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Abstract

Spain's public finances have been under significant stress during the crisis, despite pre-crisis fiscal surpluses and low levels of public debt. The impact of the crisis and an initial phase of counter-cyclical activism exacerbated the existing (structural) fiscal vulnerabilities. To correct the fiscal imbalances, a significant number of bold policy actions were taken, affecting taxation, public spending, national fiscal rules and the structure of the public sector. In this paper we discuss the evolution of public finances in Spain during the financial crisis, framing crisis-related fiscal policy measures within medium-term economic trends and focusing on policy responses to the financial crisis. We also touch upon the main policy challenges ahead.

Keywords: fiscal policy, Great Recession, public deficit, public debt, Spanish economy.

JEL classification: E60, H12, H50, H60.

Resumen

El desempeño de la actividad de las Administraciones Públicas ha estado sometido a un elevado grado de tensión durante la crisis soberana reciente, a pesar del reducido nivel de deuda pública y de los superávits presupuestarios registrados en el período inmediatamente anterior a la crisis. El impacto de la recesión y una fase inicial de actuación contracíclica de la política fiscal exacerbaron las vulnerabilidades estructurales latentes de las finanzas públicas. El proceso de corrección de estos desequilibrios presupuestarios ha requerido la puesta en marcha de un conjunto de medias en los ámbitos de la imposición, el gasto público, el marco de reglas fiscales nacionales y la estructura del sector público. En este contexto, el presente documento discute la evolución de las finanzas públicas durante la crisis, prestando especial atención a las políticas de respuesta a la crisis financiera y a las tendencias macroeconómicas de medio plazo en las que se insertan.

Palabras clave: política fiscal, Gran Recesión, déficit público, deuda pública, economía española.

Códigos JEL: E60, H12, H50, H60.

1. Introduction

After five years of economic and financial crisis, 2014 marked the beginning of a recovery of the Spanish economy, with the recovery steadily gaining strength over the year, marking the end of a period of economic contraction and employment destruction without precedent in the recent history of the country. The depth of the impact when the global economic shocks hit exposed the significant vulnerabilities of the Spanish economy, given cumulated imbalances in the pre-crisis period, in particular, excessive private sector indebtedness (largely financed with external funds), excessive reliance on the construction sector, and an overall loss of competitiveness (see, for example, Ortega and Peñalosa, 2013). During the crisis there was a steady adjustment of economic imbalances, but the gradual correction of the legacies of the recession remains a challenge.

In this paper we are interested in the public finance aspect of the crisis. While before the crisis the Spanish government had fiscal surpluses and low levels of public debt (almost half of the euro area reference), it was soon clear that the fiscal space available to pursue counter-cyclical policies was very limited, given the structural nature of the fiscal imbalances built up before the crisis. This, together with the euro area sovereign debt crisis of 2010, put Spain's public finances under serious strain. To tackle fiscal imbalances, a significant number of tax, public spending and institutional policy measures were implemented between 2010 and 2014, some of them with a medium- to long-term bearing on fiscal sustainability.

In the rest of the paper we describe the evolution of public finances in Spain through the financial crisis, framing crisis-related fiscal policy measures within medium-term economic trends. We start by describing briefly the macroeconomic situation and how the crisis unfolded in Spain (Section 2), before focusing on the situation of public finances in the pre-crisis period and the fiscal policy response to the financial crisis (Section 3). Section 4 is dedicated to the assessing the degree to which policy responses to the financial crisis were used as opportunities to introduce reforms of a structural nature and Section 5 provides some policy conclusions.

2. Impact of the financial crisis: the macro picture

2.1. National income

In the three decades prior to the financial crisis the Spanish economy experienced an unprecedented period of sustained economic growth, marked by the milestones of the integration in the European Union in 1986, and the adoption of the euro in 1999. Between 1970 and 2007 GDP per capita more than doubled in real terms. In particular, in the 1999-2007 euro era real GDP per capita increased by close to 20%, during a period of large net immigration, with average real GDP growth of some

4% per year. The reasons for this significant economic expansion can be linked to the fall in interest rates and the expansion of credit upon entry in the euro area, with the associated impulse to domestic demand and the extraordinary development of a housing market (see, for example, Estrada et al., 2009). Nevertheless, lack of supply response and low productivity growth generated a loss of competitiveness, a real exchange rate appreciation, sizeable current account deficits, and the build-up of external debt (see, for example, Hernández de Cos and Jimeno, 2013).

The subsequent economic crisis in Spain was severe. Between 2007 and 2013 real per capita GDP fell by 9%, while in 2014 this measure of welfare was still 7.6% lower than the peak year (2007) with part of the recovery due to outwards migration since 2013. In the euro area, only the countries subject to an Economic Adjustment Programme (i.e. Greece, Ireland and Portugal) suffered tougher downturns. This recession was more acute than those in the mid-1970s and early 1990s. In the case of Spain three phases can be identified in the recession: (i) Sharp fall in economic activity between 2008Q2-end 2009; (ii) Stagnation of economic activity from the beginning of 2010 to 2011Q1; (iii) Second dip of the double-dip recession, from 2011Q2 to end 2013. As discussed by Ortega and Peñalosa (2013), these three periods presented common features (persistent reduction of domestic demand; net positive contribution of the external sector; job destruction; downward trend in house prices), but also some idiosyncratic features. The heterogeneity of the latter among recession stages was linked to the different fiscal policy actions, different financial conditions, and the varying sensitivity of prices and wages to the unfavourable cyclical situation. The patterns of balance sheet adjustment and deleveraging by firms and households also changed over these years.

2.2. Labour markets

The impact of the economic downturn in Spain is especially visible in labour market data. Indeed, the ratio of the number of unemployed over population (16-64 years) surpassed its previous peak (of 15% in 1994) in 2011, and continued increasing to 20% by 2013 (Figure 1). This is the largest and steepest increase in unemployment of the last three decades. At the same time, the depth of the impact of the crisis on unemployment is exemplified by the dramatic fact that in 2 years there was a full reversion of the significant employment gains witnessed in the Spanish economy during the previous decade of economic expansion. This aggregate picture hides some differences between age groups. As Figure 1 shows, the largest increase in unemployment occurred among those aged between 16 and 29 (17ppt between 2007 and 2013). Nonetheless, the unemployment rate (defined as a per cent of population) of those aged 55–64 also increased, by 8ppt, a feature that had not been seen during previous crises, also due to the fact that participation rates did not fall significantly among this group in the recent crisis in contrast to previous episodes. Also employment rates plummeted among younger workers, while in the 55-64 age interval remained broadly constant (Figure 2).

After a period of real wage moderation between 1996 and 2006 (average compensation per employee in Spain grew broadly in line with CPI over this period), the increase in unemployment at the beginning of the crisis (2008-2009) was accompanied by real wage increases (Figure 3), reflecting one of the historical regularities of the Spanish labour market whereby crisis-related labour market adjustments are typically implemented via job destruction and not via lower wages. As of 2010, though, nominal wage growth slowed, on the back of the prolonged economic recession, consecutive labour market reforms, and tighter public sector wage settlements.[2] In a related fashion, it is worth mentioning that during the crisis there was a significant reduction in unit labour costs and an overall improvement of competitiveness, as measured by standard indicators, in such a way that a sizeable correction of pre-crisis cumulated imbalances took place.

3. Public finance response

This section explains how the position of Spain's public finances transformed from before the crisis to after, why the crisis resulted in the significant fiscal deterioration that was seen, and what the overall fiscal response was.

3.1. Fiscal stance before the crisis

In 2007 the Spanish general government accounts registered a fiscal surplus (of 2% of GDP) for the third consecutive year, while the public debt to GDP ratio stood at 35.5%, compared with the euro area average of 66%. Public debt in 2007 was at its lowest level for three decades. Between 1996 and 2007 the public debt to GDP ratio had been reduced by 30ppt, due to high real and nominal economic growth, decreasing interest rates and healthy fiscal positions. The 9% of GDP improvement in the budget balance between 1995 and 2007 was partly the result of the business cycle, and partly attributable to the decline in debt interest payments, above all because of lower interest rates as a result of EMU accession. The rest of the adjustment was due to the exceptional

[2] In particular, some studies show that the most recent labour market reform (2012) had a positive effect on wage moderation (see Banco de España, 2014). Also public wage leadership in a situation of economic slack has been claimed to be a factor beneficial for labour market adjustments in Spain (Lamo et al., 2015).

increase in tax revenues, largely linked to the real estate expansion,[3] which more than offset significant tax cuts which were enacted just before the onset of the crisis (see Table 1 and Banco de España, 2011).

In 2007 public spending stood at 38.9% of GDP. Social protection constituted the most significant part (33%), followed by the basic welfare services of health and education (25%) (Figure 4a). Within social protection, half of the spending was on old age benefits (Figure 4b), while unemployment spending accounted for 12%, despite the decade long economic expansion. In the pre-crisis period (1995-2007), primary public expenditure, net of unemployment benefits, in particular spending by the subnational levels of government, grew in real terms (using the consumer price index) at an annual rate of 4%, above trend real GDP growth (see Banco de España, 2011). The pro-cyclical bias in spending is a documented fact for OECD economies, and tends to be linked to buoyant public revenues (see De Castro et al., 2014).

General government tax revenues (including actual and imputed social contributions and capital taxes) increased by close to 5% of GDP between 1995 and 2007 to reach 37.4% of GDP in the latter year (with total revenues at 40.9%). Actual social security contributions (Figure 5) were one third of the total (11.9% of GDP), similar to direct taxes (12.7% of GDP) and indirect taxes (11.5% of GDP). Within the last, stamp duties and property taxes amounted to some 2.5% of GDP, a significant amount, in absolute and relative terms, which was related to the housing sector boom.

Official projections given at that time by the Stability Programme 2007-2010, signalled a continuation of the fiscal surplus and further declines of public debt (see figures 6 and 7). However, various authors have noted that, in the pre-crisis period, budgeted government spending had a tendency to under-estimate, ex-post, actual spending. The latter fact is in part related to the consistent underestimation of government revenues during the same period, linked to the buoyancy of economic activity. In this respect, since the beginning of the crisis there was a tendency towards over-optimism in Spain’s official macroeconomic projections, which carried over to government revenue forecasts. These are features shared with many other OECD governments.[4]

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[3] The significant increase in public revenues during the expansion was not fully of a structural nature. Rather, some studies identified a substantial temporary component (see Zack et al., 2014 and the references quoted therein).

[4] Box 1 describes the different phases of the budgetary process in Spain. The process for deciding the central government budget was broadly similar at the end of 2014 to the one in place in 2007.

3.2. How did the crisis affect the public finances?

In 2008 the fiscal balance deteriorated from the 2% of GDP surplus described above to a fiscal deficit of 4.4% (i.e. 6.4ppt weakening in just one year), exposing the vulnerabilities of Spain's public finances. On the one hand, public revenues dropped by 4.2ppt, as pre-crisis temporary revenue windfalls unwound, while spending increased by 2.2% of GDP due to the usual inertia of budgeted expenses.

Thus, the deterioration of the government balance was of a structural nature, with the cyclically-adjusted budget deficit moving, according to current European Commission estimates,[5] from a figure of -0.3% of GDP in 2007 to 5.2% in 2008. Real-time estimates of the fiscal structural balance, though, failed to anticipate this sizeable structural deterioration (see, for example, Zack et al., 2014).

The subsequent continued worsening of the fiscal situation due to the depth of the crisis, including the adverse effects on the Spanish economy's level of potential output, was further exacerbated in 2010 through contagion from the Greek and Irish crises. The associated pressure of markets also affected the national financial system, which in turn exacerbated pressure on the public finances, as it had in other countries, though mainly at the very beginning of the crisis.[6]

3.3. What was the fiscal response to the crisis?

In Figure 8 we present a counterfactual, static exercise in which we assess which might have been the path of the budget balance, revenues and expenditures in the absence of policy action.[7] From the figures it is apparent that after some initial policy loosening, the absence of policy action as of 2010 would have led to unsustainable public deficit dynamics. In the baseline exercise, absent policy action, the public deficit would have increased monotonically over the considered period. In

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[5] AMECO database, March 2015.

[6] See, for example, Banco de España (2011) and Hernández de Cos, Izquierdo and Urtasun (2011).

[7] To do so we recreate in an iterative way government revenues and expenditures in each year netting out the estimated direct effects of discretionary policy measures. On the revenue side we use the estimates provided in Table 1 plus other, smaller measures taken from Gil et al. (2015). On the expenditure side, for social payments we use the estimates provided in Table 2. For public wages, we take as measures the wage freezes of 2010-2014, the wage cut of 2010, and the one-off elimination of the extra payment of December 2012. For public employment we use estimates of the measures provided by Montesinos et al. (2014). For the rest of spending items we estimate no-policy-action paths on the basis of convergence to medium-term trends in the different items.

panel 2 of Figure 8 we also provide a counterfactual path in which we allow for the endogenous response of the economy to the budgetary stance using standard multipliers, and under the strong assumption that there would have been no market reaction to the lack of fiscal adjustment. In that case, the public deficit would have stabilised at 10% per year over 2011-2014.

The fiscal response to the crisis has had three distinct phases: (i) 2008-2009 in which a number of counter-cyclical public revenue-decreasing and spending-increasing measures were implemented; (ii) 2010-2011, the first phase of the fiscal consolidation period; (iii) 2012 onwards, the second, stronger phase of the fiscal consolidation period, in which a significant number of structural fiscal reforms were approved and implemented. The pace of fiscal loosening and tightening is highlighted by the changes in the structural public deficit (see Figure 9). In net terms, in the first period, the impact of policy measures and the dynamics of the crisis (including the automatic rise in unemployment benefits) led to a reduction of government revenues between 2007 and 2009 of 6.1% of GDP, and an increase of spending of 6.8% of GDP. In the second (2010-2011) and third periods (2012-2014), almost half of the deterioration was reversed, due to a net increase in revenues between 2009 and 2014 of 3.0 pp. of GDP and a net decrease in spending of 2.3 pp.[8], a result that was achieved in an extremely adverse macroeconomic environment. In fact, the debate about "austerity versus growth" has been a constant in academic and policy circles in Spain in the past few years. Advocates of fiscal consolidation convincingly argued that the size of the cumulated fiscal imbalances made the need for a firm fiscal consolidation plan inevitable. In addition, there was room to mitigate the negative effects of fiscal adjustment through, in particular, reductions in the painful interest rates that not only the sovereign, but also corporations and households had to bear. On top of this, given likely short-run negative effects on growth (see, for example, De Castro et al., 2014; Hernández de Cos and Moral-Benito, 2013), it was also necessary to launch an ambitious program of structural reforms that could help in raising potential growth (Hernández de Cos and Jimeno, 2013).

The initial, counter-cyclical response to the crisis, led to the implementation of expansionary fiscal policy measures, many of them pursued in the framework of a coordinated EU plan. The positive impact on the economy is hard to assess, though some studies claim that it would have been limited and temporary, given in particular short implementation lags for spending plans (Bouthevillain et al., 2009). The fact is that the expansionary measures contributed to a deficit deterioration that was already significant due to the economic downturn, the unwinding of transitory revenue factors, and also the delayed impact of two broad-based tax-cutting reforms (personal income and corporate

[8] The net decrease in primary public expenditure (i.e. when interest payments are excluded) between 2009 and 2014 amounted to 3.8 percentage points of GDP.

income) that were approved before the crisis emerged (see Figure 8 and tables 1 and 2). All in all, the public deficit reached a historical peak of 11.0% of GDP in 2009, down from the also historical 2% surpluses of 2006 and 2007.

Thus, fiscal consolidation started in 2010 as a "must", given also the pressure stemming from financial markets, as discussed above. The 2010 Budget included some deficit-cutting measures, including the withdrawal of some of the extraordinary expansionary measures of 2008-2009, and a VAT hike from 1 July, among others. These were supplemented by the approval of a package of measures in May 2010 mainly involving an additional cut in spending of around 1.5% of GDP for 2010 and 2011, including most notably a cut in public-sector employees' compensation as of June 2010, a reduction in public investment and a freeze on public-sector wages and pensions in 2011. The latter package was part of a euro-wide response of countries under fiscal stress. At the same time, in June 2010, the European Council set the EDP deficit-reduction path at 9.3% of GDP, 6.0% of GDP and 4.4% of GDP in 2010, 2011 and 2012, respectively. In September, the State budget for 2011 validated the consolidation measures taken, introduced further cuts to other budgetary items and provided for specific tax increases.

The consolidation strategy defined by the government intended to bring forward the bulk of the adjustment to the 2010-2011 period, underpinning it with spending cuts, many of which were of a structural nature. The public finances outcome at end-2010, entailing a general government deficit equivalent to 9.4% of GDP, showed that the measures adopted in 2010 had proven effective in reversing the upward trajectory of the budget deficit. Nevertheless, target deficit-to-GDP ratio of 6.0% for 2011 was significantly missed as the outturn published in the Spring 2012 EP Notification unveiled a deficit of 8.5% of GDP for 2011. This deviation was a major surprise to independent analysts. Indeed, in December 2011 the public deficit consensus forecast was 6.5% of GDP. The fall in government revenue associated with the second dip of the double-dip recession and significant spending slippage by regional governments, were the main factors behind the budgetary deviation. In the latter respect, lack of transparency in budgetary execution during the year and statistical misreporting of regional public spending in real-time prevented a correct anticipation of the deviation (see Pedregal et al., 2014). The lax fiscal behaviour of regional governments occurred despite steps taken by central government to increase the pressure on regional governments for them to respect their deficit limits, e.g. by strictly linking debt issuance authorization to the approval of rebalancing plans and effective budget execution. The EDP deficit-reduction path was revised subsequently by the European Council, granting an extension for the correction of the excessive deficit.

As of end-2011, a more comprehensive consolidation programme was launched, with changes to existing taxes and the introduction of new taxes (in particular, environmental), and broad-based spending policies. Tax measures are described in detail in Table 1 (for more specific details see Gil et al., 2015). As regards spending measures, they affected all the subsectors of general government, not only central government. In particular, actions were taken on education and health spending, which are managed by regional governments. Cost-cutting measures affected purchases of goods and services (such as pharmaceutical spending) and personnel spending. Wage bill containment included the implementation of central government measures that applied to all government subsectors between 2012 and 2014, including wage freezes, strict limits for the replacement of retired public employees and a recruitment freeze. In 2012-2014 these measures were instrumental in reversing, almost entirely, the overshoot in public employment seen between 2008 and 2010 (see Montesinos et al., 2014). In addition, increases in hours worked by public employees meant that the overall amount of hours worked by government sector employees has remained broadly stable despite a reduction in headcount. Whether or not this continued to allow a proper functioning of public services, is an issue of current controversy, pending rigorous studies on the efficiency of the government sector before and after the crisis. The implementation of these coordinated austerity efforts across levels of the public administration was facilitated by a new framework of fiscal rules, which is briefly described in section 4.3.

In June 2012 the government applied for EU financial assistance for the recapitalization of part of the country's banking sector. After the programme started in December 2012, the European Stability Mechanism (ESM) disbursed a total of 41.5bn euro (some 4% of Spanish GDP) to the Spanish government. After just 1 year Spain successfully exited the programme, and there was no need to request follow-up assistance from the ESM.[9] The ESM loan and other more general support for financial institutions were implemented via the "Fund for Orderly Bank Restructuring". Between 2009 and 2014 the total net increase in public debt due to these operations was of 54bn

[9] The Spanish government applied for financial assistance from the Member states to support its banks, as it envisaged potential problems in carrying out the necessary recapitalisation of its banks independently as a result of its difficulties accessing the markets. On 20 July 2012, the Eurogroup approved the bank programme. The programme was for a maximum volume of 100bn euro and had an envisaged duration of 18 months. All of the implementation reports from the European Commission and the ECB confirmed that the programme's conditions were being met on schedule. The final amount disbursed was far less than half of the ceiling of 100bn, and the programme ended on 23 January 2014, half a year before the deadline. Also, since July 2014 the government has been making early repayments of its ESM loan.

euro (around 5% of 2014's GDP).[10] Part of the initial public funds has already started to be recovered.

Central government also put in place a number of financial funds to support regional governments in trouble. Despite potential moral hazard problems, which can be particularly acute in such a fiscally decentralized country as Spain, the funds were instrumental in stopping region-to-region fiscal contagion. In particular, in March 2012, the government created the "Fund for the Financing of Payments to Suppliers" (FFPP), which was created with the aim of paying down commercial debt that subnational governments had built up with their private sector providers during the crisis; this was in place until early 2014. Payments by the FFPP increased government debt. In order to understand this impact it is important to acknowledge that trade credits to suppliers are not generally included in the definition of EDP (Maastricht) debt, although they are accounted for within the statistics computing the total liabilities of the general government. Thus, the repayment involved the transformation of trade liabilities into EDP debt (see Gordo et al., 2013). Other liquidity-support measures were implemented in parallel to the FFPP, and are still in place.

Beyond the impact on public debt, from the macroeconomic point of view it is worth acknowledging that these plans to pay down accounts payable with corporations led to the injection of funds valued at 7% of GDP to the private sector between 2012 and 2014, which may have mitigated the short-run negative effects of fiscal consolidation measures (see Delgado-Tellez et al., 2015).

Despite the fact that government deficit targets were broadly on track in 2012, 2013 and 2014, public debt remained on an increasing path, due to the still high public deficits, the assistance measures to the financial sector and the absorption of commercial debt into EDP debt.

Current medium-term plans (see Panel 4 of Figure 8 and Table 3) are designed to stabilize and then reduce public debt and envisage a significant further decrease in spending as a share of GDP by 2018 (bringing it back down to 2007 levels) and a mild, continuous increase of the revenue ratio on the back of the projected gradual economic recovery. The spending reduction is to be achieved by savings related to ongoing broad-based public sector reforms. We describe these policy changes in the next Section.

[10] See Gordo et al. (2012) and the web page of the FROB for updated numbers.

4. Policy responses: an opportunity for reform?

4.1. Changes to taxes and benefits

Tax reform during the crisis affected most taxes, in particular direct and indirect taxes. It is hard to assess the distributional impact of so many changes on the tax side. It is also potentially misleading to do this using a static micro-simulation model (as other papers in this special issue do for other countries) because of the significant concurrent increase in unemployment, the correction of other macroeconomic imbalances and the more general structural break in the potential output of Spain during the crisis, with a rebalancing of production across economic sectors still ongoing. The combination of these factors makes it difficult to assess the general equilibrium effects of changes to taxes on the income distribution. However, it is possible to provide a broad outline of the measures taken and the effects these might have had.

On the tax side, the main revenue-raising reforms were to VAT and personal income tax. The main rate of VAT was increased from 16% to 21% between 2010 and 2012, alongside some increases in the reduced rates. At the same time there were increases in income tax increases targeted at those on higher-incomes. These crisis-related measures were designed with the principle aim of controlling the budget deficit, while income distribution concerns were only a subsidiary objective. What is more, the issue of the "optimal policy design" was not fully internalized, given fiscal consolidation pressures. More recent measures, like the tax reform enacted in 2015, may have somewhat shifted the focus. This reform aims at reducing the burden of direct taxation, particularly on lower-earners, by reducing marginal tax rates on personal income. Specifically, the number of tax tranches is to be reduced from 7 to 5, and the tax rates within each tranche are to be lowered, while significant tax credits are also to be made available to certain groups of taxpayers (low-income earners, families with children). Overall this income tax reform is expected to have a budgetary net cost of between 0.5% and 1% of GDP in 2015 and 2016.[11]

Concerning changes to benefits, Table 2 lists and quantifies the most significant measures implemented, showing that only a very small part of the active fiscal tightening measures enacted since 2010 were through benefit changes. As regards unemployment benefits, they were a crucial support of unemployed people’s income during the crisis, with spending doubling as a ratio to GDP from 1.5% in 2007 to 3% in 2010-2013. Yet, the escalation of unemployment spending led to the

[11] Nonetheless, as regards "opportunities to reform" the tax reform falls short of the comprehensive focus advised by both international organizations and the Experts Committee created by the Government on July 2013 on which to base the reform (Hernández de Cos and López-Rodríguez, 2014).

implementation of permanent measures aimed at tweaking the incentives of recipients in their search for a new job. More recently, the increasing transition of unemployed people to a long-term unemployment situation, and as such out of the more generous contributory benefit into different forms of subsidies, is increasingly testing social cohesion given the still very high level of unemployment.

Old-age and survivors' pensions were also relatively insulated from across-the-board spending cuts. Their ratio to GDP increased from 7.5% in 2007 to 11.2% in 2014, with average pension displaying a nominal increase of close to 4% per year, on average, over the period 2008-2014, while inflation (measured by the Harmonised Index of Consumer Prices, HICP) averaged less than 2% over the same period. Even though pensions in Spain up to 2013 were revalued in line with inflation, including safeguard clauses in case of deviation between forecast and actual inflation, favourable composition effects derived from cohort differences pushed average per-pensioner spending above the inflation reference. The most recent reform (to be discussed briefly in section 4.3.3) includes a revaluation floor of 0.25% per year and a ceiling of inflation plus 0.5%, to be activated depending on the health of the social security system. Pensions have been revalued in line with the floor in the fiscal years 2014, 2015, and 2016. Thus, despite the limited effect of short-term cost-cutting measures on pension benefits during the crisis, policy measures of a more structural nature would constraint per-pensioner spending in the medium-term.

Some papers have looked at the direct effects of tax-benefit policy changes on household incomes, using microsimulation approaches (see, for example, De Agostini et al., 2014 and the references quoted therein). These papers provide interesting cross-country results and insights, even though they tend to leave aside general equilibrium effects, in particular, the potentially larger effects on income distribution from labour market, financial and macroeconomic developments. In addition, behavioural responses to tax and benefit changes differ depending on the state of the economy (see, for example, Hernández de Cos and Moral-Benito, 2013, and the references quoted therein) a fact that it is not typically taken into account by microsimulation approaches. With these caveats in mind, we proceed now to review the main results that De Agostini et al. (2014) provide for the case of Spain (2008-2013) using EUROMOD, a tax-benefit microsimulation model for the EU. These results are of a similar order of magnitude to other studies available for the Spanish economy.

First, De Agostini et al. (2014) evaluate the percentage change in average (equivalised) household disposable income between 2008 and 2013 due to policy changes.[12] When the effects of 2008 policies are indexed in line with market incomes, the reduction in the effect of tax-benefit policies

[12] The counterfactual is given by income in 2013 without changes in policy measures.

in Spain is equivalent to 2.9% of total household disposable income, the fourth largest among the group of 12 EU countries considered in the study. When 2013 policies are instead compared with 2008 policies without any indexation, capturing the effect of policy changes in nominal terms, the 2013 system results in household incomes that are 1% lower in nominal terms than under the 2008 system, despite increases in the nominal value of public pensions. In the first scenario pensions rose less than market incomes causing household disposable income to drop. By type of policy measure, the main negative impact on households' disposable income in Spain came from increased income taxes in both indexation scenarios.

Second, regarding the incidence of policy changes across the income distribution (i.e. the proportional change in average household disposable income by decile group) in 2008-2013 in Spain, policies had a broadly progressive impact. Overall, higher income groups contributed more in relative terms to the fiscal retrenchment, except for the bottom decile group. This progressive effect is mainly derived, according to De Agostini et al. (2014), from income tax measures (see Figure 10). In the bottom decile group, though, the fall in non-pension benefits was the most influential policy. The negative effect on this group might be related to the incidence of unemployment insurance and assistance cuts as of 2011 (see Table 2) and restraints on other social benefits relating to children and benefits paid by regional governments (see Appendix 3 in De Agostini et al., 2014).

4.2. Changes to public service spending

Most of the reduction in public spending as a share of national income is being brought about by reductions in spending on public services. The cuts were deep between 2010 and 2013. As Table 3 shows, over this period there were nominal declines in almost all areas of public service expenditure. Between 2013 and 2018, policy plans imply spending falling further as a share of GDP. However, over this period, this is intended to be achieved by spending growing in nominal terms but less quickly than nominal GDP; the only exceptions are general public service expenditure and, to a lesser extent, environmental protection, which are set to continue declining in nominal terms. Current plans up to 2018 are to rely more on measures of a structural nature, rather than on further bold cost-cutting actions. According to the April 2015 Stability Programme, public expenditure will fall from 44% of GDP in 2014 to 38.4% in 2018. In the next Section we elaborate a bit more on the nature of the "fiscal-structural" reforms that are to drive the spending side of the budget in the medium-term.

4.3. Structural fiscal reforms

Many structural reforms affecting the labour and products markets have been implemented since 2010 (see Ortega and Peñalosa, 2013). In this section, though, we focus on the main reforms of this kind that affect the government sector.

4.3.1. Fiscal rules: budgetary framework, transparency and the Independent Fiscal Responsibility Authority

The coordination of the fiscal effort across levels of the public administration, as well as the achievement of overall budgetary targets in the past few years, owes a great deal to the changes implemented in the framework of fiscal rules, both national and supranational. The first milestone was the approval by Parliament, in September 2011, of a reform of the Spanish Constitution to strengthen the principle of budgetary stability. Subsequently, in April 2012, a new Budgetary Stability Law was passed that developed the Constitutional mandate by making significant amendments to the definitions of, and the mechanisms for, determining the deficit, debt and public spending limits applicable to the different levels of government. In addition it introduced detailed procedures for setting objectives and monitoring and controlling their fulfilment (see Hernández de Cos and Pérez, 2013). The Budgetary Stability Law also entailed a substantial improvement in terms of the transparency of general government conduct, in particular with the regular publication of regional and local governments' budgetary data following national accounts standards (monthly and quarterly, respectively).

The national budgetary framework was also reinforced with the creation of an "Independent Fiscal Responsibility Authority" (AIReF) which is tasked with fiscal policy analysis, advisory and monitoring functions to ensure government compliance with the principle of budgetary stability, and the evaluation and validation of government's economic forecasts. Such institution could progressively play a role in strengthening the credibility of fiscal policies in Spain. The AIReF is formally independent, and its president is appointed by the Parliament, even though organically it depends on the Ministry of Finance, which has approval rights on its budget. The AIReF is granted access to all public administration's data and information in order to perform its tasks.

4.3.2. Structural public spending reforms

Since 2012, the Spanish government has adopted various initiatives to reform the public administration and increase efficiency, under the umbrella of the so-called Commission to Reform the Public Administrations (CORA). The commission organized its proposals in four areas: administrative duplication; administrative simplification; service delivery and shared services; and institutional administration. The 2013 CORA report includes 217 proposals that affect all levels of government (see OECD, 2014). In fact, being Spain an extremely fiscally-decentralized country, initiatives to, for example, eliminate duplication among tiers of the public administration, and to develop means of maximizing synergies among administrations are warranted. Ongoing simplification processes also relate to public corporations. In addition, within the "administrative duplication block", a local government reform was introduced in 2014. This reform seeks to remove duplication between the local government and other government sub-sectors, to streamline the number of local entities and to rationalize the services they provide.

4.3.3. Pension system reforms

The gradual ageing of the population present in the demographic projections for most developed (and many developing) countries, and its pressure on pension spending, also applies to Spain. With a view to counteracting these trends a number of pension reforms have been passed over the past few years in Spain. A first reform of the pension system was approved in 2011. Among other changes, the legal retirement age was increase from 65 to 67 (through a gradual increase from 2013 to 2027), and the earnings record used to determine full pension benefits and the number of years of contributions required to obtain full pension benefits will gradually increase, among other changes (see Banco de España, 2011, Box 2.3). Further changes to the pension system were also passed in early 2013. Most importantly, in 2014, a more comprehensive law was passed to regulate the “sustainability factor” and “revaluation index”. The sustainability factor ties the evolution of pensions to life expectancy and will be applied as of 2019. The revaluation index, which is applied as of 2014, replaces the annual pension indexation based on inflation with a formula which takes into account the structural deficit or surplus of the social security system, subject to minima and maxima of +0.25% and “CPI inflation + 0.5%”, respectively (see Ramos, 2014).

According to the latest available official estimates, the ratio of age-related spending to GDP should be stabilized in the long-term by these reforms (see Table 4). In particular, compared to a projected pre-reform increase of pension expenditure of 3.6% of GDP between 2010 and 2060, the updated simulation yields a slight fall of 0.4%. The main driving forces behind the impact of the reforms are the operation of the revaluation index and the sustainability factor (see Ramos, 2014).

5. Conclusions

Spain’s public finances have been under significant stress during the crisis, despite the apparently benign initial conditions (i.e. the fact that, before the crisis struck, the Spanish government was running a fiscal surplus and had a low level of public debt). The impact of the crisis and an initial phase of counter-cyclical activism exacerbated the existing (structural) fiscal vulnerabilities. To deal with the correction of fiscal imbalances, a significant number of tax, public spending and institutional policy measures were implemented between 2010 and 2014, some of them with a medium- to long-term bearing on fiscal sustainability.

In spite of the bold steps taken, major challenges still remain on the fiscal side, as the stock of public debt in 2014 was close to 100% of GDP, a deep tax reform is still pending, and the yields of ongoing fiscal-structural reforms are yet to be seen in full.

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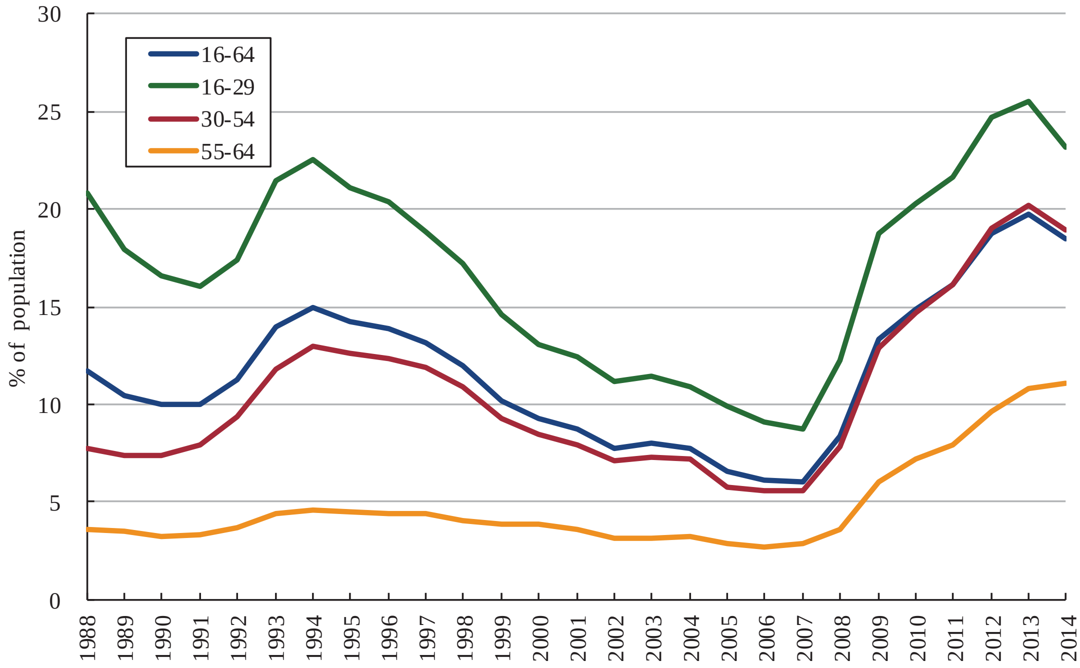
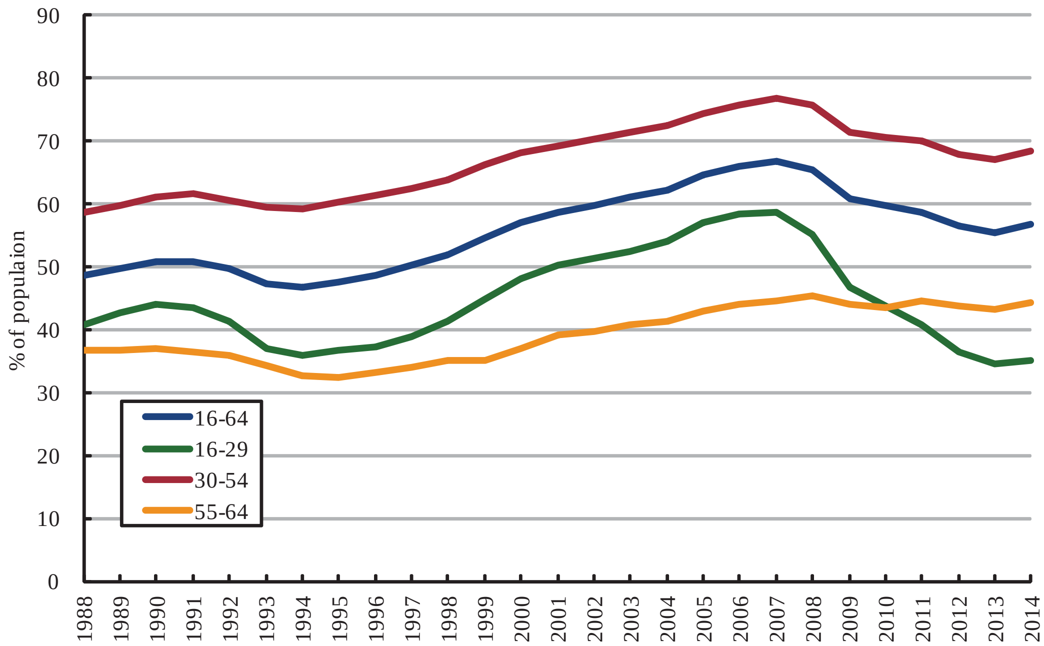
Figure 1. Evolution of Spanish unemployment by age group.



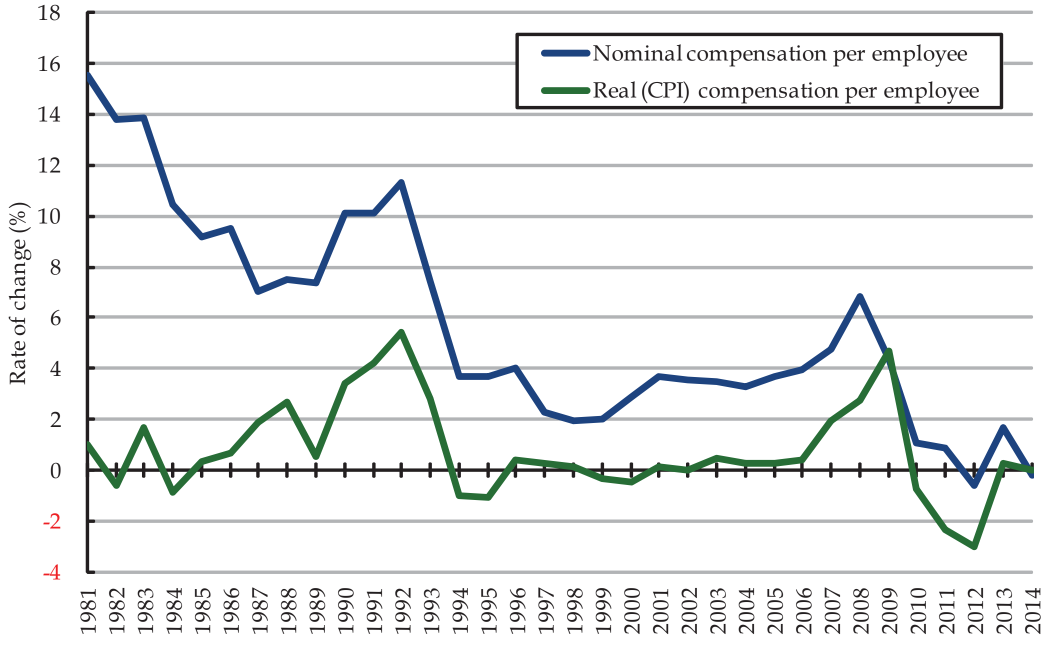
SOURCE: National Statistics Institute (INE).

Figure 2. Evolution of Spanish employment by age group.



SOURCE: National Statistics Institute (INE).

Figure 3. The evolution of wages (nominal and real) in Spain.



SOURCE: National Statistics Institute (INE).

Figure 4a. Composition of public spending 2007 (% of GDP)

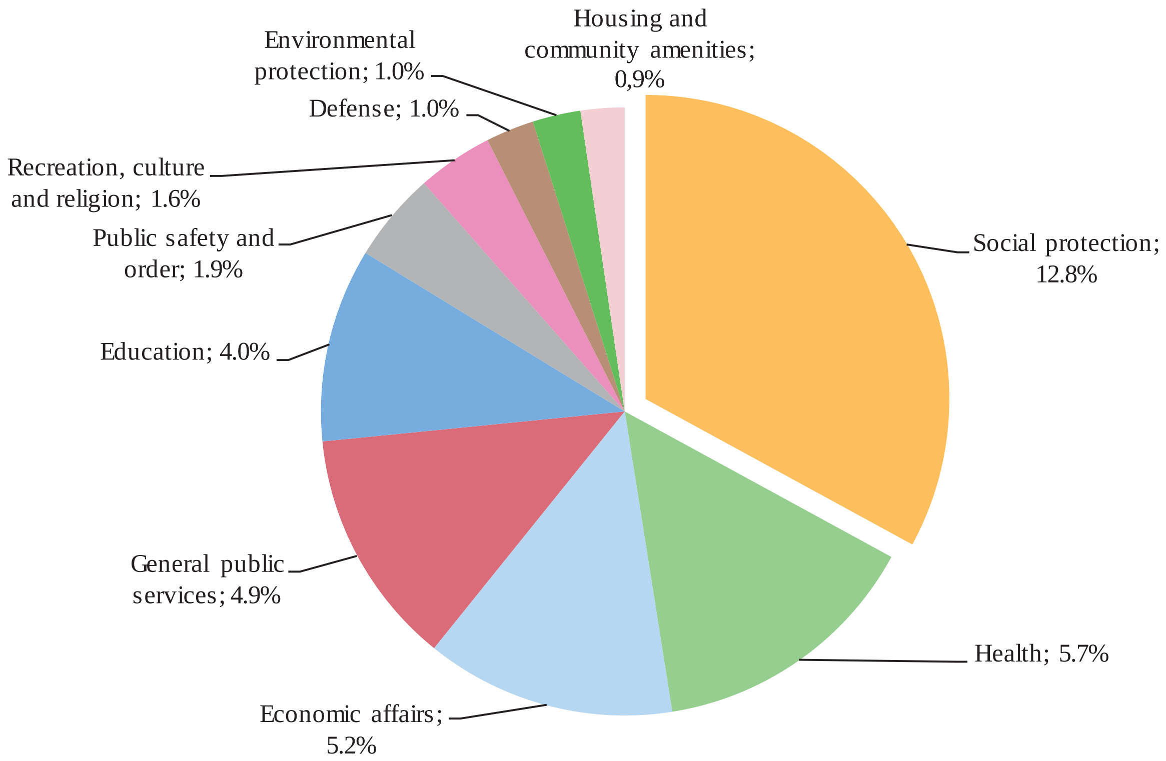
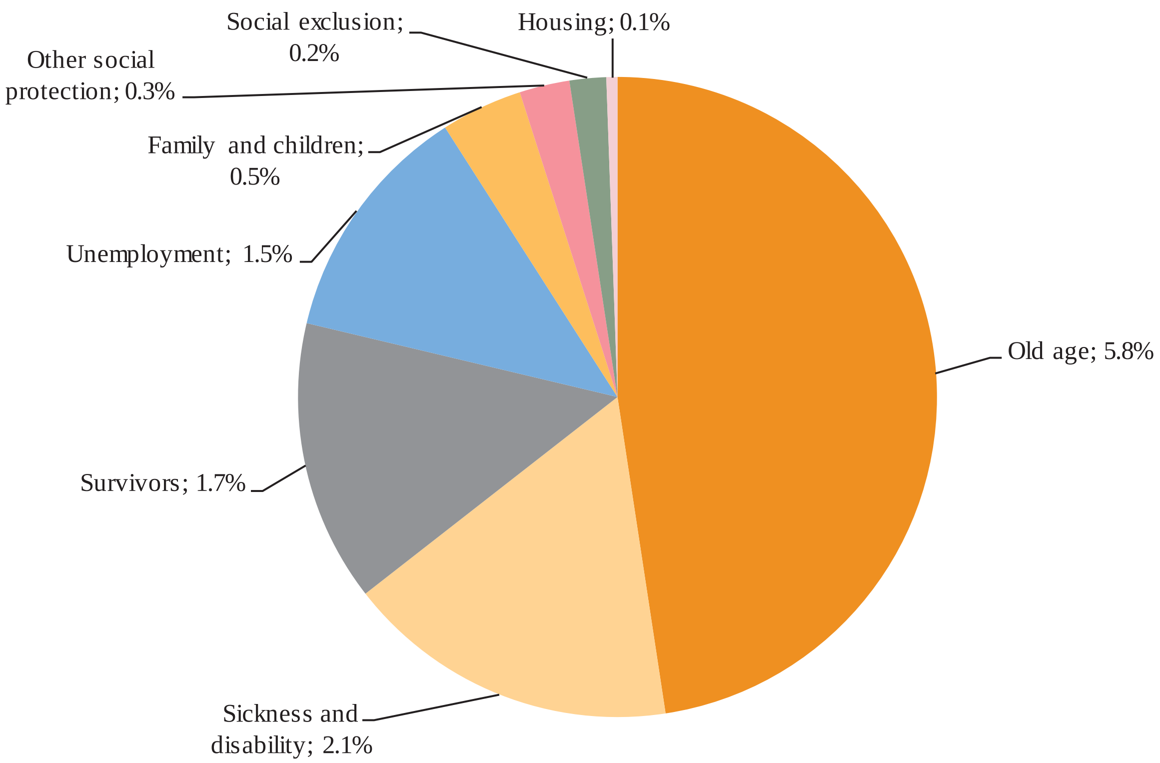


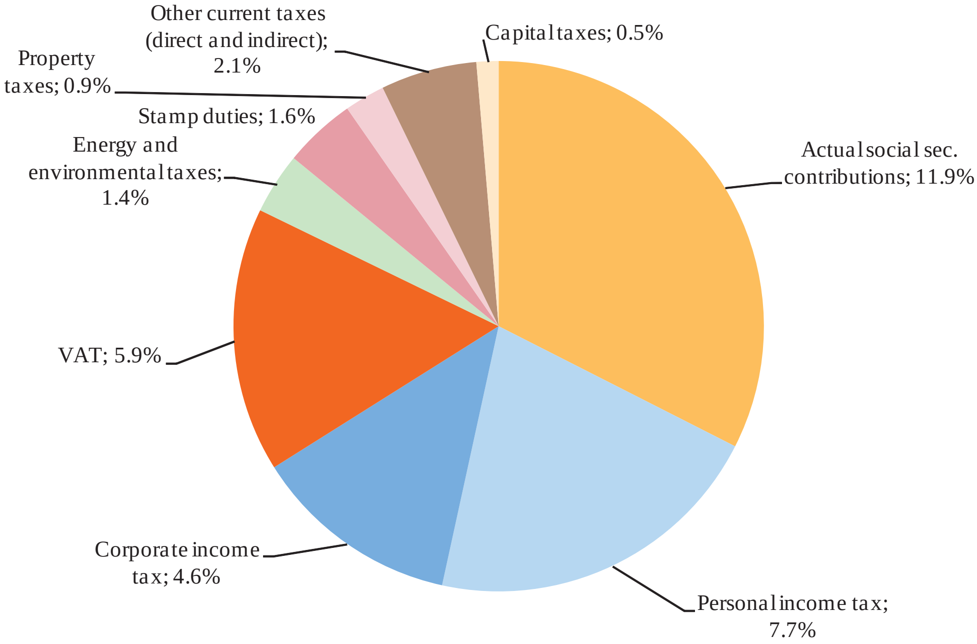
Figure 4b. Breakdown of Social protection 2007 (% of GDP)



NOTE: Due to data availability, the breakdown of Social protection in Figure 4b is based on European System of National and Regional Accounts, ESA 95, instead of the ESA2010 standard on which Figure 4a is based.

SOURCE: General State Comptroller (IGAE). ESA 2010 data.

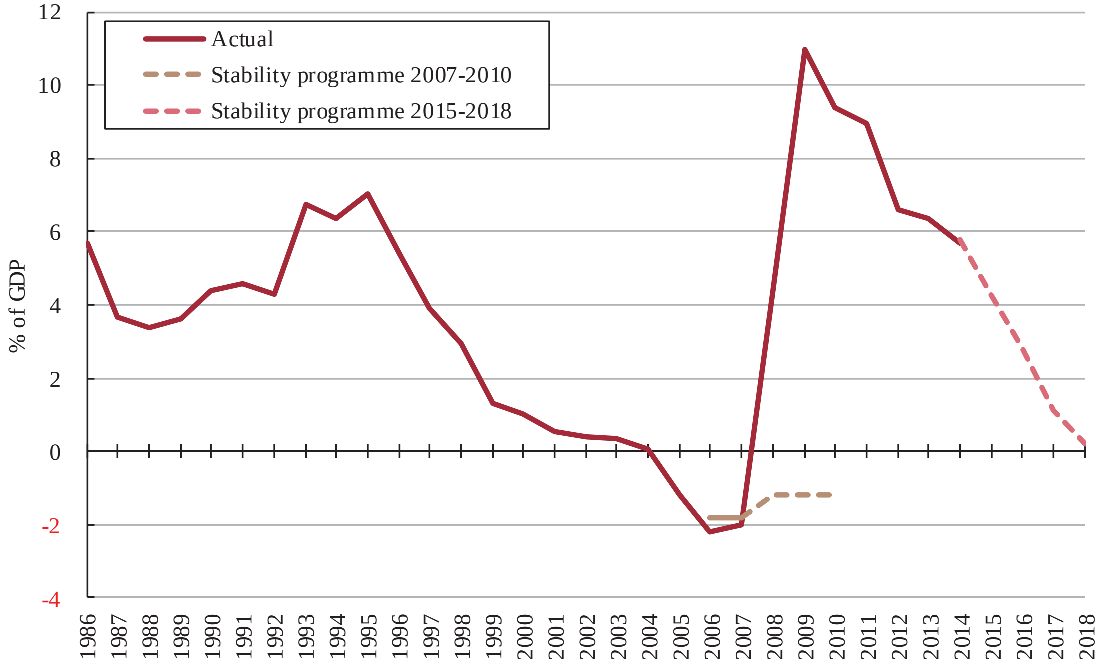
Figure 5. Taxes and social security contributions in 2007 (% of GDP)



NOTE: data does not include adjustment for taxes unlikely to be collected.

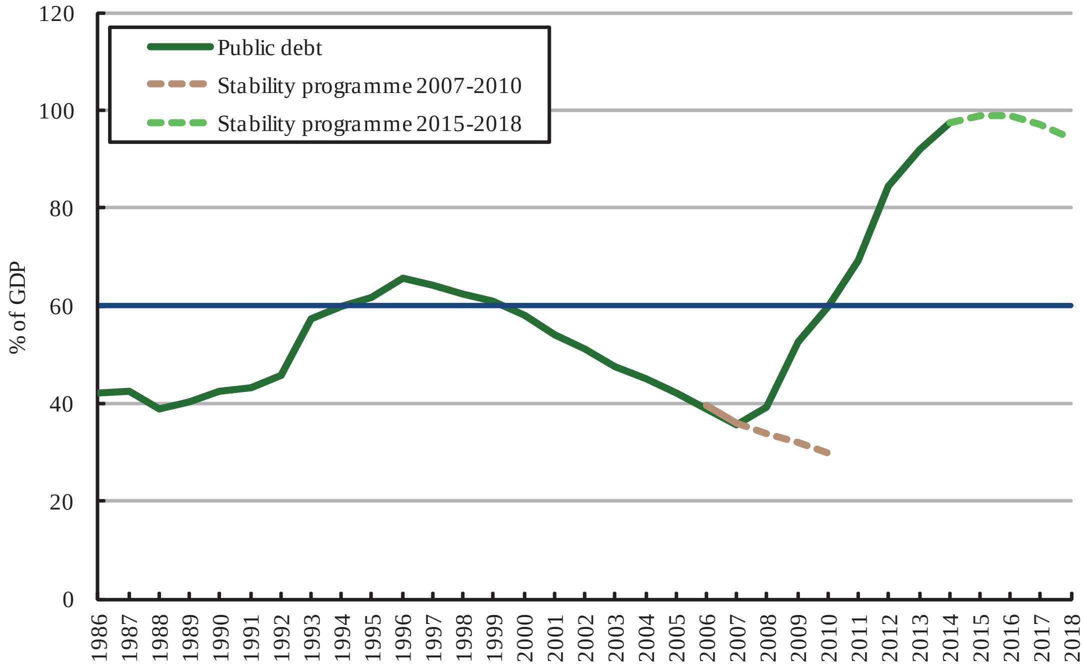
SOURCE: General State Comptroller (IGAE). ESA 2010 data.

Figure 6. General government sector net lending (-) or net borrowing (+)



SOURCE: General State Comptroller (IGAE), Ministry of Finance and de Castro et al. (2015) (years 1986-1994). Figures exclude one-off support to the financial sector.

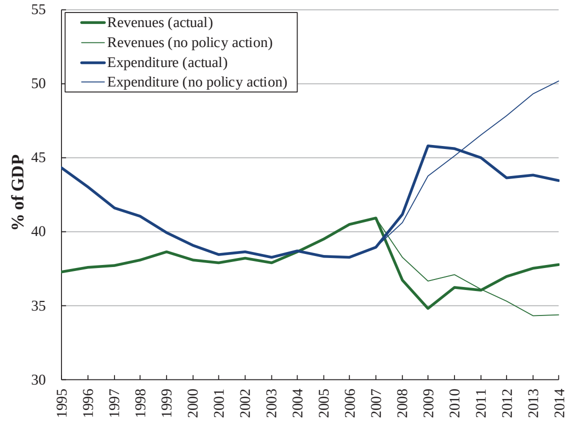
Figure 7. General Government sector debt. (a)



SOURCES: Banco de España, Ministry of Finance, and de Castro et al. (2015).
(a) Excessive Deficit Procedure (EDP) definition (Maastricht definition).

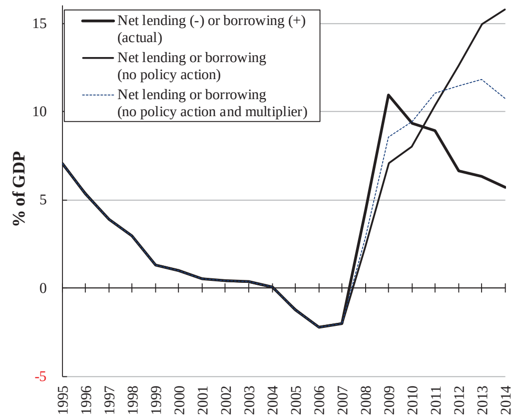
Figure 8. Taxation, expenditure and net lending (-)/borrowing(+), with and without policy response

Panel 1. Revenues and expenditure: the policy response



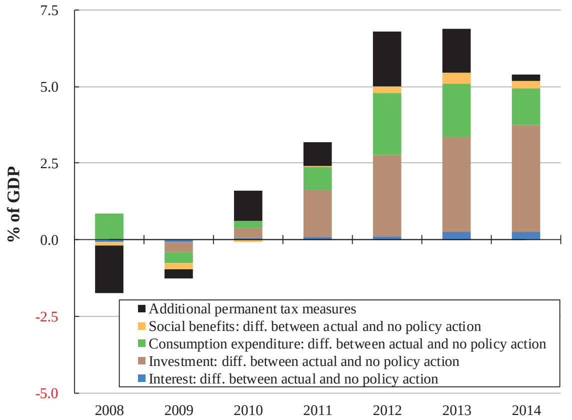
NOTE: Expenditure figures net of support to financial institutions.
SOURCES: Authors' own ellaboration on the basis of Tax Agency, IGAE and Gil et al. (2015).

Panel 2. Net lending/borrowing: the policy response



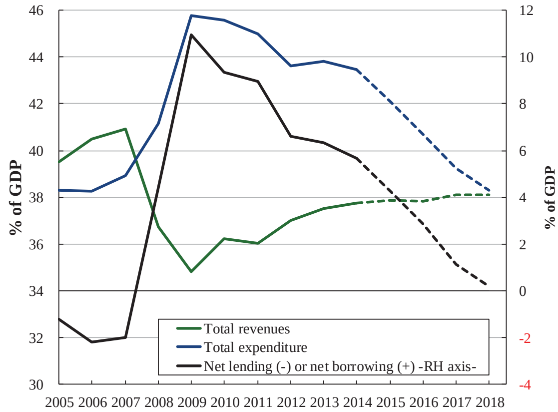
NOTE: Figures net of support to financial institutions.
SOURCES: Authors' own ellaboration on the basis of Tax Agency, IGAE and Gil et al. (2015).

Panel 3. Policy response by type of fiscal instrument



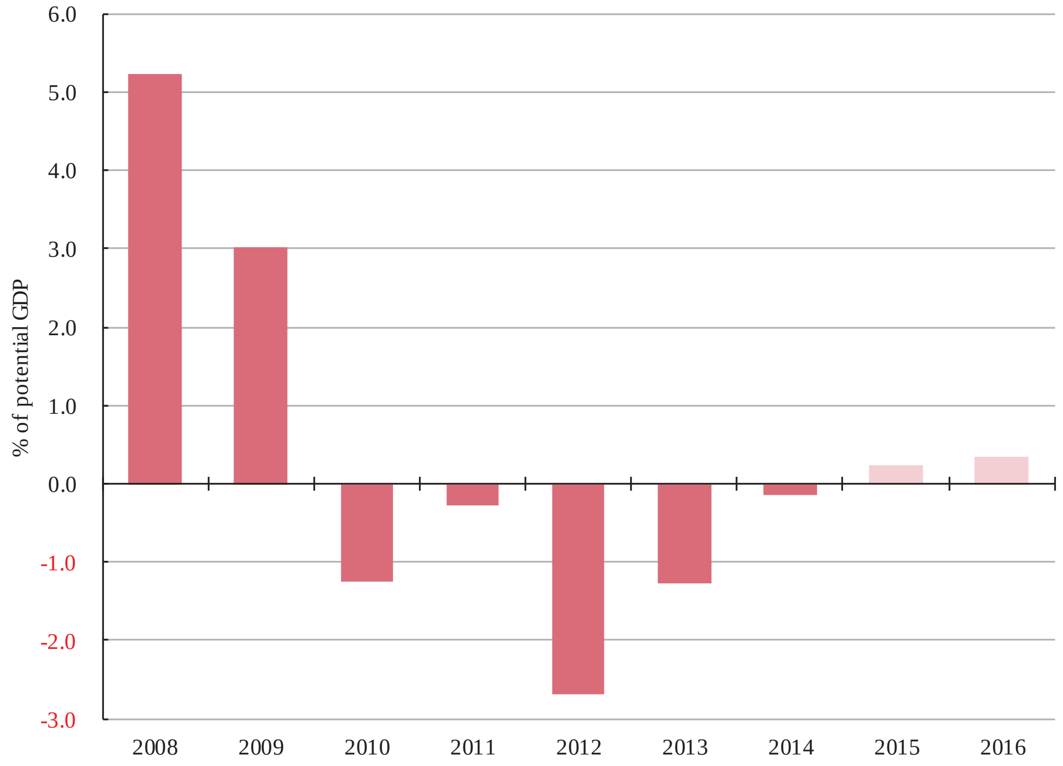
NOTE: Difference between the 'actual' and 'no policy change action' approaches. Impact on net lending (-).
SOURCE: Author's own elaboration.

Panel 4. The current fiscal policy strategy of the government



NOTE: data net of support to financial institutions.
SOURCES: Ministry of Finance and Stability Programme 2015-2018.

Figure 9. Change in General Government Structural Deficit (fiscal stance).

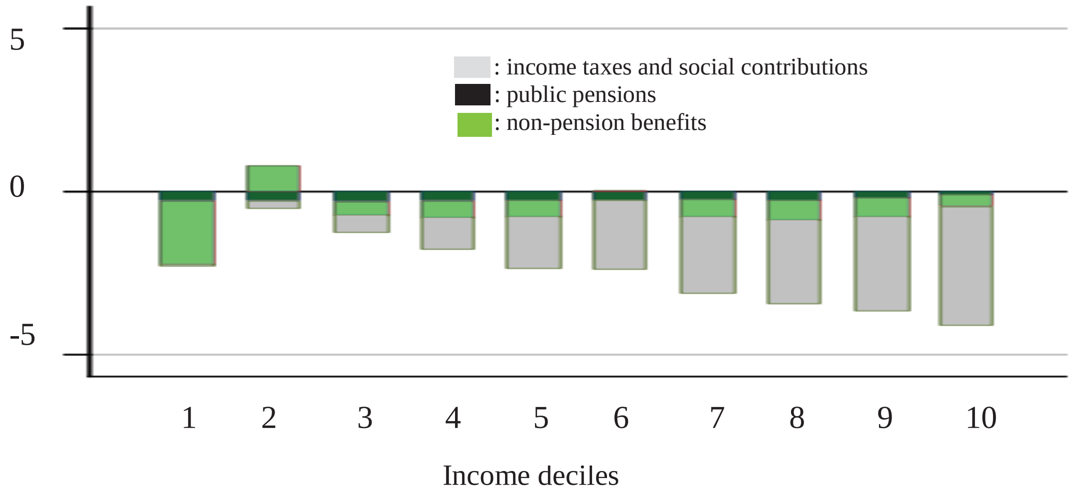


NOTE: Actual balance is adjusted for the cyclical component and one-off factors and other temporary measures. Data on one-off and other temporay measures for the years 2008-2010 are not available in EC's database and are estimated by the authors.

SOURCE: European Commission's AMECO database.

Figure 10. Percentage change in household disposable income due to specific fiscal policy changes 2008-2013 by household income decile group in Spain. Figure taken from De Agostini et al. (2014).

Change in average disposable income, percent



Source: Excerpt from Figure 4 (page 14) in De Agostini et al. (2014). The scenario taken is that in which the counterfactual indexation of policies are in line with market incomes.

Table 1. Major tax changes during the crisis

Main measures with a permanent impact (a)	Billion euro (differential impact in each year)								Billion euro (differential impact in each period)			% GDP
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2007-2009**	**2010-2014**	**2007-2014**	**2007-2014**
Personal income tax	-1.8	-8.6	-1.7	4.1	3.2	3.7	2.1	0.2	-12.1	13.2	1.1	0.14
Social security contributions	-0.4	-0.2	-1.2				1.4	1.8	-1.8	3.2	1.3	0.13
Corporation tax	-0.7	-5.5	-1.0	-0.4	-0.6	2.1	2.5	0.04	-7.3	3.6	-3.6	-0.31
Indirect taxation		-0.5	0.9	3.2	4.2	4.8	11.2	1.0	0.4	24.4	24.8	2.34
VAT: Increase rates (2010 and 2012)				2.0	3.4	2.3	7.4					
Exise duties: tax rates		-0.5	0.9	1.2	0.8	2.5	0.4	0.2				
New environmental taxes							3.3	0.8				
Other taxes			-2.3			1.6	0.6		-2.3	2.2	-0.1	-0.01
Wealth tax: abolition and reinstatement of the tax			-2.3			0.7	0.6					
Property tax (IBI): increase in rates						0.9						
TOTAL	**-3.0**	**-14.9**	**-5.3**	**6.9**	**6.9**	**12.1**	**17.7**	**3.1**	**-23.2**	**46.6**	**23.5**	**2.30**
Memorandum item:												
Main measures with a temporary impact (b)	-2.8	-5.4	-5.1		2.0	4.9						
Corporation tax: other temporary measures	-0.5	-2.6	0.5		2.0	3.7						
VAT: other transitory measures	-2.3	-2.8	-5.6									
Tax amnesty						1.2						

(a) The impact shown is the differencial effect compared to the previous year/period.
(b) Temporary measures are those whose impact reverts in year t+1.
SOURCE: Author's own ellaboration on the basis of Gil et al. (2015).

Table 2. Major benefit changes during the crisis

Description of main measures	Billion euro (diferential impact in each year/period)							
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Pensions	**0.47**	**0.51**	**0.49**	**0.25**	**-1.68**	**-1.94**	**1.43**	
Improvement in minimum pensions	0.47							
Increase of pensions above CPI		0.51	0.49	0.50			1.43	
Withdrawal of transitory regime for partial retirement				-0.25	-0.15			
Freeze					-1.53			
No adjustment to inflation						-1.94		
Unemployment benefits	**0.39**		**0.98**	**-0.19**		**-0.16**	**-1.14**	**-0.08**
Increase in entitlements	0.39							
Special subsidy to unemployed not entitled to contributory benefit			0.28	0.51				
Increase in one-off payment to unemployed reconverting into self-employed (temporary measure)			0.70	-0.70				
Cost-cutting measures (a)						-0.16	-1.14	-0.08
Other social benefits		**0.22**				**-0.16**	**-1.23**	**-0.08**
Dependecy Law (Law to support care of dependent people)						-0.16	-1.23	-0.08
Aid to unemployed with low income and difficult circumstances		0.22						
TOTAL, as a percentage of GDP		**2007-2010:**	**0.29**	**% GDP**		**2011-2014:**	**-0.48**	**% GDP**

SOURCE: Author's ellaboration.

(a) Elimination of unemployment subsidy for unemployed people over 45 years and reduction for over 52 years, and cut in unemployment benefits for new recipients unemployed for more than 6 months

Table 3. Details on the medium-term public spending strategy of the government (April 2015)

	% of GDP				Change in % of GDP			Change in nominal (%)		
	2007	2010	2013	2018	2010 -2007	2013 -2010	2018 -2013	2010 -2007	2013 -2010	2018 -2013
TOTAL	**38.9**	**45.6**	**43.8**	**38.4**	**6.7**	**-1.8**	**-5.4**	**17.2**	**-6.7**	**3.6**
General public services	4.9	5.5	6.9	5.5	0.6	1.3	-1.3	12.9	20.1	-4.5
Defense	1.0	1.0	0.9	0.8	0.0	-0.1	-0.1	4.3	-12.1	3.9
Public safety and order	1.9	2.2	2.0	1.7	0.3	-0.2	-0.3	16.1	-10.4	0.9
Economic affairs	5.2	5.8	4.0	3.7	0.6	-1.8	-0.3	12.5	-33.6	9.7
Environmental protection	1.0	1.1	0.8	0.7	0.1	-0.2	-0.1	5.5	-23.9	-0.3
Housing and community amenities	0.9	0.7	0.5	0.4	-0.2	-0.2	-0.1	-22.8	-36.6	0.3
Health	5.7	6.6	6.0	5.3	0.9	-0.6	-0.8	16.1	-11.4	3.3
Recreation, culture and religion	1.6	1.7	1.1	1.0	0.1	-0.5	-0.2	5.5	-33.2	2.0
Education	4.0	4.5	4.0	3.7	0.5	-0.4	-0.4	11.9	-12.6	6.8
Social protection	12.8	16.6	17.6	15.7	3.8	1.0	-1.9	29.3	2.9	5.5

SOURCES: General State Comptroller (IGAE) and Ministry of Finance (Stability Programme 2015-2018). The 2013 figures exclude the one-off effect of financial sector support.

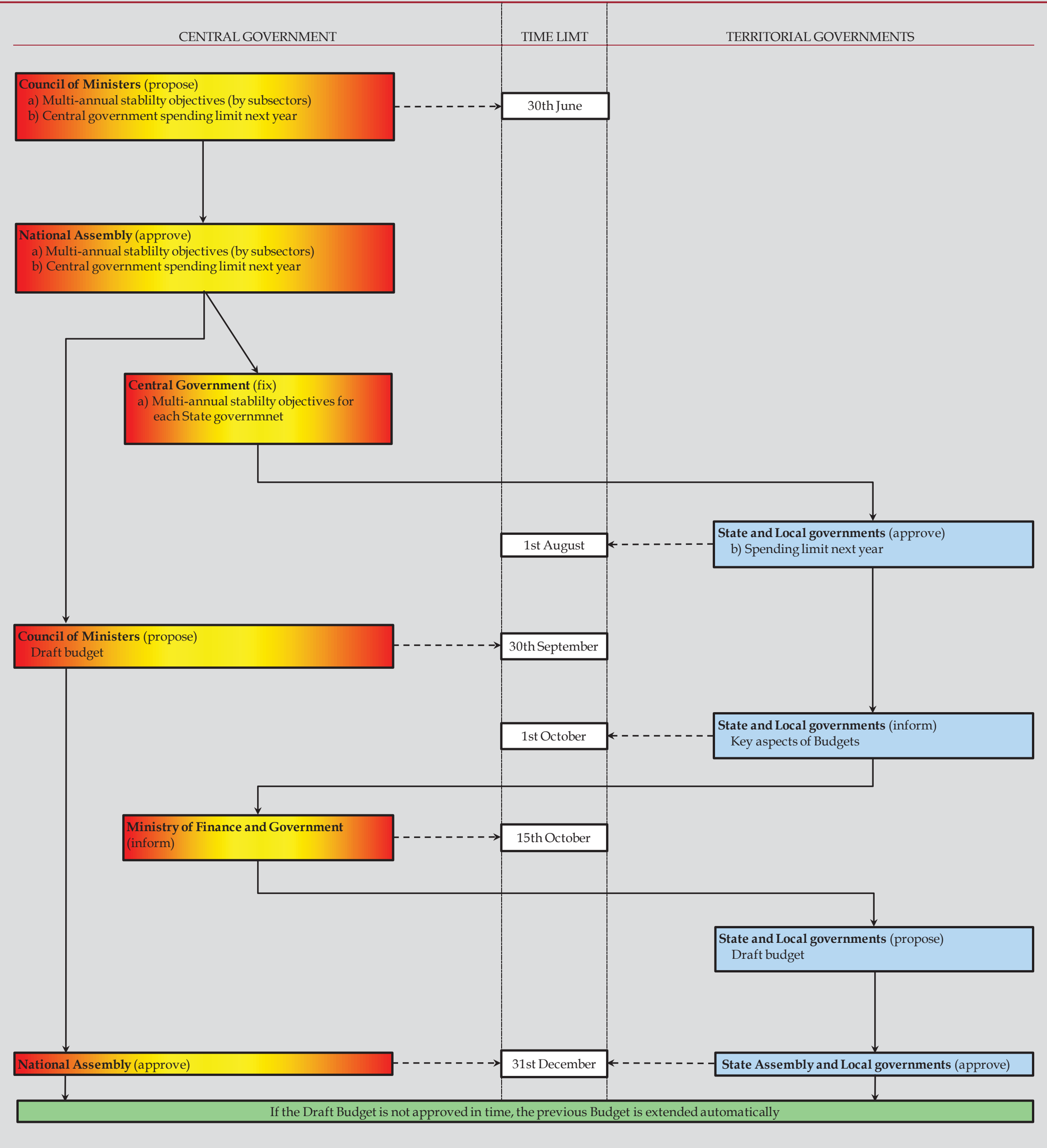
Table 4. Long-term projection of aging-related expenditure

	% of GDP						
	Change 2010-2060	2010	2020	2030	2040	2050	2060
Total expenditure (1+2+3+4+5)	**0.0**	**23.5**	**24.1**	**23.0**	**23.2**	**24.1**	**23.5**
1. Pension expenditure	-0.4	10.0	10.2	10.0	10.2	10.5	9.6
Old age, early retirement and non-contributory pensions	0.5	6.7	7.3	7.3	7.6	8.1	7.2
Disability pensions	-0.2	1.2	1.1	1.1	1.1	1.0	1.0
Survivor pensions	-0.7	2.1	1.8	1.6	1.5	1.5	1.4
2. Health care expenditure	1.3	6.5	6.5	7.0	7.4	7.7	7.8
3. Long-term care expenditure	0.6	0.8	0.9	0.9	1.0	1.3	1.4
4. Education expenditure	-0.5	4.2	4.0	3.4	3.4	3.6	3.7
5. Unemployment expenditure	-1.1	2.0	2.5	1.7	1.2	1.0	0.9
Memorandum items: impact of pension reform							
Pensión expenditure pre-reform	3.6	10.1	10.6	10.6	12.3	14.0	13.7
Savings		0.1	0.4	0.6	2.1	3.4	4.1
Memorandum items: main assumptions							
Potential GDP change	1,7*	-0.1	2.5	2.3	1.2	1.2	1.6
Change of labour productivity	1,4*	1.6	0.7	1.6	1.6	1.6	1.5
Male paticipation rate (15-64)	-1.0	80.8	80.7	80.3	80.4	80.3	79.8
Female participation rate (15-64)	10.6	65.9	71.8	75.7	77.2	76.8	76.5
Total participation rate (15-64)	4.7	73.4	76.3	78.1	78.9	78.6	78.2
Unemployment rate (15-64)	-12.9	20.2	18.7	8.9	7.7	7.4	7.3
Population over 64/population 15-64	31.3	24.9	28.4	36.0	47.4	57.0	56.2

(*) 2010-2060 average.

SOURCE: Ministry of Finance (Stability Programme 2014-2017).

BOX 1. OUTLINE OF THE SPANISH BUDGET PROCESS



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