to replace the financing they no longer receive from these institutions with funds obtained from other, more solid institutions.

1 See the article "Un análisis de las diferencias entre entidades en la evolución del crédito al sector privado durante la crisis", in the March 2013 issue of the *Economic Bulletin* of the Banco de España.

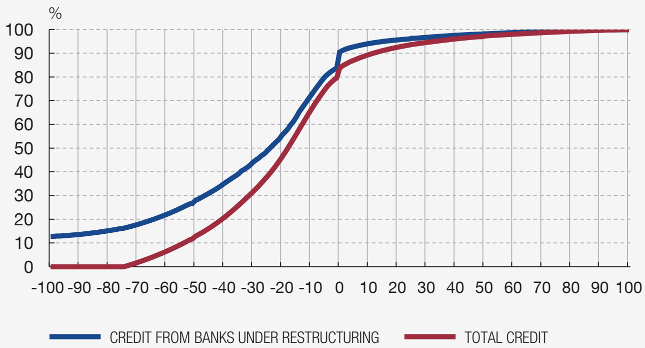
To answer these questions, this box uses Central Credit Register (CIR) data to analyse developments in the lending of different institutions to non-financial corporations, distinguishing between banks in a weaker situation (hereinafter "banks under restructuring")[2] and

2 These are considered to be those taken over or controlled by the FROB at some time during the period of recent years up to end-2012. Specifically, they are the following: Banco CAM (taken over in July 2011 and subsequently sold to B. Sabadell, which absorbed it in December 2012), Catalunya Banc, NCG Banco, Unimm Banc and Banco Gallego (majority-controlled by the FROB since September 2011, as a result of capital injections made by the latter; Banco Gallego is indirectly controlled, as it is a subsidiary of NCG Banco; Unimm Banc was subsequently sold to BBVA but had still not been absorbed by the latter as at the end of 2012), Banco de Valencia (taken over in November 2011 and sold to Caixabank in February 2013) and the BFA group (controlled by the FROB since May 2012).

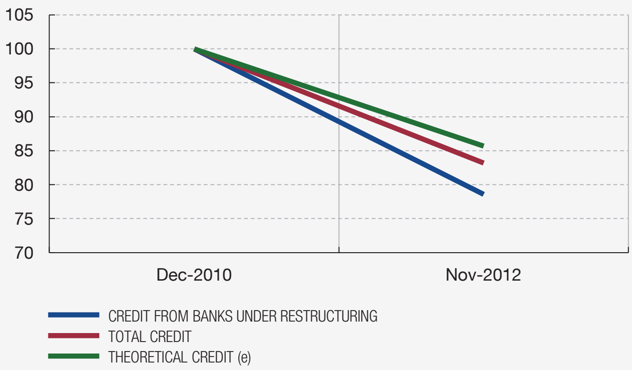
1 LENDING TO NON-FINANCIAL CORPORATIONS (a)
Year-on-year growth rate (%)



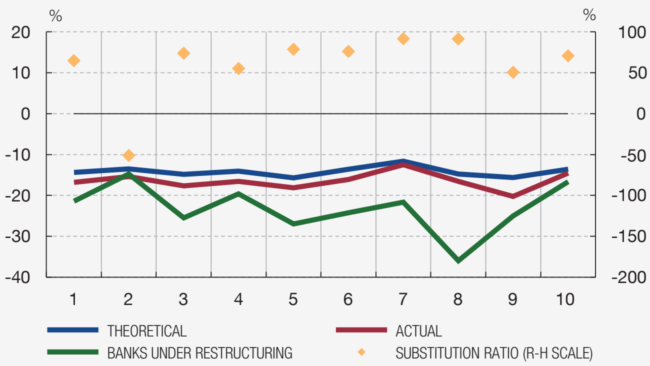
2 DISTRIBUTION OF THE CHANGE IN LENDING TO NON-FINANCIAL CORPORATIONS DEPENDENT ON BANKS UNDER RESTRUCTURING BETWEEN DECEMBER 2010 AND NOVEMBER 2012 (c)



3 EVOLUTION OF BANK LENDING TO FIRMS DEPENDENT ON BANKS UNDER RESTRUCTURING (d)



4 EVOLUTION OF BANK LENDING BETWEEN DECEMBER 2010 AND NOVEMBER 2012 BY SUB-GROUPS (f)



SOURCE: Banco de España.

a The 2012 data correspond to November.
b Banco CAM, Catalunya Banc, NCG Banco, Unimm Banc, Banco Gallego, Banco Valencia and BFA Group.
c Percentage of firms with a percentage change in credit that is less than or equal to the value shown on the x-axis.
d The evolution between December 2010 and November 2012 reflects, in each case, the median growth of the firms analysed.
e Estimated evolution of credit for an equivalent firm (in terms of sector, size, age, bad debts, indebtedness, profitability, sales growth and employment) not dependent on financing from taken-over banks.
f Categories: 1: Total; 2: Construction and real estate services; 3: Other sectors; 4: Microfirms; 5: Small firms; 6: Medium-sized firms; 7: Large firms; 8: Firms <=20% of whose credit is from taken-over banks; 9: Firms >20% and <=80% of whose credit is from taken-over banks; 10: Firms >80% of whose credit is from taken-over banks.

other institutions. Panel 1 shows how the former have indeed been cutting their financing to non-financial corporations more sharply over the last two and a half years than other institutions. Between December 2010 and November 2012,[3] the fall recorded by these institutions was 18%, as against 12% in the case of other institutions. In this case, moreover, the evolution of loans did not follow the cyclical pattern of those granted by the rest of the system in 2009 and 2010, which was more in line with the specific dynamics of the economy. This would suggest that their fund granting policy was more influenced by other types of factors, less linked to the business cycle.

Nonetheless, to assess the extent to which this has entailed a constraint for "dependent firms" (defined as those that in December 2010 had funds lent by banks under restructuring) it is necessary to take into account the possible effects of substitution between institutions. Panel 2 shows, for dependent firms, the distribution of the change between the two dates mentioned, of total bank credit received and of that granted by the banks under restructuring only.[4] The difference observed reflects the fact that some of these firms have replaced all or part of the funds granted by the latter banks with loans from other institutions.

However, a certain degree of substitution is normal in a market in which banks compete among themselves to attract customers. The question is whether this process has occurred fluidly, so that firms dependent on banks that have cut their supply of credit most have not faced a greater constraint than those that received financing from more solid institutions. To analyse this an equation is estimated relating the change in total credit received by non-financial firms, between December 2010 and November 2012, to its main determinants (size of the company, date of incorporation, sector, and indicators of its financial situation, including the level of its indebtedness, profitability, sales growth, employment and bad debts in 2010).[5] The inclusion in this regression of a dummy variable, which takes the value of 1 for dependent firms enables us to determine the extent to which such firms have recorded credit behaviour significantly different from that of the rest. With all the necessary caveats,[6] the results show that these firms recorded 2.5% lower growth in their total bank lending than equivalent firms that were not financed by banks under restructuring. This would seem to imply that the substitution has not been perfect and, therefore this evidence suggests that the existence of distressed banks has adverse implications for the real economy.[7]

To illustrate the quantitative relevance of shifts between institutions, Panel 3 shows three measures of the (median) decline in credit at dependent firms: the decline in credit from banks under restructuring; the decline in total funds received; and the decline that these firms would have had, according to the estimated equation, if they had not depended on these banks (theoretical credit). Comparison of the first two measures indicates that there has actually been a certain degree of substitution of lending institutions by the companies. Comparison of the latter two measures (total credit and theoretical credit) indicates that this substitution was not complete, although it was substantial. The aggregate substitution ratio, defined as the ratio between, on one hand, the median fall in total credit less that in credit from banks under restructuring (which measures the substituted part) and, on the other hand, the fall in theoretical credit less that in credit from these banks (which measures the need for substitution), has a value of 65%. It should be taken into account that this measure reflects shifts arising from both changes in the lending policy of the usual lender and from autonomous decisions that may have been taken by the firm itself.

Panel 4 shows these three measures of decline in credit and the substitution ratio again, for different groupings of firms. The degree of substitution is higher in sectors other than construction and real-estate services (category 3), for large companies (category 7) and for companies less than 20% of whose total credit came from banks under restructuring (category 8).[8] This is consistent with the fact that, either because they are large, or because they already had significant operations with other banks or belong to a sector less affected by the crisis than construction and real-estate services, these firms posed fewer information asymmetry problems for banks. In any case, in all the groupings considered there is a positive difference between the fall in total financing obtained by dependent firms and the decline that would have occurred, according to the estimated model, given their characteristics and economic situation. That is to say, in all cases the substitution is only partial and there is a negative effect arising from dependence on institutions under restructuring, which varies from 0.8 percentage points (pp), for the largest firms (category 7), to 4.6 pp for firms 20-80% of whose initial credit was from such institutions.

3 The November 2012 data are used instead of the December data to avoid the analysis being affected by the transfer of loans of Group 1 institutions to the SAREB, which took place in December 2012.

4 The definition of credit used in this box includes both drawn-down and undrawn balances, and both those maintained on the balance sheet and those written off, in line with the analysis of the article mentioned above in Footnote 1. This variable is considered a better measure of the change in the supply of funds to firms.

5 For this exercise, the CIR data are matched with the integrated data of the Central Balance Sheet Data Office of the Banco de España, which include the data obtained from its annual survey (CBA) and from the mercantile registries. The final sample analysed comprises 285,000 firms, of which around 68,000 had credit from taken-over banks in December 2010.

6 Despite the attempt to control for all possible relevant factors, the fit of the regression is poor and although the coefficients of the explanatory variables are statistically significant and have the expected signs, it is not possible to rule out entirely that part of the difference attributed to the dependence on banks under pressure is actually a result of other determinants that were not included.

7 This would be in line with the results of Jiménez et al (2012): "Credit Supply and Monetary Policy: Identifying the Bank Balance-Sheet Channel with Loan Applications", *American Economic Review*, 102(5): 2301-2326.

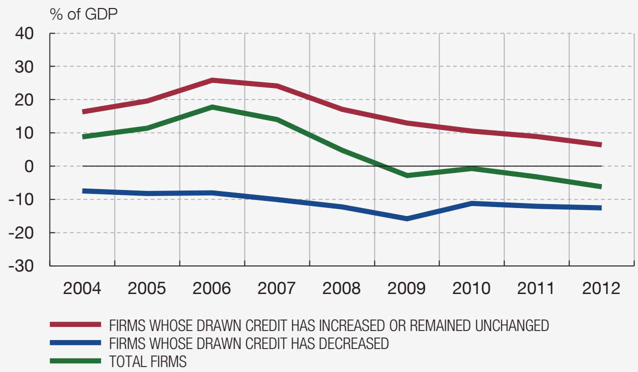
8 In the construction and real-estate sectors (category 2), the ratio is actually negative, since total lending was reduced by slightly more than that granted by banks under restructuring (15.4% as against 14.8%).

In short, the evidence presented in this box suggests that, in general, Spanish firms dependent on institutions under restructuring would have been able to replace, to a significant degree, the funds that they no longer received from their usual lenders with financing from other, more solid institutions. However, the scope of this substitution process depends on the characteristics of the firms, so that the existence of distressed institutions has certain constraining effects in the short term on the access of non-financial corporations to bank credit, although in the medium term the restructuring of such institutions will facilitate the normalisation of financing in the economy.

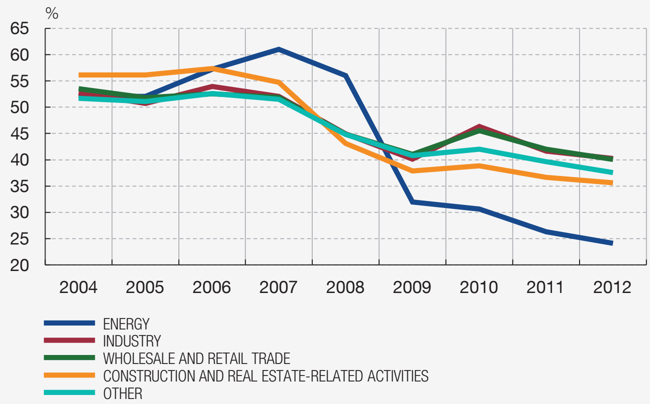
CORPORATE LENDING BY BANKS SINCE THE ONSET OF THE FINANCIAL CRISIS. A DISAGGREGATED ANALYSIS

The financial accounts of the Spanish economy reflect a slow and progressive decline in the debt of non-financial corporations over the last few years. According to this information, there was a cumulative fall of 12.1% in this sector's debt from its 2009 peak to end-2012. This is explained mainly by the behaviour of bank credit, which is the main form of financing available to firms, especially smaller ones.

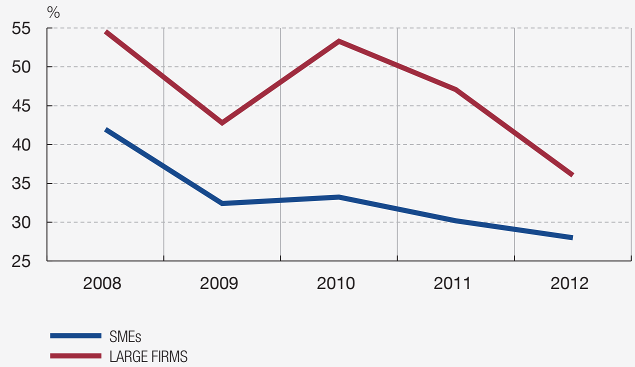
1 GROWTH OF DRAWN CREDIT: FLOW AS PERCENTAGE OF GDP (a)



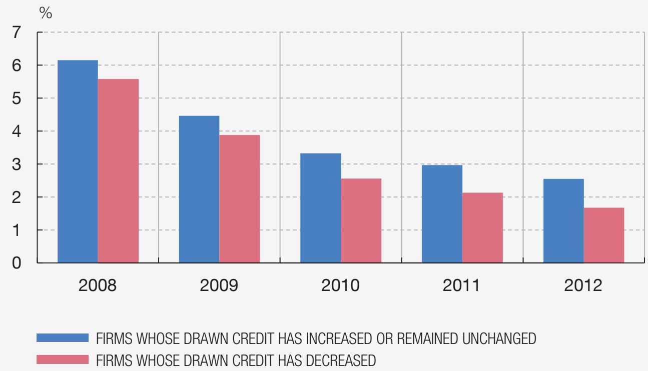
2 PERCENTAGE OF FIRMS WHOSE DRAWN CREDIT HAS INCREASED OR REMAINED UNCHANGED. SECTORAL BREAKDOWN (a)



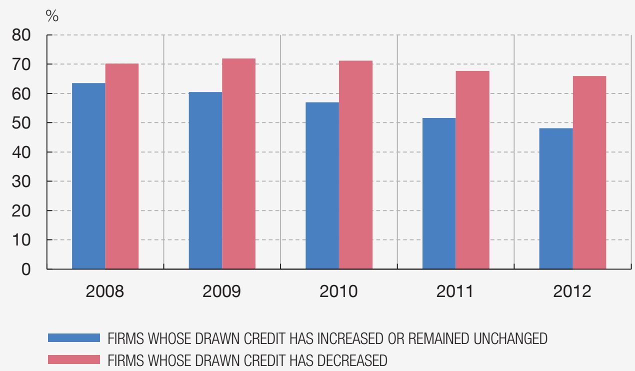
3 PERCENTAGE OF FIRMS WHOSE DRAWN CREDIT HAS INCREASED OR REMAINED UNCHANGED. BREAKDOWN BY SIZE (b) (c)



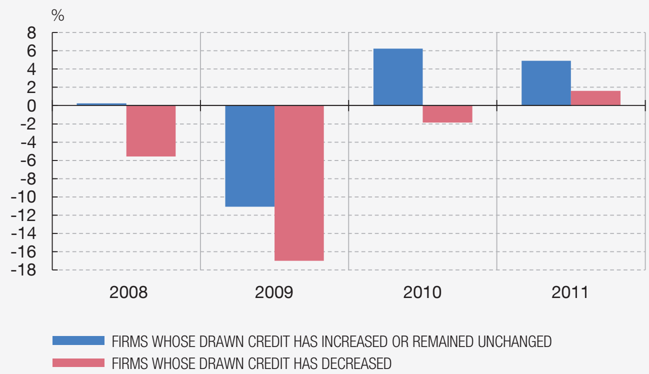
4 AVERAGE RETURN ON ASSETS IN t–1 (b) (d)



5 AVERAGE DEBT RATIO IN t–1 (b) (e)



6 YEAR-ON-YEAR GROWTH RATE OF SALES (b)



SOURCE: Banco de España.

a Calculations made using information from the Central Credit Register.
b Calculations based on a combination of information from the Central Credit Register and the Central Balance Sheet Data Office. Firms with fixed-income issues are excluded.
c Average of the percentages for each sector.
d Return on assets, defined as (ordinary net profit + financial costs) / net assets.
e Debt ratio, defined as interest-bearing borrowing / net assets.

This Box analyses that process of deleveraging from a microeconomic standpoint to see whether it has been uniform across firms.

Chart 1, which is based on Central Credit Register (CCR) data on drawn credit, reveals that the contraction since 2009 has been compatible every year with a considerable positive flow of financing in some firms.[1] The increase in credit recorded for the firms in this situation, in an adverse economic setting characterised by tight financing conditions, has naturally been smaller than in the more expansionary years, although it has held at notable levels, close to 9% of the GDP of those years.

Analysis of this phenomenon in terms of the number of firms shows that since the crisis broke out in 2008 the percentage of firms which raised (or did not change) their bank financing has fallen each year, despite which it remained at a notable level – around 40% – for nearly all economic sectors (see Chart 2). There were, however, some sectors in which the decrease was sharper, such as construction and real estate activities which were harder hit by the crisis, and energy, where the percentage dropped rapidly to stand at 25% in 2012. The decrease in the energy sector is explained by the deleveraging of some of the main energy groups in recent years[2] and by the significant reduction of renewable energy projects from 2008 after the sharp expansion of previous years.

Chart 3, prepared by combining information from the CCR and from the Integrated Central Balance Sheet Data Office survey (CBI),[3] shows how, in the most recent period, despite the recessionary economic situation, the bank debt of a significant percentage of firms has continued to grow, both in the small firms segment and among the largest firms. However, small firms, harder hit by the economic crisis and faced with tighter financing conditions, have shown lower percentages throughout the period.

In the other charts (Charts 4, 5 and 6), the firms in which bank credit remained steady or increased are compared with those at which it decreased. To carry out this economic and financial comparison, three significant variables in this area were selected: return on assets, debt and sales.[4] It can be deduced from these charts that the firms whose bank financing moved upwards were, on average, more profitable, had lower debt and enjoyed more buoyant sales. Moreover, in the case of the debt ratio, the gap between the average levels of the two groups has widened significantly. Thus, while in 2008 the difference was scarcely 7 pp, in 2012 the firms with a zero or positive change in credit had average debt of 48.1%, nearly 18 pp lower than that of those whose debt decreased (66%).

The results of this Box show that the recent behaviour of financial debt in the business sector has been extremely uneven. Although in aggregate terms the last few years have been dominated by deleveraging processes, the percentage of firms whose bank financing has increased in this period has not been negligible. This phenomenon was apparent in most productive sectors, both in small firms and in large ones. The firms whose borrowing grew are characterised, on average, by a healthier financial position, higher profitability and more buoyant activity. These developments thus suggest that available resources are gradually being reallocated to the firms and sectors in a comparatively better economic and financial situation. This reduces the risk of the sector as a whole.

1 All analyses have been made using CCR information on drawn credit. The main conclusions do not change if total undrawn credit is used.
2 For more details, see the box on this matter in the article "Results of non-financial corporations to 2012 Q4 and summary year-end data", published in the March 2013 Economic Bulletin.
3 The CBI is a sample obtained by combining the Central Balance Sheet Data Office annual survey and the CBB database (based on Mercantile Register information). Firms with fixed-income securities issues were excluded from the analysis (between 50 and 80 firms, depending on the year), since bank credit is not the only source of financing for these firms.
4 The return on assets and debt figures are shown up to 2012, since they refer to the previous period. As regards sales, the 2012 rate of change is not given because the 2012 sales figure is not yet available.

1 INTRODUCTION

The annual accounts of the Banco de España ("the Bank") as established by Article 29.1 of its internal rules, approved by a Resolution of the Governing Council of 28 March 2000 (Official State Gazette (BOE) of 6 April 2000), comprise the balance sheet, the profit and loss account and the notes on the accounts. The accounts have been prepared in accordance with the internal accounting rules and principles of the Banco de España. These rules and principles are based on the accounting framework established for national central banks (NCBs) of the European System of Central Banks (ESCB)[1] pursuant to Article 26.4 of the Statute of the ESCB on standardisation of accounting and reporting procedures relating to operations undertaken by NCBs. In the cases not regulated by Eurosystem accounting legislation, the Banco de España applies its internal policies based on generally accepted accounting principles adapted to the special characteristics of the operations and functions of a central bank.

In accordance with the provisions of Articles 29 and 32 of its internal rules, the Bank's annual accounts have been audited by the Internal Audit Department and analysed and examined by the Audit Committee appointed for the purpose by the Bank's Governing Council. The accounts have also been audited by independent external auditors, as stipulated by Article 29 of the Bank's internal rules and Article 27 of the Statute of the ESCB.

Under the provisions of Article 4.2 of Law 13/1994 of 1 June 1994 of Autonomy of the Banco de España, it is for the government, upon proposal by the Minister of Economic Affairs and Competitiveness, to approve the Bank's balance sheet and accounts for the year, which will be sent to Parliament (Cortes Generales) for informational purposes. The Governing Council of the Bank, under the provisions of Article 21.g) of the aforementioned Law, is responsible for preparing the Bank's annual accounts.

Unless otherwise indicated, the figures are expressed in millions of euro. Those relating to 2011 are presented solely for comparison with 2012. Due to rounding, on occasions the totals included in the balance sheet, profit and loss account and notes on the annual accounts may not equal the sum of the individual figures. This document presents the accounts for the year 2012. Section 2 includes the balance sheet and profit and loss account at 31 December 2012; Section 3 contains the notes on the accounts, with the accounting policies that have served as a framework for their preparation, the explanatory notes on the most important aspects of the balance sheet and profit and loss account, and the changes in capital, reserves, provisions and revaluation accounts; and Section 4, in compliance with Article 4.2 of the Law of Autonomy, details the contributions made to the Deposit Guarantee Fund and the loans and transactions agreed on other than an arm's-length basis or which in any other way entail a loss of profit or losses for the Bank, along with the estimated amount.

Finally, Annexes 1 and 2 include the reports of the external auditors and of the Bank's Audit Committee on the annual accounts presented in the preceding sections.

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1 Guideline of the European Central Bank of 11 November 2010 on the legal framework for accounting and financial reporting in the ESCB (ECB/2010/20), as amended.

BALANCE SHEET OF THE BANCO DE ESPAÑA AS AT 31 DECEMBER 2012

EUR m

	Note Number	2012	2011
ASSETS			
1 Gold and gold receivables	**1**	**11,418.40**	**11,017.18**
2 Claims on non-euro area residents denominated in foreign currency		**26,593.16**	**25,019.85**
2.1 Receivables from the IFM	2	5,907.82	5,803.75
2.2 Balances with banks and security investments, external loans and other external assets	3	20,685.34	19,216.10
3 Claims on euro area residents denominated in foreign currency	**4**	**2,576.94**	**4,250.73**
4 Claims on non-euro area residents denominated in euro		**812.81**	**844.31**
4.1 Balances with banks, securities investments and loans	5	812.81	844.31
4.2 Claims arising from the credit facility under ERM II		—	—
5 Lending to euro area credit institutions related to monetary policy operations denominated in euro	**6**	**361,086.88**	**168,196.45**
5.1 Main refinancing operations		45,735.00	11,422.10
5.2 Longer-term refinancing operations		315,351.79	156,677.80
5.3 Fine-tuning reverse operations		—	—
5.4 Structural reverse operations		—	—
5.5 Marginal lending facility		—	—
5.6 Credits related to margin calls		0.09	96.55
6 Other claims on euro area credit institutions denominated in euro		**0.87**	**2.74**
7 Securities of euro area residents denominated in euro	**7**	**96,930.56**	**106,385.64**
7.1 Securities held for monetary policy purposes		32,989.53	31,080.11
7.2 Other securities		63,941.03	75,305.53
8 General government debt denominated in euro	**8**	**2,915.05**	**3,498.51**
9 Intra-Eurosystem claims	**9**	**40,078.29**	**32,177.68**
9.1 Participating interest in ECB		1,078.50	940.10
9.2 Claims equivalent to the transfer of foreign reserves		4,783.65	4,783.65
9.4 Net claims related to the allocation of euro banknotes within the Eurosystem		34,216.14	26,453.93
9.5 Other claims within the Eurosystem (net)		—	—
10 Items in course of settlement		**1.04**	**1.29**
11 Other assets		**7,269.06**	**4,172.85**
11.2 Tangible and intangible fixed assets	10	263.67	268.51
11.3 Other financial assets	11	45.70	46.76
11.4 Off-balance sheet instruments revaluation differences	12	162.30	—
11.5 Accruals and prepaid expenses	13	4,825.31	2,439.70
11.6 Sundry	14	1,972.07	1,417.88
TOTAL ASSETS		549,683.05	355,567.23

BALANCE SHEET OF THE BANCO DE ESPAÑA AS AT 31 DECEMBER 2012 (cont'd)

EUR m

	Note number	2012	2011
LIABILITIES			
1 Banknotes in circulation	**15**	**99,641.36**	**97,024.85**
2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	**16**	**72,004.69**	**50,933.71**
2.1 Current accounts (covering the minimum reserve system)		12,851.75	14,561.25
2.2 Deposit facility		59,046.50	33,335.00
2.3 Fixed-term deposits		—	3,000.00
2.4 Fine-tuning reverse operations		—	—
2.5 Deposits related to margin calls		106.45	37.46
3 Other liabilities to euro area credit institutions denominated in euro	**17**	**110.01**	**0.02**
5 Liabilites to other euro area residents denominated in euro		**10,951.86**	**5,570.05**
5.1 General government	18	9,009.99	5,425.69
5.2 Other liabilities	19	1,941.86	144.35
6 Liabilities to non-euro area residents denominated in euro	**20**	**141.68**	**380.75**
7 Liabilities to euro area residents denominated in foreign currency		**0.85**	**1.08**
8 Liabilities to non-euro area residents denominated in foreign currency		**0.77**	**0.78**
8.1 Deposits, balances and other liabilities		0.77	0.78
8.2 Liabilities arising from the credit facility under ERM II		—	—
9 Counterpart of special drawing rights allocated by the IMF	**21**	**3,296.08**	**3,355.46**
10 Intra-Eurosystem liabilities	**22**	**336,831.24**	**174,826.42**
10.2 Liabilities related to promissory notes backing the issuance of ECB debt certificates		—	—
10.3 Net liabilities related to the allocation of euro banknotes within the Eurosystem		—	—
10.4 Other liabilities within the Eurosystem (net)		336,831.24	174,826.42
11 Items in course of settlement	**23**	**183.75**	**240.47**
12 Other liabilities		**350.59**	**506.24**
12.1 Off-balance-sheet instruments revaluation differences	24	—	110.92
12.2 Accruals and income collected in advance	25	237.54	161.00
12.3 Sundry	26	113.05	234.32
13 Provisions	**27**	**7,806.34**	**6,365.20**
14 Revaluation accounts	**28**	**12,568.59**	**12,012.07**
15 Capital and reserves		**1,950.00**	**1,950.00**
15.1 Capital	29	1,000.00	1,000.00
15.2 Reserves	**30**	950.00	950.00
16 Profit for the year	**31**	**3,845.23**	**2,400.13**
TOTAL LIABILITIES		**549,683.05**	**355,567.23**

PROFIT AND LOSS ACCOUNT OF THE BANCO DE ESPAÑA FOR THE YEAR ENDING 31 DECEMBER 2012

EUR m

		Note number	2012	2011
1	Interest income	1	8,223.84	5,273.93
2	Interest expense	2	3,112.82	1,341.45
3	**Net interest income (1 – 2)**		**5,111.02**	**3,932.49**
4	Realised gains/losses arising from financial operations	3	132.25	101.29
5	Write-downs on financial assets and positions	4	1.01	467.61
6	Transfer to/from provisions for foreign exchange rate and price risks	5	-1,565.92	-1,081.34
7	**Net result of financial operations, write-downs and risk provisions (4 – 5 + 6)**		**-1,434.68**	**-1,447.66**
8	Fees and commissions income		19.32	17.57
9	Fees and commissions expense		12.04	10.68
10	**Net income from fees and commissions (8 – 9)**	**6**	**7.27**	**6.89**
11	Income from equity shares and participating interests	7	89.58	109.64
12	Net result of pooling of monetary income	8	514.17	211.05
13	Other income and losses	9	-4.55	40.23
14	**TOTAL NET INCOME (3 + 7 + 10 + 11 + 12 + 13)**		**4,282.81**	**2,852.63**
15	Staff costs	10	210.91	230.90
16	Administrative expenses	11	119.38	116.61
17	Depreciation of tangible and intangible fixed assets	12	30.60	31.86
18	Banknote production services	13	47.43	54.71
19	Other expenses		2.92	2.89
20	**TOTAL OPERATING EXPENSES (15 + 16 + 17 + 18 + 19)**		**411.24**	**436.97**
21	Transfers and additions to other funds and provisions	14	26.33	15.53
22	**PROFIT FOR THE YEAR (14 – 20 – 21)**	**15**	**3,845.23**	**2,400.13**

Countersigned by
The Governor,

LUIS M. LINDE DE CASTRO

The Comptroller,

JAVIER PACIOS RODRÍGUEZ

3 NOTES ON THE ACCOUNTS

3.1 Accounting policies

1 BASIC PRINCIPLES

The annual accounts of the Banco de España present fairly its net worth, financial and economic position. They have been drawn up in accordance with the following accounting principles: prudence, recognition of post-balance-sheet events, going concern, the accruals principle, consistency and comparability, no offset, matching of revenues and expenses, and materiality. These principles conform to those set out in the accounting guides and instructions of the ECB.

2 BASIS OF ACCOUNTING

The annual accounts have been prepared on a historical cost basis, modified as necessary to include market valuation of trading-book securities, gold and the foreign currency position. Futures shall be valued daily at market price and significant participating interests at underlying book value.

Transactions in assets and liabilities are generally recorded on the settlement date, except that forward transactions in foreign currencies are booked at the spot settlement date. If a period end falls between the trade date and the spot settlement date, both spot and forward foreign currency transactions are recognised at the trade date.

The specific valuation criteria applied to the various assets and liabilities were the following:

Gold

Gold is recorded at acquisition cost[2], which is determined by the cash amount paid in the transaction including any related expense.

The cost of sales is obtained by applying the daily net average cost method. In the event that the cash to be paid or received is specified in a currency other than the euro, it is translated into euro at the mid-market exchange rate two business days before the settlement date.

On the last day of each month, gold stocks are valued at the market price in euro per troy ounce of fine gold. Unrealised gains or losses (except for unrealised losses at year-end) are reflected in an adjustment account and credited or debited, respectively, to a revaluation or loss account.

Unrealised losses existing at the end of the year are taken to the profit and loss account and the average book value is modified. Such losses are considered irreversible in subsequent revaluations.

Sales of gold against foreign currency under repurchase agreements are recorded as off-balance-sheet items, with no effect on the balance sheet. The foreign currency received by way of consideration is recorded on the assets side, with the obligation to repay it being recorded simultaneously on the liabilities side. Possible differences arising between gold delivered spot and that received forward are recorded as if there had been an independent outright sale or purchase at the time of maturity of the transaction.

2 As at 31/12/1998 its acquisition cost was adjusted to the market price then prevailing and the unrealised gains were credited to revaluation accounts. These gains are subsequently taken to profit and loss when the asset is sold and they can be used to offset unrealised losses.

Foreign currencies

Spot purchases or sales of foreign currencies are recorded at the settlement date, and affect the foreign currency position from that date. Gains and losses on the spot sale of foreign currencies are similarly considered to be realised from the settlement date. Meanwhile, foreign exchange forward purchase and sale transactions are recognised in off-balance-sheet accounts at the spot date of the transaction, affecting the foreign currency position as at that date. The gain or loss on the transaction is also considered to be realised on that date. If a period-end falls between the trade date and the spot settlement date, the transactions have to be recognised at the trade date.

Purchases are recorded at acquisition cost in euro. Purchases and sales of foreign currencies against euro are valued at the exchange rate agreed in the transaction. When foreign currencies are bought and sold against other foreign currencies, the euro valuation is at the mid-market exchange rate of the currency sold on the trade date. Transactions in a foreign currency that do not modify the overall position therein have no effect on the book value of such position.

The cost in euro of foreign currency sold is calculated using the daily net average cost method.

Accrued interest denominated in foreign currency is recorded on a daily basis, generally using the mid-market rate on each day. If the rate on the relevant day is not available, the latest mid-market rate available shall be applied. Accrued interest receivable or payable denominated in foreign currency forms part of the foreign currency position.

Foreign currencies are revalued monthly to market price. This revaluation is performed without netting unrealised gains against unrealised losses on the various currencies. Unrealised gains and losses (except for unrealised losses at year-end) are reflected in adjustment accounts and credited or debited, respectively, to revaluation and loss accounts.

Unrealised losses existing at the end of the year are taken to the profit and loss account for the year, in which case they affect the average cost of the currency in question. Such losses are considered irreversible in subsequent revaluations.

Foreign banknotes

The criteria applied are the same as those indicated in the preceding section for foreign currencies.

Special drawing rights (SDRs)

SDRs and the net position in the International Monetary Fund (IMF) are valued at the year-end SDR market exchange rate by the same methods used for other currencies.

Securities

The Banco de España holds three separate securities portfolios: a trading portfolio, a held-to-maturity portfolio and a monetary policy portfolio (set up in accordance with the ECB Governing Council decisions of 7 May 2009 and 4 June 2009, 9 May 2010 and 6 October 2011).

In all three cases, the securities are recorded initially at acquisition cost, which is determined by the cash amount paid, less any accrued gross coupon.

The cost of securities sold or redeemed is determined by the average book value of the security in question. The securities in the held-to-maturity portfolio may not be sold except in exceptional, duly authorised circumstances.[3]

3 Securities classified as held-to-maturity may be sold before their maturity in any of the following circumstances: a) if the quantity sold is considered not significant in comparison with the total amount of the held-to-maturity securities portfolio; b) if the securities are sold during the month of the maturity date; and (c) under exceptional circumstances, such as a significant deterioration of the issuer's creditworthiness, or following an explicit monetary policy decision of the Governing Council.

Trading portfolio securities are revalued monthly to market price. This revaluation is carried out without any netting of unrealised gains and losses on different security codes. Unrealised gains and losses (except for unrealised losses at year-end) are reflected in adjustment accounts and credited or debited, respectively, to revaluation and loss accounts. Unrealised losses existing at the end of the year are taken to the profit and loss account. Their amount is credited directly to the securities account, and the average book price - and therefore the internal rate of return - of the security code concerned is modified. Such losses are considered irreversible in subsequent revaluations. The year-end adjustment was made using the market prices on the last day of the year.

Securities within the held-to-maturity portfolio and the monetary policy portfolio, the latter also consisting of held-to-maturity securities, are not subject to any periodic valuation, except for recognition, where applicable, of loss of value due to asset impairment.

Any premiums, discounts and coupons that have accrued but are not due are recorded in accruals accounts, using the internal rate of return of each security code for their calculation within each portfolio. These accruals are recorded daily.

The above references to acquisition cost and market prices shall, in the case of securities denominated in foreign currency, be understood to refer to the currency concerned. Accordingly, these amounts will be translated into euro, as stipulated in the "Foreign currencies" section.

Repurchase agreements involving securities

Reverse repurchase agreements involving securities are recorded on the assets side of the balance sheet as collateralised outward loans for the amount of the loan. Securities acquired under reverse repurchase agreements are not revalued or included in the securities portfolio.

Repurchase agreements involving securities are recorded on the liabilities side of the balance sheet as an inward deposit collateralised by securities, the balancing entry of which is the cash received. Securities sold under this type of agreement remain on the Bank's balance sheet and are treated as if they had remained part of the portfolio from which they were sold. Repurchase agreements involving securities denominated in foreign currencies have no effect on the average cost of the currency position.

In direct loans of securities, repurchase and reverse repurchase agreements conducted simultaneously are accounted for separately, each being recorded according to the valuation rules set forth in the preceding two paragraphs.

Automated security loans (contracts empowering a depository of securities to lend them to a third party in overnight transactions, subject to certain contractual limitations) are not recorded in the balance sheet. The only item accounted for is the income, which is recorded in the profit and loss account. Transactions outstanding at year-end are recorded off-balance sheet.

Doubtful debtors

Where there is any reasonable doubt about the recovery of an asset, it is recorded in a special separate account and the relevant provision set aside.

Loans to financial institutions and balances with EU central banks

These are valued at their nominal amount.

The ECB establishes the conditions applicable to the monetary policy operations conducted by Eurosystem central banks and the need to obtain adequate collateral for them. Also, Article 32.4 of the Statute of the ESCB and of the ECB stipulates that the Governing Council may decide that national central banks shall be indemnified, in exceptional circumstances, for specific losses arising from monetary policy operations undertaken for the Eurosystem. Indemnification shall be in a form deemed appropriate in the judgment of the Governing Council; these amounts may be offset against the national central banks' monetary income (see Note 27 on the balance sheet and Note 8 on the profit and loss account).

Loans to the State

In accordance with the Guideline of the European Central Bank of 11 November 2010 on the legal framework for accounting and financial reporting in the European System of Central Banks (ECB/2010/20), they are valued at nominal amount (see Notes 8 and 27 to the balance sheet and Note 5 to the profit and loss account).

Shares and participating interests

The shares in the Bank for International Settlements and the participating interest in the European Central Bank (ECB) are valued at cost.

The participating interest in Bolsas y Mercados Españoles, Sociedad Holding de Mercados y Sistemas Financieros S.A. is valued at its underlying book value. Unrealised gains or losses will be calculated as the positive or negative difference, respectively, between the underlying book value of the shares and their carrying amount at the Banco de España. Gains will be debited to an adjustment account which, when added to the account representing the investment, will show the aforementioned underlying book value according to the investee's balance sheet, and will be credited to a revaluation account. Losses, which will be considered to be unrecoverable until the shares are sold, will be recorded as a direct reduction of the value of the investment, being debited to the profit and loss account.

Tangible and intangible fixed assets

Fixed assets are defined as those non-financial assets owned by the Bank that are intended to be used for a period exceeding 12 months and contribute directly or indirectly to fulfilling its objectives and/or to the probable generation of income in the future and, in addition, their cost can be reliably assessed.

Fixed assets are generally valued initially at cost, defined as the amount of the monetary disbursements made or committed to, including any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the intended manner, such as transport, installation, professional fees for legal services, non-refundable taxes and the fair value of other consideration given.

Trade discounts and those for defects in assets received are recorded as a reduction in the cost of the related assets. Cash discounts and those for late delivery are recorded in the profit and loss account under other income or, where appropriate, as a reduction in expenses, and do not affect the acquisition cost of the asset purchased.

Fixed assets are deemed not to include those assets which, although meeting the conditions to be classed as such, do not generally exceed the amount of €600 (€6,000 in the case of buildings, structures and plant in buildings), although there may be exceptions, normally for control reasons.

Only extensions, replacements, rehabilitations and improvements that exceed €6,000 are capitalised, provided also that the elements replaced can be removed from the balance sheet or that they are fully depreciated.

Computer applications developed specifically for the Banco de España the cost of which does not exceed €300,000 are recorded directly as expenses and are not eligible for subsequent capitalisation.

Computer applications developed for the Eurosystem as a whole are recognised as fixed assets for the related acquisition cost, which is normally calculated on the basis of the Banco de España's share of the ECB capital key, applied to the total acquisition cost of the project.

After initial recognition, fixed assets are valued at acquisition cost less accumulated depreciation or amortisation and any impairment losses.

The acquisition cost of a fixed asset, net of its residual value, is depreciated or amortised systematically during its useful life on a straight-line monthly basis from the month following that in which it was recognised in the accounts. Generally, all depreciable/amortisable fixed assets are estimated to have a residual value of zero unless there is a deep, liquid market for assets similar to the one whose residual value may be received. Land, the art collection and fixed assets under construction are not depreciated.

The depreciation/amortisation rates and estimated useful lives applied to the various fixed assets in 2012 were as follows:

	Depreciation /Amortization Rate (%)	Useful life (years)
Buildings and structures	2	50
Renovation work	4	25
Plant in buildings	10	10
Security-related plant in buildings	20	5
Furniture and fittings	10	10
Office machines for the handling of banknotes and coins	10	10
Other office machines	20	5
Computer equipment	25	4
Transport equipment. Cars and motor bikes	25	4
Transport equipment. Trucks and buses	10	10
Libraries	10	10
Other tangible fixed assets	20	5
Computer applications	20	5
Industrial property	—	Number of years of exclusive use

An asset is impaired when its book value exceeds the recoverable value. In this case, and only if the amounts are significant, an impairment loss is recognised by simultaneously reducing the item's book value and modifying its depreciable/amortisable base.

Banknotes in circulation

The ECB and the NCBs, which together comprise the Eurosystem, have issued euro banknotes since 1 January 2002.[4] The total value of euro banknotes in circulation is recorded by allocating to each Eurosystem NCB, on the last working day of each month, an amount based on the banknote allocation key.[5]

4 Decision of the European Central Bank of 13 December 2010 on the issue of euro banknotes (ECB/2010/29).
5 The banknote allocation key is that which results from applying 92% to the Eurosystem subscribed capital key.

The ECB has been allocated a share of 8% of the total value of euro banknotes in circulation, whereas the remaining 92% has been allocated to the NCBs and divided amongst them according to their weightings in the capital key of the ECB. The share of banknotes allocated to each NCB is disclosed under the item "Banknotes in circulation" on the liability side of their respective balance sheets.

The difference between the value of the euro banknotes allocated to each NCB in accordance with the banknote allocation key and the value of the euro banknotes that it actually puts into circulation also gives rise to remunerated intra-Eurosystem balances. These claims or liabilities, which incur interest,[6] are disclosed under the item "Intra-Eurosystem: Net claims/liabilities related to the allocation of euro banknotes within the Eurosystem" (see "Intra-Eurosystem balances" in this section on accounting policies).

From 2002 until 2007, the intra-Eurosystem balances arising from the allocation of euro banknotes were adjusted in order to avoid significant changes in the relative income positions of the NCBs that initially formed part of the Eurosystem as compared with previous years. The adjustments were effected by taking into account the differences between the average value of banknotes in circulation of each NCB in the specified reference period[7] and the average value of banknotes that would have been allocated to them during that period under the ECB's capital key. The adjustments were progressively reduced in annual stages until the end of 2007. However, this mechanism has also been applied in the case of new Member States adopting the euro so as to calculate the amount of compensation corresponding to each of them under the aforementioned calculation method, this adjustment being divided among the rest of the national central banks according to their respective weightings in the capital key of the ECB. This adjustment is gradually reduced over a six-year period, being held unchanged during each financial year.

The interest income and expense on intra-Eurosystem balances relating to banknote allocation is cleared through the accounts of the ECB and is disclosed under "Net interest income" in the profit and loss account.

The ECB's income arising from the euro banknotes in circulation assigned to it and from securities purchased under the Securities Markets Programme are allocated in full to the NCBs in the financial year in which it accrues.[8] Settlement of this income takes place on the last working day in January of the following year, in the form of an interim distribution of the income. The Governing Council may decide to reduce the distributable ECB income on euro banknotes in circulation by the costs incurred by the ECB in connection with the issue and handling of banknotes. The ECB Governing Council shall decide whether all or part of the ECB's income arising from securities purchased under the Securities Markets Programme and all or part of the ECB's income on euro banknotes in circulation should be retained to the extent necessary to ensure that the amount of the distributed income does not exceed the ECB's net profit for that year. The ECB Governing Council may also decide to transfer all or part of this income to an ECB provision for foreign exchange rate, interest rate, credit and gold price risks. The amount distributed to NCBs is shown in the profit and

6 Decision of the ECB of 25 November 2010 on the allocation of monetary income of the national central banks of Member States whose currency is the euro (ECB/2010/23).

7 The reference period taken has a duration of 24 months and it begins 30 months prior to the euro cash changeover date.

8 Decision of the European Central Bank of 19 December 2012 (ECB/2012/33) amending the European Central Bank Decision of 25 November 2010 (ECB/2010/24) on the interim distribution of the income of the European Central Bank on euro banknotes in circulation and arising from securities purchased under the securities markets Programme.

loss account item "Income from equity shares and participating interests" in the year in which this income accrued.

Intra-Eurosystem balances

Intra-Eurosystem balances arise from the Banco de España's participating interest in the ECB, claims equivalent to the reserves transferred to the ECB and the net balance resulting from the transfers issued and received by TARGET2[9] among the national central banks of the ESCB, including the ECB. They also arise from the balances vis-à-vis the ECB resulting from allocation of euro banknotes within the Eurosystem. In addition, the outcome of the contribution and allocation of monetary income to NCBs and the positions vis-à-vis the ECB owing to the deferral of sundry receipts and payments also give rise to intra-Eurosystem balances.

In the case of TARGET2 operations, the resulting balance is included as an asset or liability, as appropriate, under the balance sheet item "Other claims/liabilities within the Eurosystem (net)". Intra-ESCB balances arising from the allocation of euro banknotes within the Eurosystem are included, depending on their net amount, as an asset or liability under "Net claim/liability related to the allocation of euro banknotes within the Eurosystem" (see "Banknotes in circulation" in this section on accounting policies).

Recognition of income and expenses

Income and expenses are recognised in the period in which they accrue.

Realised gains and realised and unrealised losses are taken to the profit and loss account. To calculate the acquisition cost of items sold, the average cost method is used for securities and the daily net average cost method is used for foreign currencies and gold. The first-in first-out method is used for interest rate futures. In the case of unrealised losses on any item at year-end, its average cost is reduced to the end-of-year market price and/or exchange rate.

Unrealised gains are not recognised as income, but are transferred to a revaluation account.

Unrealised losses are taken to the profit and loss account if they exceed previous revaluation gains recorded in the corresponding revaluation account, and are not reversed in subsequent years against new unrealised gains. Unrealised losses in any one security or currency or in gold are not netted against unrealised gains in other securities or currencies.

Premiums or discounts on purchased securities are calculated and shown as reductions of or additions to interest income and accrued over the remaining life of the securities concerned, together with the accrued coupons, according to the effective interest rate method.

Pension Scheme

The Pension Scheme for Bank employees is of the defined-contribution type. The Pension Fund of which this Scheme forms part is external and closed-end. Contributions made by the Banco de España on behalf of the employees who joined the Bank after 1/2/1986, are eligible to and do participate in the Scheme, are recognised as a current expense in the year to which they relate.[10]

Provisions

In application of the principle of prudence, the liabilities side of the balance sheet includes provisions approved by the Executive Commission of the Banco de España which are considered necessary to cover adequately, on objective criteria, the risks derived from the

9 Trans-European Automated Real-time Gross settlement Express Transfer system.
10 Contributions made by the Banco de España are established at 7.5% of the so-called "regulating salary" consisting of the salary items determined in the Scheme Rules, although in 2012, in application from July of Article 22 of Law 2/2012 of 29 June 2012 on the State Budget for 2012, those contributions were not made.

financial positions held and other losses of a diverse nature (see Note 27 on the balance sheet).

Off-balance-sheet positions[11]

Foreign exchange forward currency positions, which comprise transactions and forward legs of foreign exchange swaps, are included in the net foreign currency positions in order to calculate foreign exchange gains and losses.

As a general rule, profits and losses arising from off-balance-sheet positions are recognised and treated in a similar manner to those arising from on-balance-sheet assets and liabilities. Specifically, in application of the economic approach, the gains and losses on positions in interest rate futures are considered to be realised at the time when they are settled net each day. Since these futures are denominated in foreign currency, such settlements shall affect the foreign currency position on the day on which they take place.

3 CONSIDERATIONS REGARDING THE ESTIMATES MADE

These annual accounts were prepared using Bank estimates to quantify some of the assets, liabilities, income, expenses, commitments and, in particular, to quantify provisions recorded in them (see Note 27 on the balance sheet). As regards monetary policy operations, since they are conducted jointly in the Eurosystem, the estimates made by the ESCB are also taken into account [see Notes 6 and 7.a) on the balance sheet].

These estimates are based on the best information available at end-2012, and future events may require them to be changed in the coming financial years. Any such changes would be made prospectively in accordance with current accounting rules.

4 POST-BALANCE-SHEET EVENTS

Assets, liabilities and the profit and loss account are adjusted on the basis of events taking place between the end of the accounting period and date of preparation of the annual accounts, should those events materially affect the Banco de España's year-end financial position. The events occurring after year-end which do not affect the assets and liabilities at that date do not give rise to adjustments thereto, although if they are material they are disclosed in the notes on the accounts.

3.2 Notes on the balance sheet

1 GOLD AND GOLD RECEIVABLES

The Banco de España's gold holdings amount to €11,418.40 million, consisting of 9.054 million troy ounces[12] of fine gold valued at a market price of €1,261.179 per ounce. These holdings did not change during the financial year. The value of these holdings is €401.22 million more than in 2011, as a result of the rise in the market price (at end-2011 the price per ounce was €1,216.864). This increase is included in the liability revaluation accounts. The cost of the gold holdings is €850.43 million.

2 CLAIMS ON NON-EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY. CLAIMS ON THE IMF

This item has three components:

a) The position in the International Monetary Fund (IMF) in the reserve tranche. This is the euro equivalent of the SDRs relating to the foreign currencies assigned to the IMF due to Spain's initial quota and successive increases in it and due to the net financing granted to the IMF. Spain's IMF quota is SDR 4,023.40 million.

b) Special drawing rights (allocations). These represent the euro equivalent of the successive allocations of this currency by the IMF. The changes in alloca-

11 The net position under foreign exchange forward transactions and swaps, and the foreign-exchange gains and losses generated by such position are shown in the balance sheet in item 11.4 on the assets side or item 12.1 on the liabilities side, depending on their sign.

12 One troy ounce is equal to 31.1035 grams.

tions are essentially due to loan agreement transactions with third countries and to interest receipts or payments resulting from positions vis-à-vis the IMF.

c) Other claims on the IMF. These reflect the amount that the Banco de España has delivered to the IMF as a contribution to the PRGT[13] and the bilateral loan agreements between the IMF and Spain, these latter currently included in the NAB[14]. For the PRGT, the Banco de España has given a commitment to contribute, through concessional lending to low-income countries, up to SDR 830 million, the amount drawn down at end-2012 being €364.53 million (SDR 312.72 million). The NAB agreements were concluded to support the IMF's ability to provide financial assistance to its members. The contribution commitment is SDR 6,702.18 million and the amount drawn up to end-2012 was €935.12 million (SDR 802.20 million), representing an increase of €105.98 million (SDR 103.05 million) with respect to the previous year.

The breakdown in 2011 and 2012 is as follows:

EUR m

Type of asset	2012	2011	Change
Reserve tranche position	1,476.44	1,421.01	55.43
Special drawing rights (allocation)	3,131.73	3,161.64	-29.91
Other claims on the IMF	1,299.65	1,221.10	78.55
TOTAL	**5,907.82**	**5,803.75**	**104.07**

The overall amount of claims on the IMF increased by €104.07 million with respect to the balance at end-2011.

The increase of €55.43 million (SDR 69.12 million) in the reserve tranche position account is due to the overall effect of various factors:

— An increase of €119.38 million (SDR 101.70 million due to the Banco de España's net contributions to the IMF for loans to third countries (Portugal and Ireland).

— A decrease of €65.87 million (SDR 55.92 million) due to repayments of loans from other countries (Lithuania).

— An increase of €28.40 million (SDR 21.60 million), constituting the balancing entry of movements by the IMF in account no. 1.

— An increase of €2.11 million (SDR 1.74 million) due to other transactions.

— A decrease of €26.61 million due to the change in the exchange rate of the SDR against the euro.

The decrease of €29.91 million (SDR 22.34 million) in the special drawing rights (allocation) account arose from the overall effect of the increase in foreign currency (€26.51 million) due to partial loan repayments and interest on IMF accounts and from the effect of year-end market exchange rates, which entailed a decrease of €56.42 million.

13 Poverty Reduction and Growth Trust.
14 New Arrangements to Borrow.

The “Other claims on the IMF” account increased by €78.55 million (SDR 85.92 million). This account includes the loans granted under the NABs and under the PRGT programme. The NABs led to an increase in net contributions (new loans to Greece, Ireland and Sri Lanka less partial repayments by Greece) of €105.98 million (SDR 103.50 million). The PRGTs decreased due to partial loan repayments of €27.42 million (SDR 17.58 million). The change of €78.55 million arose from the overall effect of two factors: the increase in foreign currency because NAB loans increased by more than PRGT loans decreased, which accounted for €101.97 million (SDR 85.92 million), and the effect of the change in foreign exchange rates between the two years, which entailed a decrease of €23.41 million.

SDRs are valued at the year-end market rate, calculated by the ECB for all the Eurosystem national central banks, of €1 = SDR 0.857854. The SDR is defined in terms of a basket of currencies. Its value is determined as the weighted sum of the exchange rates of four major currencies: the US dollar, the euro, the yen and the pound sterling. The SDR interest rate, which is updated weekly, remained at an average of 0.11%, with a high of 0.15% and a low of 0.03% during the year.

3 CLAIMS ON NON-EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY. BALANCES WITH BANKS AND SECURITY INVESTMENTS, EXTERNAL LOANS AND OTHER EXTERNAL ASSETS

This item includes current accounts, deposits, debt security investments in the trading and held-to-maturity portfolios and other claims on non-euro area residents denominated in foreign currency. The held-to-maturity portfolio consists of securities with fixed or determinable payments which the Banco de España intends to hold until maturity.

The total amount as at 31 December 2012 was €20,685.34 million, with the following breakdown:

EUR m

Type of asset	2012	2011	Change
Deposits	132.07	102.07	30.00
Security investments	20,549.07	19,111.20	1,437.87
Trading portfolio	14,523.61	11,364.02	3,159.59
Held-to-maturity portfolio	6,025.46	7,747.17	-1,721.72
Other	4.19	2.83	1.36
TOTAL	**20,685.34**	**19,216.10**	**1,469.23**

As at 31 December 2012, 89.95% of these assets were denominated in US dollars and 10.02% in yen. The equivalent value in euro of these US dollar and yen amounts was transferred to the balance sheet at the year-end market exchange rate (€1 = USD 1.3194 and €1 = YEN 113.61).

The increase in the balance of this item (€1,469.23 million) was due to the net effect of the factors listed in the following table:

EUR m

Reason for change	Amount
Net investment	2,204.33
Changes of market exchange rates as at 31 December	-644.17
Changes of securities market prices as at 31 December	6.02
Accrued interest receivable	-96.87
Other	-0.07
TOTAL	**1,469.23**

4 CLAIMS ON EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY

This balance sheet item may include current accounts, balances with banks and security investments. As at 31 December 2012, US dollar denominated time deposits at monetary financial institutions equivalent to €2,273.76 million (USD 3,000 million) were held. The year-end balance also includes a claim arising from reverse operations with Eurosystem counterparties amounting to €303.17 million (USD 400 million) in connection with the US dollar Term Auction Facility. Under this program, US dollars were provided by the Federal Reserve to the ECB by means of a temporary reciprocal currency arrangement (swap line) with the aim of offering short-term US dollar funding to Eurosystem counterparties. The ECB simultaneously entered into back-to-back swap transactions with NCBs that have adopted the euro, which used the resulting funds to conduct dollar liquidity-providing operations with the Eurosystem counterparties in the form of repos and received euro-denominated securities from them as collateral. These back-to-back swap transactions between the ECB and the Eurosystem NCBs give rise to intra-Eurosystem balances reported under “Other claims within the Eurosystem (net) / Other liabilities within the Eurosystem (net)”.

5 CLAIMS ON NON-EURO AREA RESIDENTS DENOMINATED IN EURO. BALANCES WITH BANKS, SECURITY INVESTMENTS AND LOANS

Included here is the balance of current accounts at correspondents and trading and held-to-maturity portfolio securities denominated in euro. The held-to-maturity portfolio consists of securities with fixed or determinable payments which the Banco de España intends to hold until maturity.

The breakdown is as follows:

EUR m

Type of asset	2012	2011	Change
Deposits	0.11	0.19	-0.08
Security investments	812.69	844.12	-31.42
Trading portfolio	—	—	—
Held-to-maturity portfolio	812.69	844.12	-31.42
TOTAL	**812.81**	**844.31**	**-31.50**

Of the total of this heading (€812.81 million), most (€812.69 million) relates to fixed-income securities included in the held-to-maturity portfolio, which decreased by €31.42 million with respect to the balance as at 31 December 2011. This portfolio consists of euro-denominated securities issued by international organisations (the European Investment Bank and the Bank for International Settlements) and by non-euro area States. The trading portfolio, as in 2011, had a zero balance at the end of the reporting year.

6 LENDING TO EURO AREA CREDIT INSTITUTIONS RELATED TO MONETARY POLICY OPERATIONS DENOMINATED IN EURO

This item includes the amount of the euro-denominated lending to euro area credit institutions through which monetary policy is implemented. The total amount of these loans in the Eurosystem as a whole is €1,126,019 million, of which €361,086.88 are included in the balance sheet of the Banco de España. Pursuant to Article 32.4 of the ESCB/ECB Statute, any counterparty risk that may materialise in monetary policy operations must be shared by all Eurosystem central banks in proportion to their share of the subscribed capital of the ECB according to the capital keys in force when this risk materialises (see the provision for counterparty risks in Eurosystem monetary policy operations, in Note 27.- Provisions). The losses may only be recognised if the counterparty fails and insufficient funds are received from resolution of the collateral received from the institution. The Governing Council of the ECB has, in certain cases, excluded from risk sharing a portion of the collateral accepted by central banks.[15]

15 The total collateral provided by institutions under loan agreements, valued by Eurosystem rules and applying the related haircuts, amounts to €482,500.73 million. Of this amount, €8,408.24 million relate to collateral excluded from risk sharing.

The breakdown by type of transaction is as follows:

EUR m

Type of operation	2012	2011	Change
Main financing operations	45,735.00	11,422.10	34,312.90
Longer-term refinancing operations	315,351.79	156,677.80	158,674.00
Fine-tuning reverse operations	—	—	—
Structural reverse operations	—	—	—
Marginal lending facility	—	—	—
Credits related to margin calls	0.09	96.55	-96.46
TOTAL	361,086.88	168,196.45	192,890.43

Throughout the whole of 2012, against a background of money market tensions in the euro area, the ECB continued to conduct liquidity-providing operations of various maturities to meet the additional liquidity demands of counterparties.

The balance of this item as at 31 December 2012 is 114.7% higher than that of 2011. The average daily balance of the financing granted during the year increased by 364.9% (€330,404.71 million in 2012, against €71,064.16 million in 2011).

a Main refinancing operations

They are executed through liquidity providing reverse transactions with a weekly frequency and a maturity of one week, normally by means of standard tenders. These operations play a pivotal role in achieving the aims of steering interest rate, managing market liquidity and signalling the monetary policy stance. However, in 2012, continuing the trend initiated in previous years, they were used less than longer-term refinancing operations. In this connection, it should be noted that 10.8% of annual average financing was extended through them. In 2012 these operations were conducted at fixed rate with allotment of the total amount bid.

The balance of this item at 31 December 2012 was €45,735.00 million (€11,422.10 million at 31 December 2011) and its daily average balance during the year was €35,640.50 million (€26,662.79 million in 2011).

b Longer-term refinancing operations

These operations aim to provide counterparties with additional longer-term refinancing. In 2012 operations were conducted with maturities equal to the reserve maintenance period and with maturities of three and thirty-six months. These operations were conducted at fixed rate with allotment of the total amount bid.

The balance of these operations at end-2012 amounted to €315,351.79 million (87.3% of the total), having increased by €158,674.00 million with respect to the previous year. Also, the average balance increased (from €44,141.74 million in 2011 to €294,562.87 million in 2012), representing 89.2% of overall financing in the year. Most of the increase in the balance of this item took place in March due to the 36-month financing operation in which loans of €175,413.80 million were granted.

c Fine-tuning reverse operations

The purpose of these operations is to regulate the market liquidity situation and control interest rates, particularly to smooth the effects on interest rates caused by unexpected market fluctuations. Owing to their nature, their frequency is not standardised.

In 2012 one fine-tuning reverse operation took place in the Eurosystem. As a result of it, overnight financing of €48,155.00 million was obtained by Spanish credit institutions. Its end-2012 balance was zero.

d Structural reverse operations

These are reverse open-market transactions through standard tenders to enable the Eurosystem to adjust its structural liquidity position vis-à-vis the financial sector.

The end-2012 balance was zero, as it was at the previous year-end. No structural reverse operations took place during the year.

e Marginal lending facility

Counterparties may use the marginal lending facility to obtain overnight liquidity from national central banks at a pre-specified interest rate against eligible assets. This interest rate is penalised with respect to the intervention rate set in the weekly tenders or in main refinancing operations.

The balance at the end of 2012 was zero. As in 2011, there were few of these operations during the year.

f Credits related to margin calls

Under Eurosystem rules for monetary policy management, all operations providing liquidity to the banking system must be backed by adequate underlying assets accepted by the system as eligible for use as collateral. If, after daily valuation, the market value of the assets used as loan collateral has fallen below the lower trigger point set for each security, the counterparty must provide additional assets or cash in deposits held for purpose (see Note 16 on the balance sheet). If the market value of the underlying assets, following their revaluation, exceeds the amount of the financing obtained from the national central bank plus the variation margin, the counterparty may withdraw an amount of underlying assets equal to that excess (or receive this difference as a cash payment in its account).

In the national central banks that make margin calls by debiting or crediting the accounts of credit institutions, as is the case for the Banco de España, these debits or credits are the balancing entries of the asset-side or liability-side accounts reflecting the changes in these margins. These balance sheet accounts are remunerated at the interest rate applied in main refinancing operations.

As at 31 December 2012 this item had a balance of €0.09 million, down €96.46 million with respect to the previous year. However, its average balance rose from €56.19 million in 2011 to €69.17 million in 2012.

7 SECURITIES OF EURO AREA RESIDENTS DENOMINATED IN EURO

a Securities held for monetary policy purposes

This item includes the amount of euro-denominated fixed-income securities issued by euro area residents which were acquired by the Banco de España for monetary policy purposes under covered bond purchase programmes[16] and under the Securities Markets Programme[17]. These securities were classified as held-to-maturity (see "Securities" in Section 3.1 "Accounting policies") and are subject to a yearly impairment test. The balance of this item as at 31 December 2012 was €32,989.53 million. The breakdown is as follows:

EUR m

Monetary Policy Portfolio	2012	2011	Change
Covered bond purchase programme	6,220.63	6,337.86	-117.24
Second covered bond purchase programme	2,299.99	266.01	2,033.97
Securities market programme	24,468.91	24,476.23	-7.32
TOTAL	**32,989.53**	**31,080.11**	**1,909.42**

16 Decision of the ECB of 2 July 2009 on the implementation of the covered bond purchase programme (ECB/2009/16) and Decision of the ECB of 3 November 2011 on the implementation of the second covered bond purchase programme (ECB/2011/17).

17 Decision of the ECB of 14 May 2010 establishing a Securities Markets Programme (ECB/2010/5).

The securities purchases under the first covered bond purchase programme were completed in June 2010. The decrease in the balance of this portfolio is due to the redemption of securities and to the premiums and discounts relating thereto which were applied throughout 2012.

On 6 October 2011 the ECB Governing Council announced a second covered bond purchase programme. Under this programme, in November 2011 the European Central Bank and the Eurosystem central banks initiated the purchase of euro-denominated covered bonds issued by euro area residents in order to improve the financing conditions of credit institutions and firms and to encourage banks to maintain and increase lending to their customers. The net increase in this item in 2012 was due to the purchases made. These purchases were completed at the end of October 2012, when the programme ended.

Under the Securities Markets Programme established in May 2010, the Eurosystem central banks may purchase public and private euro area debt securities in order to ensure depth and liquidity in those market segments displaying dysfunctional behaviour. The purpose of this programme is to address the poor functioning of securities markets and re-establish an appropriate monetary policy transmission mechanism. The net decrease in the balance of this item in 2012 was due to the redemption of securities and to the premiums and discounts relating thereto which were applied throughout 2012. On 6 September 2012 the ECB Governing Council decided to end this programme, the securities in this portfolio being held until maturity.

The Governing Council periodically evaluates the financial risks associated with the securities held under the Securities Markets Programme and the two covered bond purchase programmes.

The total amount of the securities acquired by all Eurosystem NCBs under the aforementioned Securities Markets Programme amounted to €192,608 million, of which €24,468.91 million were included in the balance sheet of the Banco de España. Pursuant to Article 32.4 of the ESCB/ECB Statute, any risks that materialise in the securities included in this portfolio must be shared by all Eurosystem central banks in proportion to their share of the subscribed capital of the ECB according to the capital keys in force.

A part of the Banco de España's holdings under the Securities Markets Programme consists of bonds issued by the Hellenic Republic. In February 2012 the Eurosystem central banks changed their holdings of Greek sovereign bonds for new securities issued by the Hellenic Republic. The securities received have the same financial characteristics as those given up. The new securities were not included in the list of those restructured under the private sector participation initiative.

As a result of the impairment test conducted at end-2012, the ECB Governing Council identified two impairment indicators relating to the holdings of Greek bonds. The first was the restructuring in March 2012 of a portion of the securities issued by the Hellenic Republic under the private sector participation initiative and the second was the debt repurchase operation carried out by the Greek government in December 2012. The ECB Governing Council considered that these two developments did not signify any impairment of the securities purchased under the Securities Markets Programme and that, according to the information available as at 31 December 2012, there was no evidence of any change in the estimated future cash flows. Hence no impairment losses were recorded on the holdings of Greek bonds purchased under the Securities Markets Programme or on any of the other securities purchased under that programme.

As regards the impairment test conducted on the securities purchased under the covered bond purchase programmes, it was considered that, although some of the issuers of those securities were subject to restructurings in 2012, this did not affect the expected cash flows and therefore no impairment losses were recorded.

b Other securities

This item includes that part of the Bank's trading and held-to-maturity portfolios which consists of euro-denominated fixed-income securities issued by euro area residents that are not held for monetary policy purposes. The held-to-maturity portfolio consists of securities with fixed or determinable payments which the Banco de España intends to hold until maturity. The breakdown of this item is as follows:

EUR m

Security investments	2012	2011	Change
Trading portfolio	36,408.59	40,160.88	-3,752.29
Held-to-maturity portfolio	27,532.44	35,144.65	-7,612.22
TOTAL	**63,941.03**	**75,305.53**	**-11,364.50**

The balance of this item as at 31 December 2012 was €63,941.03 million, of which 56.9% relate to trading portfolio securities and the remainder (43.1%) to held-to-maturity securities, with no evidence of impairment at year-end.

Overall, these securities decreased by €11,364.50 million in 2012. Specifically, the balance of held-to-maturity securities decreased by €7,612.22 million and that of trading securities decreased by €3,752.29 million.

Specifically, the changes were for the reasons reflected in the following table:

EUR m

Reason for change	Trading portfolio	Held-to maturity portfolio	**Total**
Net purchase/amortization of securities	-4,769.96	-7,618.33	-12,388.29
Unrealised gains at year-end (a)	798.91	—	798.91
Unrealised losses at year-end (a)	-0.02	—	-0.02
Accrued implicit interest	218.78	6.11	224.89
TOTAL	**-3,752.29**	**-7,612.22**	**-11,364.50**

a As stated in Section 3.1 "Accounting policies", no periodic valuation is performed on the held-to-maturity portfolio.

This portfolio includes securities issued by general government and by financial institutions in the euro area. It should be noted that all purchases of debt issued by general government are in the secondary market, none being direct subscriptions of security issues.

A part of the Banco de España's holdings in these portfolios consists of bonds issued by the Hellenic Republic. In February 2012 the Eurosystem central banks changed their holdings of Greek sovereign bonds for new securities issued by the Hellenic Republic. The securities received have the same financial characteristics as those given up. The new securities were not included in the list of those restructured under the private sector participation initiative, so there were no impairment losses.

8 GENERAL GOVERNMENT DEBT DENOMINATED IN EURO

This item includes loans which, by virtue of their respective laws of creation, were granted to the State prior to the entry into force of Law 21/1993 of 29 December 1993 on the State budget for 1994. Initially they were to be repaid at their nominal amount on a straight-line basis over twenty-five years by means of yearly payments as from 1999, inclusive, in accordance with transitional provision seven of the aforementioned law. However, on 26 March 2007 an agreement was entered into with the central government to bring forward the repayment schedule of these loans, such that they mature in full by 2015 at the latest and the Treasury can request early repayment of all or part of them. Loans repaid early are paid by the Treasury at the cash amount of their market value at the time. A provision has been set up for losses arising from early repayment of these loans (see Note 27 on the balance sheet).

Under that agreement, in 2012 two instalments of the Law 3/1983 loan (that of the reporting year and the last outstanding instalment of the original repayment schedule) and the instalments of the other two loans corresponding to the reporting year were collected.

The outstanding nominal balance as at 31 December 2012 of the loans granted to the State amounted to €2,915.05 million, broken down as follows:

EUR m

	2012	2011	Change
Treasury. Law 3/1983 special account	585.75	781.01	-195.25
Treasury. Law 4/1990 special account	2,084.39	2,431.79	-347.40
Treasury. Credits arising from subscription for participating interests, contributions and quotas in international agencies	244.90	285.72	-40.82
TOTAL	**2,915.05**	**3,498.51**	**-583.47**

The change was solely due to yearly repayments on the above-mentioned loans, as set out above. The amounts are shown in the above table.

9 INTRA-EUROSYSTEM BALANCES

This heading includes the amounts of the following items:

EUR m

Type of asset	2012	2011	Change
Participating interest in the ECB	1,078.50	940.10	138.40
Claims equivalent to the transfer of foreign reserve assets to the ECB	4,783.65	4,783.65	—
Net claims related to the allocation of euro banknotes within the Eurosystem	34,216.14	26,453.93	7,762.21
TOTAL	**40,078.29**	**32,177.68**	**7,900.61**

a Participating interest in the ECB

Pursuant to Article 28 of the ESCB Statute, the ESCB national central banks are the sole subscribers to the capital of the ECB. Subscriptions depend on the participating interests fixed in accordance with Article 29 of the ESCB Statute based on each country's share in the total population and gross domestic product of the ESCB countries per data furnished by the European Commission. These subscriptions must be adjusted every five years or whenever new Member States join the European Union, i.e. when their NCBs join the ESCB. Since 1 January 2009 the Banco de España's key for subscription of ECB capital has been 8.3040%.

In 2010 the ECB decided to increase its subscribed capital by €5 billion, from €5,760,652,402.58 to €10,760,652,402.58, with effect from 29 December 2010 and the euro area national central banks agreed to pay their additional capital contributions in three equal annual instalments[18]. The first of these payments took place on 29 December 2010, the second on 28 December 2011 and the third on 27 December 2012. With this last payment, the capital disbursed by the Banco de España reached €893.56 million and coincides with the subscribed capital equivalent to 8.3040% of the capital of the ECB.

As a result of this increase, the subscribed capital and paid-up capital of the national central banks is as follows:

EUR

	Subscribed capital	Paid-up capital as at 31 december 2011	Paid-up capital as at 31 december 2012
Nationale Bank van België/Banque Nationale de Belgique	261,010,384.68	220,583,718.02	261,010,384.68
Deutsche Bundesbank	2,037,777,027.43	1,722,155,360.77	2,037,777,027.43
Eesti Pank	19,261,567.80	16,278,234.47	19,261,567.80
Central Bank and Financial Services Authority of Ireland	119,518,566.24	101,006,899.58	119,518,566.24
Bank of Greece	211,436,059.06	178,687,725.72	211,436,059.06
Banco de España	893,564,575.51	755,164,575.51	893,564,575.51
Banque de France	1,530,293,899.48	1,293,273,899.48	1,530,293,899.48
Banca d'Italia	1,344,715,688.14	1,136,439,021.48	1,344,715,688.14
Central Bank of Cyprus	14,731,333.14	12,449,666.48	14,731,333.14
Banque centrale du Luxembourg	18,798,859.75	15,887,193.09	18,798,859.75
Central Bank of Malta	6,800,732.32	5,747,398.98	6,800,732.32
De Nederlandsche Bank	429,156,339.12	362,686,339.12	429,156,339.12
Oesterreichische Nationalbank	208,939,587.70	176,577,921.04	208,939,587.70
Banco de Portugal	188,354,459.65	159,181,126.31	188,354,459.65
Banka Slovenije	35,381,025.10	29,901,025.10	35,381,025.10
Národná banka Slovenska	74,614,363.76	63,057,697.10	74,614,363.76
Suomen Pankki – Finlands Bank	134,927,820.48	114,029,487.14	134,927,820.48
Subtotal for euro area NCBs	**7,529,282,289.35**	**6,363,107,289.36**	**7,529,282,289.35**
Българска народна банка (Bulgarian National Bank)	93,467,026.77	3,505,013.50	3,505,013.50
Česká národní banka	155,728,161.57	5,839,806.06	5,839,806.06
Danmarks Nationalbank	159,634,278.39	5,986,285.44	5,986,285.44
Latvijas Banka	30,527,970.87	1,144,798.91	1,144,798.91
Lietuvos bankas	45,797,336.63	1,717,400.12	1,717,400.12
Magyar Nemzeti Bank	149,099,599.69	5,591,234.99	5,591,234.99
Narodowy Bank Polski	526,776,977.72	19,754,136.66	19,754,136.66
Banca Naţională a României	265,196,278.46	9,944,860.44	9,944,860.44
Sveriges Riksbank	242,997,052.56	9,112,389.47	9,112,389.47
Bank of England	1,562,145,430.59	58,580,453.65	58,580,453.65
Subtotal for non-euro area NCBs	**3,231,370,113.23**	**121,176,379.25**	**121,176,379.25**
TOTAL (a)	**10,760,652,402.58**	**6,484,283,668.61**	**7,650,458,668.60**

a Due to rounding, the subtotals and totals may not equal the sum of the individual figures in the table.

This item also includes the participating interest in ECB equity. Its balance of €184.94 million at 31 December 2012, unchanged from that in 2011, is the amount paid in previous years for the Banco de España's participating interest in ECB reserves due to the increase in the Banco de España's share of the ECB capital key. Accordingly, the Banco de España's share in ECB capital is €1,078.50 million.

18 Decision of the ECB of 13 December 2010 on the increase of the European Central Bank's capital (ECB/2010/26) and Decision of the ECB of 13 December 2010 on the paying-up of the increase of the European Central Bank's capital by the national central banks of Member States whose currency is the euro (ECB/2010/27).

b Claims equivalent to the transfer of foreign reserve assets to the ECB

These represent the ECB's debt to the Banco de España arising from the transfer of foreign reserve assets to the ECB. The claims equivalent to the transferred reserves are denominated in euro at a value fixed from the time of their transfer. They are remunerated at the latest available marginal rate for the Eurosystem's main refinancing operations, reduced by 15% to reflect a zero return on the gold component, which at the time accounted for 15% of the total reserves transferred. Their year-end balance of €4,783.65 million is unchanged from the previous year.

c Net claims related to the allocation of euro banknotes within the Eurosystem

This item, the balance of which amounted to €34,216.14 million at end-2012, consists of the claims and liabilities of the Banco de España vis-à-vis the Eurosystem in relation to the allocation of euro banknotes within the Eurosystem when there is an overall debit balance (see "Banknotes in circulation" and "Intra-Eurosystem balances" in the section on accounting policies).

The increase with respect to 2011 (€7,762.21 million) was due to the decrease in banknotes put into circulation by the Banco de España in 2012 (-7.3%) and the contrasting rise in the Eurosystem as a whole (growth of 2.7%), which resulted in the aforementioned increase in the balance of these accounts.[19]

d Other claims within the Eurosystem (net)

In accordance with Eurosystem rules, since the accounts making up this item have a net credit balance, this information is presented on the liabilities side of the balance sheet (see Note 22 on the balance sheet).

10 OTHER ASSETS. TANGIBLE AND INTANGIBLE FIXED ASSETS

The balance of this item amounted to €263.67 million at end-2012, of which €643.06 million related to cost and €379.39 million to accumulated depreciation.

The breakdown of this item into its components, together with their accumulated depreciation, is as follows:

EUR m

	2012	2011	Change
Tangible fixed assets	511.86	496.25	15.61
Land and unbuilt plots	5.35	5.35	—
Buildings, structures and renovation work	109.96	107.34	2.63
Plant in buildings	185.41	174.99	10.42
Furniture and fittings	38.09	37.64	0.46
Office machines other than computer equipment	54.16	53.92	0.25
Computer equipment	60.97	58.97	2.00
Transport equipment	8.12	8.53	-0.42
Libraries	5.29	5.42	-0.12
Other tangible fixed assets	5.07	4.99	0.08
Art collection	39.43	39.11	0.32
Intangible fixed assets	83.43	72.25	11.19
Computer applications	83.38	72.19	11.19
Industrial property	0.06	0.06	—
Fixed assets in progress	47.77	51.37	-3.61
Buildings, plant in buildings and other structures	9.41	16.44	-7.03
Computer applications of Banco de España	13.05	15.21	-2.16
Computer applications of Eurosystem	24.43	19.29	5.14
Other fixed assets in progress	0.87	0.43	0.44
TOTAL	**643.06**	**619.86**	**23.19**

19 The increase in the Eurosystem as a whole was €23,964 million, of which €2,616.51 million related to the Banco de España.

EUR m

Accumulated depreciation or amortization	2012	2011	Change
Tangible fixed assets	-319.88	-299.88	-20.00
Buildings, structures and renovation work	-38.96	-36.32	-2.64
Plant in buildings	-143.01	-134.01	-9.00
Furniture and fittings	-28.95	-27.17	-1.78
Office machines other than computer equipment	-44.36	-42.53	-1.83
Computer equipment	-49.97	-45.67	-4.30
Transport equipment	-7.29	-7.24	-0.05
Libraries	-3.13	-3.02	-0.11
Other tangible fixed assets	-4.22	-3.92	-0.30
Intangible fixed assets	-59.50	-51.47	-8.03
Computer applications	-59.45	-51.41	-8.03
Industrial property	-0.06	-0.06	—
TOTAL	**-379.39**	**-351.35**	**-28.03**

The increase in fixed assets in 2012 basically arose from increased investment in development of certain computer applications, from the acquisition and updating of software licences and from the implementation of various projects for the Eurosystem. It was also due to electrical upgrading work in the Cibeles building, the installation of an air conditioning system in the data centre at the Alcalá 522 building, the overhaul of the air conditioning systems at various branches and the refurbishment of the banking hall and adjacent areas at the Cibeles building. Notwithstanding the above, fixed assets net of depreciation decreased with respect to the previous year by €4.39 million.

11 OTHER ASSETS. OTHER FINANCIAL ASSETS

This item includes €45.70 million of financial investments relating basically to the Banco de España's participating interests in the Bank for International Settlements and in Bolsas y Mercados Españoles, Sociedad Holding de Mercados y Sistemas Financieros, S.A. The decrease of €1.06 million in these financial assets was due to the lower underlying book value of this firm.

12 OTHER ASSETS. OFF-BALANCE-SHEET INSTRUMENTS REVALUATION DIFFERENCES

This item includes the amount of the net debtor position arising from foreign-exchange forward and swap transactions valued at the exchange rates prevailing at the end of the year. When the position is a creditor one, it is recorded under the same heading in liability item 12.1. Its debit balance of €162.30 million as at end-2012 is the net value of the swap and forward transactions outstanding at that date that are listed below:

	2012					2011
Operation	Position	Currency	Currency amount (million)	Market exchange rate	Equivalent (million €)	Equivalent (million €)
Swap	Debtor	EUR	304.95	1.0000	304.95	4,139.80
		USD	2,945.87	1.3194	2,232.73	—
	Creditor	JPY	235,429.75	113.6100	2,072.26	—
		USD	400.00	1.3194	303.17	4,250.71
Forward	Debtor	USD	0.88	1.3194	0.67	—
	Creditor	JYP	70.25	113.6100	0.62	—
NET POSITION					**162.30**	**-110.92**

At year-end the unexpired euro-US dollar swaps were those entered into under the liquidity provision cooperation agreements (swap line) with the Federal Reserve, US dollar-yen swaps and forward sales of yen against US dollars yet to be executed.

Regarding the exceptional liquidity-providing transactions in the form of swaps, it should be noted that on 4 December 2012 the ECB Governing Council decided, in agreement with the central banks involved, to prolong the liquidity provision agreements (swap line) with the Federal Reserve until 1 February 2014. Previously, these agreements had been authorised until 1 February 2013.

13 OTHER ASSETS. ACCRUALS AND PREPAID EXPENSES

The main components of this item, the balance of which amounts to €4,825.31 million, are as follows:

EUR m

	2012	2011	Change
Accrued interest arising from securities acquisitions and accrued coupon interest receivable	2,183.95	2,197.17	-13.22
Trading portfolio	873.78	777.61	96.17
Denominated in foreign currency	54.59	51.96	2.64
Denominated in euro	819.19	725.66	93.53
Held-to-maturity portfolio	643.12	792.22	-149.10
Denominated in foreign currency	37.97	49.68	-11.71
Denominated in euro	605.16	742.54	-137.39
Held for monetary policy purposes	667.04	627.34	39.71
Other accrued interest receivable	2,636.78	238.41	2,398.37
On claims equivalent to the transfer of foreign reserves to the ECB	36.43	51.50	-15.08
On intra-Eurosystem claims arising from banknotes adjustments	59.99	87.11	-27.12
On monetary policy operations	2,521.93	95.33	2,426.60
On exceptional liquidity-providing operations	0.14	1.20	-1.06
Claims on the IMF	1.54	3.21	-1.67
On swaps operations	1.58	—	1.58
On foreign currency deposits	15.11	—	15.11
Other	0.06	0.06	—
Accrued commissions receivable and prepaid expenses	4.58	4.12	0.47
TOTAL	**4,825.31**	**2,439.70**	**2,385.61**

As can be seen in the above table, the most significant item relates to accrued interest receivable on monetary policy operations, which increased significantly (by €2,426.60 million) due to the larger volume of outstanding long-term transactions at year-end. The other main accounts are accrued interest arising from securities purchases and accrued coupon interest receivable denominated in euro arising from the trading portfolio (€819.19 million), from the held-to maturity portfolio (€605.16 million) and from monetary policy operations (€667.04 million). In total, this interest decreased by €13.22 million with respect to the previous year due to the lower average rate of return. There was likewise a decrease in interest receivable on claims equivalent to the transfer of foreign reserve assets to the ECB and in the interest accrued on intra-Eurosystem banknote adjustment and offsetting accounts as a result of the lower average rate of return. The rise in interest receivable on foreign-currency deposits (€15.11 million) was because of the US dollar time deposits with financial institutions held in 2012 but not in 2011.

14 OTHER ASSETS. SUNDRY

The most significant components of this item, which totals €1,972.07 million, are the transfer to the Treasury on 3 December 2012 of €1,732.54 million, equivalent to 70% of the Bank's profits earned to 30 September 2012, adjusted in line with the projected performance of profits up to year-end (see Note 15 on the profit and loss account), which was €512.51 million higher than in the previous year, and the home loans and repayable advances granted to Bank employees, the balance of which, at €188.77 million, was up by €3.19 million from 2011.

15 BANKNOTES IN CIRCULATION

The balance of banknotes in circulation (€99,641.36 million) represents the Banco de España's share in the total euro banknotes in circulation (see "Banknotes in circulation" in Section 3.1 Accounting policies) according to the Eurosystem euro banknote allocation key (10.9185% of the total issue by all the central banks) after deducting those corresponding to the ECB (8% of the total). This balance was €2,616.51 million higher than in the previous year because of the greater volume of euro banknotes in circulation in the Eurosystem. The difference between the balance of the banknotes allocated as per the balance sheet and those put into circulation by the Banco de España is recorded in an adjustment account under this heading, with a balancing entry in item 9.4 on the assets side of the balance sheet.

16 LIABILITIES TO EURO AREA CREDIT INSTITUTIONS RELATED TO MONETARY POLICY OPERATIONS DENOMINATED IN EURO

The overall balance of the different types of deposit held by credit institutions with the Banco de España amounted to €72,004.69 million at end-2012, €21,070.98 million more than in the previous year. This higher balance was basically due to the increase in the deposit facility and, to a lesser extent, in the deposits related to margin calls, offset in part by the decrease in the balances of "fixed-term deposits" and of institutions' current accounts (including minimum reserves).

The breakdown and the amounts in both reporting years are as follows:

EUR m

Type of liability	2012	2011	Change
Current accounts (covering the minimum reserve system)	12,851.75	14,561.25	-1,709.50
Deposit facility	59,046.50	33,335.00	25,711.50
Fixed-term deposits	—	3,000.00	-3,000.00
Fine-tuning reverse operations	—	—	—
Deposits related to margin calls	106.45	37.46	68.99
TOTAL	**72,004.69**	**50,933.71**	**21,070.98**

The first component, which includes the total current accounts held by credit institutions at the Banco de España, in which they maintain the minimum reserves required for monetary policy implementation purposes, underwent a decrease of €1,709.50 million (11.7%). Its average balance also decreased during the year, falling from €23,591.06 million in 2011 to €12,338.95 million in 2012 (47.7%). This decrease was due to the reduction in the reserve requirement from 2% in 2011 to 1% from 18 January 2012.

The item "Deposit facility", which includes overnight deposits remunerated at a fixed interest rate (appreciably lower than the interest rate on main refinancing operations), increased from €33,335.00 million in 2011 to €59,046.50 million in 2012. Its average balance also increased (€35,059.14 million in 2012 compared with €6,153.64 million in 2011), reflecting certain misalignments in the interbank market.

The balance of fixed-term deposits was zero as at 31 December 2012. They are fine-tuning operations (liquidity withdrawals) that take the form of deposits. During 2012 the Eurosystem carried out 52 operations of this type. The average balance decreased during the year from €493.64 million in 2011 to €39.50 million in 2012.

The other captions in this item relate to fine tuning reverse operations and deposits related to margin calls. As at 31 December 2012, fine tuning reverse operations had a zero balance, while institutions' deposits related to margin calls amounted to €106.45 million (€37.46 million in 2011).

17 OTHER LIABILITIES TO EURO AREA CREDIT INSTITUTIONS DENOMINATED IN EURO

This item includes the deposits held by credit institutions at the Banco de España which are not related to monetary policy operations.

It balance of €110.01 million at end-2012 related nearly in full to a deposit of a credit institution which had been frozen to prevent the legal limit on covered bond issuance being breached as a result of the transfer of assets to SAREB (asset management company for assets arising from bank restructuring).

18 LIABILITIES TO OTHER EURO AREA RESIDENTS DENOMINATED IN EURO.– GENERAL GOVERNMENT

This item includes the deposits held by general government with the Banco de España. The outstanding balance at year-end was €9,009.99 million, which breaks down as follows:

EUR m

	2012	2011	Change
Central government (State)	6,306.83	2,096.91	4,209.92
Treasury current account	2,500.42	225.04	2,275.38
Other central government agencies and similar bodies	3,806.41	1,871.87	1,934.54
Territorial government	498.88	153.66	345.22
Regional (autonomous) governments, administrative agencies and similar bodies	498.53	152.70	345.83
Local government	0.35	0.96	-0.61
Social security funds	2,204.28	3,175.12	-970.84
Social Security System	2,203.36	3,174.20	-970.84
Other	0.92	0.93	—
TOTAL	9,009.99	5,425.69	3,584.30

The increase in this item (€3,584.30 million) was due to the higher balances held by central government (up €4,209.92 million on 2011) and by regional governments, included under "Territoral governments" (€345.83 million). The balances held by Social Security Funds decreased by €970.84 million. As regards average balances, there was an increase in those held by central government (€6,017.80 million in 2012 against €2,915.76 million in 2011) and by regional governments (€362.88 million in 2012 against €298.72 in 2011) and a decrease in that held by social security funds (€3,657.87 million in 2012 against €4,892.42 million in 2011).

The balances held by central government are subject to a daily collateralised assignment through an auction conducted on behalf of the Treasury.

19 LIABILITIES TO OTHER EURO AREA RESIDENTS DENOMINATED IN EURO.– OTHER LIABILITIES

Included here are the current accounts of financial institutions other than credit institutions, such as the Deposit Guarantee Fund, other financial intermediaries associated with securities markets settlement, other intermediaries in the debt book-entry market, etc., as well as the current accounts of non-administrative public and autonomous agencies of the

State, the current accounts of employees and pensioners and other accounts of legal entities classified in “Other resident non-financial sectors”.

The balance of €1,941.86 million at end-2012 was €1,797.51 million higher than at end-2011, basically due to the opening of deposits in the name of the securitisation special purpose entities which so requested, and to the deposits in the name of MEEF (Mercado Español de Futuros Financieros – Spanish financial futures market) to collateralise the settlement of its transactions.

20 LIABILITIES TO NON-EURO AREA RESIDENTS DENOMINATED IN EURO

This item includes basically the euro-denominated accounts held by international organisations, non-Eurosystem monetary authorities and central banks to which reserve management services are provided. The balance of €141.68 million was €239.07 million lower than a year earlier, due to decrease in deposits of the central banks to which reserve management services are provided and in deposits of international organisations and non-Eurosystem monetary authorities.

21 COUNTERPART OF SPECIAL DRAWING RIGHTS ALLOCATED BY THE IMF

This item of €3,296.08 million shows the equivalent amount of the special drawing rights allocated to Spain by the IMF, the balancing entry to the initial allocation of SDRs recorded in assets-side item 2.1 of the balance sheet. The total amount of this item decreased by €59.38 million with respect to the previous year, due to the variation in the exchange rate.

22 INTRA-EUROSYSTEM LIABILITIES

This item, which as at 31 December 2012 had a balance of €336,831.24 million, comprises the following two sub-items:

a Net liabilities related to the allocation of euro banknotes within the Eurosystem

In accordance with Eurosystem rules, since the accounts making up this item have a net debit balance, this information is presented on the assets side of the balance sheet.

b Other liabilities within the Eurosystem (net)

The balance of €336,831.24 million as at 31 December 2012 represents the sum of three components: 1) the position of the Banco de España vis-à-vis the ECB in respect of the transfers issued and received through TARGET2 by the ESCB national central banks, including the ECB, plus the balances held with Eurosystem central banks through correspondent accounts; 2) the position vis-à-vis the ECB in respect of the pooling and allocation of monetary income within the Eurosystem pending settlement; and 3) the Banco de España’s position vis-à-vis the ECB in respect of any amounts receivable or refundable, basically in respect of the seigniorage income relating to euro banknotes issued by the ECB and of the income on securities acquired by the ECB under the Securities Markets Programme.

EUR m

	2012	2011	Change
BDE's position vis-á-vis ECB due to transfers made and received through TARGET2	337,344.39	174,978.57	162,365.82
Position with ECB due to contribution and allocation of monetary income	-444.95	-74.78	-370.17
Dividend from banknote seigniorage income	-68.20	-77.38	9.18
TOTAL	**336,831.24**	**174,826.42**	**162,004.82**

Regarding the first component, the year-end net transfers via TARGET2 had a credit balance of €337,344.47 million, while the correspondent accounts showed a debit balance of

€0.08 million. The remuneration of this position is calculated daily at the marginal interest rate of Eurosystem main refinancing operations. The average balance for the year increased considerably from €70,706.62 million in 2011 to €329,060.42 in 2012, and relates to the increase in euro loans to euro area credit institutions in connection with monetary policy operations recorded on the assets-side of the balance sheet.

The second component, i.e. the position vis-à-vis the ECB in respect of the annual pooling and allocation of monetary income within the Eurosystem national central banks, had a debit balance of €444.95 million at year-end (see "Net result of pooling of monetary income" in Note 8 on the profit and loss account).

Finally, in regard to the position vis-à-vis the ECB relating to the distribution of income arising from the seigniorage of euro banknotes issued on its behalf by the NCBs and to the income on securities purchased under the Securities Markets Programme,[20] in 2013 the ECB Governing Council resolved to distribute a portion of the income obtained from the securities purchased under the Securities Markets Programme and of the income from seigniorage of euro banknotes. Its debit balance as at 31 December 2012 was €68.20 million (see "Income from equity shares and participating interests" in Note 7 on the profit and loss account).

23 ITEMS IN COURSE OF SETTLEMENT

Included here are various accounts which as at 31 December 2012 were in the course of settlement, such as transfer instructions pending execution and transfers sent to deposit institutions yet to be reimbursed.

The balance of this item amounted to €183.75 million at end-2012, of which most notably €173.23 million related to transfers to accounts with other institutions, with payment of those transfers yet to be made, and €6.94 million to transfers received from the TARGET2 Platform but yet to be processed.

24 OTHER LIABILITIES. OFF-BALANCE-SHEET INSTRUMENTS REVALUATION DIFFERENCES

This item includes the amount of the net creditor position arising from foreign-exchange forward and swap transactions valued at the exchange rates prevailing at the end of the year. When the position is a debtor one, as in 2012, it is recorded under the same heading in asset item 11.4 (see Note 12 on the balance sheet).

25 OTHER LIABILITIES. LIABILITY ACCRUAL ACCOUNTS AND INCOME COLLECTED IN ADVANCE

This item includes interest accrued but not yet paid, expenses accrued but not yet paid and income collected in advance.

As at 31 December 2012, its balance amounted to €237.54 million, the main component being interest accrued but not yet paid (€236.45 million). The increase in this item in 2012 (€76.56 million) basically resulted from the larger amount of interest incurred on intra-Eurosystem accounts relating to TARGET2 transactions (€86.18 million). This increase was partly offset by the decrease in the interest payable on the minimum reserves held by credit institutions (€7.03 million).

26 OTHER SECURITIES. SUNDRY

This includes other liabilities not classifiable above.

As at 31 December 2012 the balance of this item amounted to €113.05 million (€121.27 million less than in 2011) and its main sub-items were the "Cash immobilised under EU

20 Decision of the European Central Bank of 19 December 2012 (ECB/2012/33) amending Decision ECB/2010/24 on the interim distribution of the income of the European Central Bank on euro banknotes in circulation and arising from securities purchased under the Securities Markets Programme.

legislation drawn from book-entry government debt. Redemptions and interest" (€27.11 million) and "Sundry accounts payable and unallocated items. Accrued operating expenses" (€26.52 million). The main variation relates to the first of the aforementioned sub-items (down by €85.49 million), due to the exclusion of some entities from the list of persons and entities subject to restrictive measures in view of the situation in Libya in accordance with Council Regulation (EU) No 1360/2011 of 20 December 2011 amending Regulation (EU) No 204/2011.

27 PROVISIONS

With the exception of country-risk provisions, which are presented in the balance sheet as reductions of the value of the assets concerned, provisions are recorded under this item, with the following breakdown:

EUR m

	2012	2011	Change
For exchange rate and interest rate risks	5,870.34	4,666.01	1,204.33
For credit risk	1,404.62	870.96	533.66
For early repayment of special loans	363.89	577.68	-213.79
For counterparty risks in Eurosystem's monetary policy operations	33.58	102.80	-69.22
For operational risk	24.83	24.50	0.33
For exchange of withdrawn peseta banknotes	22.54	36.49	-13.95
For early and regular retirement	28.66	27.98	0.68
For death and retirement assistance	56.74	58.26	-1.52
For sundry liabilities and charges	1.14	0.53	0.61
TOTAL	**7,806.34**	**6,365.20**	**1,441.13**

Provision for exchange rate and interest rate risks

This is the most important provision. It was created by a resolution of the Executive Commission of 26 January 1999 to cover exchange rate risks affecting the external reserves of the Banco de España. Subsequently, on 14 April 2004 the Executive Commission resolved to extend the purpose of this provision to include the coverage of interest rate risk. The balance of this provision as at 31 December 2012 amounted to €5,870.34 million, which was €1,204.33 million more than in 2011 (see Note 5 on the profit and loss account). Of these €5,870.34 million, €3,472.87 million relate to currency risk and €2,397.47 million to interest rate risk. The increase of €1,204.33 million was due to the decline in unrealised foreign exchange gains by €647.41 million, to the additional SDR-US dollar exchange risk estimated at €391.72 million and to the increase of €165.27 million in the estimated interest rate risk.

The balance of this provision is revised annually based on the Banco de España's valuation of its exposure to the aforementioned risks by value-at-risk methodology. This review takes into account, in addition to that valuation, a number of factors, including the envisaged behaviour of risk assets and any others deemed to be worthy of consideration under the circumstances. In this respect, on 22 February 2012 the Executive Commission adjusted to market conditions the methodology used to calculate the provision for exchange rate and interest rate risks. To do so, it set, inter alia, the calculation basis and the percentages of coverage to be applied for exchange rate and interest rate risks in each portfolio.

Provision for credit and operational risks

In 2009 the Executive Commission approved a methodology for calculating the credit risk on Banco de España investment portfolios, as a basis for setting up a provision for credit risk, as well as the percentage of coverage to be applied to the value of the risk exposure. This provision is reviewed yearly in accordance with the valuation made by the Banco de España of its risk exposure. This methodology, revised by the Executive Commission on 22 February 2012, was used in 2012 to record the aforementioned provision of €533.66 million, the balance of which reached €1,404.62 million at the end of the year.

Also, the Executive Commission approved in 2009 a methodology for calculating operational risk. It will be used to set aside a provision for any losses arising from operational risk. This methodology was changed in 2011.

This provision was used to cover the operational risk events which occurred in 2012 (see Note 14 on the profit and loss account), and the €7.63 million set aside took its balance to €24.83 million.

Provision for losses arising from early repayment of special loans

The agreement in 2007 with the Spanish State government whereby the Treasury can ask to repay a portion or all of these loans early, paying a cash amount equal to their market value instead of their nominal amount, led the Banco de España to set up in that year a provision for losses due to early repayment of special loans, so as to cover the possible losses that may arise from early repayment of these loans (recorded in asset item 8; see Note 8 on the balance sheet). The balance of this provision was set at the difference between the nominal amount and the current market value of the loans. As at 31 December 2012 it had a balance of €363.89 million, down €213.79 million from the previous year (€41.73 million used in relation to repayment of the amount due in the year and €172.06 million for adjustment of loans to their market value).

Provision for counterparty risk in Eurosystem monetary policy operations

In accordance with the general accounting principle of prudence, the ECB Governing Council considered it appropriate in 2008 to create a buffer totalling €5,736 million against counterparty risks in monetary policy operations (see these operations in Note 6 on the balance sheet). In accordance to Article 32.4 of the ESCB/ECB Statute, this buffer will be funded among all the national central banks of participating Member States in proportion to their subscribed capital key shares in the ECB prevailing at the time. As a result, a provision for €621.35 million, equivalent to 10.8324% of the total provision, was created. On 31 January 2013 the ECB Governing Council reviewed the adequacy of the amount of this provision with effect as at 31 December 2012 and decided to reduce it from its balance of €949 million as at 31 December 2011 to €310 million in the Eurosystem as a whole. As a result, the Banco de España provision was set at €33.58 million and, accordingly, a portion of it amounting to €69.22 million was released (see Note 8 on the profit and loss account).

Provision for exchange of peseta banknotes withdrawn from circulation due to the introduction of the euro

This is the most important of the two provisions set aside for the exchange of peseta banknotes withdrawn from circulation.[21] It was recorded initially in 2005 to cater for the exchange of any peseta banknotes withdrawn from circulation due to the introduction of the euro that may be tendered at the Banco de España. At the same time, the Council of Ministers decided that if the amount of banknotes tendered for exchange exceeded the amount of the provision at that time, the Banco de España would meet the excess with a charge to its reserves.

In November 2010 the balance of the provision fell to zero. Accordingly, pursuant to a resolution of the Executive Commission, an additional €50 million were provisioned (provi-

21 The provisions for exchange of peseta banknotes withdrawn from circulation also include another one for €1.83 million.

sion for a period of approximately five years), using the Banco de España reserves arising from the retention of 2005 earnings. At year-end this provision had a balance of €20.71 million, representing a decrease of €13.80 million with respect to the previous year.

Other provisions

In the reporting year there was an increase in the provision for payments to early and regular retirees (€0.68 million), basically due to the provisioning of payments to be made under Article 184 of the Banco de España Conditions of Employment and under the fifth transitional provision of the collective labour agreement for 2001.

Also, in the reporting year there was a decrease of €1.52 million in the provision for severance payments (see Note 14 on the profit and loss account).

28 REVALUATION ACCOUNTS

This item includes the revaluations arising from unrealised gains on financial assets and liabilities valued at market prices and exchange rates at year-end. It may be broken down as follows:

EUR m

Type of account	2012	2011	Change
Gold	10,567.97	10,166.75	401.22
Foreign currency	888.44	1,535.85	-647.41
Securities (trading portfolio)	1,096.14	292.43	803.71
Issued in foreign currency by non-euro area residents	61.87	57.07	4.80
Issued in euro by euro area residents	1,034.28	235.36	798.91
Other	16.04	17.04	-1.00
TOTAL	**12,568.59**	**12,012.07**	**556.52**

The balance of revaluation accounts at end-2012 was €12,568.59 million, up €556.52 million on 2011. The main change was in the fixed-income securities in the trading portfolio, the unrealised gains on which increased by €803.71 million as a result of security price movements driven by interest rates.

The unrealised gains on gold increased by €401.22 million as a result of an increase in its market price from €1,216.86 per ounce at 31 December 2011 to €1,261.18 per ounce at 31 December 2012.

As regards the foreign exchange revaluation accounts, the unrealised gains on foreign currencies decreased by €647.41 million, basically due to the depreciation of the US dollar and the SDR against the euro (€594.58 million and €52.76 million, respectively).

29 CAPITAL

As at 31 December 2012 the capital of the Banco de España amounted to €1,000 million, with no change in the year. Of this amount, €1.37 million were constituted pursuant to Decree-Law 18/1962 of 7 June 1962 and €998.63 million as a capital increase carried out in 2006 through the retention of 2005 earnings.

30 RESERVES

As at 31 December 2012 the reserves of the Banco de España amounted to €950 million, with no change in the year. Included in this item is, first, the amount of capital, reserves and profits that arose in 1973 when the now-defunct Spanish Foreign Currency Institute was included in the Banco de España (€3.17 million) and, second, the portion of 2005 and 2006 profit taken to reserves, authorised by the Council of Ministers, respectively, on 28 July 2006 and 29 June 2007.

31 PROFIT FOR THE YEAR

The net profit for 2012 amounted to €3,845.23 million, up 60.2% on 2011. Of this amount, €1,732.54 million was paid to the Treasury on 3 December 2012, in accordance with Royal Decree 2059/2008 of 12 December 2008 (see Note 15 on the profit and loss account "Profit for the year") and are included in asset item 11.6.

During the year, the following amounts were also paid to the Treasury out of 2011 profits:

a) On 1 March 2012, €940.09 million, which, together with the payment in December 2011, amounted to 90% of the €2,400.13 million of distributable profit for that year.

b) On 10 September 2012, once the balance sheet and profit and loss account for the year 2011 had been approved by the Council of Ministers, €240.01 million, representing the rest of the distributable profit for that year.

The details of the various components of the profit for 2012 and the reasons for the changes in them with respect to 2011 are given in Section 3.3 below on the profit and loss account.

3.3 Notes on the profit and loss account

1 INTEREST INCOME

This item includes income from interest accrued on the main assets of the Banco de España. The breakdown in 2012 and 2011 is as follows:

EUR m

	Interest income		
	2012	2011	Change
Foreign currency	278.32	245.08	33.24
Securities	225.34	207.73	17.61
Deposits and other assets	24.05	21.29	2.76
Exceptional liquidity-providing operations	16.94	1.38	15.56
Swap, forward and other transactions	12.00	14.68	-2.68
Euro	7,945.52	5,028.85	2,916.66
Securities	4,745.77	3,789.79	955.99
Monetary policy operations	2,896.35	913.88	1,982.47
Intra-Eurosystem accounts	290.87	321.25	-30.38
Claims equivalent to the transfer of foreign reserves to the ECB	36.43	51.50	-15.08
Claims related to allocation of euro banknotes within the Eurosystem	254.39	269.69	-15.31
Other claims within the Eurosystem (net)	0.06	0.06	—
Other assets	12.53	3.94	8.59
TOTAL	**8,223.84**	**5,273.93**	**2,949.90**

Interest income increased by €2,949.90 million in 2012 with respect to 2011. This increase was mainly a result of rises of €2,916.66 million in the return on euro-denominated investments and of €33.24 million in income from foreign-currency investments.

Of the €278.32 million of interest on foreign-currency investments, €225.34 million arose from investments in fixed-income securities mostly denominated in US dollars. The other interest denominated in foreign currencies arose basically from deposits, exceptional liquidity providing operations (these transactions generate expenses for the same amount) and swap transactions. The average return on foreign-currency investments was 1.1% in 2012, compared with 1.6% in 2011.

Euro-denominated interest income (€7,945.52 million) arose basically from the securities portfolios (€4,745.77 million, an increase of €955.99 million), monetary policy operations (€2,896.35 million, up €1,982.47 million) and intra-Eurosystem balances (€290.87 million, down €30.38 million).

The main reason for the increase of €2,916.66 million in euro-denominated income with respect to the previous year was the higher average remunerated balance (up from €191,792.48 million in 2011 to €464,151.42 million in 2012), offset in part by the lower average return in the reporting year (down from 2.6% in 2011 to 1.7% in 2012).

Specifically, analysis of the average investment made discloses the significant increase in monetary policy operations (€330,404.71 million in 2012 against €71,064.16 million in 2011), derived from the higher funding requested by Spanish financial institutions from the ECB (see Note 6 on the balance sheet). Furthermore, there was an increase in claims related to the allocation of euro banknotes, the average balance of which rose from €20,942.03 million in 2011 to €28,501.40 million in 2012 as a result of changes in banknotes put into circulation (-7.3% in Spain, compared with 2.7% in the Eurosystem as a whole). The average investment in securities increased by €5,456.83 million (5.7%), basically in the monetary policy portfolio (€12,594.15 million in the SMP portfolio and €1,580.20 million in the CBPP2 portfolio), offset in part by a decrease in average investment in the held-to-maturity portfolio (€7,641.78 million) and in the trading portfolio (€870.26 million).

2 INTEREST EXPENSES

This item includes interest expenditure on the liabilities listed below, as follows:

EUR m

	Interest expense		
	2012	2011	Change
Foreign currency	20.52	19.43	1.09
Swap, forward and other transactions	—	5.25	-5.25
Exceptional liquidity-providing transactions	16.94	1.38	15.56
Other liabilities	3.58	12.80	-9.22
Euro	3,092.30	1,322.01	1,770.28
Monetary policy operations	167.62	338.66	-171.05
Remuneration of minimum reserves	104.97	297.60	-192.64
Deposit facility	56.20	35.47	20.73
Fixed-term deposits	0.19	4.41	-4.22
Changes in the value of collateral	6.26	1.19	5.08
General government deposits	50.37	70.97	-20.60
Other liabilities within the Eurosystem (net)	2,871.65	910.37	1,961.28
Other liabilities denominated in euro	2.65	2.01	0.65
TOTAL	**3,112.82**	**1,341.45**	**1,771.37**

Interest expenses increased by €1,771.37 million in 2012, mainly due to a rise in euro-denominated liabilities.

Of the euro-denominated interest expenses (€3,092.30 million), €2,871.65 million relate to the remuneration of intra-Eurosystem balances on the liabilities-side of the balance sheet (TARGET2), €167.62 million to remuneration of institutions for monetary policy operations deposits and €50.37 million to remuneration of general government deposits.

The increase in euro-denominated expenses (€1,770.28 million) basically resulted from the higher average balance of liabilities to be remunerated (€385,967.37 million in 2012 against

€108,905.29 million in 2011), partly offset by the lower average cost at which they were remunerated, which dropped from 1.2% in 2011 to 0.8% in 2012.

Notable among the euro-denominated expenses was that due to the net credit balance of intra-Eurosystem balances arising from TARGET2 transactions. Interest expenses rose by €1,961.28 million, basically because of the considerable increase in their average balance with respect to 2011 from €70,706.62 million to €329,060.42 million in 2012, partly offset by the decrease in the average cost (down from 1.3% in 2011 to 0.9% in 2012).

The average balance of deposits by institutions due to monetary policy operations rose by €17,858.06 million from €30,333.12 million in 2011 to €48,191.18 million in 2012.

The decrease of €20.60 million in interest expenses for general government deposits was basically due to the lower average cost (0.9% in 2011 against 0.6% in 2012), partly offset by the higher average balance remunerated (up from €7,865.55 million in 2011 to €8,715.77 million in 2012).

Interest expenses denominated in foreign currencies (€20.52 million) related mainly to exceptional liquidity providing operations (€16.94 million) and to allocated SDRs (€3.58 million).

3 REALISED GAINS/LOSSES ARISING FROM FINANCIAL OPERATIONS

This item includes the profits and losses arising from dealing in financial assets. In 2012 the net gains in this connection amounted to €132.25 million, arising from the following sources:

EUR m

	2012	2011	Change
Foreign currency	64.05	54.14	9.91
Sale of gold	—	—	—
Sale of foreign currency (exchange gains)	14.09	5.29	8.79
Sale of securities (price losses)	64.06	52.97	11.09
Other gains/losses	-14.10	-4.12	-9.98
Euro	68.20	47.15	21.06
Sale of securities (price losses)	68.20	47.15	21.06
TOTAL	**132.25**	**101.29**	**30.96**

Compared with the prior year, the total amount recorded in 2012 increased by €30.96 million due to larger gains on the sale of euro-denominated debt securities (€21.06 million), on debt securities denominated in foreign currencies (€11.09 million) and on the sale of foreign currencies (exchange gains), basically US dollars (€3.44 million) and SDRs (€4.34 million), partly offset by higher losses on interest rate futures (€9.98 million).

The higher gains on securities sales, both in euro and in foreign currencies, were mainly due to the larger volume of sales in 2012.

4 UNREALISED LOSSES ON FINANCIAL ASSETS AND POSITIONS

This item includes the loss arising in the currency position derived from the exchange rate depreciation, as well as that arising from depreciation of securities prices, for that portion that cannot be offset by unrealised gains from previous years. The breakdown in 2012 and 2011 is as follows:

EUR m

	2012	2011	Change
Foreign currency	0.99	4.47	-3.47
Foreign currency (exchange rate losses)	0.10	—	0,10
Securities (price losses)	0.89	4.46	-3.57
Euro	0.02	463.14	-463.12
Securities (price losses)	0.02	463.14	-463.12
TOTAL	**1.01**	**467.61**	**-466.60**

Unrealised losses in 2012 amounted to €1.01 million. This was €466.60 million less than in 2011, basically because of the unrealised losses on euro-denominated securities recorded at end-2011 and the nearly total absence of losses in 2012.

5 TRANSFERS FROM/TO PROVISIONS FOR FOREIGN EXCHANGE RATE, PRICE AND CREDIT RISKS

EUR m

	2012	2011	Change
Transfers to provisions	-1,739.00	-1,711.11	-27.90
Foreign exchange rate and interest rate risk	-1,205.34	-1,176.35	-28.99
Credit risk	-533.66	-534.76	1.10
Transfer from exchange rate and interest rate provision	1.01	467.61	-466.60
Transfer/reversal from provision for losses arising from early repayment of special loans	172.06	162.15	9.91
TOTAL	**-1,565.92**	**-1,081.34**	**-484.58**

This includes, first, the transfer of €1.01 million from the provision for foreign exchange rate and interest rate risks to cover the losses recorded at end-2012 and, second, the transfer of €1,205.34 million to this provision to cover the estimated foreign exchange rate and price risks associated with the financial positions subject to such risks, in accordance with the Executive Commission resolution of 19 February 2013.

This item also includes the transfer to the provision for credit risk in accordance with the aforementioned Executive Commission resolution, amounting to €533.66 million in 2012.

Lastly, regarding the provision for losses arising from early repayment of special loans derived from the adjustment of changes in the market value of these assets, in 2012 the provisioning expense underwent a positive change of €9.91 million with respect to 2011, due to the recovery of €172.06 million in 2012 derived from adjustment of market value changes in these assets, as against the recovery of €162.15 million in the prior year.

6 NET INCOME FROM FEES AND COMMISSIONS

This basically includes income and expenses arising from fees and commissions for banking services and the like (TARGET2, transfers, handling of cheques, custody and administration of securities, etc.). It may be broken down as follows:

EUR m

	2012	2011	Change
1 Income from fees and commissions	19.32	17.57	1.75
Foreign operations	—	0.01	-0.01
Domestic operations	19.32	17.56	1.76
2 Expenses from fees and commissions	12.04	10.68	1.37
Foreign operations	3.10	3.18	-0.08
Domestic operations	8.94	7.50	1.44
NET INCOME FROM FEES AND COMMISSIONS (1-2)	**7.27**	**6.89**	**0.38**

Net fee and commission income in 2012 (€7.27 million) was €0.38 million more than in 2011. This variation relates basically to the higher fee income from securities transactions. This increase in income was partially offset by the higher expense of fees and commissions paid on securities transactions.

7 INCOME FROM EQUITY SHARES AND PARTICIPATING INTERESTS

This item includes the participating interest of the Banco de España in the profit of the ECB from ordinary operations, seignorage income and income generated by the ECB portfolio derived from the Securities Markets Programme. It also includes the dividends on other shares and participating interests.

EUR m

	2012	2011	Change
ECB	77.23	97.70	-20.47
Ordinary dividend	9.04	20.33	-11.29
Dividend from banknote seigniorage income	68.20	77.38	-9.18
Other	12.35	11.93	0.42
TOTAL	**89.58**	**109.64**	**-20.06**

Of the total amount of €89.58 million recorded, €68.20 million relate to the ECB dividend from banknote seigniorage income and income from the SMP portfolio, €9.04 million to the ECB ordinary dividend for 2011, €8.80 million to dividends on the participating interest in Bolsas y Mercados Españoles, Sociedad Holding de Mercados y Sistemas Financieros, SA (BME) and €3.55 million to participating interests in international agencies (Bank for International Settlements).

In 2013 the ECB Governing Council decided to retain a portion of the banknote seigniorage income and the income generated by its securities portfolio purchased under the Securities Markets Programme, in order to record a provision for foreign exchange rate, interest rate, credit and gold price risks, distributing the remainder among the Eurosystem NCBs. The amount retained was €1,166.17 million, of which €138.40 million corresponded to the Banco de España.

Compared with 2011, the amount recorded in 2012 was €20.06 million lower, basically due to the smaller ordinary dividend distributed by the ECB in the reporting year out of the prior year's profit (€11.29 million) and to the lower income from the ECB banknote seigniorage dividend and from the SMP portfolio (€68.20 million distributed in 2012 against €77.38 million in 2011).

8 NET RESULT OF POOLING OF MONETARY INCOME

The amount of each Eurosystem NCB's monetary income is determined by calculating the annual income generated by the earmarkable assets held against the liability base. The liability base consists of the following items: banknotes in circulation; liabilities to credit institutions related to monetary policy operations denominated in euro; net intra-Eurosystem liabilities resulting from TARGET2 transactions whenever they have a credit balance; and net intra-Eurosystem liabilities related to the allocation of euro banknotes within the Eurosystem whenever they have a credit balance. Any interest paid on liabilities included within the liability base is to be deducted from the monetary income to be pooled. The earmarkable assets include the following items: lending to euro area credit institutions related to monetary policy operations; monetary policy portfolio securities; intra-Eurosystem claims equivalent to the transfer of foreign reserve assets to the ECB; net intra-Eurosystem claims resulting from TARGET2 transactions, whenever they have a debit balance; net intra-Eurosystem claims related to the allocation of euro banknotes in the Eurosystem, whenever they have a debit balance; and a limited amount of each NCBs gold holdings, in proportion to its capital key. Gold is considered to generate no income and the securities acquired under the covered bond purchase programme are deemed to generate income at the interest rate on main refinancing operations. If the value of a NCB's earmarkable assets exceeds or is less than the value of its liability base, the difference will be offset by applying to it the most recent marginal interest rate on main refinancing operations.

The breakdown of this item in 2012 and 2011 is as follows:

EUR m

	2012	2011	Change
Monetary income pooled	-2,342.71	-1,791.49	-551.22
Monetary income allocated	2,787.66	1,866.27	921.39
Provision for counterparty risk in monetary policy operations	69.22	136.27	-67.05
TOTAL	**514.17**	**211.05**	**303.12**

The monetary income pooled by the Eurosystem is to be allocated among NCBs according to the ECB subscribed capital key. The difference between the monetary income pooled by the Banco de España in 2012, amounting to €2,342.71 million, and that reallocated to it, amounting to €2,784.14 million, is equivalent to a net allocation of €441.43 million. This net allocation has to be reduced by €0.87 million for the Banco de España's share of the expenses of and losses on Eurosystem monetary policy operations (the expense of the professional consulting and audit services of independent experts for management of the assets relating to these transactions) and increased by €4.39 million for the Banco de España's share in recoveries of prior-year expenses and losses of this type. Compared with 2011, there was a positive net change of €370.17 million in these results.

The basic reason for the positive net allocation of €444.95 million was that certain Eurosystem central banks held deposit facilities and fixed-term deposits which were overly large in proportion to their capital keys and remunerated at very low interest rates.

Also, with regard to the provision for counterparty risk in Eurosystem monetary policy operations, on 31 January 2013 the ECB Governing Council approved the amounts relating to each NCB. Accordingly, the Banco de España reversed a portion of the provision recorded (€69.22 million out of a total of €102.80 million), leaving it with a balance of €33.58 million as at 31 December 2012.

9 OTHER INCOME AND LOSSES

This includes the income and losses that cannot be included in other items, along with other diverse income of an exceptional nature. It may be broken down as follows:

EUR m

	2012	2011	Change
Extraordinary profit	-7.18	40.09	-47.27
Employee social welfare scheme	-2.24	-7.98	5.73
Sundry	4.87	8.11	-3.24
TOTAL	-4.55	40.23	-44.78

As can be seen, this item shows a net loss of €4.55 million. The main item in extraordinary results relates to the discontinuation of the CCBM2 project, which was decided by the ECB Governing Council in 2012. In this connection and in application of the principle of prudence, it was treated as a loss by recording as extraordinary losses the items which until then had been included as fixed assets under construction. The decrease in the principal of the debt to the employee social welfare scheme (Mutualidad de Empleados) generated lower expenses of €5.73 million.

10 STAFF COSTS

This item includes the headings “Wages and salaries”, “Contributions to pension scheme” and “Social security contributions and employee benefits”.

The breakdown of changes by component is as follows:

EUR m and %

	2012	2011	Change	(%)
Gross staff costs	212.18	232.51	-20.34	-8.7
Wages and salaries	160.27	170.21	-9.94	-5.8
Social Security	31.05	32.06	-1.01	-3.1
Staff welfare expenses	17.43	23.42	-5.99	-25.6
Contributions to Pension Scheme	3.42	6.82	-3.39	-49.8
Reversal of staff costs due to capitalization of computer applications	-1.27	-1.61	0.35	-21.4
TOTAL	**210.91**	**230.90**	**-19.99**	**-8.7**

Its balance decreased from €230.90 million in 2011 to €210.91 million in 2012, a fall of €19.99 million (8.7%). The main reasons for this increase were: a) the application of Article 2.3 of Royal Decree-Law 20/2012 of 13 July 2012 on measures to ensure budget stability and promote competition, whereby Banco de España staff remuneration was reduced by the amount of the December extra payroll; b) the provision for risks and expenses recorded in 2011 to allow for payments to early and regular retirees resulting from the closure of branches (€6.25 million); and c) the application from July of Article 22 of Law 2/2012 of 29 June 2012 on the State budget for 2012, whereby contributions to pension schemes were abolished from July, which reduced the expense by €3.39 million.

The following table sets out the changes in permanent and temporary staff, in terms of average number of employees:

	2012	2011	Change	%
Average number of employees	2,655.9	2,704.8	-48.9	-1.8
Managerial staff	1,637.1	1,633.7	3.4	0.2
Administrative staff	840.4	879.7	-39.3	-4.5
Other	178.4	191.4	-13.0	-6.8

As at 31 December 2012, the Bank’s total staff numbered 2,620 employees, 66 fewer than at the same date of the previous year. Regarding the staff composition by gender, at 31 December 2012 women accounted for 42.1% of the Bank’s total workforce.

The compensation of members of the governing bodies is set by the Minister for Economic Affairs and Competitiveness in accordance with the provisions of the Law of Autonomy of the Banco de España. The governor and deputy governor of the Banco de España changed in June 2012, so the wages of the incoming and outgoing officers are given separately. In 2012 the outgoing governor received (from 1.1.2012 to 10.6.2012) a gross wage of €79.25 thousand, including years-of-service and family allowances; and the incoming governor received (from 11.06.12 to 31.12.12) a gross wage of €81.32 thousand; the outgoing deputy governor received (from 1.1.2012 to 17.6.2012) in this connection a total of €93.17 thousand; and the incoming deputy governor received (from 18.06.12 to 31.12.12) the amount of €89.55 thousand. The elected members of the Governing Council receive a gross annual wage of €48.10 thousand; if they belong to the Executive Commission, the gross annual wage is €60.33 thousand.

In addition to the foregoing, the members of the governing bodies receive equal amounts of fees for attending meetings of the body to which they belong, set at €953 per meeting of the Governing Council and €457 per meeting of the Executive Commission.[22]

11 ADMINISTRATIVE EXPENSES

This item includes expenses arising from the purchase of current assets and of diverse services received during the year, as follows:

EUR m and %

	2012	2011	Change	%
Gross administrative expenses	123.54	122.29	1.25	1.0
Rental and maintenance	34.74	32.26	2.48	7.7
Material and supply	11.67	11.62	0.05	0.4
External services	61.67	61.97	-0.30	-0.5
Training, promotion and selection	3.74	3.86	-0.13	-3.3
Sundry operating expenses	11.73	12.58	-0.85	-6.7
Reversal of administrative expenses due to capitalization of computer applications	-4.16	-5.68	1.53	-26.9
TOTAL	**119.38**	**116.61**	**2.78**	**2.4**

The above table shows that, as in 2011, in 2012 the most significant administrative expenses were external services (€61.67 million), mainly IT services (€36.73 million) and rental and maintenance (€34.74 million), composed mainly of hardware and software rental and maintenance (€16.55 million) and property rental and maintenance (€12.94 million).

Goods and services expenses increased in 2012 (€2.78 million) due in part to the rise in VAT from 1 September 2012 (the standard rate rose from 18% to 21%). The largest increase in the item was in rental and maintenance (€2.48 million) and was basically due to the restoration of the skylight in the Cibeles building (€1.52 million) and to hardware and software rental and maintenance.

“External services” include €146,000.92 (including VAT) relating to the fees of the external auditors Deloitte, S.L. for the audits in 2012 of the Bank’s annual accounts and of certain aspects of the Bank’s management of European Central Bank reserves at the request of this institution’s external auditor, the latter being the only service provided by the auditor to the Bank. In 2012 no services were received from and, consequently, no amounts were paid to, other firms related to the auditor.

22 Applicable from the entry into force of Royal Decree-Law 20/2012. In the first part of the year the amounts applicable were those of the previous year.

12 DEPRECIATION OF FIXED ASSETS

Included here is the expense of the estimated depreciation of the Bank's fixed assets, which breaks down as follows:

EUR m and %

	2012	2011	Change	%
Depreciation of buildings, structures and renovation work	2.49	2.58	-0.09	-3.3
Depreciation of plant in buildings	9.00	9.89	-0.89	-9.0
Depreciation of furniture and fittings	2.11	2.11	-0.01	-0.3
Depreciation of office machines other than computer equipment	2.10	2.48	-0.37	-15.0
Depreciation of computer equipment	5.58	6.22	-0.64	-10.3
Depreciation of transport equipment	0.48	0.52	-0.03	-6.2
Depreciation of other tangible fixed assets	0.33	0.29	0.04	15.3
Depreciation of bibliographic fund	0.49	0.53	-0.04	-8.0
Amortization of computer applications	8.02	7.25	0.77	10.6
TOTAL	**30.60**	**31.86**	**-1.26**	**-4.0**

13 BANKNOTE PRODUCTION SERVICES

This amount (€47.43 million) corresponds to payments made by the Banco de España to purchase banknotes from the Spanish Royal Mint. The decrease with respect to the previous year (€7.28 million) was because in 2012 the volume of purchases of €50 banknotes decreased, as did their unit cost, and no €20 banknotes were purchased. This decrease was partly offset by the larger purchases of €5 banknotes and their increased unit cost. The higher VAT rate (up from 18% to 21%) from August meant that the expense decreased to a lesser extent.

14 TRANSFERS AND ADDITIONS TO OTHER FUNDS AND PROVISIONS

The net balance of transfers and applications to other funds and provisions in 2012 amounted to €26.33 million, compared with €15.53 million in 2011. Noteworthy in 2012 was the provision of €11.57 million to the Beneficent Social Fund, compared with €7.22 million in 2011, signifying a higher expense (up by €4.35 million). In 2012 €8.14 million were transferred to the provision for risks and expenses to allow for payments to early and regular retirees, and €2.57 million were transferred to the provision for death and retirement assistance under Article 190 of the Banco de España Conditions of Employment.

This item also includes transfers to and releases from the provision for operational risks, which in 2012 was used to cover losses arising from operational risk, basically for interruption of the CCBM2 project (see Note 9 to the profit and loss account). An amount of €7.63 was transferred to it to raise its balance to the agreed level of €24.83 million.

The Banco de España, because of the nature of its activity, is not an institution with a high environmental risk. Accordingly, in 2012 it was not considered necessary to record any provision for environmental liabilities and charges.

15 PROFIT FOR THE YEAR

Pursuant to Article 1.1.b) of Royal Decree 2059/2008 of 12 December 2008, the Banco de España must pay into the Treasury, on the first working day of March, 90% of the profits earned and recorded up to 31 December of the previous year, less the amount paid on 1 December of the previous year.

On 3 December 2012 the Banco de España paid into the Treasury €1,732.54 million, equal to 70% of the profit recorded as at 30 September 2012.[23]

23 Pursuant to the aforementioned Royal Decree, the payment resolution must take into consideration the foreseeable performance of profits up to the end of the year. For this reason, account was taken of a number of factors

Once the year had ended, and taking into account that the provisional profits amounted to €3,845.23 million and that 90% of the profits was €3,460.71 million, a payment of €1,728.17 million was made to the Treasury on 1 March 2013.

The payments to the Treasury of 2012 profit are as follows:

EUR m

1 Total profit for 2012	3,845.23
2 Payments to the Treasury	3,460.71
On 3.12.2012	1,732.54
On 1.3.2013. Difference between the above amount and 90% of profit as at 31.12.2012	1,728.17
3 Profit payable to the Treasury	384.52
At date of approval of the 2012 accounts	384.52

3.4 Changes in capital, reserves, provisions and revaluation accounts

The following table shows the changes in the reporting year, which, in addition to the accounting profit, include the net gains not recognised as income in the profit and loss account, the change in provisions and the effect on the balance sheet of the appropriation of profit for the year.

EUR m

	Capital	Reserves	Revaluation accounts	Undistibuted profit	Provisions for risks	Total
A) 2012 OPENING BALANCE	**1,000.00**	**950.00**	**12,012.07**	**1,180.10**	**5,561.47**	**20,703.84**
1. Unrecognised net gains in profit and loss			556.52			556.52
In gold			401.22			401.22
In foreign currency			-647.41			-647.41
In securities			803.71			803.71
Other			-1.00			-1.00
2. 2012 profit				3,845.23		3,845.23
3. Change in provisions					1,738.32	1,738.32
4. Appropriation of profit				-2,912.64		-2,912.64
Payment to the Treasury of 2011 profit				-1,180.10		-1,180.10
Payment to the Treasury of 2012 profit				-1,732.54		-1,732.54
B) CHANGES IN THE YEAR B = 1+2+3+4	—	—	**556.52**	**932.59**	**1,738.32**	**3,227.43**
C) 2012 CLOSING BALANCE C = A + B	**1,000.00**	**950.00**	**12,568.59**	**2,112.69**	**7,299.78**	**23,931.07**

The changes reflected in this table have been explained above in the explanatory notes on the balance sheet and profit and loss account that refer to provisions (Note 27 on the balance sheet), revaluation accounts (Note 28 on the balance sheet), capital (Note 29 on the balance sheet), reserves (Note 30 on the balance sheet) and profit for the year (Note 31 on the balance sheet and Note 15 on the profit and loss account).

which entailed a risk of lower profit estimated at €1,226.06 million. Accordingly, this amount was subtracted from the Banco de España profit of €3,701.12 million as at 30 September, resulting in a profit of €2,475.06 million, 70% of which was paid into the Treasury.

4 SPECIFIC INFORMATION REQUIRED BY ARTICLE 4.2 OF THE LAW OF AUTONOMY OF THE BANCO DE ESPAÑA OF 1 JUNE 1994

4.1 Contribution made by the Bank to the Deposit Guarantee Fund

On 15 October 2011, Royal Decree-Law 16/2011 of 14 October 2011 creating the Credit Institution Deposit Guarantee Fund came into force and the three previously existing credit institution deposit guarantee funds were wound up. The contribution of the Banco de España to the Deposit Guarantee Fund continues to be regulated by Article 3 of Royal Decree 2606/1996 of 20 December 1996, in which references to the wound-up funds are deemed to be to the new fund.

Royal Decree 2606/1996 established that the Deposit Guarantee Fund may only exceptionally "be supplemented by contributions from the Banco de España, the amount of which shall be fixed by Law". In 2012 the Banco de España made no contributions whatsoever to this Fund.

4.2 Loss of profit

The table below shows the loans outstanding in 2012 with interest rates below the reference rates used, in order to estimate the loss of profit for the year pursuant to the provisions of Article 4.2 of Law 13/1994 of 1 June 1994 of Autonomy of the Banco de España.

EUR m and %

Type of credit/loan	Average balance in 2012	Interest rate received (%)	Reference interest rate (%)	Estimated loss of profit
Net State debt	2,050.66	—	0.88	18.05
Housing loans and repayable advances to employees	39.77	0.12	0.88	0.30
Housing loans	6.53	0.75	0.88	0.01
Repayable advances	33.24	—	0.88	0.29
TOTAL	**2,090.43**	—	**0.88**	**18.35**

Included under "Net State debt" is the average balance during the year, on a daily basis, of the special loans granted to the State before 1994 less the deposits held by the Treasury with the Banco de España, when there is a net balance in favour of the latter.

The reference rate used to estimate the loss of profit in all the loans is the daily average of the marginal interest rate on main refinancing operations conducted during the year.

4.3 Other transactions

On 26 March 2007 an agreement was entered into with the State government to bring forward the repayment schedule of the loans granted to the State prior to the entry into force of Law 21/1993 of 29 December 1993 on the State Budget for 1994 (Law 3/1983 loan, Law 4/1990 loan and credits arising from subscription for participating interests, contributions and quotas in international agencies), such that they all reach final maturity by 2015 at the latest and the Treasury can request early repayment of part or all of these facilities, paying on the due date the effective market price instead of the nominal amount. Under this agreement, in 2012 payment was received of two instalments of the first of the aforementioned facilities (that for the reporting year and the last outstanding instalment of the original repayment schedule), along with the reporting year instalments of the other two facilities, the repayment date of all of them being brought forward from 31 December to 30 April. In accordance with the foregoing, on 30 April 2012 the Treasury paid to the Banco de España the amount of €541.74 million, the effective market price of the debt repaid on that date.

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Translation of a report originally issued in Spanish based on our work performed in accordance with International Standards on Auditing. In the event of a discrepancy, the Spanish- language version prevails.

To the Governor of the Banco de España

We have audited the financial statements of the Banco de España which, in accordance with Article 29.1 of its Internal Rules, comprise the balance sheet al 31 December 2012 and the related income statements and notes to the financial statements for the year then ended.

Responsibility for the financial statements

The Executive Commission of the Banco de España is responsible for organising the Bank and appointing its directors general. Under the Internal Rules of the Banco de España, the Directorate General Services is responsible for preparing the financial statements in accordance with the internal accounting rules and principles of the Banco de España, which are indicated in Note 3.1 to the accompanying notes to the financial statements and are based on the accounting regulations established for the member central banks of the European System of Central Banks. This responsibility, which is exercised through the Control, Budget and Accounting Department, includes the supervision of operations and, therefore, the design, implementation and maintenance of the relevant internal controls required for the preparation and adequate presentation of financial statements that are free from material misstatements due either to fraud or error; the selection and application of appropiate accounting rules; and the performance of the estimates considered to be reasonable in the circumstances (see Note 3.1.3. of the accompanying financial statements). Pursuant to Article 21. g) of Law 13/1994, of 1 June, on the Autonomy of the Banco de España, these financial statements are prepared by the Governing Council of the Banco de España.

Responsibility of the auditor

Our responsibility is to express an opinion on the financial statements taken as a whole, based on our audit work performed in accordance with International Standars on Auditing, which require that we comply with certain ethical requirements and that we plan and perform the audit to obtain reasonable assurance that the financial statements are free material misstatements or irregularities.

An audit entails the performance of procedures designed to obtain evidence supporting the amounts and disclosures contained in the financial statements. The procedures selected depend on the auditor's judgment, which includes the assessment of the risks of the occurrence of material misstatements or irregularities in the financial statements due either to fraud or error. In assessing these risks, the auditor considers the internal control system applicable to the preparation and adequate presentation of the financial statements by the entity, in order to design audit procedures that are appropiate in view of the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes the evaluation of the adequacy of the accounting policies used and of the reasonableness of the accounting estimates made by the entity, as well as an assessment of the overall presentation of the financial statements. We consider that the evidence we have obtained is sufficient and adequate to provide a basis on which to express our audit opinion.

Opinion

In our opinion, the accompanying financial statements for 2012 present fairly, in all material respects, the net worth and financial position of the Banco de España at 31 December 2012 and the results of its operations in the year then ended, in conformity with the internal accounting rules and principles of the Banco de España, which are indicated in Note 3.1. to the accompanying financial statements and are based on the accounting regulations established for the member central banks of the European System of Central Banks.

DELOITTE, S.L.

Miguel Ángel Bailón

24 May 2013

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Member of Deloitte Touche Tohmatsu

2 REPORT OF THE BANCO DE ESPAÑA AUDIT COMMITTEE

We the undersigned, Ángel Luis López Roa, Carmen Alonso Ledesma and Maximino Carpio García, are members of the Governing Council of the Banco de España and of the Audit Committee appointed by the Governing Council. In accordance with Article 29 of the Internal Rules of the Banco de España, we were given the task of reviewing the accounts of the Institution for the year 2012.

As required by the aforementioned precept, the Audit Committee has analysed the operations of the Banco de España. This examination basically involved: 1) studying the annual accounts of the Banco de España for the year 2012, prepared by the Directorate General Services of the Banco de España; 2) studying the audit of the balance sheet and profit and loss account of the Banco de España for 2012, conducted by the Internal Audit Department; 3) studying the documentation requested by the members of this Committee from the independent external auditors; 4) interviewing the persons responsible for the independent external audit, for the Internal Audit Department and for the Control, Budget and Accounting Department; and 5) making proposals for the modification, correction or clarification of various matters, all of which have been satisfactorily incorporated in the annual accounts by the Control, Budget and Accounting Department.

The basic conclusion of our report is that from the analysis carried out of the examination of the accounting procedures, of the accounting records and of the internal controls in place, it can be inferred that the annual accounts for the year 2012 give a true and fair view of the net worth and financial position of the Banco de España.

Madrid, 8 May 2013.

Ángel Luis López Roa Carmen Alonso Ledesma Maximino Carpio García

The Banco de España publishes various types of documents providing information on its activity (economic reports, statistics, research papers, etc.). The full list of Banco de España publications can be found on its website at http://www.bde.es/f/webbde/Secciones/Publicaciones/Relacionados/Fic/cat_publ.pdf.

Most of these documents are available in pdf format and can be downloaded free of charge from the Banco de España website at http://www.bde.es/webbde/en/secciones/informes/. Requests for others should be addressed to publicaciones@bde.es.

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ABBREVIATIONS

BCBS	Basel Committee on Banking Supervision
BE	Banco de España
BIS	Bank for International Settlements
BLS	Bank Lending Survey
BOE	Official State Gazette
BRICs	Brazil, Russia, India and China
CBSO	Central Balance Sheet Data Office
CCR	Central Credit Register
CDSs	Credit default swaps
CEIPOS	Committee of European Insurance and Occupational Pensions Supervisors
CESR	Committee of European Securities Regulators
CNE	Spanish National Accounts
CNMV	National Securities Market Commission
CPI	Consumer Price Index
DGF	Deposit Guarantee Fund
EBA	European Banking Authority
ECB	European Central Bank
ECOFIN	Council of the European Communities (Economic and Financial Affairs)
EDP	Excessive Deficit Procedure
EFF	Spanish Survey of Household Finances
EFSF	European Financial Stability Facility
EMU	Economic and Monetary Union
EONIA	Euro overnight index average
EPA	Official Spanish Labour Force Survey
ESA 79	European System of Integrated Economic Accounts
ESA 95	European System of National and Regional Accounts
ESCB	European System of Central Banks
ESFS	European System of Financial Supervisors
ESM	European Stability Mechanism
ESRB	European Systemic Risk Board
EU	European Union
EURIBOR	Euro interbank offered rate
EUROSTAT	Statistical Office of the European Communities
FASE	Financial Accounts of the Spanish Economy
FDI	Foreign direct investment
FROB	Fund for the Orderly Restructuring of the Banking Sector
FSB	Financial Stability Board
FSF	Financial Stability Forum
GDI	Gross disposable income
GDP	Gross domestic product
GFCF	Gross fixed capital formation
GNP	Gross national product
GVA	Gross value added
HICP	Harmonised Index of Consumer Prices
IASB	International Accounting Standards Board
ICO	Official Credit Institute
IFRSs	International Financial Reporting Standards
IGAE	National Audit Office
IIP	International Investment Position
IMF	International Monetary Fund
INE	National Statistics Institute
SPEE	National Public Employment Service
LTROs	Longer-term refinancing operations
MFIs	Monetary financial institutions
MMFs	Money market funds
MoU	Memorandum of Understanding
MROs	Main refinancing operations
MTBDE	Banco de España quarterly macroeconomic model
NAIRU	Non-accelerating-inflation rate of unemployment
NCBs	National central banks
NFCs	Non-financial corporations
NPISHs	Non-profit institutions serving households
OECD	Organisation for Economic Co-operation and Development
OMT	Outright Monetary Transactions
OPEC	Organisation of Petroleum Exporting Countries
PMI	Purchasing Managers' Index
PPP	Purchasing power parity
QNA	Quarterly National Accounts
RDL	Royal Decree-Law
SAREB	Asset Management Company for Assets Arising from Bank Restructuring
SEPA	Single Euro Payments Area
SGP	Stability and Growth Pact
SMEs	Small and medium-sized enterprises
SSM	Single Supervisory Mechanism
TARGET	Trans-European Automated Real-time Gross settlement Express Transfer system
TFP	Total factor productivity
ULCs	Unit labour costs
VAT	Value Added Tax

COUNTRIES AND CURRENCIES

In accordance with Community practice, the EU countries are listed using the alphabetical order of the country names in the national languages.

BE	Belgium	EUR (euro)
BG	Bulgaria	BGN (Bulgarian lev)
CZ	Czech Republic	CZK (Czech koruna)
DK	Denmark	DKK (Danish krone)
DE	Germany	EUR (euro)
EE	Estonia	EEK (Estonian kroon)
IE	Ireland	EUR (euro)
GR	Greece	EUR (euro)
ES	Spain	EUR (euro)
FR	France	EUR (euro)
IT	Italy	EUR (euro)
CY	Cyprus	EUR (euro)
LV	Latvia	LVL (Latvian lats)
LT	Lithuania	LTL (Lithuanian litas)
LU	Luxembourg	EUR (euro)
HU	Hungary	HUF (Hungarian forint)
MT	Malta	EUR (euro)
NL	Netherlands	EUR (euro)
AT	Austria	EUR (euro)
PL	Poland	PLN (Polish zloty)
PT	Portugal	EUR (euro)
RO	Romania	RON (New Romanian leu)
SI	Slovenia	EUR (euro)
SK	Slovakia	EUR (euro)
FI	Finland	EUR (euro)
SE	Sweden	SEK (Swedish krona)
UK	United Kingdom	GBP (Pound sterling)
JP	Japan	JPY (Japanese yen)
US	United States	USD (US dollar)

CONVENTIONS USED

M1	Notes and coins held by the public + sight deposits.
M2	M1 + deposits redeemable at notice of up to three months + deposits with an agreed maturity of up to two years.
M3	M2 + repos + shares in money market funds and money market instruments + debt securities issued with an agreed maturity of up to two years.
Q1, Q4	Calendar quarters.
H1, H2	Calendar half-years.
bn	Billions (10^9).
m	Millions.
bp	Basis points.
pp	Percentage points.
...	Not available.
—	Nil, non-existence of the event considered or insignificance of changes when expressed as rates of growth.
0.0	Less than half the final digit shown in the series.