

# The cost of interventions in the financial sector since 2008 in the EU countries

Antonio Millaruelo and Ana del Río



6 April 2017

Since the start of the financial crisis, the advanced countries have deployed numerous measures in support of the financial system, requiring a sizeable volume of public funds. In the EU, aid has been authorised and subject to the conditionality required by the European Commission, in respect of its accountability for competition-related matters.

This article explains the broad criteria for recording aid in general government accounts and discusses the different ways of measuring its direct cost. On Eurostat figures for the 2008-2015 period, the impact of interventions on general government accounts in terms of debt, debt net of assets, deficits and contingent liabilities are shown for the EU countries.

Nevertheless, the final cost will not be fully identified until the restructuring processes outstanding have been concluded and the public sector's remaining exposure to the banking sector has been removed.

## THE COST OF INTERVENTIONS IN THE FINANCIAL SECTOR SINCE 2008 IN THE EU COUNTRIES

The authors of this article are Antonio Millaruelo and Ana del Río of the Directorate General Economics, Statistics and Research.<sup>1</sup>

### Introduction

Since the onset in 2008 of the international financial crisis, a sizeable volume of public resources has been committed as a result of the efforts of governments in the main advanced economies to stabilise and restructure the financial system. Support has been implemented through a broad spectrum of measures<sup>2</sup>, including liquidity support, guarantees on debt, capital injections and aid for the treatment of impaired assets<sup>3</sup>.

To understand the nature and scope of the recent crisis in the European Union, it is worth reviewing the various banking crisis episodes that unfolded previously and that generally entailed high fiscal costs. One of the most extensive studies in this respect is that by Laeven and Valencia (2013)<sup>4</sup>, who examine up to 147 banking crises from 1970 to 2011. On their calculations, the fiscal cost associated with the financial sector rescue packages accounts, for the median of the sample, for 6.8% of GDP in gross terms, i.e. without taking into account the possible subsequent recouping of the aid.<sup>5</sup> For the advanced economies, despite the greater weight of their financial sector, the resolution of banking crises tends to incur lower direct fiscal costs, with the median value at 4.2% of GDP. Yet that does not mean that the costs in a broader sense – in terms of forgone output and increased public debt – are lower in the advanced countries (an aspect also addressed by Hoggarth et al [2002]<sup>6</sup>). In any event, the costs of banking crises differ substantially from one episode to another depending on numerous factors, such as the coincidence with currency or sovereign debt crises (where the causality relationship may be in both directions), the degree of bank intermediation in the economy or, as stressed by Honohan and Klingebiel (2003)<sup>7</sup>, the actual resolution strategy pursued. Although Laeven and Valencia (2013) only include in part the episodes of the recent global financial crisis, the cases of Ireland and Iceland are among the ten most costly from a historical standpoint, under the metric both of the direct fiscal costs of bank bail-outs (which stand at over 40% of GDP) and the increase in public debt (70 pp of GDP in the three years following the onset of the respective crises in 2008), which is due to the disproportionate dimension of the financial sector relative to the size of these two economies.<sup>8</sup>

In the EU countries, the global financial crisis and the subsequent recession have impacted domestic banking systems differently, as regards scale and timing, and also banks in the same country, all of which has conditioned the response of the authorities. As regards banks, this heterogeneity was in response to differences in several domains: business

---

1 The authors are grateful to Luis Gordo for his clarifications and comments.

2 See Millaruelo and del Río (2010).

3 These include impaired asset portfolio isolation and insurance mechanisms, and arrangements for segregating and transferring these assets to vehicles, entities and institutions dedicated to their management and liquidation.

4 Caprio and Klingebiel (2003) offer an alternative historical compilation.

5 This figure refers to bank recapitalisations, and excludes asset purchases and liquidity assistance from the Treasury.

6 The bigger increase in the developed economies' public debt is attributable to the role the automatic stabilisers play and the ability to deploy discretionary expansionary policies.

7 The authors argue that the most flexible or accommodating strategies, such as unlimited guarantees for depositors, tend to increase the direct fiscal cost of bank crises compared with strict resolution frameworks.

8 Though not yet incorporated into the Laeven and Valencia database, the bank rescue packages in Cyprus and Greece will also be among the costliest cases of bank crises for the taxpayer.

models, the nature of their exposures to risks, their funding structures and the availability of buffers to absorb the initial shocks. As regards countries, the mixed experiences respond to the differing intensity and duration of the economic crisis and the vulnerability of their economies to the sovereign debt crisis.<sup>9</sup> Over nine years after the start of the crisis, some EU countries are still immersed in the process of restructuring their banking systems, and continue to be affected by a high volume of impaired assets whose resolution is hampered by the current context of weak economic recovery.

This article analyses the volume of support targeted on the financial sector in the EU countries since 2008 and the direct budgetary costs such aid has entailed. In this connection, the second section reviews how the EU State aid authorisation framework has been adapted during the crisis and the volume of aid approved. The third section explains some general criteria for the accounting of interventions in the general government accounts, and the fourth section offers figures on the fiscal impact of government interventions to support the financial sector based on the data released by Eurostat in October 2016. Note that this quantification excludes indirect effects of the crisis on public finances, via the decline in tax revenue, the increase in expenditure associated with the economic recession and the loss of value of assets. Also outside the scope of this article are the measures pursued by central banks in response to the crisis, measures which have proven crucial for stabilising the financial sector.<sup>10</sup>

#### The role of the European Commission in the authorisation of State aid

It should first be recalled that European competition rules, specifically Article 107 of the Treaty on the Functioning of the European Union (TFEU), establish a general principle contrary to State aid, insofar as the latter provides competitive advantages to specific regions, sectors, firms or products and, therefore, distorts competition within the single market. However, this same Article establishes exceptional cases in which State aid is admissible. In particular, the exception in Article 107.3.b) – relating to *aid to promote the execution of an important project of common European interest or to remedy a serious disturbance in the economy of a Member State* – is that which lays down the legal grounds for aid received by the financial sector over the course of recent years.

The European Commission (EC), which is responsible for the application of these rules, had to authorise several specific instances of State aid to financial institutions<sup>11</sup> from the early stages of the global financial crisis. But the widespread worsening of tensions internationally brought on by the Lehman Brothers bankruptcy meant the Commission had to formalise a specific framework adapted to the new circumstances that would provide for urgent and flexible action by governments and allow the swift approval of the respective proposals for courses of action. This new framework was laid down in the October 2008 “Banking Communication”, which was supplemented in 2009 by a further three communications<sup>12</sup> with more specific criteria. Under these rules, governments deployed numerous measures, both to specific institutions and through general aid schemes following the concerted emergency plan agreed upon at the euro area summit on 12 October 2008. According to the European Commission (2011), between September 2008 and December 2010 the Commission authorised aid of which

<sup>9</sup> See, for example, Banco de España (2013).

<sup>10</sup> This aspect is addressed in Millaruelo and del Río (2013) for the case of the euro area.

<sup>11</sup> These include the German *Landesbanken* Sachsen LB and WestLB and IKB, which ran into difficulties at an early stage owing to their exposure to structured products, and the British banks Northern Rock and Bradford & Bingley.

<sup>12</sup> The January 2009 Communication on recapitalisation, the March 2009 Communication on impaired assets and the August 2009 Communication on restructuring.

215 financial institutions were beneficiaries, with an overall drawable assigned amount, a priori, of €4.3 trillion.<sup>13</sup>

During this period, concern was at a height to preserve financial and macroeconomic stability and to avoid cross-bank contagion. Faced with a serious confidence crisis prompted by the uncertainty on the volume and distribution of the losses that might emerge on bank balance sheets, it was difficult to distinguish between institutions that were fundamentally sound but vulnerable to the situation of instability and institutions with serious structural problems, which gave rise to the risk of granting support to banks whose viability was questionable, and thus excessively protecting the interests of creditors. That said, from the outset, and in order to limit the distortion of competition and head off moral hazard problems (i.e. encouraging irresponsible behaviour), the Commission's 2009 Communication on restructuring demanded a minimum degree of burden-sharing in relation to the amount of aid received by banks, which meant investors taking a share of the responsibility. In this respect, it stipulated in particular that financial institutions, before receiving State aid, should firstly use their own funds to finance their restructuring, e.g. by means of the disposal of assets, the absorption of losses with available capital and the payment of an adequate remuneration for State interventions.

Once the height of the global financial crisis was put behind and a gradual economic recovery had begun, the Commission extended the temporary aid framework, with certain modifications, believing that its withdrawal would be premature given the persistence of tensions and fresh uncertainty associated with the sovereign debt crisis in the euro area. Following the tightening of the conditions governing public guarantees on bank debt in July 2010, the need to submit restructuring plans was introduced in January 2011 for all recapitalisation and impaired asset measures<sup>14</sup>. The next qualitative leap was in July 2013, when the Commission approved the Communication currently in force (which replaced the 2008 banking Communication). This increased the minimum requirements in terms of burden-sharing and the authorisation of aid became conditional upon the approval of a restructuring plan, with the dual aim of expediting resolution processes and better calibrating the minimum level of aid needed. These changes were in response, on one hand, to the serious deterioration in public finances and, on the other, to the need to progressively include the considerations which, in terms of safeguarding taxpayers' interests, were to prevail in the new common legislation on resolution, via the Bank Restructuring and Resolution Directive (BRRD).

With regard to the deterioration of public finances, Member States' budgetary soundness ultimately became a determinant of the degree of burden-sharing in the event of aid, meaning that some countries had to go beyond the minimum requirements under State aid rules. Entities' funding costs increasingly included the differences in the perceived implicit guarantees, which deepened the financial fragmentation problems within the euro area and distorted the fair competition conditions that the control of State aid seeks to safeguard.

---

13 Given the provisional nature of the initial approval of the measures, the figure of €4.3 trillion (36% of EU GDP) refers to potentially available authorised volumes and not to amounts actually used, which stood at around €1.2 trillion (10.5% of EU GDP), of which amount €757 billion (61%) are guarantees that were granted and not necessarily realised.

14 The previous distinction – between fundamentally sound financial institutions with difficulties arising from the extreme situation of financial crisis and institutions with structural problems for which restructuring plans were indeed required – ceased to apply. One indicator for distinguishing these latter institutions was whether the aid accounted for more than 2% of the bank's risk-weighted assets.

As to the regulatory framework of the financial sector, the 2008 crisis had given rise to a far-reaching reform at the international level and the competition-related changes that the Commission made in July 2013 marked a move towards the new approach been devised in respect of resolution. In particular, the new BRRD establishes bail-in arrangements, i.e. the assuming of losses by shareholders and some of the creditors, which lessen the potential need for public funds and reduce the moral hazard problems to which bank bail-outs give rise.<sup>15</sup> Indeed, the conditionality attached to the external financial aid requested by the Spanish government in June 2012 for the restructuring and recapitalisation of the banking sector already included many of the aspects of the BRRD and of the criteria that the Commission inserted in the July 2013 Communication, such as the obligation to pursue measures to impose losses on the holders of hybrid instruments in the case of banks requiring public aid to cover their capital shortfalls.

## Public finances accounting of aid

Since 2008, a very sizeable volume of authorised aid has been made available to the financial sector. According to information from the EC's Directorate General for Competition, available aid is estimated at a value of somewhat over €800 billion in the case of recapitalisations, €600 billion in aid for impaired assets and €3.3 trillion in the form of guarantees (see Table 1, which gives the breakdown by country<sup>16</sup> and type of aid). Nonetheless, this figure is far higher than the effective cost in terms of public funds that the support to banks has entailed for States, for several reasons. Firstly, as Table 1 illustrates, the volume of authorised aid was not used in its entirety, especially in the case of guarantees. Secondly, not all types of State aid require a disbursement of funds and, therefore, they do not necessarily increase public debt. This is the case, for example, of public guarantees, which entail no cost unless they are realised, although they may be a source of funds via the attendant commission fees. Indeed, from the standpoint of the competition authorities, in quantifying aid regard is not had to the revenue and expenditure arising from public exposure to the financial sector, which would include among other items the debt interest payments incurred as a result of public aid. EC records are not informative either regarding the final course of the aid, i.e. whether subsequently it has been refunded or recovered fully or partially. Moreover, the very measurement of aid through the lens of competition may be relatively unrelated to the cost for taxpayers. In the specific case of transfers of troubled assets, the quantification of the implicit aid component is calculated as the difference between the transfer value of the assets (which should approximate to a real value) and their market value (which is possibly below the real value, in a context of illiquid markets). By contrast, the cost to taxpayers will be determined by the value of the assets when the public sector finally unloads them through, for example, privatisation, or some other type of disposal or write-down.

Accordingly, to approximate the cost for taxpayers it is more advisable to use the information released biannually by Eurostat on the impact on general government finances of government interventions in support of the financial sector.<sup>17</sup> Specifically, Eurostat quantifies the effects of operations on the government deficit (breaking down different

---

15 The regulations on bail-ins came into force in January 2016, establishing a system in which, before resorting to external financing, credit institutions must use at least 8% of their total liabilities to absorb capital shortfalls, following an order of seniority under which creditors of non-collateralised senior debt would not be excluded. The regulations further envisage a minimum requirement for own funds and eligible liabilities (MREL) to ensure the effectiveness of the processes for imposing the losses in question, a requirement that has still to be definitively defined.

16 In Table 1, the figure for Spain of €174 billion of approved capital injections corresponds to the maximum potentially drawable amount. Of this amount, €100 billion is the maximum financing capacity legally established for the FROB in 2010, and the remainder includes the funds of the 2012 EU financial assistance programme. The volume of funds actually applied to this end subsequently was lower (almost €62 billion).

17 Other available estimates are those provided by the ECB (2015) and the IMF (2015), and by the Banco de España (2016) for the case of Spain.

€bn

	GDP	Capital injection		Impaired assets		Guarantees on liabilities (b)		Other measures	
	2015	Total approved	Used	Total approved	Used	Maximum approved	Used	Maximum approved	Used
Belgium	410.4	23.3	20.8	28.2	21.8	275.8	46.8	20.5	0.0
Bulgaria	45.3	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0
Denmark	271.8	14.6	10.8	2.3	0.3	580.0	145.0	4.9	2.0
Germany	3,032.8	114.6	64.2	82.8	80.0	447.8	135.0	9.5	4.7
Ireland	255.8	91.6	62.8	57.2	2.6	376.0	284.3	40.7	0.9
Spain (c)	1,075.6	174.3	61.9	139.9	32.9	200.0	72.0	30.0	19.3
Greece	175.7	59.6	46.6	0.0	0.0	93.0	62.3	8.0	6.9
France	2,181.1	29.2	25.0	4.7	1.2	319.8	92.7	8.7	0.0
Croatia	43.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Italy	1,642.4	25.8	11.8	0.4	0.0	80.0	85.7	0.0	0.0
Cyprus	17.6	3.5	3.5	0.0	0.0	6.0	2.8	0.0	0.0
Latvia	24.3	0.8	0.5	0.5	0.4	5.1	0.5	2.1	1.0
Lithuania	37.3	0.8	0.3	0.6	0.0	0.3	0.0	0.0	0.0
Luxembourg	51.2	2.5	2.6	0.0	0.0	4.5	3.8	0.3	0.1
Hungary	109.7	1.1	0.2	0.1	0.1	5.4	0.0	3.9	2.5
Netherlands	676.5	39.8	23.0	30.6	5.0	200.0	40.9	52.9	30.4
Austria	339.9	40.1	11.8	0.6	0.5	75.0	19.3	0.0	0.0
Portugal	179.5	34.8	15.3	4.4	3.1	28.2	16.6	6.1	3.8
Slovenia	38.6	4.5	3.6	3.7	0.3	12.0	2.2	0.0	0.0
Sweden	446.9	5.0	0.8	0.0	0.0	156.0	19.9	0.5	0.0
United Kingdom	2,580.1	114.6	100.1	248.1	40.4	364.5	158.2	39.9	33.3
Memorandum item									
EU	14,710.6	820.9	465.6	604.3	188.6	3,311.2	1,188.1	229.7	105.0

SOURCE: Directorate-General for Competition of the European Commission.

a Does not include Estonia, Czech Republic, Poland, Romania, Malta, Slovakia and Finland, owing to the absence or minimum impact of State aid.

b The figures for maximum guarantees do not necessarily represent the maximum ceiling for the guarantees available at each point in time; rather, they show the extensions to this ceiling made in a given year, which explains why the aid used is apparently above the aid authorised in certain countries. By way of example, Italy authorised a €30 billion increase in the budget for guarantees in 2012, meaning that the ceiling rose from the €80 billion authorised in 2011 to €110 billion in 2012. In Greece, the initial ceiling of €15 billion was raised by €40 billion in 2010, again by €30 billion in 2012; as a result, the maximum figure budgeted came to stand at €85 billion.

c The figure of €174.3 billion for Spain in the "Capital injection" column includes the two recapitalisation frameworks. The first, in 2010, with authorised aid of almost €100 billion, corresponds to the maximum financing legally established for the FROB as of its inception. As can be seen in the following column, referring to the capital injections used, the volume of funds actually applied to this end was €61.9 billion. Included under the "Other measures" column is the FAAF (Fund for the Acquisition of Financial Assets) created in 2008, whose capacity was €30 billion, although asset acquisitions ultimately amounted to €19.3 billion.

expenditure and revenue items), on the balance sheet, i.e. general government financial assets and liabilities, and, off the balance sheet, on contingent liabilities arising from public guarantees. These data are notified by the EU countries under the Excessive Deficit Procedure (EPD) and follow the statistical principles laid down in the European System of Accounts and Eurostat regulations [see Eurostat (2009)]. The latest notification is for October 2016 and covers the period 2008-2015.

For a proper interpretation of this information it is important to bear in mind that, throughout the crisis, new institutions entrusted with implementing the financial sector stabilisation and restructuring measures have been created, and entities in place before the crisis have also been used. The classification of these bodies in the economic sectors

as private or public and, among the latter, as belonging to the general government sector, affects how interventions are reflected in public finances statistics.<sup>18</sup> For instance, SoFFin in Germany, created in October 2008, was set up as a public fund through which guarantees were granted and capital injections made, while the company for the financing of the French economy, SFEF, created in November 2008 with a majority of private capital, did not belong to the public sector. In this case the SFEF channelled funds to the banking system through loans financed by State-backed SFEF bond issues. In Greece's case, the fund for financial stabilisation (HFSF), created in July 2010, is privately held for legal purposes, although its transactions are recorded in the general government accounts, as the reflection of the economic nature of such transactions prevails over the legal status of the institution. In Spain's case, the Fund for the Orderly Restructuring of the Banking Sector (FROB) was set up in June 2009 as an entity belonging to the general government sector entrusted with providing for the necessary adjustment of the banking sector.

Interventions in the financial sector have also been made through national deposit guarantee funds, the effects of which in respect of public finances are more complex. In Spain's case, the Deposit Guarantee Scheme for Credit Institutions (FGDEC by its Spanish abbreviation) has been classified in the general government sector since January 2012 and, therefore, the transactions prior to this date are not identified in the quantification of general government support.

The recording of interventions in the government finance statistics adopts the general criterion that all support measures entailing the mobilisation of funds need to be financed and, as a balancing entry, an increase in gross public debt is recorded, which will incur interest charges – with an impact on the budget deficit for each period – while the debt is outstanding. Depending on the type of intervention, the counterpoint of this increase in public debt may be an effect on the deficit additional to the interest expenses it generates.

As to the particular recording of the different types of interventions, a distinction should be drawn between loans to financial institutions, guarantees, recapitalisations and asset restructuring measures. Beginning with loans, these are always considered as a financial transaction, with an increase both on the asset side and the liabilities side of the general government balance sheet, unless the repayment of the loan is considered unlikely, in which case it would bear on the government deficit at the time the loan is granted. The granting of public guarantees is considered as a contingent liability with no impact on the deficit or debt, unless the guarantee is realised and the State has to make a payment or assume a debt. In the case of recapitalisation and impaired asset measures, they may, depending on their characteristics and conditions, be considered either as a financial investment, as a capital transfer or a combination of both. If what is involved is a financial investment, they will give rise to an increase in financial assets on the general government balance sheet, whereas when they are a capital transfer – because they are covering, for example, cumulative losses or because the transaction is made at a price above market value<sup>19</sup> – that will entail an increase in the government deficit for the related period. The subsequent sale of the asset or of the capital holdings at a lower price than that at which they were acquired may generate a cost in the form of a higher government deficit, while if it is sold at a higher price, it will involve a reduction in public debt, but never in the government deficit.

<sup>18</sup> This sectoral classification will depend not only on the proportion of capital that is publicly owned, but also on the independent decision-making capacity of these entities and the role of the government in the operations transacted.

<sup>19</sup> In the absence of a market value, indirect estimates must be made.

Some interventions to clean up the balance sheet or for the resolution of non-viable institutions have been made through the setting up of new asset management companies, also known as “bad banks”<sup>20</sup>, to manage the impaired asset portfolios in an orderly fashion. Reflecting these interventions in the public finances accounts depends, initially, on the sectorisation and financing structure of the bad banks. In the case, for instance, of the Irish National Asset Management Agency (NAMA) established in 2009 or the Spanish asset management company for assets arising from bank restructuring (Sareb) created in 2012, their classification as private entities<sup>21</sup> implies that transactions, financial assets and liabilities of these institutions are not included in the general government accounts. In these two cases, the impact on public finances arises from the share the respective States have in the balance sheet of NAMA or Sareb, and also from the contingent liabilities, as a result of the public guarantees granted to these institutions for debt issues.

On other occasions, the restructuring of the balance sheet or the resolution of assets has been conducted through entities belonging to the general government sector, which has entailed an increase in the general government balance sheet – assets and liabilities alike – and repercussions on the deficit arising from the profits and losses that materialise during the resolution process. For example, in Germany, for major restructurings, it was decided to create wind-down agencies under the supervision of the Federal Agency for Financial Market Stabilisation (FMSA). Thus, in 2009 and 2010, respectively, Erste Abwicklungsanstalt (EAA) and FMS Wertmanagement (FMS-WM) were created, with assets from WestLB and from the nationalised Hypo Real Estate (HRE), respectively. In the United Kingdom, the government also created in 2010 a public holding company – UK Asset Resolution (UKAR) – for the orderly dismantling of the mortgage portfolio of Northern Rock Asset Management (stemming from the break-up of Northern Rock) and Bradford & Bingley (B&B), both of which had been nationalised in 2008.

#### Fiscal impact of public aid to the financial sector in the EU since 2008

Since 2008, most<sup>22</sup> EU Member States have conducted some type of intervention in the financial sector which has borne on their public finances. The fiscal cost of these operations can be approximated with different metrics, the most general of which is the direct effect on the stock of public debt. However, when the counterparts of these liabilities are assets pending amortisation or disposal, debt net of assets – liabilities minus assets – is a more appropriate metric, at least until the process of withdrawing the aid has concluded. To limit uncertainty regarding the value of the assets, another habitual form of measuring the cost of interventions involves quantifying the public deficit incurred cumulatively over the course of the years in question. However, the disadvantage with this method is that potential profits on asset sales are not included (given that, as earlier indicated, they are not included in the public deficit). Neither of these metrics considers the commitments assumed via guarantees, which might ultimately entail further losses in the future.

Beginning with the more general measurement, the impact on public debt of interventions in the financial sector amounted to 4.8% of GDP in the euro area at end-2015 (4.3% of GDP in the EU), according to the October 2016 EDP notification. As can be seen in Table 2, the highest impact on government debt (monetary terms) as a result of assistance to the financial sector was observed in Germany (€225 billion), the United Kingdom (€131 billion),

20 For more details see, for example, Ayuso and del Río (2012).

21 The classification outside the public sector was determined by the independence of these entities to adopt decisions, since capital is private-held in the main, by their objectives, by the limited duration envisaged and by the restricted size of potential losses relative to liabilities.

22 Czech Republic, Estonia, Malta, Poland, Romania, Slovakia, Finland, Hungary and Sweden are the countries without interventions with an impact on general government accounts, or with a minimum impact thereon.

FISCAL IMPACT OF GOVERNMENT INTERVENTIONS TO SUPPORT THE FINANCIAL SECTOR IN THE EU COUNTRIES (a). FINAL BALANCES 2015

TABLE 2

	Liabilities		Assets		Net debt Liabilities - Assets		Contingent liabilities		Memorandum item: increase in public debt 2008-2015 (b)
	€ bn	% of GDP	€ bn	% of GDP	€ bn	% of GDP	€ bn	% of GDP	% of GDP
Belgium	13.8	3.4	13.2	3.2	0.6	0.1	31.5	7.7	13
Bulgaria	1.1	2.4	1.1	2.4	0.0	0.0	0.0	0.0	13
Denmark	0.3	0.1	3.0	1.1	-2.6	-1.0	0.0	0.0	7
Germany	224.7	7.4	185.5	6.1	39.1	1.3	22.2	0.7	6
Ireland	58.3	22.8	8.2	3.2	50.1	19.6	11.3	4.4	36
Spain	51.6	4.8	6.1	0.6	45.5	4.2	46.4	4.3	60
Greece	45.2	25.7	10.5	6.0	34.8	19.8	44.7	25.5	68
France	2.8	0.1	0.0	0.0	2.8	0.1	40.2	1.8	28
Croatia	0.2	0.4	0.1	0.2	0.1	0.2	0.0	0.0	47
Italy	1.6	0.1	0.0	0.0	1.6	0.1	6.4	0.4	30
Cyprus	3.7	20.8	0.0	0.0	3.7	20.8	1.0	5.7	63
Latvia	1.2	5.0	0.2	0.7	1.0	4.2	0.0	0.0	18
Lithuania	0.1	0.2	0.0	0.0	0.1	0.2	0.0	0.0	28
Luxembourg	2.5	4.9	2.6	5.1	-0.1	-0.2	1.8	3.6	7
Netherlands	29.8	4.4	27.5	4.1	2.3	0.3	0.0	0.0	11
Austria	37.3	11.0	31.9	9.4	5.3	1.6	1.7	0.5	17
Portugal	20.6	11.5	9.8	5.5	10.8	6.0	6.3	3.5	57
Slovenia	6.6	17.0	3.6	9.3	3.0	7.7	0.0	0.0	61
United Kingdom	131.4	5.1	111.0	4.3	20.4	0.8	0.0	0.0	39
Memorandum item:									
Euro area	499.7	4.8	299.2	2.9	200.4	1.9	213.6	2.0	24
EU	632.7	4.3	414.4	2.8	218.3	1.5	213.6	1.5	26
25th percentile		1.4		0.4		0.1		0.0	
50th percentile		4.9		3.2		0.8		0.5	
75th percentile		11.2		5.3		5.1		4.0	

SOURCE: Eurostat.

a See footnote 22.

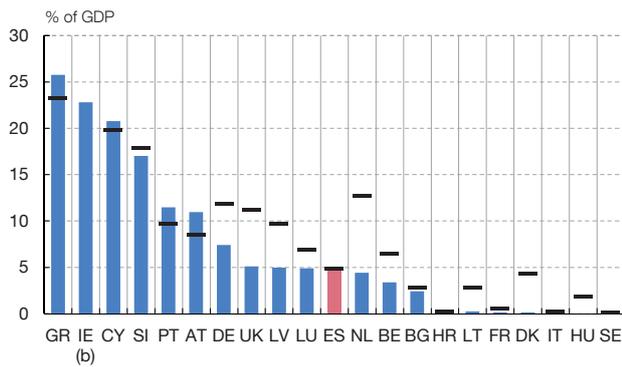
b Refers to the total increase in total debt, not that caused by assistance to the financial sector.

Ireland (approximately €58 billion), Spain (close to €52 billion), Greece (€45 billion), Austria (€37 billion) and the Netherlands (€30 billion). Weighted by the size of the economy, the countries that underwent the biggest increase in their debt were Greece (26% of GDP), Ireland (23%), Cyprus (21%) and Slovenia (17%).

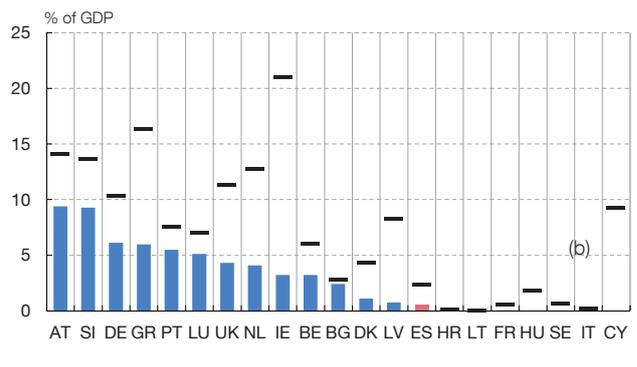
It is also worth highlighting that the costs arising from the recapitalisation of euro area financial institutions are on a scale comparable with those of the United States. Laeven and Valencia (2012) estimate a gross cost associated with recapitalisation processes – without discounting subsequent recoveries – of 4.5% of GDP in the United States and of 3.9% of GDP in the euro area.<sup>23</sup> What is most particular in the case of the United States is the fact that the aid has been fully recovered, and even with revenue above what was spent [see IMF (2015)]. In the European case, there has since the height of the

<sup>23</sup> According to the EC's figures on State aid, recapitalisation processes carried out would be around 3.5% of GDP in the case of the euro area on data to 2015.

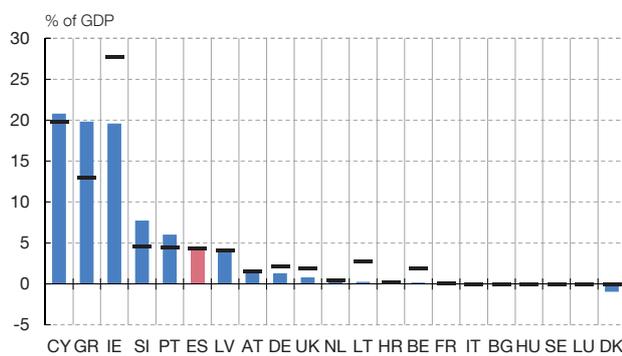
1 LIABILITIES



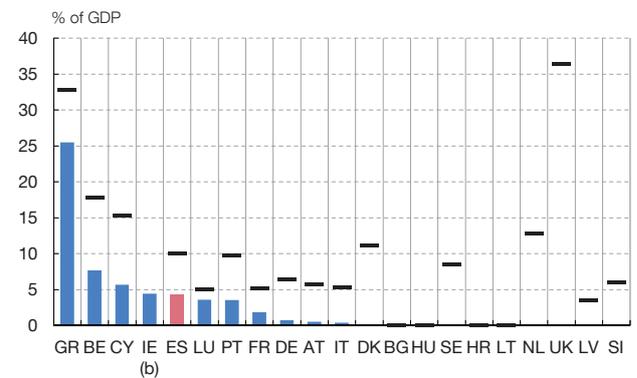
2 ASSETS



3 COST: LIABILITIES - ASSETS



4 CONTINGENT LIABILITIES



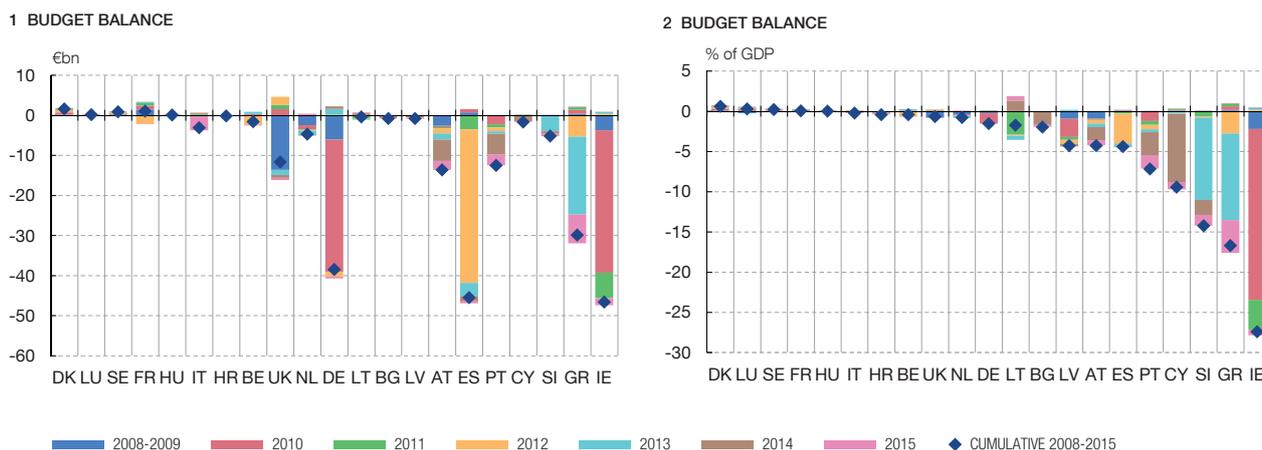
■ 2015      ■ MAXIMUM 2008-2014

SOURCE: Eurostat.

- a Does not include Estonia, Czech Republic, Poland, Romania, Malta, Slovakia and Finland, owing to the absence or minimum impact of State aid.
- b The maximum values for Ireland for contingent liabilities and liabilities (187.7 and 47.7, respectively) are not depicted so as not to distort the chart.

crisis also been a gradual withdrawal from exposure to the banking sector and a reduction in the public liabilities generated, albeit with notable differences from one country to another depending on the severity of the crisis and the time elapsed since the interventions were made. As Chart 1 shows, comparing the current value with the maximum value reached by liabilities arising from interventions in the financial sector since 2008, the biggest reductions have been in Denmark (where intervention-prompted debt practically disappeared), United Kingdom, the Netherlands, Belgium, Latvia, Ireland (where it has approximately been halved) and Germany (down by almost 40%). Conversely, the reductions were very small in Spain and Slovenia, while in 2015 public debt brought about by assistance to the financial sector continued rising in Greece, Cyprus, Portugal and Austria.

In any event, the final effects on public finances will not be fully identified until the restructuring and resolution processes outstanding are completed and there is a full withdrawal from public-sector exposure to the financial sector. Generally, this exposure stems from the continued holding of certain assets that might in the future generate revenue and from contingent liabilities that might ultimately have a cost if the related guarantees are realised.



SOURCE: Eurostat.

a Does not include Estonia, Czech Republic, Poland, Romania, Malta, Slovakia and Finland, owing to the absence or minimum impact of State aid.

As Chart 1.2 shows, assets are particularly high in countries where aid for asset restructuring was carried out through institutions belonging to the public sector. Such is the case of Germany and the United Kingdom, as discussed above, but also of Slovenia, Austria or Portugal. To take this circumstance into account, an appropriate measure for comparing the fiscal cost across countries is net debt, i.e. liabilities minus financial assets derived from the aid. With this alternative calculation, presented in the fifth column of Table 2, the countries with the highest net debt in monetary terms derived from aid to the financial sector where, at end-2015, Ireland (€50 billion) and Spain (€46 billion), followed by Germany (€39 billion), Greece (almost €35 billion), United Kingdom (€20 billion) and Portugal (€11 billion). In terms of GDP, Ireland, Greece and Cyprus are the countries with the greatest impact on net debt (around 20% of GDP), followed by Slovenia and Portugal (6-8% of GDP). In Spain, the effect on net debt is estimated at 4.2% of GDP at end-2015, compared with 1.9% in the euro area.

As previously discussed, much uncertainty surrounds asset valuation; accordingly, an alternative measurement to those discussed in the foregoing paragraphs is simply the accumulation of the government deficits incurred. This metric takes into account the expenditure arising from interventions (State transfers, interest charged on assumed debt and other expenses) and the revenue received in respect of property income (dividends and interest) and commissions. During the period 2008-2015, State aid to the financial sector gave rise to a cumulative budget deficit of €200 billion in the euro area (2% of GDP). As illustrated in Chart 2, the countries with the highest amounts of public funds earmarked for interventions, measured by the cumulative impact on the budget deficit, are Ireland and Spain, at over €45 billion. They are followed by Germany (€39 billion), Greece (€30 billion) and Austria, Portugal and United Kingdom (€11-14 billion). Expressed in terms of the size of the economy, Ireland is the country that has borne the greatest cost (close to 28% of GDP), followed by Greece (17% of GDP), Slovenia (14% of GDP) and Cyprus (9% of GDP). In some countries, however, such as Denmark, France, Luxembourg and Sweden, the impact on the budgetary balance was slightly positive, the result of revenue received as a consideration for the aid.

Finally, a potential source of future costs are the contingent liabilities incurred by the State on providing guarantees, an item which is measured separately. These commitments

may disappear once their enforceability has elapsed or once the instruments covered are amortised, but they may also give rise to an expense if the guarantees are realised. According to Eurostat figures, the contingent liabilities held by countries as a result of public aid are still high, despite having been reduced notably. Although their amount for the euro area overall stands at 2% of GDP (see Table 2), contingent liabilities are concentrated in a small number of countries: specifically, in Greece (25% of GDP), Belgium (8%), Cyprus (6%), and Ireland, Spain<sup>24</sup>, Luxembourg and Portugal (4%). The reduction in contingent liabilities from their peak during the crisis has been notable, the most significant case being that of Ireland, where the volume of public guarantees came to account for almost 200% of GDP when the government was obliged, in September 2008, to approve a general guarantee on the enforceable liabilities of the main Irish banks for a period of two years.

## Conclusions

The financial crisis required the mobilisation of a high volume of funds to stabilise and restructure the financial sector in most of the advanced countries. There was an extensive range of different cases the reflection of which in public finances in the various economies was uneven, depending on the depth of the crisis and the nature of the measures adopted.

In the EU, interventions were conditional upon the approval of the European Commission, in accordance with a framework of criteria for applying the prevailing rules on State aid, a framework which was progressively adapted during the crisis. In the case of the Member States that received financial assistance, this conditionality was reinforced even further.

According to Eurostat data released in October 2016, the fiscal cost, proxied by the debt net of assets assumed by the public sector, stood at end-2015 at 1.9% of GDP in the euro area as a whole. The differences across countries were extensive, with Ireland, Greece and Cyprus the members that generated most net debt (around 20% of GDP), followed by Slovenia and Portugal (around 6-8% of GDP). This figure amounts to 4.2% of GDP in Spain.

Considering the gross increase in liabilities, interventions in the financial sector prompted an increase in public debt of around 4.8 % of GDP both in the euro area and in Spain. That said, the final cost of assistance to the financial sector will not be fully identified until the restructuring processes outstanding have been concluded and the public sector's remaining exposure to the banking sector has been eliminated.

6.4.2017.

## REFERENCES

- AYUSO J. and A. DEL RÍO (2012). "La resolución de activos bancarios a través de «bancos malos". *Estabilidad Financiera*, no.23, Banco de España.
- BANCO DE ESPAÑA (2013). "The euro area and the common monetary policy", *Annual Report 2012*, Chapter 4.
- BANCO DE ESPAÑA (2016). "Briefing note on public financial assistance in the restructuring of the Spanish banking sector", September. [http://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/NotasInformativas/Briefing\\_notes/es/notabe060916.pdf](http://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/NotasInformativas/Briefing_notes/es/notabe060916.pdf)
- ECB (2015). "«The fiscal impact of financial sector support during the crisis", *Economic Bulletin Issue 6/2015*, European Central Bank.
- CAPRIO G. and D. KLINGEBIEL (2003). "Episodes of systemic and borderline financial crisis", World Bank.
- EUROPEAN COMMISSION (2011). "The effects of temporary State aid rules adopted in the context of the financial and economic crisis", *Commission Staff Working Paper*, October.
- EUROSTAT (2009) "The statistical recording of public interventions to support financial institutions and financial markets during the financial crisis", July.
- HOGGARTH, G., R. REIS and V. SAPORTA (2002). "Costs of banking system instability: some empirical evidence", *Journal of Banking Finance*, 26, pp. 825-855.

24 In Spain's case these liabilities are essentially the guarantees on Sareb issues, and they do not include the guarantees associated with asset protection schemes.

- HONOHAN P. and D. KLINGEBIEL (2003). *The fiscal cost implications of an accommodating approach to banking crises*, *Journal of Banking & Finance* 27, pp. 1539-1560.
- INTERNATIONAL MONETARY FUND (2015). "Now Is the Time for Fiscal Policies for Sustainable Growth", *Fiscal Monitor*, April.
- LA EVEN, L., and F. VALENCIA (2012). "Systemic Banking Crises Database: An Update Prepared", *Working Paper*, no.163, June, International Monetary Fund.
- LA EVEN, L., and F. VALENCIA (2013). "Systemic Banking Crises Database", *IMF Economic Review*, Vol. 61, No. 2, pp. 225-70.
- MILLARUELO and DEL RÍO (2010). "El apoyo público al sector financiero en la zona del euro", *Boletín Económico*, September, Banco de España.
- MILLARUELO and DEL RÍO (2013). "Las medidas de política monetaria no convencionales del BCE a lo largo de la crisis", *Boletín Económico*, January, Banco de España.