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# SPAIN

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# OECD Economic Surveys: Spain 2014

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*This* Survey *is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.*

*The economic situation and policies of Spain were reviewed by the Committee on 10 July 2014. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 28 July 2014.*

*The Secretariat's draft report was prepared for the Committee by David Haugh and Alberto Gonzalez Pandiella under the supervision of Pierre Beynet. Research assistance was provided by Desney Erb.*

*The previous* Survey of Spain *was issued in November 2012.*

# BASIC STATISTICS OF SPAIN, 2013

(Numbers in parentheses refer to the OECD average)[a]

## LAND, PEOPLE AND ELECTORAL CYCLE

| | | | | | |
|---|---|---|---|---|---|
| Population (million) | 46.0 | | Population density per km² | 91.1 | (34.7) |
| Under 15 (%) | 15.4 | (18.3) | Life expectancy (years, 2012) | 82.5 | (80.2) |
| Over 65 (%) | 17.9 | (15.7) | Men | 79.5 | (77.5) |
| Foreign-born (%, 2011) | 14.6 | | Women | 85.5 | (82.9) |
| Latest 5-year average growth (%) | 0.3 | (0.5) | Latest general election | November 2011 | |

## ECONOMY

| | | | | | |
|---|---|---|---|---|---|
| Gross domestic product (GDP) | | | Value added shares (%) | | |
| In current prices (billion USD) | 1 358 | | Primary sector | 2.6 | (2.6) |
| In current prices (billion EUR) | 1 023 | | Industry including construction | 25.3 | (27.8) |
| Latest 5-year average real growth (%) | -1.4 | (0.8) | Services | 72.1 | (69.4) |
| Per capita (000 USD PPP) | 32.5 | (37.7) | | | |

## GENERAL GOVERNMENT

Per cent of GDP

| | | | | | |
|---|---|---|---|---|---|
| Expenditure | 44.4[b] | (42.6) | Gross financial debt | 104.0 | (107.6) |
| Revenue | 37.8 | (36.7) | Net financial debt | 70.7 | (67.6) |

## EXTERNAL ACCOUNTS

| | | | | | |
|---|---|---|---|---|---|
| Exchange rate (EUR per USD) | 0.753 | | Main exports (% of total merchandise exports) | | |
| PPP exchange rate (USA = 1) | 0.683 | | Machinery and transport equipment | 32.3 | |
| In per cent of GDP | | | Manufactured goods | 15.6 | |
| Exports of goods and services | 34.1 | (53.5) | Chemicals and related products, n.e.s. | 13.4 | |
| Imports of goods and services | 31.7 | (49.4) | Main imports (% of total merchandise imports) | | |
| Current account balance | 0.8 | (-0.1) | Machinery and transport equipment | 25.5 | |
| Net international investment position | -102.3 | | Mineral fuels, lubricants and related materials | 22.8 | |
| | | | Chemicals and related products, n.e.s. | 14.3 | |

## LABOUR MARKET, SKILLS AND INNOVATION

| | | | | | |
|---|---|---|---|---|---|
| Employment rate for 15-64 year-olds (%) | 54.8 | (65.2) | Unemployment rate, Labour Force Survey (age 15 and over) (%) | 26.1 | (7.9) |
| Men | 59.2 | (73.1) | Youth (age 15-24, %) | 55.5 | (16.1) |
| Women | 50.3 | (57.4) | Long-term unemployed (1 year and over, %) | 13.0 | (2.7) |
| Participation rate for 15-64 year-olds (%) | 75.3 | (71.1) | Tertiary educational attainment 25-64 year-olds (%, 2011) | 31.6 | (31.5) |
| Average hours worked per year | 1 665 | (1 771) | Gross domestic expenditure on R&D (% of GDP, 2012) | 1.3 | (2.4) |

## ENVIRONMENT

| | | | | | |
|---|---|---|---|---|---|
| Total primary energy supply per capita (toe, 2012) | 2.7 | (4.2) | $CO_2$ emissions from fuel combustion per capita (tonnes, 2011) | 5.9 | (9.9) |
| Renewables (%, 2012) | 11.9 | (8.5) | Water abstractions per capita (1 000 $m^3$, 2010) | 0.7 | |
| Fine particulate matter concentration (urban, PM10, µg/$m^3$, 2011) | 27.4 | (28.0) | Municipal waste per capita (tonnes, 2010) | 0.5 | (0.5) |

## SOCIETY

| | | | | | |
|---|---|---|---|---|---|
| Income inequality (Gini coefficient, 2011) | 0.344 | (0.308) | Education outcomes (PISA score, 2012) | | |
| Relative poverty rate (%, 2011) | 15.1 | (11.1) | Reading | 488 | (497) |
| Median equivalised household income (000 USD PPP, 2010) | 17.7 | (20.4) | Mathematics | 484 | (494) |
| Public and private spending (% of GDP) | | | Science | 496 | (501) |
| Health care (2011) | 9.4 | (9.2) | Share of women in parliament (%, June 2014) | 37.0 | (26.7) |
| Pensions (2009) | 9.9 | (8.7) | Net official development assistance (% of GNI) | 0.16 | (0.37) |
| Education (primary, secondary, post sec. non tertiary, 2010) | 3.3 | (4.0) | | | |

Better life index: *www.oecdbetterlifeindex.org*

a) Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 29 member countries.

b) 44.9% of GDP if spending linked to the restructuring of the banking system is included.

*Source:* Calculations based on data extracted from the databases of the following organisations: OECD, International Energy Agency, World Bank, International Monetary Fund and Inter-Parliamentary Union.

# Executive summary

- *Main findings*
- *Key recommendations*

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

## Main findings

The Spanish economy has returned to moderate growth following a protracted recession and, crucially, sovereign spreads have fallen sharply. This major turnaround reflects decisive reforms to strengthen the banking sector (including a financial sector programme), the European Central Bank's actions, the improvement of public finance sustainability, with a now somewhat slower pace of fiscal consolidation, and reforms to enhance product and labour markets. Nevertheless, the key challenge now is to build on these achievements to enhance growth and reduce unemployment significantly through sustained gains in productivity and competitiveness and to reduce external debt. This will require orderly reduction of public and private sector debt, improvements in labour market institutions and policies to reduce the very high unemployment rate (which is itself a key driver of inequality), and reforms to the business sector environment to promote the entry and growth of firms.

**Reducing debt and increasing competitiveness.** The current consolidation path should allow public debt to decline eventually. The tax base is too narrow and over reliant on labour taxes, which are among the most detrimental to activity. Credit continues to be tighter than in other euro area countries. Major reforms have been undertaken in the financial sector and the banks have been recapitalised. However, bank profitability is low, non-performing loans are high and the private sector remains highly indebted. International experience suggests that in these circumstances credit growth will remain modest for an extended period. Existing insolvency regimes for most individuals are narrow in scope and allow for only limited debt discharge. A new fresh start was introduced in 2013 but it is too stringent to facilitate orderly restructuring of personal debts.

**Sustainably boosting medium-term growth and jobs.** Trend GDP growth is estimated to be just 1%, although there has been a recent cyclical upswing in productivity due to heavy job shedding. Innovation capability has expanded but remains behind peers in Europe. Universities are not specialised enough and business research and development is low. Despite improvements in the labour market, the shares of long-term and poorly qualified unemployed remain high and there is significant room for improvement of activation policies. Tackling unemployment is crucial to reduce poverty and inequality. Spain has made good progress towards making growth more environmentally sustainable, and continued good policy in this domain holds the promise of a new engine of growth in the years ahead.

**Towards a higher performing business sector.** The Spanish business sector is too fragmented, with many low-productivity small enterprises and few medium size and large companies. Most exporting is done by a tiny fraction of firms, small and medium-sized enterprises (SMEs) export little and exports are very concentrated in European destinations. Starting a business is perceived to be more difficult in Spain than in other OECD economies and framework conditions, such as size-dependent regulations, are not favourable to firms' growth. Firms also suffer from a regionally and locally fragmented regulatory framework, a challenge that the Market Unity Law is trying to address. Firms, especially SMEs are over-reliant on bank-lending. Nevertheless non-bank financial alternatives are starting to emerge. Some markets, especially in the service sector, have high entry requirements.

## Key recommendations

### *Reducing debt and increasing competitiveness*

- As specified in the government's medium-term fiscal plan, return to a cyclically-adjusted fiscal balance by 2017.
- Shift the balance from labour to indirect taxes by cutting employer social security contributions for low-skilled workers, increasing environmental and real estate taxes, and narrowing exemptions to value-added tax, corporation and income taxes.
- Continue to improve in-court insolvency procedures, increase incentives for the use of both in-court and out-of-court insolvency procedures by SMEs and introduce a new out-of-court negotiated personal insolvency regime.

### *Sustainably boosting medium-term growth and jobs*

- Strengthen active labour market policies by improving vocational training, strengthening the capacities and efficiency of the public employment services, and enhancing coordination between the different levels of administration.
- Raise the quality of innovation and strengthen competitiveness by encouraging greater scale and specialisation of universities and research organisations, by extending performance based resources allocation and the application of international peer review and by providing more career opportunities for highly qualified researchers.
- Equalise pricing of greenhouse gas emissions across sources to contain carbon emissions and thereby promote green industry and jobs.

### *Towards a higher performing business sector*

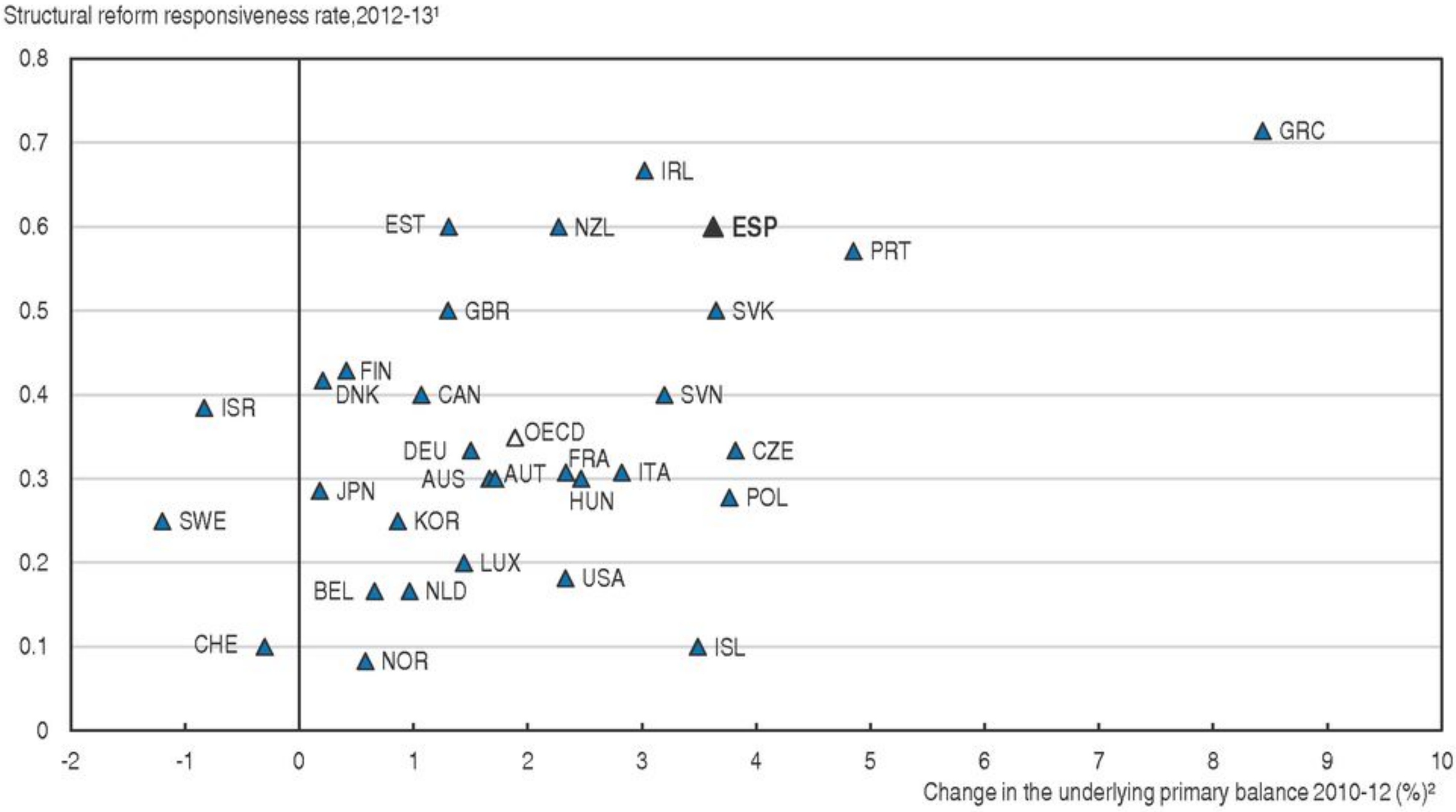
- Broaden the corporate tax base, lower the rate and eliminate special regimes for small and medium-sized enterprises.
- Continue to promote diversified financing sources for firms, revamp the licence and permits system and reduce regulatory fragmentation by implementing the market unity law.
- Reduce the number of professions requiring membership of a professional body and the cost of membership.

# Assessment and recommendations

- *Macroeconomic performance and risks*
- *Fiscal policy*
- *The financial sector*
- *Sustainably boosting wellbeing, medium-term growth and jobs*
- *Business sector performance*

Following a long double-dip recession caused initially by large imbalances that the Spanish economy accumulated during the boom prior to the global financial crisis, and subsequently by banking and sovereign debt crises, economic growth turned positive at the end of 2013, unemployment has begun to decline and strong exports have significantly reduced the structural current account deficit. Decisive government actions have substantially improved the banking sector and the fiscal deficit is on a downward trajectory. The government introduced an impressive range of reforms to improve the labour market, enhance the fiscal framework, tackle long-standing education and housing issues, and improve the business environment (Figure 1; Annex). These reforms, together with a stronger commitment of euro area countries to solidify the common currency, have resulted in a dramatic fall in sovereign bond spreads.

Figure 1. **Fiscal consolidation and structural reform efforts**




1. The reform responsiveness indicator is a measure of the extent to which countries have followed up on recommendations for structural reforms as given in past *Going for Growth* reports. It does not aim to assess overall reform intensity per se. The indicator is based on a scoring system in which recommendations set in the previous edition of *Going for Growth* take the value of one if "significant" action is taken and zero if not. A priority may entail more than one specific recommendation; the scoring is often based on more than one reform opportunity per priority. For more details see OECD (2010), *Economic Policy Reforms 2010: Going for Growth*.
2. Underlying government primary balance in per cent of potential GDP.

*Source:* OECD (2014), *Economic Policy Reforms 2014: Going for Growth Interim Report* and *Economic Outlook: Statistics and Projections* (database), July.

StatLink http://dx.doi.org/10.1787/888933127909

However, the economy remains fragile and the main economic policy challenge in the years ahead is to ensure strong and sustained growth of productivity and employment. The crisis has left a legacy of high public and private indebtedness as well as one of the highest unemployment rates in the OECD and increased inequality and poverty. To solidify the recovery and raise living standards, further measures are needed to boost competitiveness and growth and to ensure the fruits of the recovery are enjoyed by all. It is important to take into account the economic cycle when sequencing structural reforms. The first chapter of the *Survey* focuses on measures to increase medium-term growth, notably by reducing the large pool of unemployed, which is the best antidote to poverty and inequality, while the second chapter focuses on business sector performance.

## Macroeconomic performance and risks

### *Recovery will be gradual and moderate*

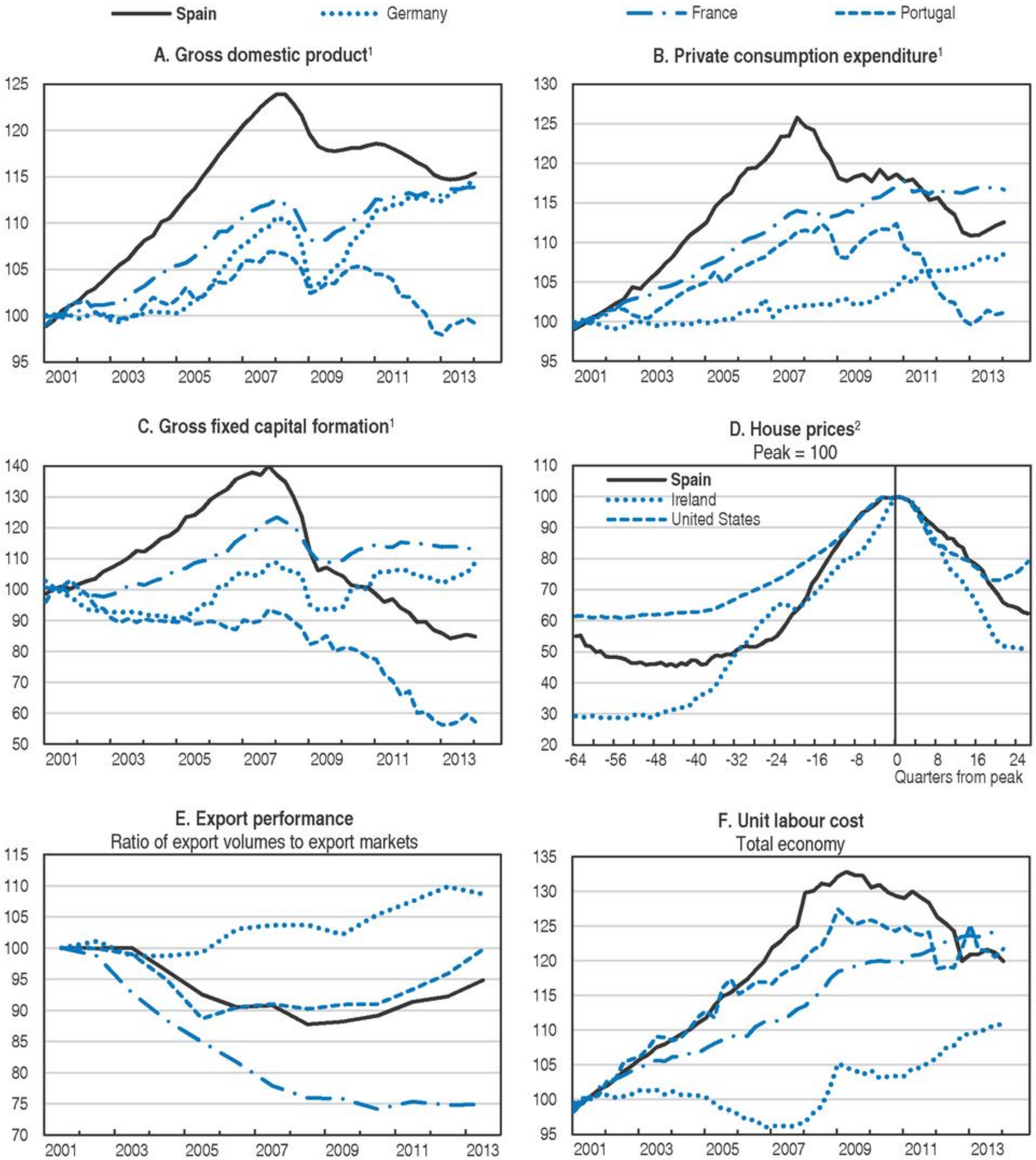
The Spanish economy returned to positive growth in the second half of 2013 (Figure 2, Panel A) on the back of a reduction of financial tensions, notably thanks to the announcement of outright monetary transactions (OMT) by the President of the European Central Bank (ECB), and the increase in confidence that followed the adoption of key reforms and measures in Spain from 2012 onwards. The turnaround in the economy has been led by exports (Figure 2, Panel E), with a gradual pick-up in consumption (Figure 2, Panel B) and a stabilisation in investment (Figure 2, Panel C). Unit labour costs have fallen (Figure 2, Panel F), reflecting high unemployment and wage moderation, and inflation is low.

The recovery is projected to gradually accelerate over the next two years with domestic demand making an increasing contribution (Table 1). The improving labour market and stronger confidence will aid private consumption, while better economic prospects and the strength of exports should boost investment. However, fiscal consolidation, private-sector deleveraging, and tight financing conditions will continue to restrain activity. The unemployment rate is projected to decline gradually, but will remain high. House prices have been falling for six years (Figure 2, Panel D) and may continue to fall on average, although at a moderating pace. Likewise, residential investment will decrease further but at a slower pace, reducing the drag on growth.

Some downside risks remain. Spain, and especially its banks, depends crucially on financial stability, which could be solidified by more decisive actions in Europe (OECD, 2014a). High public debt is an important source of vulnerability to potential renewed turmoil in sovereign debt markets. Given significant remaining slack in the economy, there is a risk of deflation. On the one hand low inflation helps competitiveness. On the other hand it makes deleveraging more difficult in case it is not accompanied by stronger real GDP growth. Lower growth in Spain's main trading partners would hurt exports and dampen the recovery. There are also upside risks including better financing conditions, which would boost investment further, and the improving labour market, which could support a stronger rebound in consumption. House prices may not fall as much as assumed, which would help to sustain consumption and preserve the quality of banking assets. Recent structural reforms may boost activity more than anticipated. A more supportive monetary policy and progress towards banking union would reduce fragmentation and improve monetary policy transmission.

## Figure 2. **Macro indicators**

Index, 2001 = 100




1. Volume.
2. Real house prices seasonally adjusted. The peak occurs in Q1 2007 for Ireland, Q3 2007 for Spain and Q4 2006 for the United States.

*Source:* OECD (2014), *OECD Economic Outlook: Statistics and Projections* (database) and *Housing Prices Database*, July.

StatLink http://dx.doi.org/10.1787/888933127928

Table 1. **Macroeconomic indicators and projections**

Annual percentage change, volume (2005 prices)

| | 2010 Current prices (billion EUR) | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| **Gross domestic product (GDP)** | **1 046** | **0.1** | **-1.6** | **-1.2** | **1.2** | **1.6** |
| Private consumption | 605 | -1.2 | -2.8 | -2.1 | 2.1 | 1.8 |
| Government consumption | 225 | -0.5 | -4.8 | -2.3 | -0.3 | -1.5 |
| Gross fixed capital formation | 232 | -5.4 | -7.0 | -5.1 | 0.6 | 2.9 |
| Housing | 76 | -12.5 | -8.7 | -8.0 | -4.1 | -1.0 |
| Final domestic demand | 1 062 | -2.0 | -4.1 | -2.7 | 1.3 | 1.3 |
| Stockbuilding[1] | 6 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total domestic demand | 1 068 | -2.0 | -4.1 | -2.7 | 1.4 | 1.3 |
| Exports of goods and services | 286 | 7.6 | 2.1 | 4.9 | 3.7 | 5.9 |
| Imports of goods and services | 309 | -0.1 | -5.7 | 0.4 | 4.3 | 5.2 |
| Net exports[1] | -23 | 2.1 | 2.5 | 1.5 | -0.1 | 0.4 |
| **Other indicators** (growth rates, unless specified) | | | | | | |
| Potential GDP | .. | 0.2 | 0.1 | 0.3 | 0.7 | 1.1 |
| Output gap[2] | .. | -2.4 | -4.1 | -5.6 | -5.1 | -4.6 |
| Employment | .. | -1.6 | -4.3 | -2.8 | 0.8 | 1.1 |
| Unemployment rate | .. | 21.4 | 24.8 | 26.1 | 24.6 | 23.6 |
| GDP deflator | .. | 0.0 | 0.0 | 0.6 | 0.0 | 0.5 |
| Consumer price index (harmonised) | .. | 3.1 | 2.4 | 1.5 | 0.1 | 0.5 |
| Core consumer prices (harmonised) | .. | 1.2 | 1.3 | 1.3 | 0.1 | 0.5 |
| Household saving ratio, net[3] | .. | 6.8 | 4.4 | 4.7 | 4.4 | 4.5 |
| Trade balance[4] | .. | -9.8 | -36.0 | -58.1 | .. | .. |
| Current account balance[4] | .. | -3.7 | -1.2 | 0.8 | 0.6 | 0.7 |
| General government fiscal balance[4] | .. | -9.6 | -10.6 | -7.1 | -5.5 | -4.5 |
| Underlying general government fiscal balance[2] | .. | -7.9 | -5.4 | -4.5 | -4.2 | -3.5 |
| Underlying government primary fiscal balance[2] | .. | -5.9 | -3.0 | -1.7 | -1.2 | -0.4 |
| General government gross debt (Maastricht)[4] | .. | 70.5 | 86.0 | 93.9 | 98.4 | 101.4 |
| General government net debt[4] | .. | 48.2 | 59.6 | 67.0 | 71.7 | 74.7 |
| Three-month money market rate, average | .. | 1.4 | 0.6 | 0.2 | 0.2 | 0.1 |
| Ten-year government bond yield, average | .. | 5.4 | 5.8 | 4.6 | 3.3 | 3.3 |

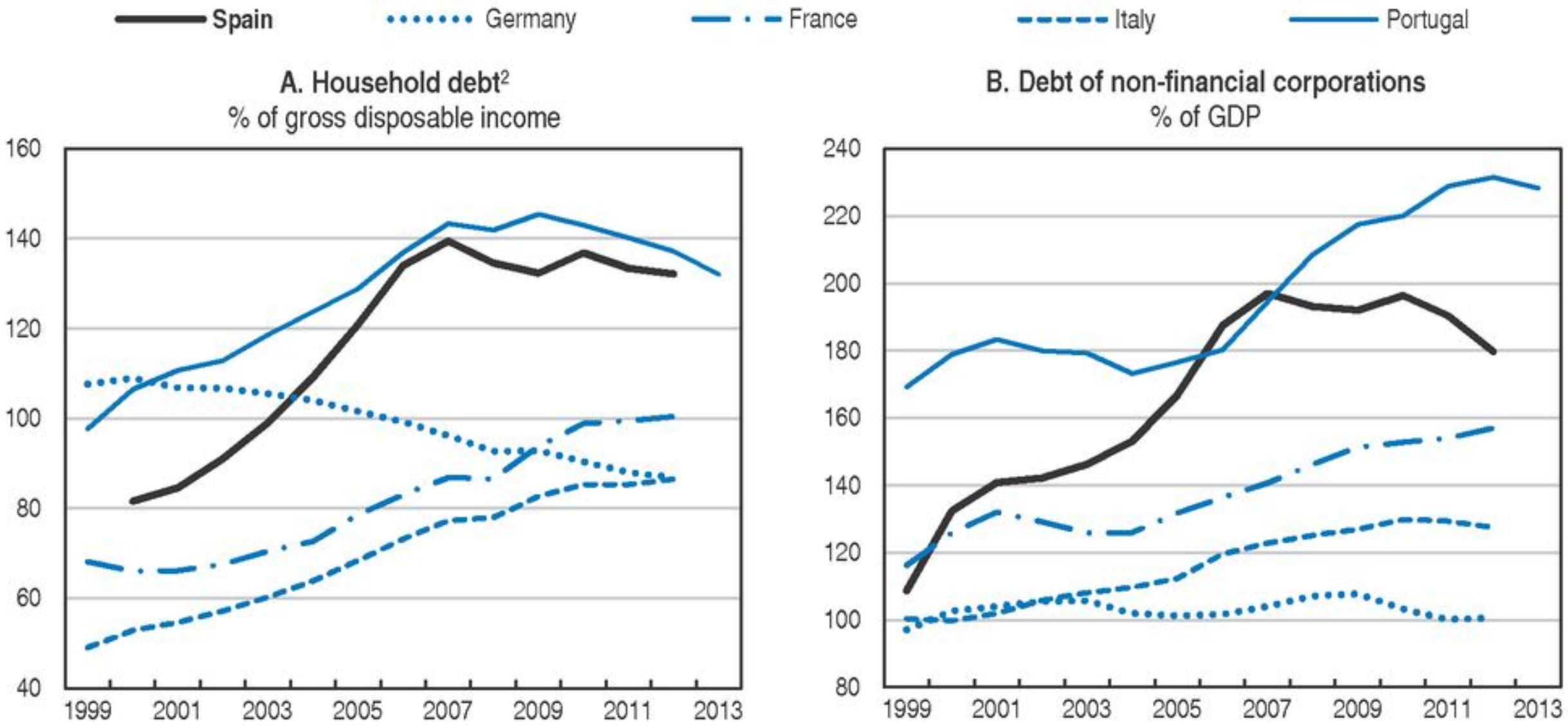
1. Contribution to changes in real GDP.
2. As a percentage of potential GDP.
3. As a percentage of household disposable income.
4. As a percentage of GDP.

*Source:* OECD (2014), *OECD Economic Outlook*, No. 95, Vol. 2014/1, updated and INE (2014), "Contabilidad nacional de España", INEbase, Insituto Nacional de Estadística.

## *Helping the private sector to reduce its indebtedness*

Households' and firms' debt levels are declining but are still high (Figure 3). Firms are more heavily indebted, relative to earnings, than in most European countries (Figure 4). To reinforce the economic recovery and clean-up bank balance sheets, which are burdened by non-performing loans, greater action is needed to rehabilitate viable firms and close down unviable ones. Efficient insolvency and debt restructuring procedures could facilitate deleveraging and reduce its drag on growth. Spanish insolvency law had been complex and long (Mora-Sanguinetti and Fuentes, 2012). The government has recently reviewed corporate insolvency procedures to make it easier to get prior agreements on write-offs, maturity extensions and debt-for-equity swaps. These changes go in the right direction, especially for larger companies, but their effectiveness remains to be tested and more could be done to make them more effective, particularly concerning liabilities with tax and social security authorities, which account for a very significant part of the debt. Clear guidelines for the participation of both authorities in the restructuring process should be established.

Figure 3. **Debt reduction**[1]



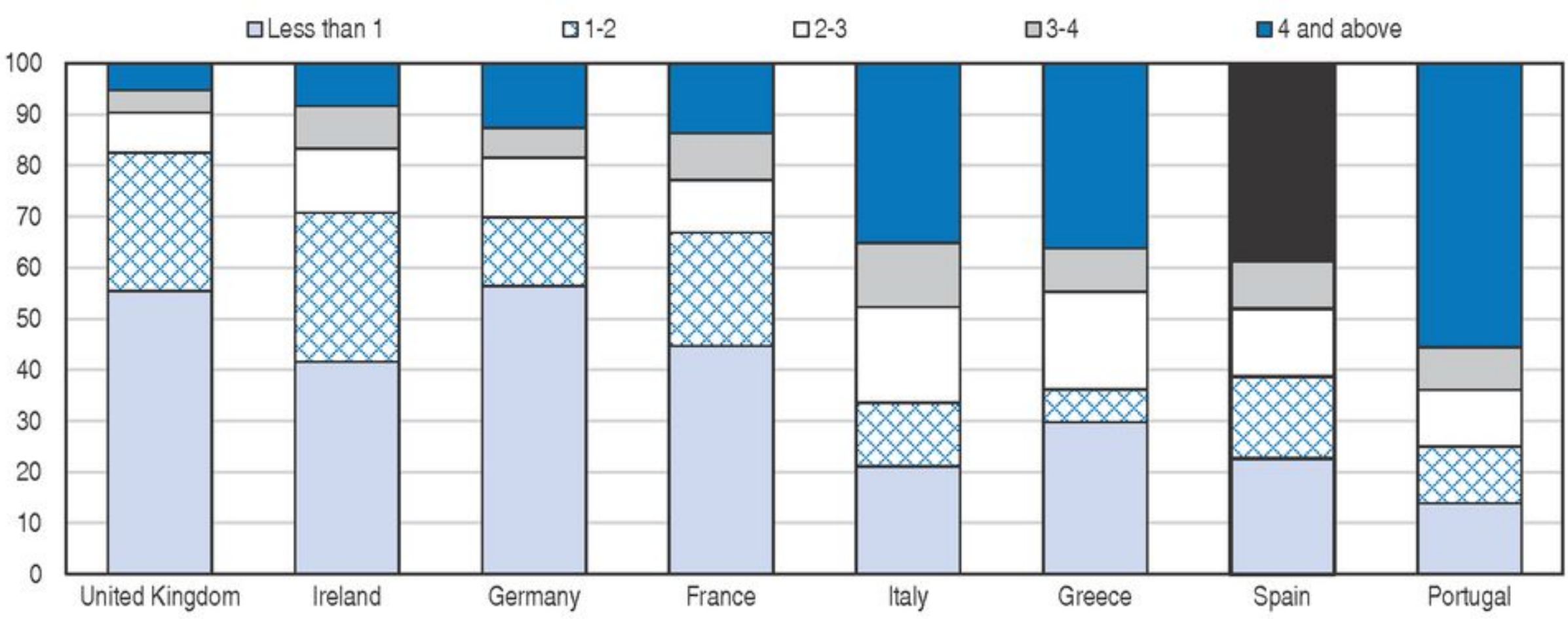

1. Debt is calculated as the sum of the following liability categories, whenever available/applicable: currency and deposits, securities other than shares (except financial derivatives), loans, insurance technical reserves and other accounts payable.
2. Including non-profit institutions serving households.

*Source:* OECD (2014), "Financial Dashboard", *OECD National Accounts Statistics* (database), July.

StatLink http://dx.doi.org/10.1787/888933127947

Figure 4. **Debt-to-earnings ratio of firms**

Per cent of firms with various debt-to-earnings ratios[1]




1. Earnings before interest, taxes, depreciation and amortisation. Data for Greece, Ireland and Portugal covers a limited number of firms compared to the other countries.

*Source:* RBS (2014), "The Revolver", Royal Bank of Scotland, 22 May.

StatLink http://dx.doi.org/10.1787/888933127966

Given the limited capacity of the judicial system, promoting and facilitating voluntary out-of-court restructurings for corporate debt could provide a cost-effective alternative to court supervised proceedings. New out-of-court pre-insolvency payment procedures (*acuerdo extrajudicial de pagos*) have been introduced for small and medium-sized enterprises (SMEs). Their use could be further encouraged by permitting

the debt haircut to go above the current 25% maximum and the payment moratorium beyond the current three year maximum. Its effectiveness would also be increased by permitting outstanding debt with tax and social security authorities to be subject to a haircut.

The government has put in place a voluntary mechanism that allows banks to use out-of-court workouts for residential mortgage debtors, the so called "Code of Good Practices". This code aims at avoiding hardship to the most vulnerable households facing unsustainable debt. However, the code does not allow individuals to fully discharge their obligations as they can in other European Union (EU) countries. Other existing alternatives are too narrow in scope and too stringent in their requirements to be broadly used or to have a significant impact. A new simplified personal insolvency procedure, allowing for a "fresh start", under well-defined conditions, would provide a clear institutional framework for loss recognition and would support individuals' efforts to reduce their debt. It would make the process of recognition of losses that would eventually occur anyway shorter, more predictable and less costly.

### *The stock of credit is still falling*

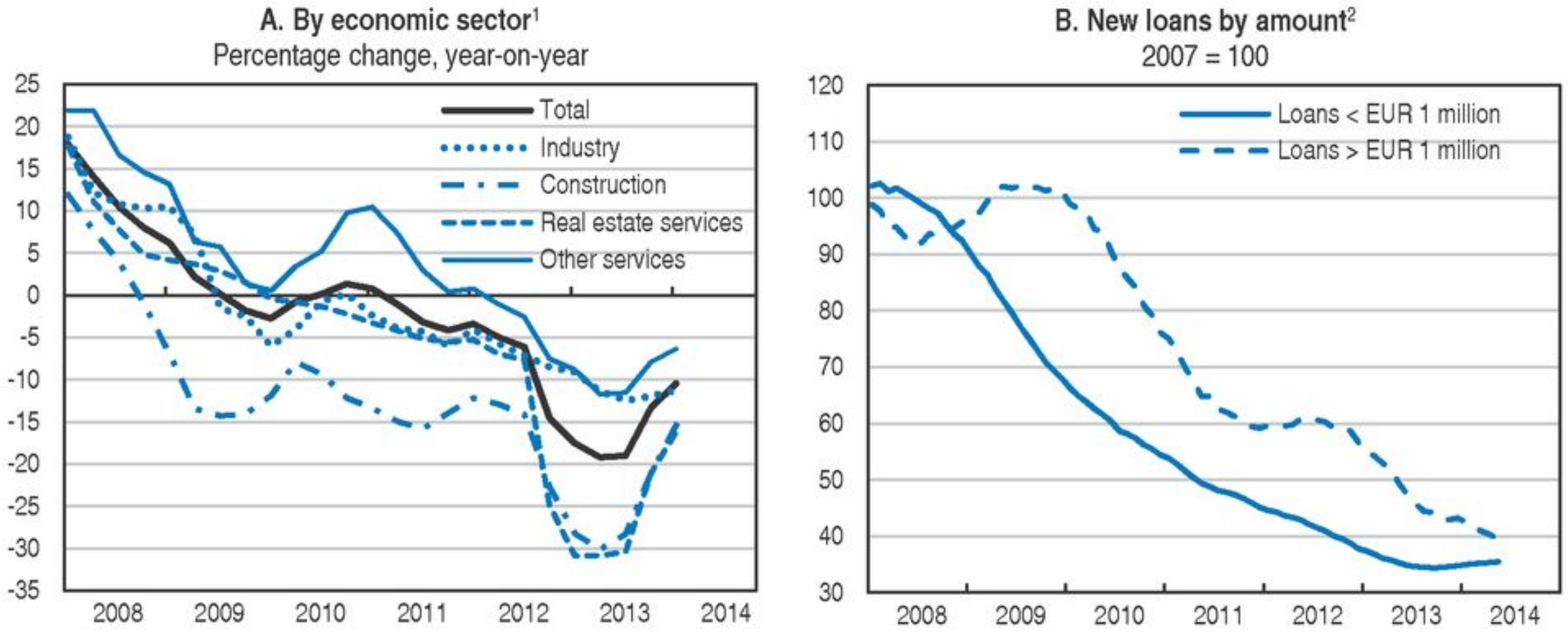
With the onset of the crisis, credit to firms began to contract (Figure 5, Panel A), affecting all economic sectors and both large and small firms. Borrowing demand fell as output contracted and has remained weak as firms and households have been reducing their indebtedness. Despite progress, this process is not yet complete, and is expected to affect demand for credit in the years ahead. On the supply side, some financial institutions have had difficulties attracting funds for credit and some have failed. Moreover, a still large portfolio of non-performing loans limits banks' appetite for more lending. Firms suffering from loan supply restrictions were unable to completely offset them by turning to other banks (Jiménez et al., 2012). Indeed, firms whose credit came from weaker banks suffered additional employment drops of between 3 and 13.5 percentage points (Bentolila et al., 2013). The cost of borrowing remains high, especially for smaller loans predominately used by SMEs (Figure 6). In recent months, the fall in the stock of credit has been accompanied by positive year-on-year growth rates in new loans of less than EUR 1 million (Figure 5, Panel B) and lending to households (both real estate and consumer financing). This may be an indication that new lending may be turning up, although Spanish statistics on new loans include also loans whose terms and conditions have changed and available data do not allow for an estimation of how much of the new lending could be linked to ever-greening effects.

### *The current account moved to surplus but the stock of accumulated imbalances remains large*

The current account balance moved from a 10% of GDP deficit in 2007 to a 0.8% of GDP surplus in 2013 (Figure 7, Panel A). Estimates suggest that around five percentage points of this shift is structural (La Caixa, 2014; BBVA, 2013), mainly reflecting good export performance. The remainder is attributable to temporarily weaker domestic demand, so as the economy recovers the current account deficit will re-appear, suggesting the need for further competitiveness improvements to stabilise external debt (see below).

In response to the crisis and the fall in domestic demand, Spanish firms have intensified their internationalisation efforts. The total number of Spanish exporters has increased but exports remain highly concentrated in a small number of firms. Lifting

Figure 5. **Lending to non-financial corporations**




1. Lending by credit institutions to finance productive activities.
2. Twelve-month moving average.

*Source:* Banco de España (2013), *Boletín Económico*, October and (2014), *Boletín Estadístico* (database), July.

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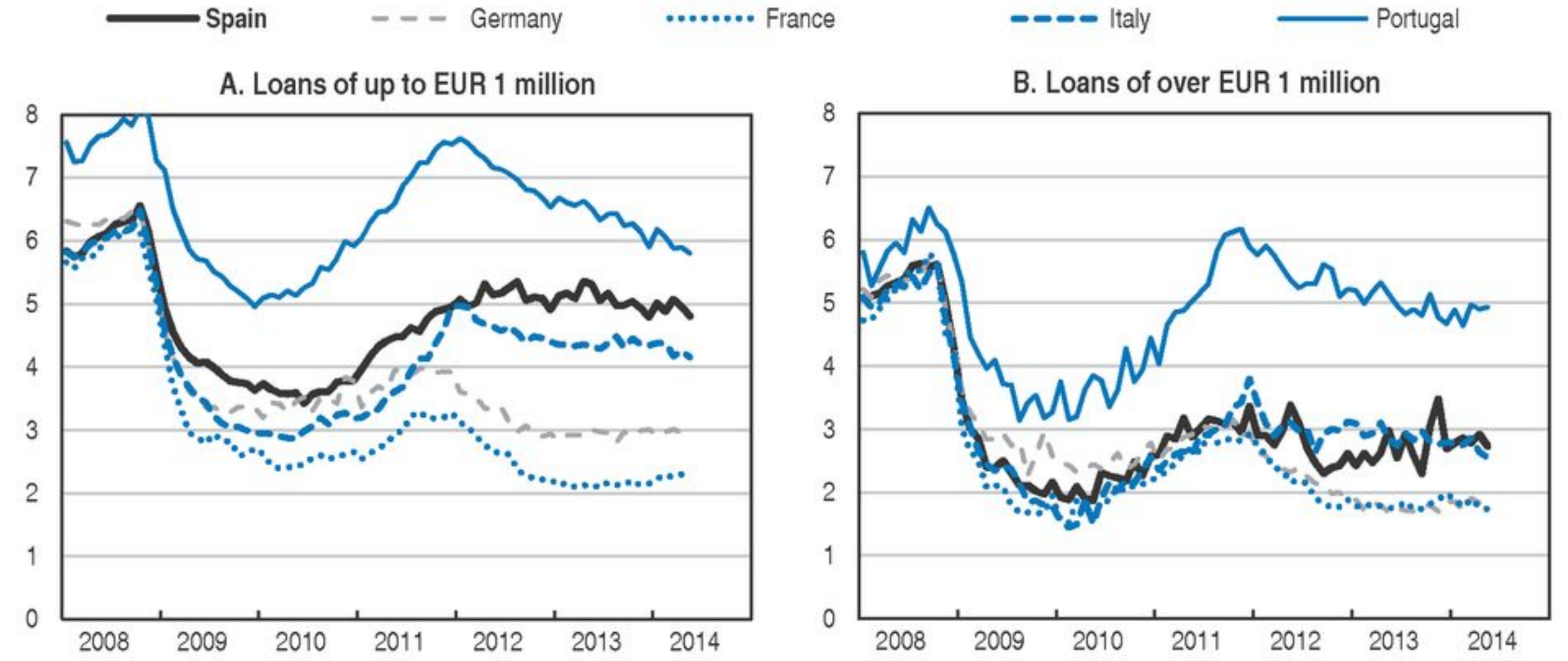
Figure 6. **Credit conditions**

Interest rates on loans to non-financial corporations, per cent[1]




1. Narrowly defined effective rates (NDER) for operations with an initial rate fixation period of less than one year.

*Source:* ECB (2014), "MFI Interest Rates", *Statistical Data Warehouse*, European Central Bank, July.

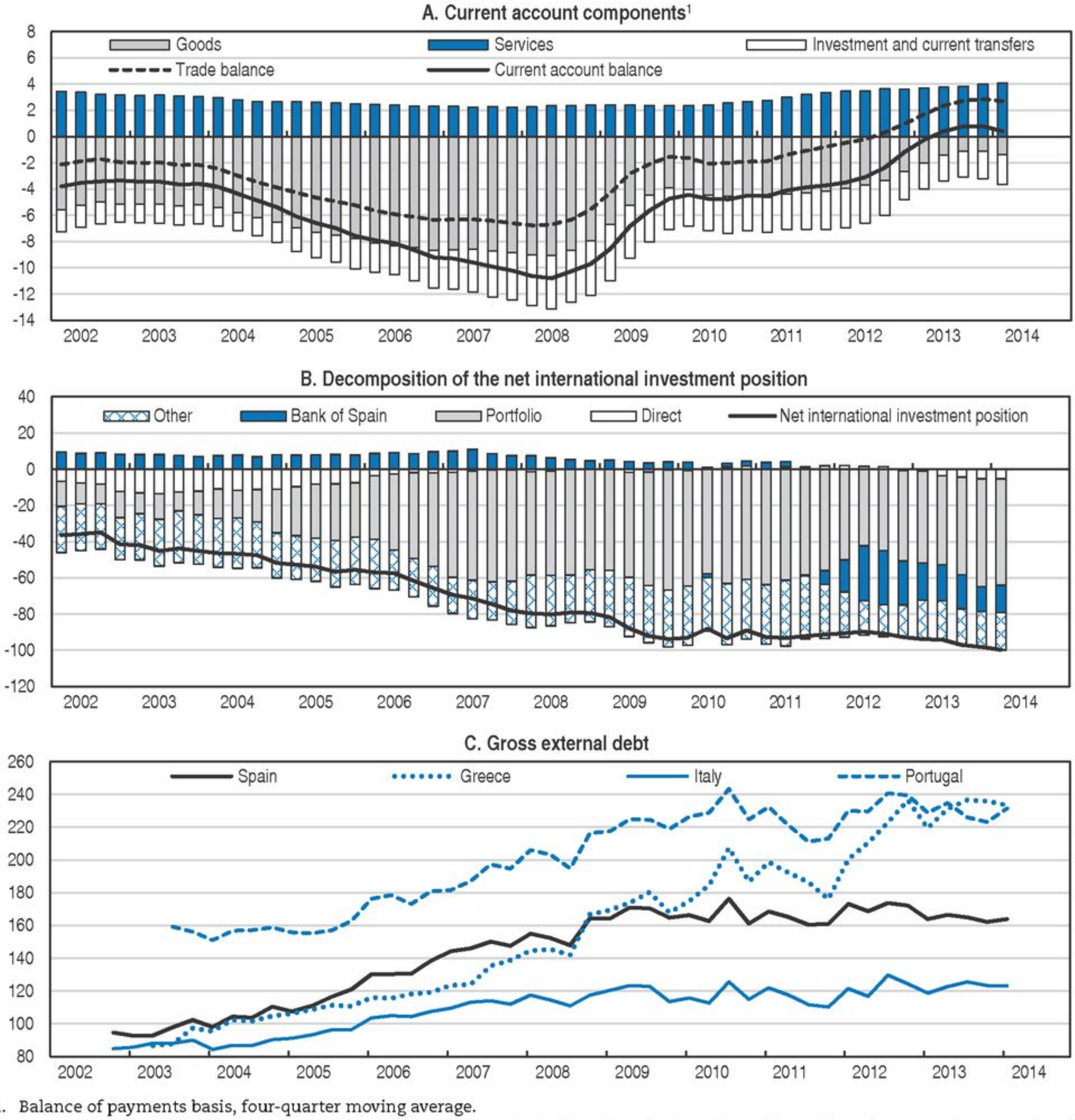
StatLink http://dx.doi.org/10.1787/888933128004

business innovation rates (discussed below) would help to boost the number of exporting firms as innovation has a positive effect on the probability of participation in export markets (Caldera, 2010). It would also contribute to increase the technology content of exports, which is low in comparison with other advanced European countries.

The large past current account deficits left the negative net international investment position at close to 100% of GDP at end-2013 (Figure 7, Panel B). This position takes mainly the form of net portfolio investment liabilities but also liabilities resulting from Spanish banks' reliance on ECB financing. In terms of composition, most of the liabilities take the

Figure 7. **External imbalances**

Per cent of GDP




1. Balance of payments basis, four-quarter moving average.

*Source:* Banco de España (2014), *Boletín Económico* and *Boletín Estadístico* (databases), July and World Bank (2014), "Quarterly External Debt Statistics/SDDS", *World DataBank*, July.

StatLink http://dx.doi.org/10.1787/888933128023

form of loans and bonds, which reflects a debt bias in the corporate sector and increases vulnerability to external shocks. Further improvement in the current account balance will be needed to put external debt on a firmly declining path: assuming nominal potential growth at about 3%, the structural current account deficit should not be bigger than 3% to stabilise debt at 100% of GDP, requiring either a permanent reduction of domestic absorption or further strengthening of competitiveness.

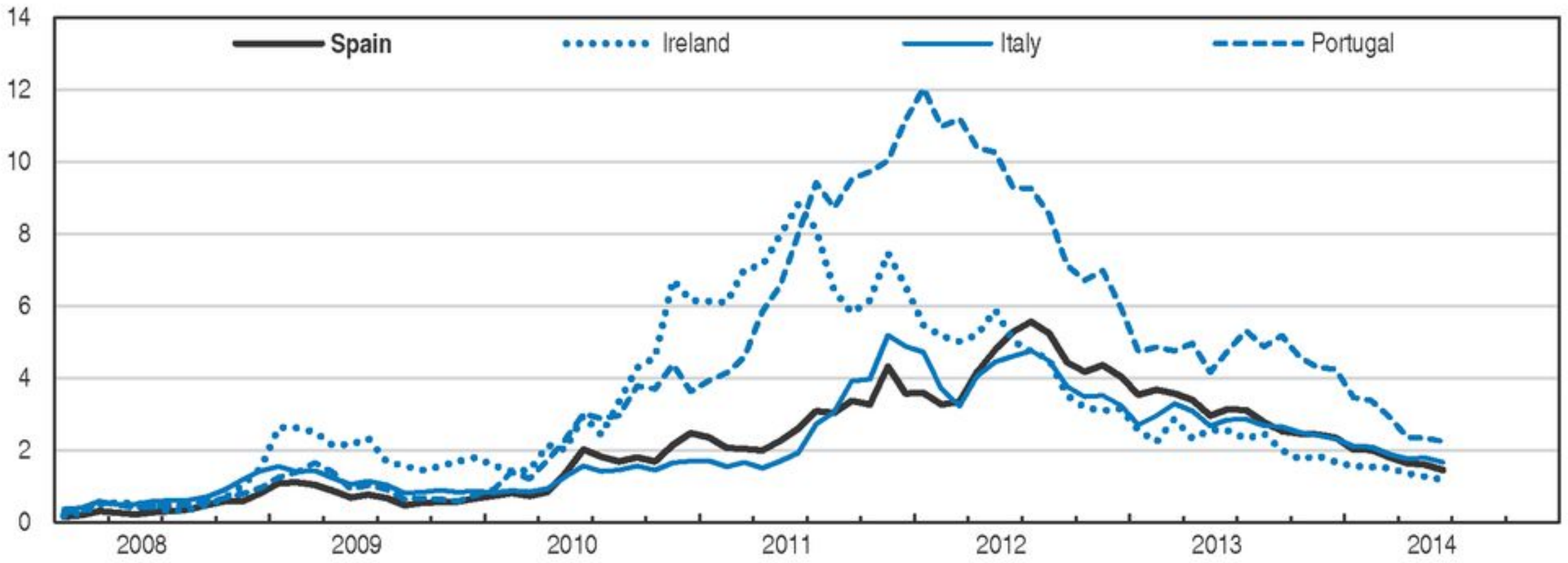
# Fiscal policy

## *Medium-term fiscal sustainability is improving*

Sovereign spreads have fallen significantly since July 2012 to levels not seen since May 2010, allowing Spain to service its debt at declining costs (Figure 8). The budget deficit was 6.6% of GDP in 2013 (Figure 9), excluding support to the financial sector, marginally above the excessive deficit procedure (EDP) target and 0.2% below the 2012 deficit. The consolidation effort was frontloaded in 2012-13, when measures were adopted amounting to 7.5% of GDP (53% on the expenditure side). Fiscal consolidation will continue in 2014 and 2015 (Table 2), when, according to government fiscal plans, the deficit is projected to fall to 5.5% and 4.2% of GDP respectively. The fiscal strategy set-up in the latest Stability program aims at bringing the fiscal deficit below 3% of GDP in 2016 and to reach the medium-term objective of a balanced budgetary position in structural terms in 2017.

Figure 8. **Long-term sovereign interest rate spreads**[1]

Percentage points




1. Ten-year national currency-denominated government bond spreads relative to the German rate.

*Source:* OECD (2014), *Main Economic Indicators* (database), July.

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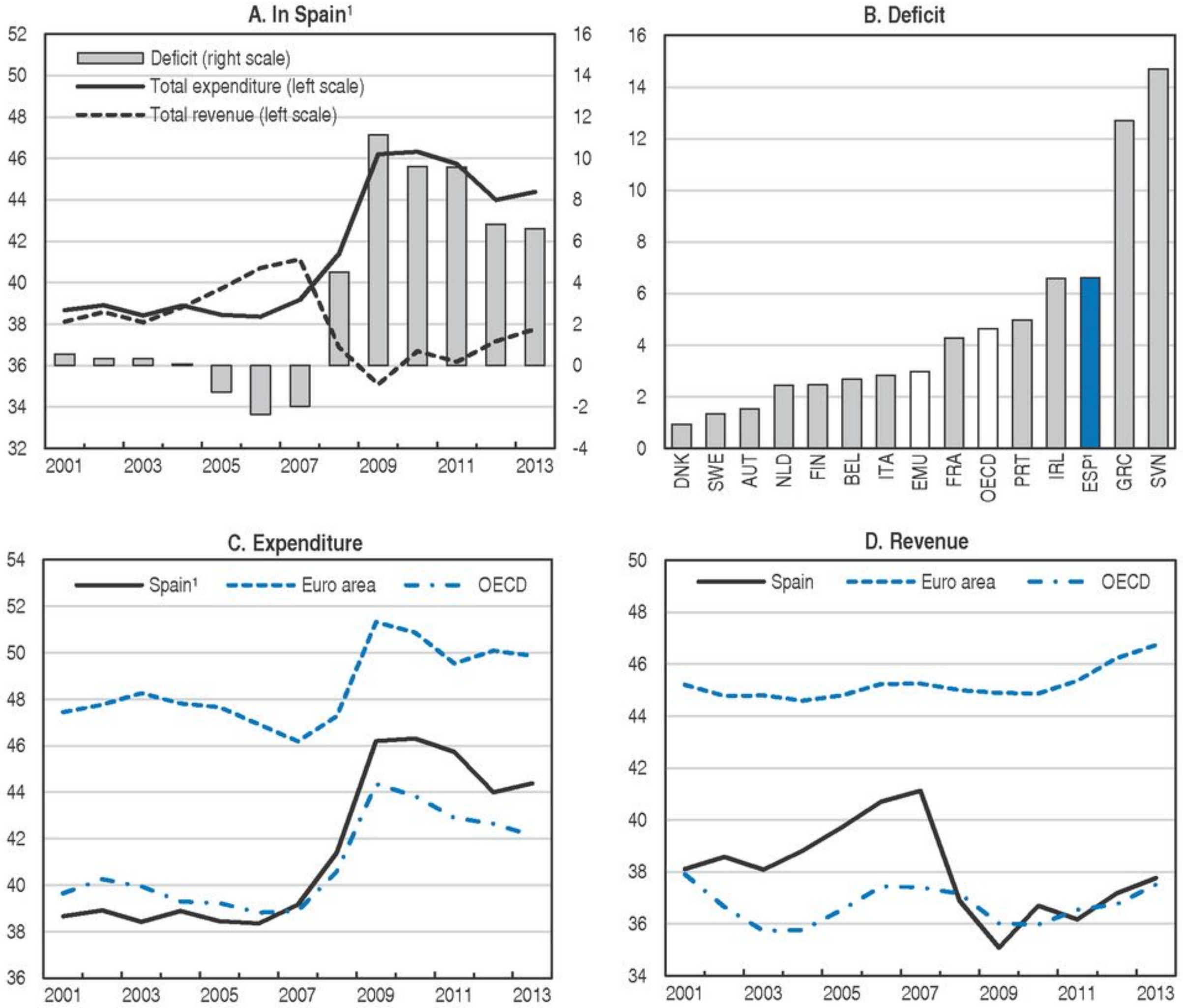
The fiscal framework has been progressively enhanced over the past few years with the introduction of new budget rules, including stricter control of regional government budget policies and new requirements on the publication of regional government budget outcomes, which should facilitate consistency between regional and central budget achievement and European requirements. Finally the Independent Authority for Fiscal Responsibility (AIRef) was established in November 2013. AIReF, which is not yet operational, has a broad remit. It will monitor sub-national level governments and analyse a very broad range of fiscal related issues including the sustainability of the pension system. It will play a critical role in ensuring fiscal sustainability and credibility in Spain by monitoring whether central, regional, municipal governments and the social security system are complying with fiscal rules. AIReF will issue "comply or explain" rulings, which the central government will enforce with the regions, and the regions will enforce with the municipalities.

## Figure 9. **Fiscal situation**

Per cent of GDP




1. Excluding bank recapitalisation of 3.8% in 2012 and 0.46% in 2013.

*Source:* OECD (2014), *OECD Economic Outlook: Statistics and Projections* (database), July.

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## Table 2. **Medium-term fiscal plan**

Per cent of GDP

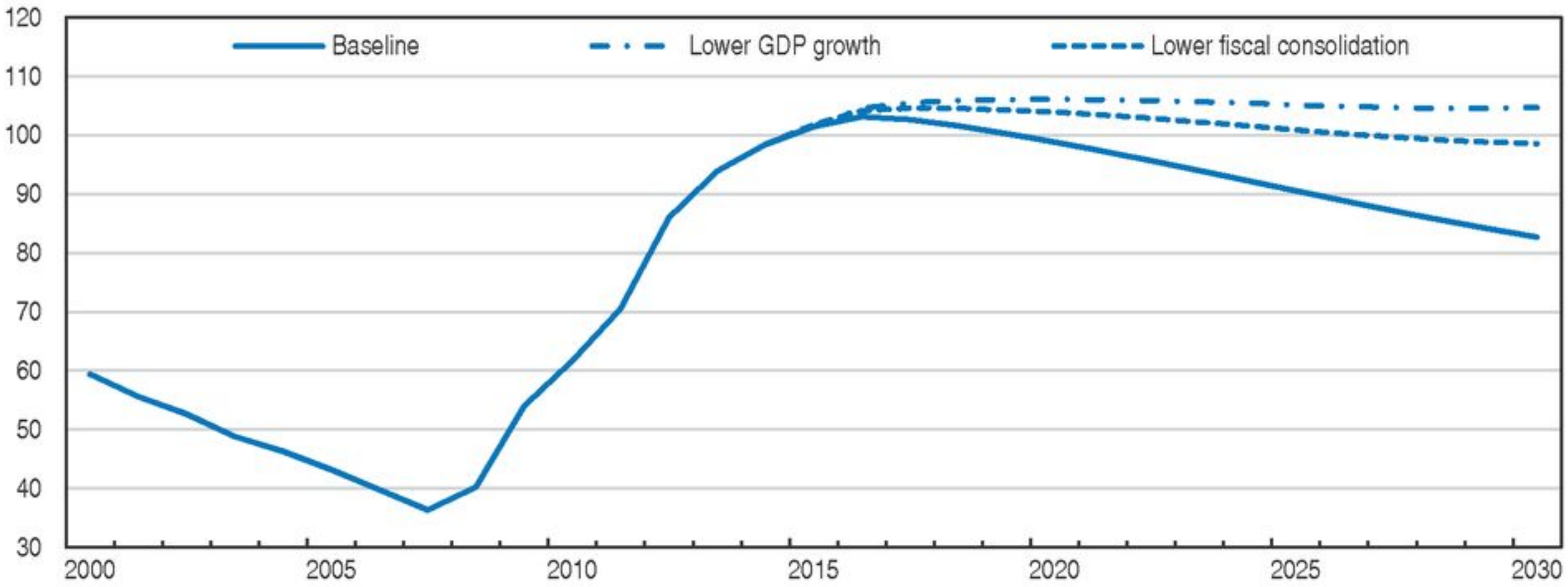
| | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|
| General government financial balance | -5.5 | -4.2 | -2.8 | -1.1 |
| Central government | -3.5 | -2.9 | -2.2 | -1.1 |
| Autonomous regions | -1.0 | -0.7 | -0.3 | 0.0 |
| Local government | 0.0 | 0.0 | 0.0 | 0.0 |
| Social security administration | -1.0 | -0.6 | -0.3 | 0.0 |

*Source:* Government of Spain (2014), *Actualización del Programa de Estabilidad 2014-17* (Stability Programme Update).

The still high fiscal deficits will push public debt over 100% of GDP in 2015. Under the assumptions of fiscal consolidation continuing up to equilibrium of the cyclically-adjusted fiscal balance by 2017, as specified in government medium-term fiscal plans, and of a quick pick-up in real GDP, debt would decline gradually (Figure 10). However, weaker growth or less fiscal consolidation could result in a rising debt-to-GDP ratio. This highlights that it is critical to adhere to the medium-term fiscal plan up to the equilibrium of the cyclically-adjusted fiscal balance. In the same vein, the planned neutral fiscal reform (see below) should be implemented carefully as it is difficult to rely entirely on expenditure cuts for fiscal consolidation; and some caution is required in the implementation of the tax shift since losses following tax cuts could be bigger than expected, while new revenues could surprise on the downside. If growth turns out temporarily weaker than anticipated, the automatic stabilisers should be allowed to operate to avoid hurting growth in the short-term, but the consolidation measures need to be implemented to avoid more costly adjustments in the future.

Figure 10. **Illustrative public debt paths**[1]

General government debt, Maastricht definition, per cent of GDP




1. The baseline consists of the projections for the *Economic Outlook* No. 95 until 2015 and a strong cyclical pick-up afterwards, with real GDP growth averaging 2.2% and inflation 1.8% in the period 2016-30. It assumes government fiscal consolidation plans up to 2017, according to which the excessive deficit would be corrected by 2016 and the medium-term objective of a balanced budgetary position in structural terms reached in 2017. From 2017 onwards a neutral fiscal stance (constant structural primary budget balance) is assumed. The "lower GDP growth" scenario assumes lower nominal GDP growth by 1.5 percentage points per year over the period. The "lower fiscal consolidation" scenario assumes that fiscal consolidation is 1% of GDP lower spread over 2015-17.

*Source:* OECD calculations based on OECD (2014), *OECD Economic Outlook* No. 95, *OECD Economic Outlook: Statistics and Projections* (database).

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The central government also has contingent liabilities amounting to EUR 83.6 billion (8.3% of GDP, Table 3). The more important sources of contingent liabilities have been guarantees associated with bank recapitalisation. The new regulation to allow deferred tax assets to become state-backed tax credits that banks can count as core capital (Banco de España, 2013) could also originate additional contingent liabilities of up to EUR 30 billion.

Significant liabilities have also originated from the so-called electricity tariff deficit. The electricity tariff deficit is the gap between the regulated access tariffs paid by consumers and system costs (including distribution costs and subsidies for renewable energy production). Costs escalated since the mid-2000s due to incorrect demand projections and high investment in renewables, which enjoyed the largest support in

Table 3. **Contingent liabilities**

31 March 2014

| | Billion EUR | % of GDP |
|---|---|---|
| Asset management company (SAREB) guarantees | 48.4 | 4.7 |
| Guarantees on account of bonds issued by credit institutions | 32.9 | 3.2 |
| Programme to issue bonds backed by loans to small and medium-sized enterprises (FTPYMES) | 1.7 | 0.2 |
| Other non-classified guarantees | 0.6 | 0.1 |
| **Total** | **83.6** | **8.0** |
| *Other contingent liabilities already recognised as public debt* | | |
| European financial stability facility (EFSF) guarantees | 34.7 | 3.3 |
| Programme to securitise the electricity-tariff deficit (FADE) | 22.5 | 2.2 |
| Banking bailout fund (FROB) | 5.8 | 0.6 |

*Source:* Government of Spain (2013), *Actualización del Programa de Estabilidad 2014-17* (Stability Programme Update).

Europe (CEER, 2013), resulting in a large excess capacity in international comparison. Consequently, the cumulated tariff deficit up to 2012 is around EUR 27 billion (3% of GDP), which is guaranteed by the government via a fund.

The government introduced several measures in the electricity sector in 2012 and 2013 to prevent further debt accumulation but a gap between revenues and costs persisted, resulting in a EUR 3.1 billion deficit in 2013. Parliament passed legislation at the end of 2013 with the aim of achieving the long-term financial stability of the electricity system by reducing regulated costs associated with renewables, among other measures. This included setting a limit to temporary gaps between costs and revenues in a given fiscal year, and an obligation to increase fees automatically to keep the system balanced. No new costs can be introduced into the electric power system without an equivalent revenue increase or cost reduction, and 2013's deficit will be passed on to electricity prices over a 15-year span. System costs, such as the remuneration of transmission and distribution activities, capacity payments, and subsidies for renewable energies were reviewed. A new methodology for setting electricity prices for domestic consumers was introduced, under which the price will no longer be determined *ex ante* in a quarterly electricity auction but instead will reflect *ex post* the average wholesale market price. For a successful outcome of the reform, the rule "no new cost without a revenue increase" should be strictly enforced. The regulator should apply transparent cost models in determining prices that need to be regulated in the electricity system such as for using the grid. Standards and compensation schemes should be regularly monitored and reviewed to ensure consistency with market conditions and the economic situation.

The debt of state owned enterprises (SOEs), encompassing all levels of the administration, not included in public debt has also increased since the onset of the crisis. It amounted to EUR 51 billion (5% of GDP) at end-2013, against 3.1% of GDP in 2007. The rail traffic infrastructure administrator (ADIF) and the airports operator (AENA) have accumulated large debts (Table 4). ADIF's large debt reflects to a major extent the significant investment undertaken in high-speed railway lines to address previous infrastructure deficits. In the case of AENA its debt grew markedly due to the construction of new airport terminals in Madrid and Barcelona. New infrastructure projects need to be assessed in a more transparent way and be based on more robust cost-benefit analysis to avoid further over-investment. The government plans to set up an independent advisory body with that aim, which is welcome.

Table 4. **Performance of state-owned enterprises**

| | Debt (2013) | | Profit (million EUR, forecast for 2014) |
|---|---|---|---|
| | Million EUR | % of GDP | |
| **From central government** | **35 199** | **3.4** | .. |
| ADIF – Railway infrastructure | 11 844 | 1.2 | -297 |
| AENA – Airports | 11 728 | 1.1 | 436 |
| SEPI – Industrial shareholding | 149 | 0.0 | 245 |
| RENFE – Railway | 4 927 | 0.5 | -202 |
| Other | 6 551 | 0.6 | .. |
| **From autonomous regions** | **9 004** | **0.9** | .. |
| **From local corporations** | **7 407** | **0.7** | .. |
| **TOTAL** | **51 610** | **5.0** | **1 894** |

*Source:* Bank of Spain and Ministerio de Hacienda y Administraciones Públicas (2014), *Presupuestos Generales del Estado 2014* (State Budget).

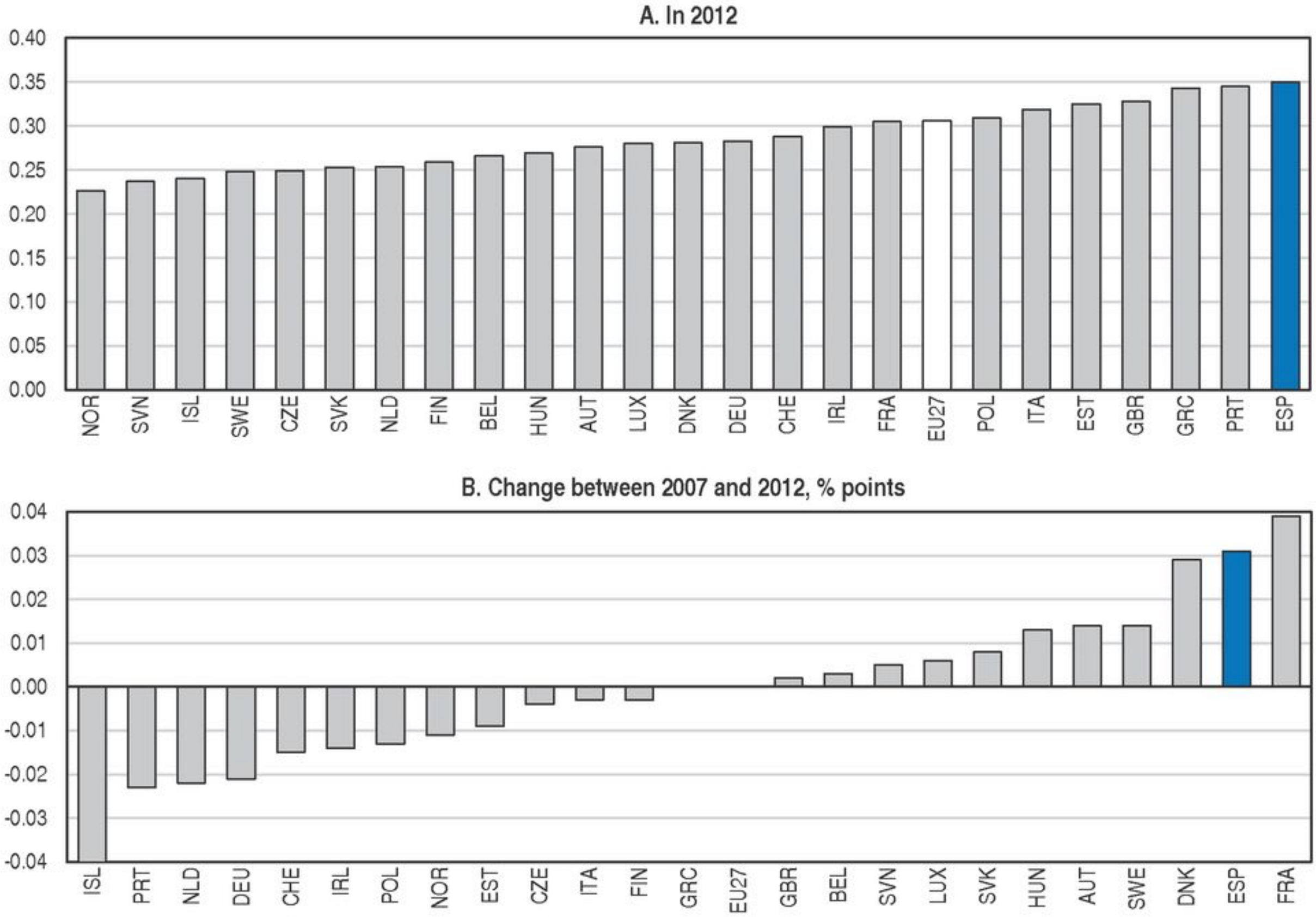
Significant progress has also been made recently in improving the operational performance and viability of most SOEs. AENA recorded profits for the first time in 2013, and profits are also expected for 2014, thanks to a reduction of routes to low-traffic airports, a staff reduction and increasing efficiency in its commercial activities. Efforts to improve AENA's operational performance should continue, including by adapting regional airport costs to the current level of demand and by improving slot coordination. Ultimately this may require either boosting traffic or severely reducing operations at those regional airports that remain unprofitable. ADIF has been split into two companies, one responsible for the high speed network ("ADIF high speed") and the other for the routes used by conventional services. The creation of a separate high speed company is expected to improve efficiency as passenger services are opened to competition, and it also complies with new EU accounting regulations that are due to be implemented as of September 2014. Taking on debt relating to the construction of high speed lines, ADIF high speed will be responsible for new projects, deriving its funding mainly from access charges. The company responsible for conventional services (i.e. non-high speed ones) has already being integrated in general government accounts. This will provide a more transparent subsidisation of government services and it is preferable to continuing to build up off balance sheet liabilities.

Before the crisis, Spain was the second largest user of public-private partnerships (PPP) in Europe, after the United Kingdom (Kappeler and Nemoz, 2010). Payment obligations derived from those PPP contracts have to a large extent been recognised in public debt, with the exception of private concessions. The largest private concessions are those granted to build and operate the so-called radial toll roads. Private companies with concessions for those roads enjoy public guarantees of a maximum of EUR 2.4 billion that would be executed if they were liquidated. Higher than foreseen expropriation costs and lower than estimated traffic make this a real possibility. An observatory for transport and logistics has already been created as a tool to better diagnose the sector. Its first report was published in February. The framework for the design of private concessions needs to be further reinforced, including by involving the independent infrastructure advisory body in its cost-benefit analysis and allowing it to vet proposals. Similar arrangements are common in other OECD countries (OECD, 2012a), whose finance ministries have units specialised on PPP contracts with veto power.

### *Fiscal consolidation, inequality and growth*

The sustainability of fiscal consolidation will also depend on political support. For this, it is crucial that the burden of fiscal consolidation is considered to be fairly spread. The transfer and tax system in Spain significantly reduces both inequality and poverty (OECD, 2014b) and from 2008 to 2012 fiscal consolidation appears to have been progressive with a higher burden falling on higher incomes (IMF, 2014). In a context of tight fiscal constraints total spending on social protection increased from 59.1% of total expenditure in 2007 to 64.5% in 2012. Strongly related to the rise in unemployment, there was a large increase in inequality between 2007 and 2012 to the highest level in the European Union (Figure 11), before starting to fall in 2013. Relative poverty (the share of people with less than half the median income) rose to one of the higher rates in the OECD. However, according to Eurostat data, the number of people at risk of poverty fell by around half a million between 2012 and 2013 (Eurostat, 2014). As in many countries, pensions were not cut in order to protect the incomes of lower income elderly leading to a fall in relative poverty in this group (OECD, 2014b). The crisis also resulted in one of the largest increases in the OECD in the "anchored" poverty rate (where income is benchmarked against half real median incomes in 2005) (Figure 12).

Figure 11. **Inequality: Gini coefficient of household disposable income**[1]




1. The Gini coefficient has a range from zero (when everybody has identical incomes) to one (when all income goes to only one person). Increasing values of the Gini coefficient thus indicate higher inequality in the distribution of income. Disposable income is obtained by subtracting income tax and employees' social security contributions from gross income and is adjusted to reflect differences in household needs depending on the number of persons in the household.

*Source:* Eurostat (2014), "Income Distribution and Monetary Poverty", *Eurostat Database*, July.

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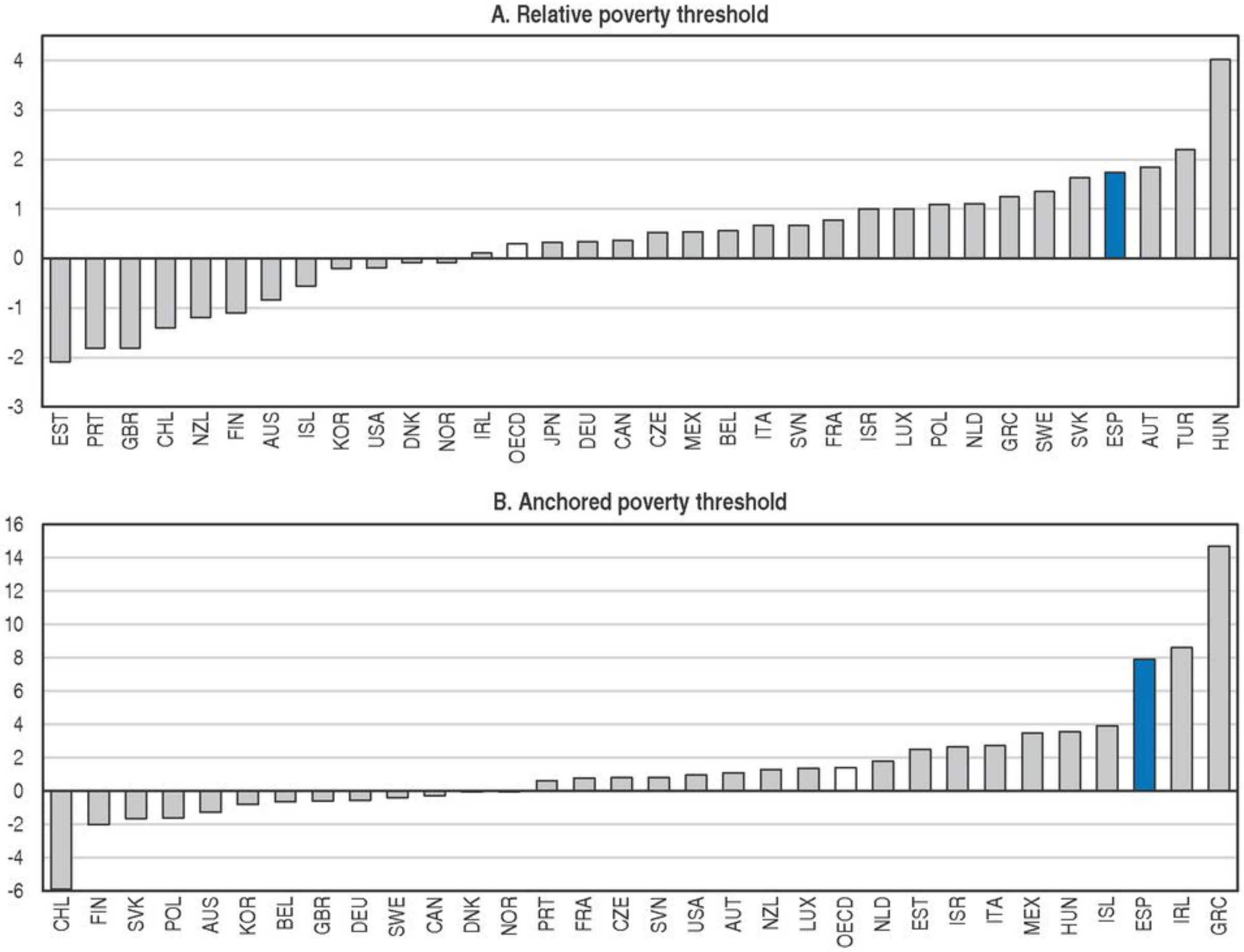
Figure 12. **Poverty rates**[1]

Percentage point change between 2007 and 2011




1. Relative income poverty is the share of people living with less than 50% of the median equivalised household disposable income. The "anchored" poverty rate is a benchmark "anchored" to half the median real incomes observed in 2005 (i.e. keeping constant the value of the 2005 poverty line).

*Source:* OECD (2014), *OECD Income Distribution Database*, June, *www.oecd.org/social/income-distribution-database.htm.*

**How to read this figure:** People are classified as poor when their equivalised household disposable income is less than 50% of the median household disposable income prevailing in each country, which is why this poverty concept is considered as "relative". Changes in relative poverty can be difficult to interpret during recessions as the current median income is usually going down, which could hide an increase in absolute poverty. To take this into account, more "absolute" poverty indices, linked to past living standards, are needed to complement the picture provided by relative income poverty. Therefore changes in poverty are presented in this figure using an indicator which measures poverty against a benchmark "anchored" to half the median real incomes observed in 2005. While relative poverty has increased in Spain, poverty defined as an absolute level has increased even more.

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Fiscal measures often involve trade-offs between growth and equity. The government has introduced a national action plan for social inclusion with a budget of EUR 1.4 billion for the period 2013-16. Consolidation measures for 2015 and beyond should be chosen carefully to minimise as much as possible harm to both growth and equity (Cournede et al., 2013). Spending cuts in education and health tend to reduce both equity and growth, and the focus here should therefore be on improving efficiency, and not reducing services (Cournède et al., 2013). International benchmarking shows that Spain's health care sector is relatively efficient (Joumard et al., 2010) although measures that can lower costs without comprising quality such as substituting branded pharmaceuticals with generics should be

pursued. Potential savings from moving all schools towards the efficiency frontier are significant (Sutherland et al., 2007). Continuing to ensure access to education and health services for lower-income groups should remain a priority for improving equity and can be achieved in a budget neutral way by greater use of means testing (IMF, 2014).

The reform of the Spanish Public Administrations (CORA, 2013), has the potential to both increase public-sector efficiency and reinforce public trust in government institutions (OECD, 2014c), which has deteriorated (Eurobarometer, 2013). The benefits in terms of greater efficiencies and improved services will depend on full implementation of the reforms.

Reducing inequality also requires policies to improve the labour market and to get the unemployed back into work as well as to improve access to education and lower the secondary school drop-out rate of children from low-income households. The European Union Income and Living Conditions survey shows that the dropout rate for the poorest household income quintile was more than three times larger (35%) than for the highest income quintile (10%) in 2010.

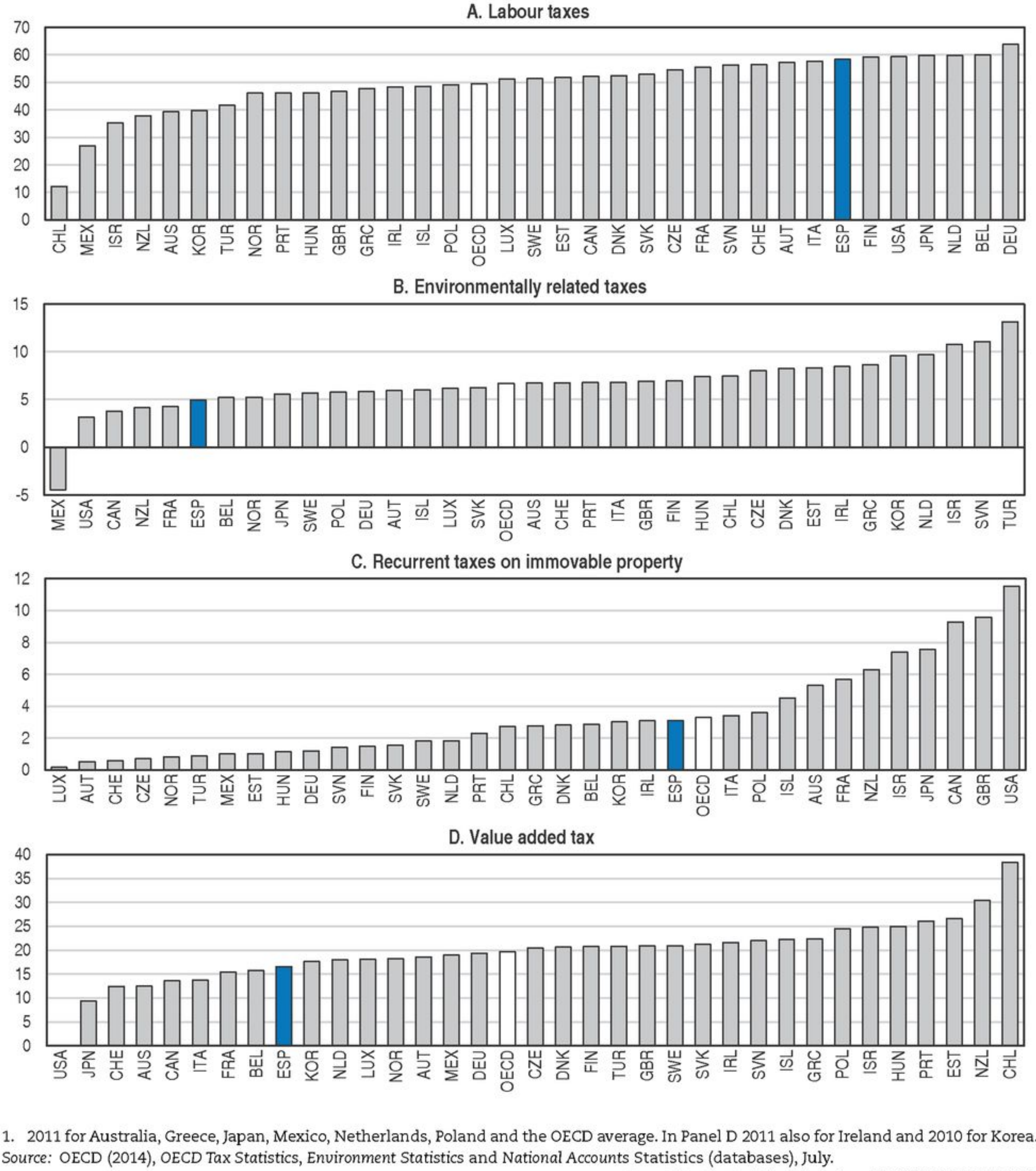
### *Tax reform to boost growth and employment*

Tax reform is a major part of the government's 2014 reform programme. A Fiscal Experts Commission reported in March on a comprehensive revenue-neutral tax reform, when totally implemented. The report's main thrust to broaden tax bases and rebalance taxation from labour to indirect taxes is in line with previous OECD advice. The government released a proposal in June that focuses on personal and corporate income taxes at this stage. The government considers that the reduction in the tax burden will have a cost in terms of revenue of a magnitude similar to that included in the Stability Programme (around 0.6% of GDP till 2016) and an expansionary impact on activity in the coming years that will offset part of the forgone revenue that the lower taxes will entail (Banco de España, 2014). The main components of the government proposal are a cut in both income and corporate tax rates to be implemented in 2015 and 2016. For personal income the proposal involves reducing the number of brackets and rates, with a focus on reducing taxation on the lower-income, as well as increasing tax benefits for large families and households with disabled members. On the corporate side, the measures involve broadening the base, eliminating tax credits, reducing the standard corporate tax rates and eliminating the preferential rate for SMEs. It also introduces a deduction in the tax base for earnings retained for at least five years to reduce debt bias. Overall, this reform goes in the right direction to boost labour supply and investment.

However, more could be done to prioritise employment, while maintaining a fair distribution of the tax burden. Revenue currently depends heavily on labour taxes (Figure 13), which are less growth and employment friendly than indirect taxes (Arnold, 2008). In March 2014, the government introduced a cut in employer social security contributions to a flat rate of EUR 100 per month for two years on all permanent contracts signed until the end of the year. While the tax has been reduced across the board, the flat rate is regressive and is highest on the low-paid. In any case, temporary measures cannot be expected to fully stimulate long-term hiring or investment plans. The recent cut in personal income tax is higher on lower income brackets. Nevertheless, at the heart of the future tax reform should be a permanent cut in employer social security contributions focussed on lower-paid workers, where the need to stimulate labour demand is the most acute and where labour demand elasticity to wage is the highest. This would require

## Figure 13. **Taxation**

Per cent of total tax revenue, 2012[1]




1. 2011 for Australia, Greece, Japan, Mexico, Netherlands, Poland and the OECD average. In Panel D 2011 also for Ireland and 2010 for Korea.

*Source:* OECD (2014), *OECD Tax Statistics*, *Environment Statistics* and *National Accounts* Statistics (databases), July.

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funding social security in part from general revenue. Simulations conducted for the Fiscal Expert's Commission show a significant effect on GDP from cutting social security contributions and personal income tax, marginally higher for the first one. Other work carried out by the Ministry of Economy and Competitiveness indicates that both personal income tax and social security contributions cuts would have a substantial impact on GDP, while the long-term impact on employment is only marginally larger if cutting social security contributions. In the short-term, measures to boost labour demand, such as a cut in social security contributions, tend to be more effective than policies increasing labour supply, whose effects take longer to materialise (IMF, 2012). Moreover, the cut tends to be more effective if targeted at the low-paid (OECD, 2011). Hence, the government should complement personal income cuts with cuts in social security contributions targeted at lower-paid.

The value-added tax (VAT) base was broadened in 2012 but remains one of the narrowest in the OECD (OECD, 2012b). The recent tax reform proposal foresees moving some medical related goods to the standard rate, according to EU regulations. From an economic point of view, the first best option would be to apply the standard VAT rate to the widest base possible. However, as VAT is regressive measures could be taken to mitigate the impact on lower incomes by enhancing the social safety net or exempting necessities such as food, although this would partially reduce the effectiveness of the reform. A key concern is that eliminating special VAT rates would hurt the important tourism industry *vis-à-vis* other competitors (Alvarez et al., 2007). However, if at the same time social security contributions were cut this could potentially compensate for the rise in the VAT rate, especially if those cuts were targeted at lower-paid workers, which are heavily employed in the industry.

A number of other reforms would also make the tax system more growth friendly. Taxes should also be raised on environmentally damaging activities and on real estate. Neither of these are very high in Spain, and taxes on energy are relatively low (OECD, 2013a). Such taxes are less damaging to growth and in the case of environmental taxation can raise welfare.

Broadening the corporate tax base, as discussed below, can also make the tax system more growth friendly. Fighting fraud is also an efficient way to broaden the base and improve public acceptance, trust and compliance with the system. It also supports equity. The government's efforts to reduce tax and social security fraud, including putting limits on cash transactions by firms, were estimated to have raised EUR 11.5 billion (1.2% of GDP) in 2012 (Government of Spain, 2013).

Broadening the income tax base would in many cases make it more equitable and less distorting. The proposed tax reform has a number of measures to broaden the tax base, such as the elimination of dividends exemptions and limits to severance payments exemptions. The government proposes to shift the way medium-term savings are incentivised through the tax system by reducing the limit on deductions for contributions to personal pension plans, creating other long-term saving plans and equalising the treatment of capital gains, deposits and other capital yields. The government should carefully monitor these incentives since they tend to benefit higher income households and in any case may just cause substitution from one instrument to another, instead of increasing the total amount of savings (Engen et al., 1996; Attanasio et al., 2004; Chetty et al., 2012). The government should also eliminate the tax deductibility of mortgage

payments for those who bought their house prior to January 2013. This credit is expected to cost EUR 1.8 billion in 2014 and benefits one group of households. Equity and investment neutrality could be further enhanced by taxing all household income, both capital (whether dividend, capital gain or interest) or labour at the same marginal income tax rate. The government should also consider reviewing the treatment of collective investment schemes and in particular SICAVs (*sociedad de inversión de capital variable*) in conjunction with other EU countries, which pay corporate tax at a rate of just 1%, and should reinforce controls to guarantee that this instrument is correctly used so as not avoid taxation.

## The financial sector

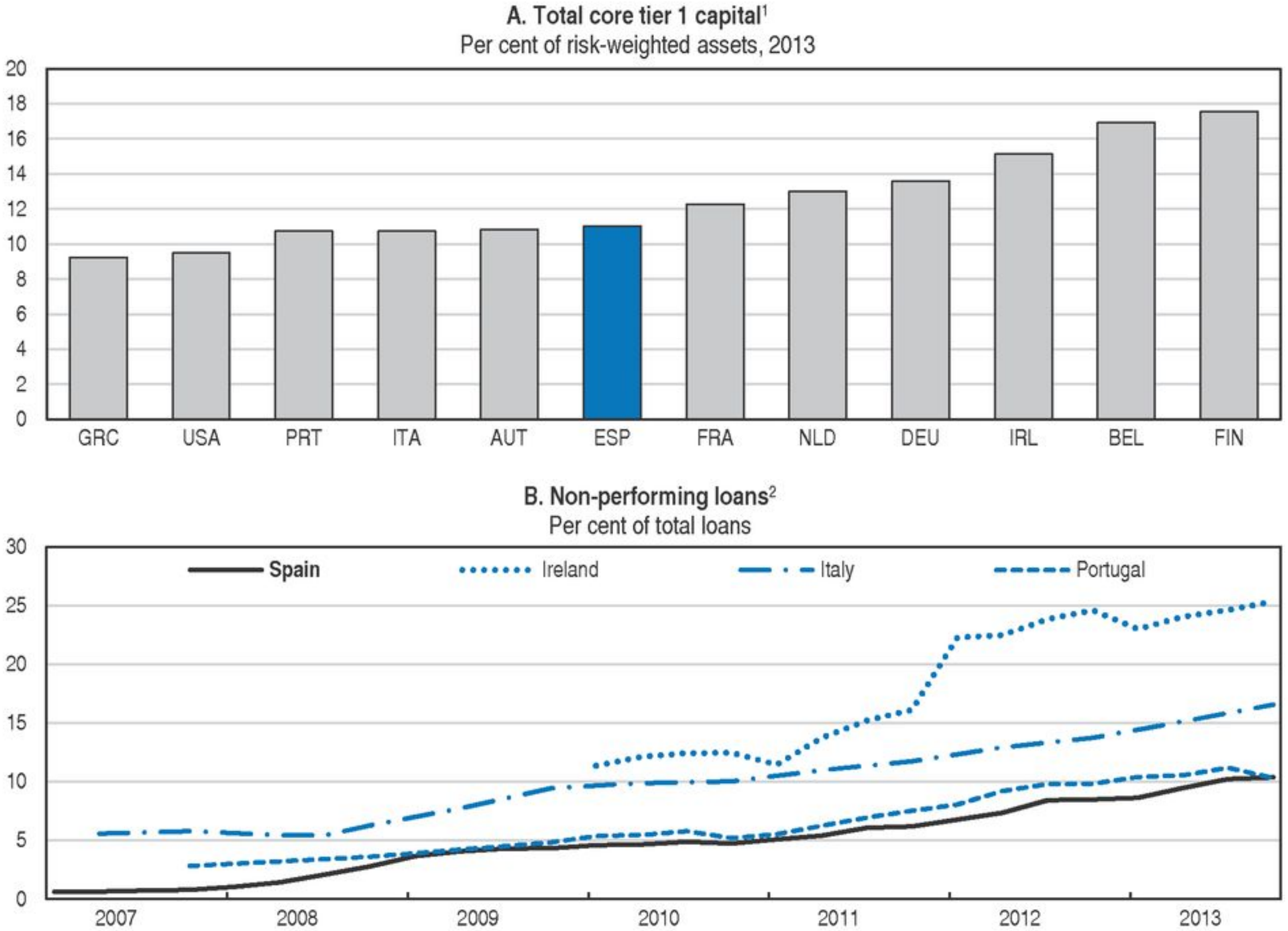
To restore financial stability, the authorities launched a reform program with the support of the EU, including a EUR 100 billion loan facility, of which only EUR 40 billion was used. The program identified weaker banks via a stress test, forced them to address capital shortfalls (restructuring them if needed), and called for the segregation of all those real estate assets that met specific valuation conditions from banks' balance sheets into a new asset management company (SAREB). The program also reinforced financial sector regulation, supervision and resolution and came to an end in January 2014. The banking system capital and liquidity positions have strengthened and market funding costs have also decreased. However, banks' reliance on ECB financing remains high and they hold an important volume of public debt on their books. Remaining risks are mostly related to the evolution of non-performing loans, in particular in case of a lower than expected recovery both in Spain and the EU.

Having recently been through a similar exercise, Spanish banks are perceived to be well positioned for the ECB's Assets Quality Review and subsequent stress tests. Remaining macroeconomic imbalances, such as high debt and unemployment levels, may weigh heavily on them in the more stressed scenarios though.

SAREB faces the challenge of divesting its asset portfolio while maximising value. The government owns 45% of SAREB's equity and it also has contingent liabilities amounting to EUR 50 billion (5% of GDP), in the form of the guarantees of SAREB's bonds. SAREB recorded a higher loss in 2013 than foreseen in its business plans, mainly due to higher than expected provisioning needs, but also to the slow pace of property sales and narrower profit margins on wholesale deals. In 2014 SAREB is expected to increase sales but profitability will depend heavily on house price dynamics.

The main challenges for banks appear to be weak core profits, due to falling volumes of intermediation and low margins, and still deteriorating asset quality. Profitability rose in 2013, driven by lower provisions requirements in comparison with 2012, and to a lesser extent by one-off factors and carry-trade operations. Non-performing loans remain high (Figure 14), and loan books, especially mortgages, will likely continue to deteriorate as long as unemployment stays high. This calls for close monitoring and maintaining suitable provisioning levels and capital buffers. Solvency ratios have recently increased and Spanish banks have higher leverage ratios than those in other European countries and risk-weighted capital is above 11% (core tier 1 capital). To ensure that banks remain sufficiently capitalised to support the recovery and to avoid excessive reliance on credit contraction to support capital ratios, it will be important to favour supervisory actions to boost banks' capital. Thus, the recommendation to limit dividend distribution should be reinforced and extended beyond 2014 and, if buoyant market conditions prevail, banks should also be encouraged to increase share issuance.

## Figure 14. **Capital ratios and non-performing loans**




1. Actual amount of core common capital as defined by regulatory guidelines. Total risk-weighted assets are reported according to appropriate accounting or regulatory standards. Data shown is an average weighted by individual banks' total assets.
2. For Spain the data cover arrears in per cent of private domestic loans; arrears include non-performing doubtful loans (some amount of principal, interest or other contractually agreed expense is more than three months past-due or exceeds 25% of total debt). For other countries the data cover gross value of loans on which payments of principal and interest is past due by 90 days or more as a percentage of the total value of the loan portfolio (including non-performing loans, and before the deduction of specific loan loss provisions). Data are not strictly comparable across countries.

*Source:* OECD (2014), *OECD Economic Surveys: Euro Area 2014*; Banco de España (2014), *Boletín Estadístico* (database) and IMF (2014), *Financial Soundness Indicators* (database), July.

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### Recommendations to reduce debt and increase competitiveness

**Key recommendations**

- As specified in the government's medium-term fiscal plan, return to a cyclically-adjusted fiscal balance by 2017.
- Shift the tax burden from labour to indirect taxes by cutting employer social security contributions for low-skilled workers, increasing environmental and real estate taxes and narrowing exemptions to value-added tax, corporation and income taxes.
- Continue to improve in-court insolvency procedures, increase incentives for the use of both in-court and out-of-court insolvency procedures by small and medium-sized enterprises and introduce a new out-of-court negotiated personal insolvency regime.

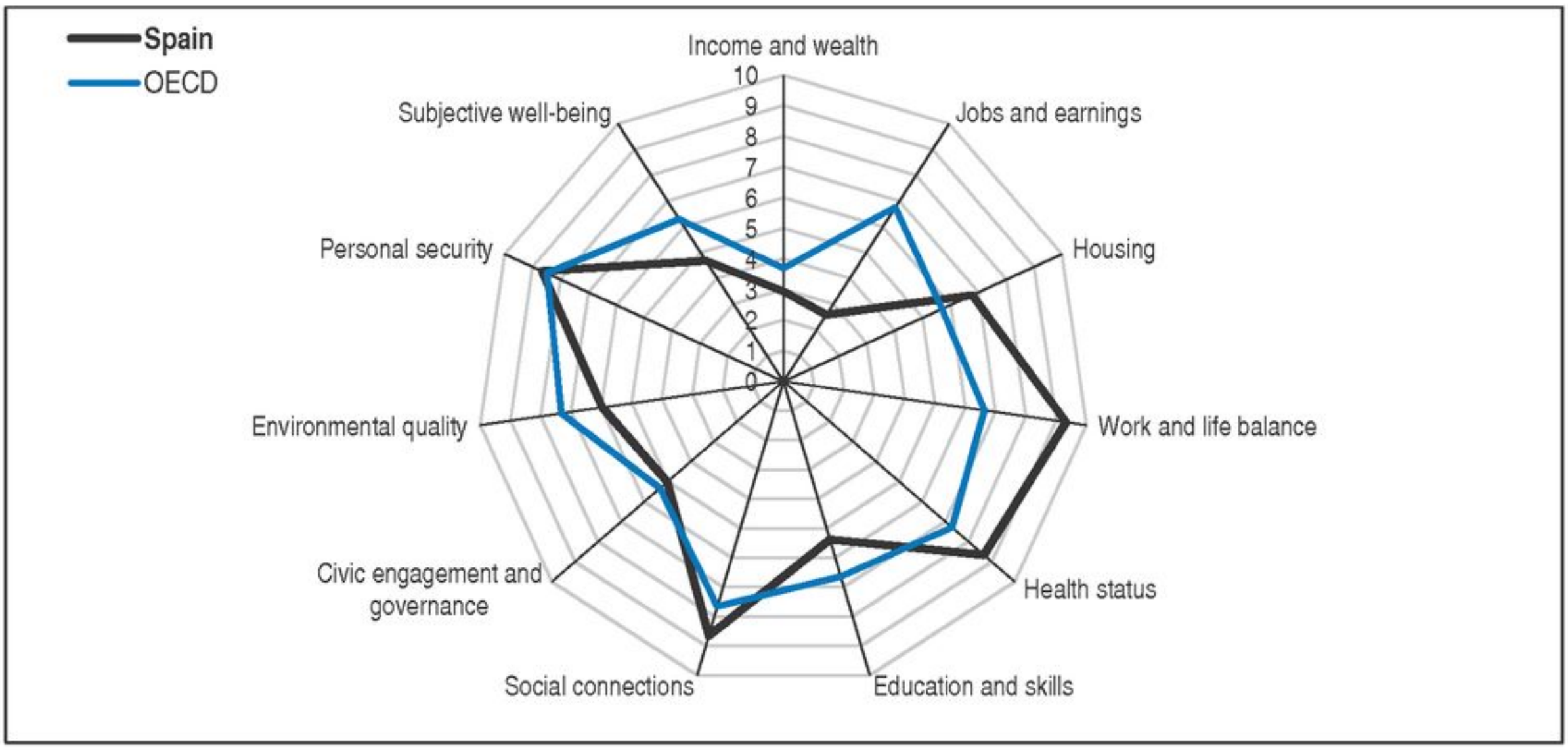
**Other recommendation**

- To reduce expenditure in a growth and equity friendly way, focus expenditure adjustment on public sector efficiency improvements.

## Sustainably boosting wellbeing, medium-term growth and jobs

The *OECD's Better Life Index 2014* shows that Spain's indicators of wellbeing are mixed (Figure 15). Spain ranks 20 out of 21 in the jobs domain and below the OECD average in terms of income and wealth, education and skills and subjective wellbeing. By contrast it ranks relatively highly in terms of housing quality (rank 4/21), health status (3/21) and work life balance (2/31).

Figure 15. **Well-being outcomes: Better Life Index**
2014[1]




1. Each well-being dimension is measured by one to four indicators from the OECD Better Life indicator set. Normalised indicators are averaged with equal weights. Indicators are normalised to range between ten (best) and zero according to the following formula: (indicator value – minimum value)/(maximum value – minimum value) × 10.

*Source:* OECD (2014), *OECD Better Life Index*, *www.oecdbetterlifeindex.org*.

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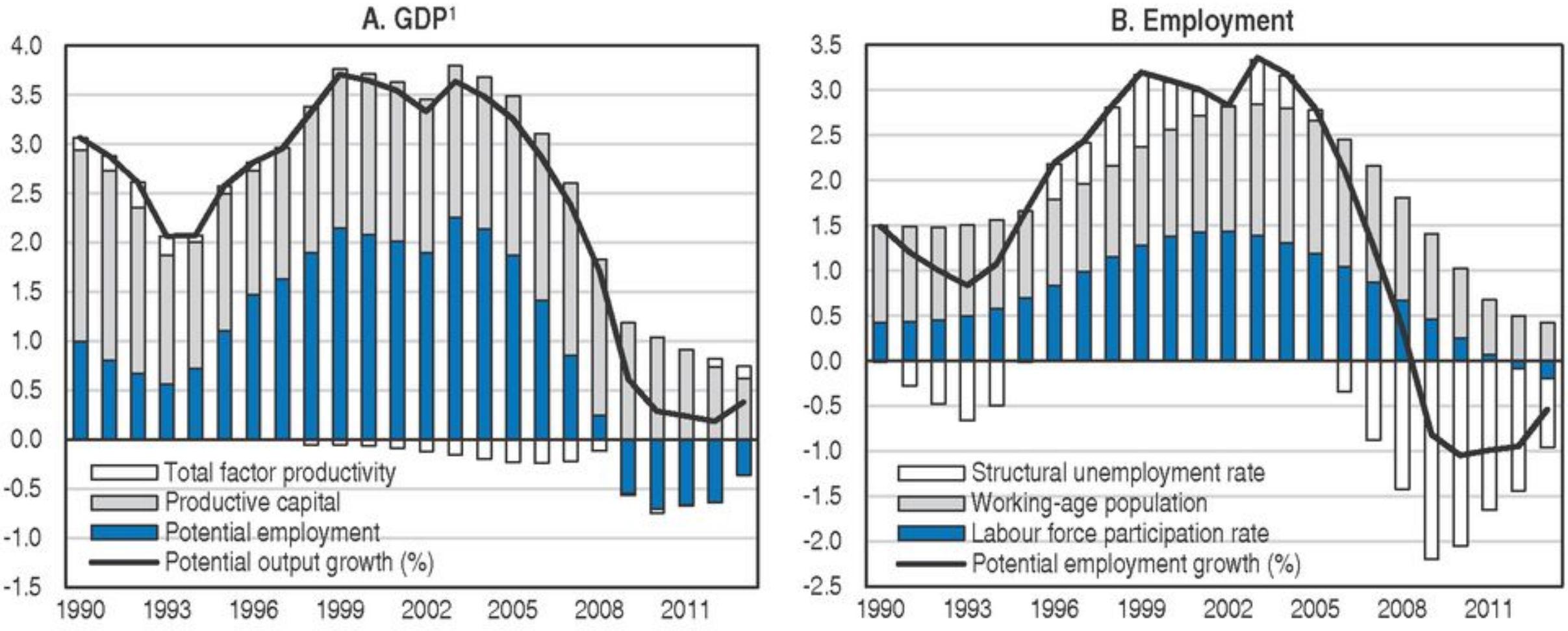
In the wake of the crisis overall trend and productivity growth are estimated at only around 1% and 0% respectively (Figure 16). An inflexible and dualistic labour market and an inadequate regulatory environment for business have contributed to the low productivity growth rate in the past (Dolado et al., 2011; Mora-Sanguinetti and Fuentes, 2012) and still do. Despite significant labour and product market reforms there is room for improvement. Productivity is still held back by the dualistic labour market, with high protection for permanent versus temporary contracts, low business innovation, skills mismatches, and still high barriers to starting and growing a business. Raising trend growth, particularly via productivity increases, is Spain's most fundamental medium-term economic policy challenge.

Spain needs growth driven by skills and innovation to sustainably lift productivity, wages and wellbeing. This involves tackling several challenges including: up-skilling and activating the huge pool of unemployed, most of whom are ill-equipped for the post-crisis economy; tackling long-standing education issues that have impeded the contribution of human capital to growth and lifting innovation capability and its impact on the economy to raise trend productivity growth; and encouraging the use of more environmentally friendly technologies to underpin more sustainable growth.

Figure 16. **Potential growth**

Contributions to growth, percentage points




1. Contributions to growth are calculated using a weight of 0.67 for potential employment and 0.33 for productive capital; total factor productivity is calculated as a residual. Productive capital excludes investment in housing, while potential employment abstracts from cyclical variations in the labour force and unemployment.

*Source:* OECD (2014), "OECD Economic Outlook No. 95", *OECD Economic Outlook: Statistics and Projections* (database).

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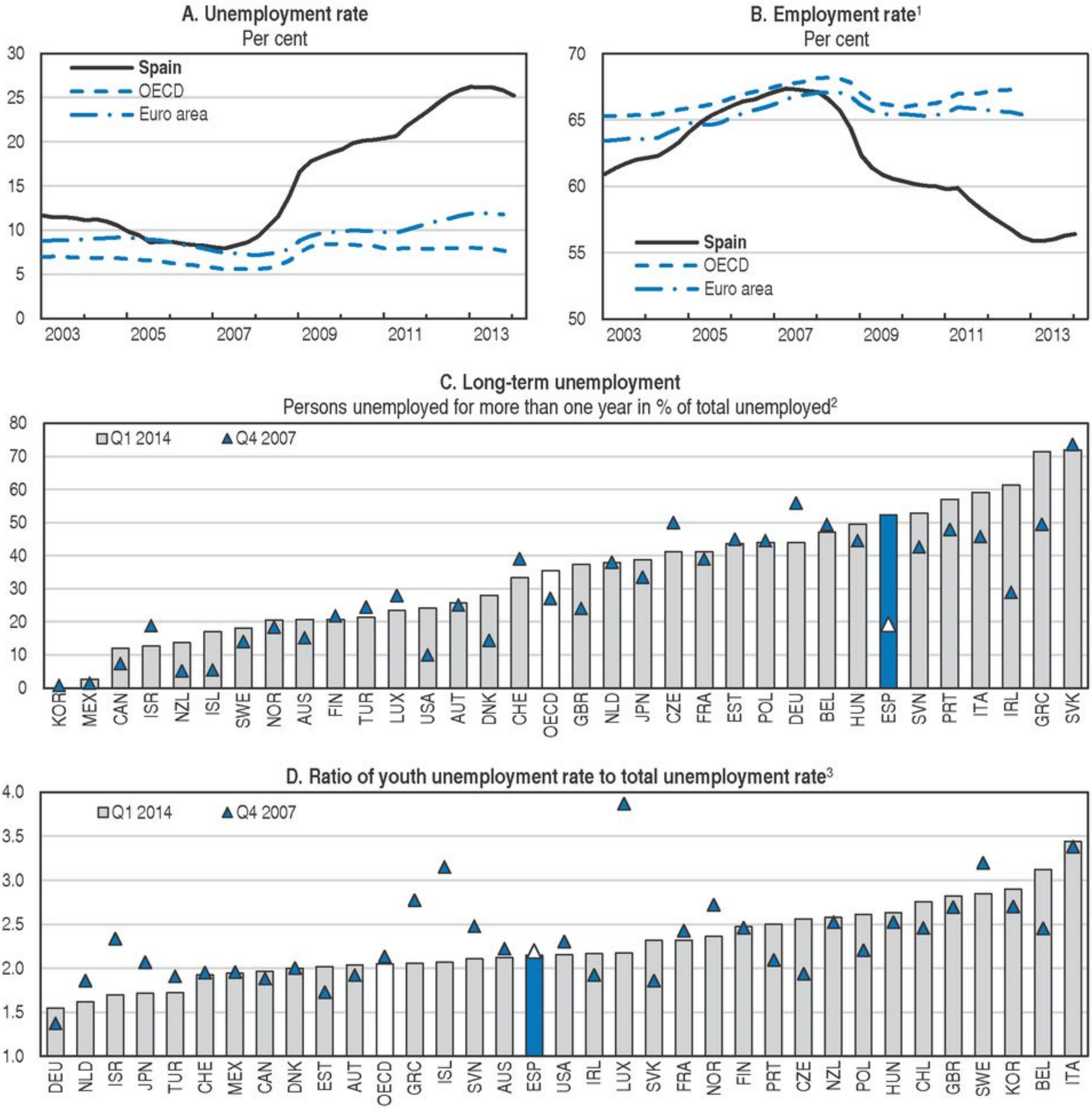
### *Towards a better performing labour market*

Tackling very high unemployment is one of the main challenges for Spain. At around 25%, Spain's unemployment rate is the second highest in the OECD, after Greece (Figure 17). The youth unemployment rate is also extremely high at 55% and reducing it is a key policy challenge and has triggered initiatives at national and EU level to establish a Youth Guarantee Scheme and the OECD's Action Plan to Tackle Youth Joblessness.

In addition to programmes aimed at youth, policies will need to improve the whole labour market. High unemployment, of youth and others, is the result of weak demand but is also the legacy of structural problems, including an inadequate activation regime, insufficient responsiveness of wages to economic conditions and high protection for permanent versus temporary contracts. Participation rates are relatively high; however, due to high unemployment, the employment ratio is low. Recent developments are, nevertheless, quite encouraging. In the second quarter of 2014, employment recorded positive year-on-year growth for the first time in six years (an increase of 192 400), there was a quarterly reduction in unemployment of 310 400 people (the highest in the homogeneous series) and the unemployment rate dropped to 24.5%.

More than half of the nearly six million unemployed in Spain have been unemployed for more than one year. Around half of the unemployed have attained lower secondary education or less. In addition, up to ¾ million of the unemployed formerly worked in the construction industry. These groups are highly vulnerable to becoming structurally unemployed, and many of them do not have skills for the types of employment that Spain will likely generate in coming years. Getting the unemployed back into work by improving the functioning of the labour market, and by reducing impediments to growth and labour demand, is the most pressing economic challenge Spain now faces.

Figure 17. **The labour market situation is difficult**




1. Employment in per cent of working-age population. The OECD aggregate is an average of the country rates.
2. Data are smoothed using three-quarter moving averages and include adjustments for breaks in series. Q4 2013 instead of Q1 2014 for Israel.
3. Instead of Q4 data for 2007 data cover Q2 for Switzerland.

*Source:* OECD (2014), *OECD Economic Outlook: Statistics and Projections* and *OECD Employment and Labour Market Statistics* (databases), July; and *Online OECD Employment Database*, July, *www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm*.

StatLink http://dx.doi.org/10.1787/888933128213

### *Avoiding a rise in structural unemployment*

Despite being kept as a budget priority, spending on active labour market policies (ALMPs) has increased by only 10% since 2007, although the number of unemployed has more than doubled. There is room for improving the efficiency of the public employment services and public spending is skewed towards passive measures. Spending on job search assistance is low by international standards, and, on average, one employee of the public employment services

(PES) is responsible for more than 250 jobseekers, which is at the higher end of the range for European countries (Table 5). Modern activation tools, such as profiling the unemployed to select them into low or more intense assistance groups, are only starting to be developed.

Table 5. **Average caseload in the public employment service**

2011[1]

| | Registered job seekers (thousand)[2] | Public employment service (PES) staff (thousand)[3] | Job seekers per PES staff member |
|---|---|---|---|
| **Spain** | **5 745.3** | **21.4** | **269** |
| Austria | 258.6 | 4.9 | 53 |
| Belgium | 547.4 | 10.0 | 54 |
| Czech Republic | 509.2 | 7.3 | 70 |
| Denmark | 207.7 | 5.8 | 36 |
| Estonia | 53.2 | 0.5 | 108 |
| Finland | 470.4 | 3.9 | 120 |
| Germany | 5 207.6 | 110.0 | 47 |
| Greece | 576.6 | 3.4 | 169 |
| Ireland | 444.9 | 0.6 | 778 |
| Netherlands | 625.6 | 5.0 | 125 |
| Poland | 2 011.2 | 23.8 | 84 |
| Portugal | 639.7 | 3.6 | 177 |
| Slovak Republic | 401.5 | 2.3 | 172 |
| Slovenia | 110.7 | 1.0 | 112 |
| Sweden | 679.0 | 10.8 | 63 |
| United Kingdom | 1 571.7 | 72.9 | 22 |

1. 2010 for job seekers for Greece.
2. Data on the total number of jobseekers registered with the PES are broken down into those considered as registered unemployed according to national definitions and other registered jobseekers.
3. Latest data available from the country fiches of the European Commission website, 2010 or 2011 in most cases but 2012 for Spain. The remit of the PES varies across countries in terms of groups covered (e.g. disabled, employed jobseekers) and services provided (e.g. career guidance, in-house training). For more details see the "PES Business Models" study by Mobility Lab available from the European Commission website (link below).

*Source:* Registered job seekers from Eurostat (2014), "Labour Market Policy", *Eurostat Database*, May; PES staff numbers for Spain provided by the Ministry of Employment and Social Security; other PES staff numbers from European Commission, Employment, Social Affairs and Inclusion, Public Employment Services, *http://ec.europa.eu/social/main.jsp?catId=105&langId=en*, accessed April 2014.

Effective ALMPs are based on mutual obligation: the unemployed receive income and employment support and in return are required to participate actively in job-search or training (Martin, 2000; Kluve 2006). In Spain, the unemployed must accept an adequate job offer but definitional uncertainty of what is "adequate" facilitates refusal and makes enforcement difficult. There are no systematic job search obligations. Implementing the mutual obligations principle is challenging in Spain because activation is the responsibility of the regions, while the central government pays unemployment benefits. The central government is trying to counter this by building a new activation strategy 2014-16 with different components (profiling, a single nationwide portal for searching for job offers, stronger collaboration on placement with private agencies). A set of impact measurements are being used to allocate central government funding to the regions for activation.

These changes appear to be going in the right direction but implementation at the regional level is crucial and has been slow. In particular, the PES has been too slow to develop activation assistance to the unemployed based on modern practice, operating largely in a passive way. Resources need to be shifted to activation from other government expenditure areas. The first priority should be to improve PES efficiency by increasing the range of tools and

improving the institutional framework. This will require strengthening the capacities of the PES including retraining and specialisation of their caseworkers and reallocation of staff to value-added services. Once efficiency has increased it may be necessary to increase the number of caseworkers at the PES, although this will be costly. The policy aim should be to have a regularly monitored individual assistance and obligations plan for all unemployed shortly after their registration. Part of an enhanced obligations approach should be to define more clearly an adequate job offer using objective criteria such as the minimum pay premium the job must offer over unemployment assistance or the length of the unemployment period.

Major up-skilling of the unemployed group is required. The recent OECD Survey of Adult Skills (PIACC) found that Spain has the worst numeracy and second-worst literacy skills of the 23 countries and regions surveyed. To increase the labour market relevance of training for the unemployed the regions should introduce systematic evaluation of training outcomes and reallocate funding towards those schemes that are the most effective in increasing employability. The reform of the institutional framework should enhance the value added of training in terms of market relevance of its contents and increase efficiency in the use of public funds. Continuing education at the upper secondary vocational education and training (VET) level has a large role to play. The strengthened vocational education track with a higher practical component and greater labour market relevance being introduced at secondary school (discussed below) should be made available in parallel to the adult unemployed. International experience suggests that increasing work-based training opportunities such as apprenticeships and internships is likely to pay-off as they facilitate labour market entry, particularly of youth (OECD, 2009).

Significant reforms to both the wage bargaining and employment protection regimes were implemented in 2012. The reforms allow firms to opt-out of sectoral agreements, limit the period of automatic extension of sectoral agreements to one year, reduce severance pay for unjustified dismissal and define more clearly the economic reasons that would justify a dismissal. A recent OECD review of the reforms, which used statistical techniques to distinguish policy from other effects, found that they had contributed to wage moderation and increased hiring on permanent contracts (OECD, 2013b). However, further time will be required to fully evaluate the effect of the reform as it is hard to distinguish between cyclical and policy effects in an economy emerging from recession.

Depending on the outcome of such evaluation the government could consider a number of avenues for further reform. As a first option, gradually increasing representation requirements for both unions and firms for sectoral collective agreements would make the bargaining process more inclusive. As a second option, requiring firms to "opt-in" rather than allowing them to "opt-out" of sectoral collective agreements would increase the responsiveness of wages and allow new and innovative firms to enter (Chapter 2). The proportion of fair dismissals has increased from 30% in 2010 to nearly 60% of total dismissals, but if progress stalls the legal distinction between "justified" and "unjustified" dismissals may have to be further clarified.

### *Increasing the contribution of education and innovation to growth*

Spain has made progress in raising the overall education level over the past decade, and the share of the population with upper secondary school and especially tertiary qualifications has increased. The education system faces several challenges: increasing performance and graduation rates at secondary school; and increasing the labour market relevance of university education.

The government is introducing a major reform to tackle these problems. In 2012 it introduced a new dual VET (simultaneous school and firm training) that has a high work-based component. A new two-year basic VET programme is being introduced from the autumn of 2014, which will lead to a qualification of both academic and professional value, and be a gateway to intermediate VET at the upper secondary school level. These changes are promising. The high share of small firms in Spain makes building a dual VET system challenging, as their capacity to participate in such a system is limited. The VET reform should also increase the practical work-based component of Spain's existing mostly school-based VET system, where 70% of the "practical" component is at present school based, particularly by increasing the time spent with companies from the current level of around 20% of total programme time.

At the university level, the government is planning from 2014 to publish information on labour market outcomes of graduates by degree and institution. This is a welcome reform that can help create demand-side pressure for greater specialisation in Spanish universities, which are too homogenous and offer an excessively wide range of degrees. The government should ensure that this information is widely communicated and the responsibility for its collection and dissemination transferred to the National Statistics Office to ensure the data remains in the public domain. To facilitate greater specialisation, the government should also ease the compulsory requirements to offer a minimum number of degree courses at undergraduate level.

### *Boosting innovation capacity and knowledge transfer*

Spain has also made progress in expanding the innovation system; increasing the number of researchers, research and development (R&D) spending and output of scientific articles. However, it still lags behind the OECD and other large country peers in Europe and the effects of public spending cuts in the crisis are yet to show through on research outputs due to lags in the research process. Total spending on R&D remains significantly below the OECD average due mainly to low business spending on R&D. Spain faces two inter-related challenges: continue increasing the capacity and quality of its research base and the impact of innovation on the economy.

An important tool to tackle both challenges is to increase both the size and the specialisation of universities and research centres. Scale and specialisation are not only important for improving quality but also leveraging Spain's R&D spending by attracting EU Horizon 2020 funds. Larger research organisations are also in a better position to have support divisions to handle commercialisation, thereby increasing collaboration with enterprises. The central government should expand the use of performance based funding, such as the "centre of research excellence" programme, which provides a designation as well as extra funding to institutions evaluated as top research performers from an international perspective. This should be done by providing extra direct research funding to institutions that amalgamate, or network with existing high performing research groups or institutions and/or specialise. It is important to allocate funding to proven performers to increase both efficiency and impact.

The government could also better foster the innovation base through improvements to innovation funding mechanisms and framework conditions (Chapter 2); business R&D remains low, suggesting it is not effective. It should reduce the volatility of its total financial support to R&D; innovation is a long-term investment so funding stability is at a premium. The government should continue to balance direct innovation support with a

R&D tax credit, as each has advantages. The credit, while apparently generous, is not widely used, particularly by smaller firms. One potential problem is that firms are required to apply for certification from the government to claim the credit, which may be too cumbersome. The authorities should streamline the process. In addition to grants, loans and fiscal incentives, the authorities should continue boosting and extending the use of other instruments such as venture capital. In spite of the existing constraints, the government should continue to promote stable R&D spending.

### *Towards a green economy*

Developing environmentally sounder technologies, products and services is potentially an important opportunity for the business sector in Spain. It can generate new sales, added value and jobs across green value chains, and position Spain better for a future where environmental costs and benefits will likely feature more heavily in economic regulation and consumer choice across the OECD. Spain has developed a degree of leadership in some green technologies, but risks losing it as others move into the industry. Policies need to encourage green innovation and adoption. To a large extent, these policies are the same as encouraging innovation and firm growth more broadly, policies which are discussed more in detail in Chapters 1 and 2 of this *Survey*. However, environmental policies themselves, if properly designed, can provide critical incentives to green industries and green employment.

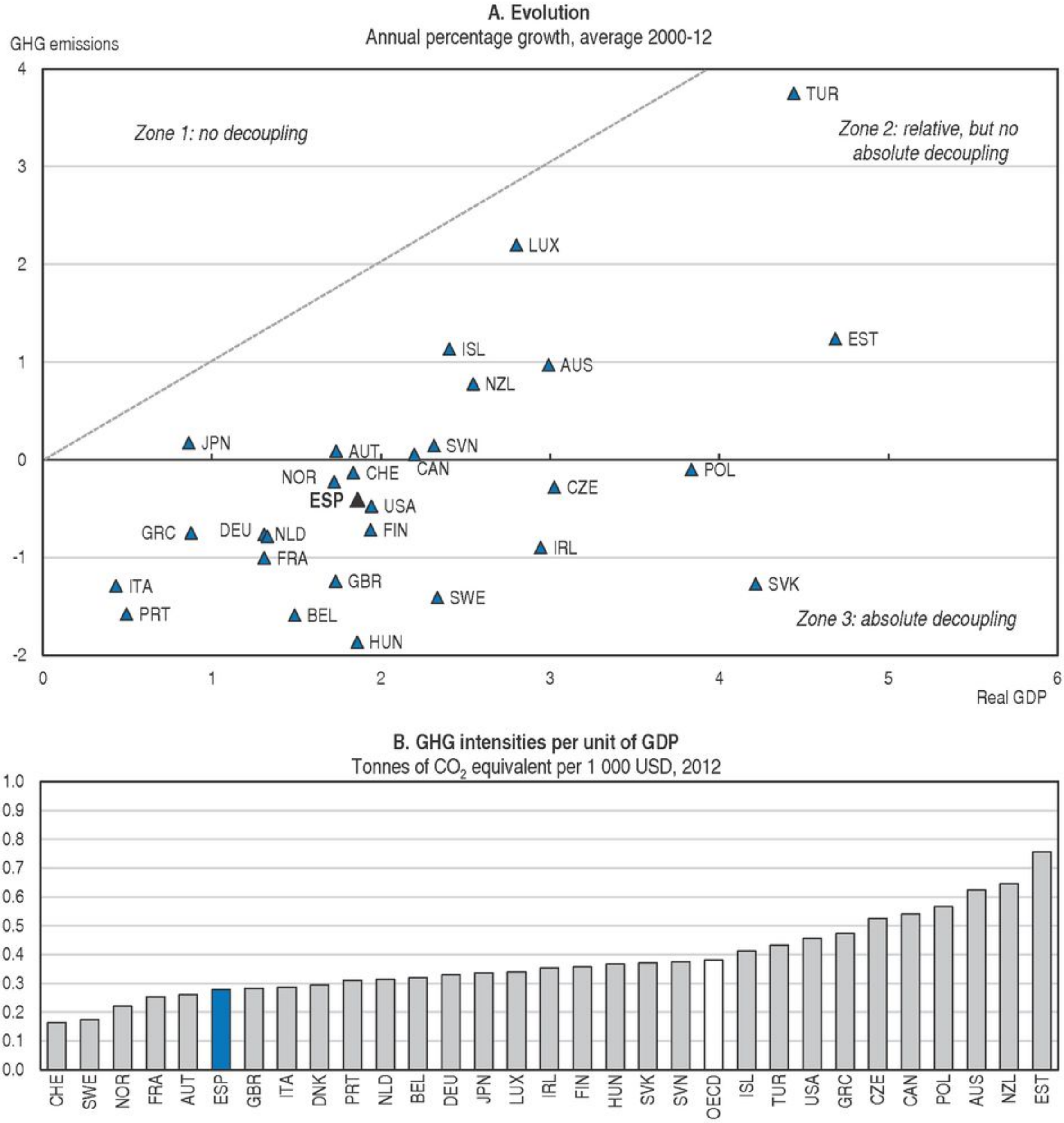
In a promising sign there was a large increase in green patent applications filed by Spain from 1999-2008, especially those related to renewable energy sources, particularly solar energy. There has been a steady growth in primary and final consumption of renewable energy in Spain, mainly driven by biofuels and waste, and solar and wind energy (IEA, 2013a). The share of renewable energy in the total primary energy supply increased from 7% in 1990 to 12% in 2012 and from 17.2% in 1990 to 29.5% in 2012 in electricity generation (IEA, 2013b). This contributed to a decoupling of GDP from greenhouse gas (GHG) emissions. As a result, Spain has one of the lowest emissions intensity economies in the OECD (Figure 18). Nonetheless, despite the increase in renewable energy generation and the replacement of coal by natural gas, fossil fuels still account for 76% of the country's energy supply.

Policies should be carefully designed to maximise effectiveness and minimise costs, including fiscal costs. In general terms, such considerations argue for the use of market-based instruments as the primary policy tools; although regulation and other policies also have a role. The government should continue to foster the entry of new firms with greener technologies by better using taxation, subsidy and other instruments to ensure market prices better reflect the environmental costs and benefits of different activities. Tighter regulatory standards can also play a role.

Policies should also be designed to attract private investment, by providing stable domestic policy frameworks for low-carbon investment. A rapid increase in the share of renewables in electricity generation has resulted from feed-in tariffs (guaranteed minimum prices paid to producers) and from 2004 feed-in tariff premiums (guaranteed mark-ups over the market price). However, feed-in tariffs and premiums can be an expensive way to reduce emissions compared with the EU's Emissions Trading Scheme (ETS) (OECD, 2013c). In Spain, the cost of these feed-in tariffs and premiums, as well as other regulated costs, were not fully passed onto consumers, blunting incentives and resulting in a significant build-up in tariff debt owed to producers (see above). The recent changes to feed-in tariffs and reforms of renewable energy incentives in Spain intend to ensure the sustainability of the system, although it has triggered some litigation with investors in renewable energy projects.

## Figure 18. **Green growth**

Greenhouse gas emissions in $CO_2$ equivalent and real GDP[1]




1. Greenhouse gas emissions (GHG) measured in carbon dioxide ($CO_2$) equivalent excluding land use, land-use change and forestry. Real GDP in national currency in Panel A, in USD at 2005 prices and purchasing power parities in Panel B.

*Source:* UNFCCC (2014), *GHG Data*, United Nations Framework Convention on Climate Change, July and OECD (2014), *National Accounts Statistics* (database), July.

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Setting predictable incentives is critical to attract investment in renewable energy. In addition, around 40% of Spain's GHG emissions are already regulated by the ETS, including those related to energy generation and production as well as emission-intensive industries. Depending on the ETS price and developments in the costs of renewables, Spain might need to introduce other policy measures to meet its renewable targets. The costs of such measures

should be fully passed onto consumers and minimise fiscal costs. Increasing the interconnection capacities with neighbouring countries will help to mitigate these costs. Spain is an energy island and because of that the system has to bear an extra cost to accommodate higher penetration of renewables. Greater interconnection capacity between the Iberian Peninsula and the rest of Europe can help to make more compatible ambitious renewable objectives with the need to ensure affordable energy prices and a stable energy system. This is also part of a wider approach of the EU in the security of supply and meeting EU energy and climate change objectives that will be defined in the next 2030 strategy.

Under the Kyoto Protocol, Spain pledged to limit its GHG emissions for the 2008-12 commitment period to 15% above its 1990 levels. It has also established binding annual GHG emission targets for most sectors not included in the EU ETS, such as transport (except aviation), buildings, agriculture and waste. Spain is on track to meet its target using the flexible mechanisms under the Kyoto protocol (for example, promoting development of national carbon sinks, such as forest, or buying emissions rights) to compensate for GHG emissions that exceeded the target by a small amount (20% higher than in 1990, versus a target of 15% higher). In addition, Spain has committed to reduce its GHG emissions by 10% in 2020 compared to the 2005 level under the EU Effort Sharing Decision (European Parliament, 2009).

To encourage the least-cost reduction in emissions in non-ETS sectors, Spain should, as a first step, move towards equalisation of the price of GHG emissions across the economy. The private vehicle fleet is dominated by diesel vehicles, which produce less carbon dioxide ($CO_2$) emissions per kilometre but more per litre and it also produces higher health-damaging fine particulate matter per litre than petrol. Despite this, taxation per litre is lower for diesel than for petrol. The government should increase taxation per litre on diesel to more than taxation per litre on petrol to equalise its carbon price with that of petrol. More generally the government should try to harmonise the price of emissions across sources using taxes and fees.

### Recommendations to sustainably boost medium-term growth and jobs

**Key recommendations**

- Strengthen active labour market policies by improving vocational training, strengthening the capacities and efficiency at the public employment services, and enhancing coordination between the different levels of administration.
- Raise the quality of innovation and strengthen competitiveness by encouraging greater scale and specialisation of universities and research organisations, by extending performance based resources allocation and the application of international peer review and by providing more career opportunities for highly qualified researchers.
- Equalise pricing of greenhouse gas emissions across sources to contain carbon emissions and thereby promote green industry and jobs.

**Further recommendations**

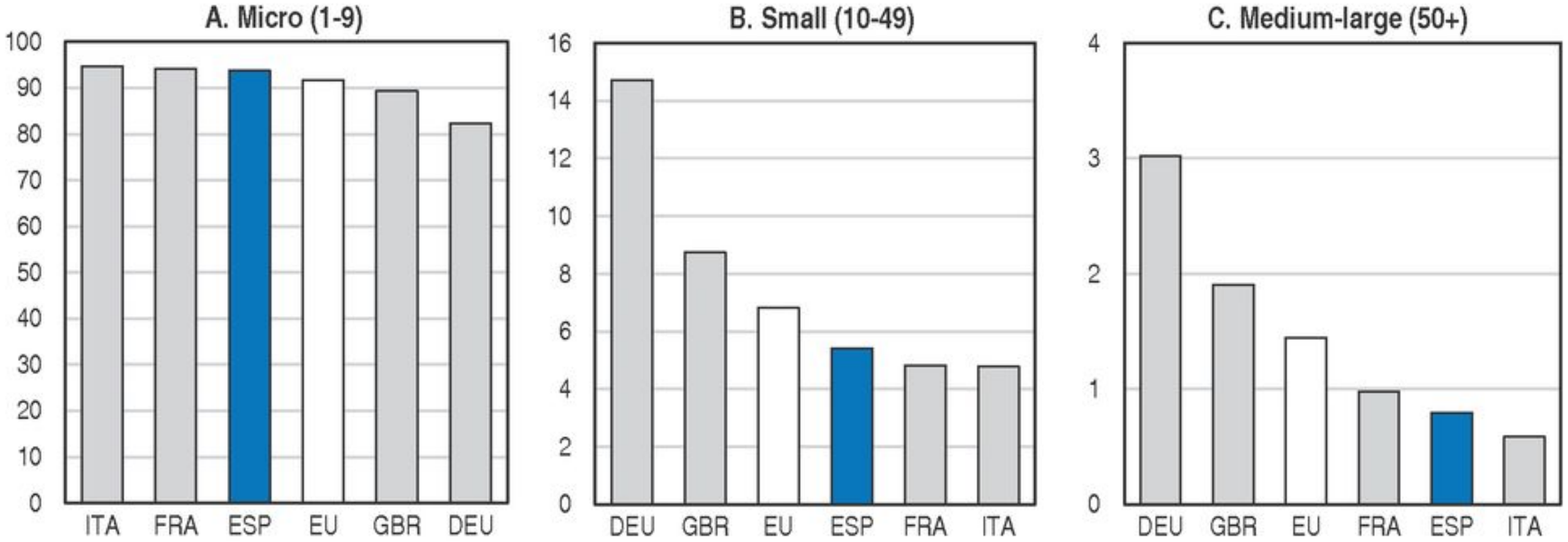
- Retain and review the research and development tax credit and cooperate with larger research organisations to promote its use among younger firms.
- Increase the work-based component of existing school-based vocational education and training.
- Ensure predictable and sustainable policy support to low-carbon technologies.

## Business sector performance

The Spanish business sector is more dualistic than other OECD countries (Figure 19). A large number of very small locally focussed firms with low productivity coexist with a few large and productive firms, successful in international markets (Figure 20).

Figure 19. **Distribution of firms by size class**

Based on the number of persons employed, per cent of total, 2010[1]




1. The sector covered is the total business economy (including repair of computers, personal and household goods; excluding financial and insurance activities). The EU aggregate is an unweighted average of shares for 23 countries.

*Source:* OECD (2013), *Entrepreneurship at a Glance 2013*.

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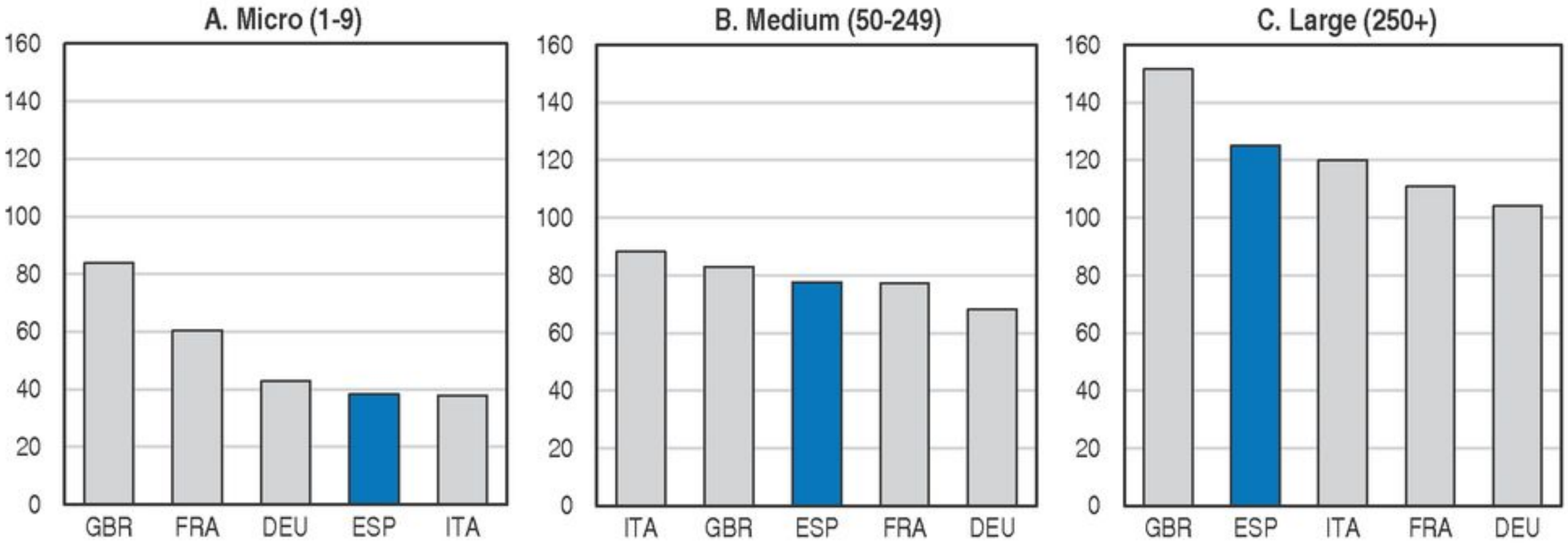
Figure 20. **Productivity of firms in the manufacturing sector by firm size class**[1]

Value added at factor cost, thousand USD per person employed, 2010




1. Firm size classes based on the number of persons employed.

*Source:* OECD (2013), *Entrepreneurship at a Glance 2013*.

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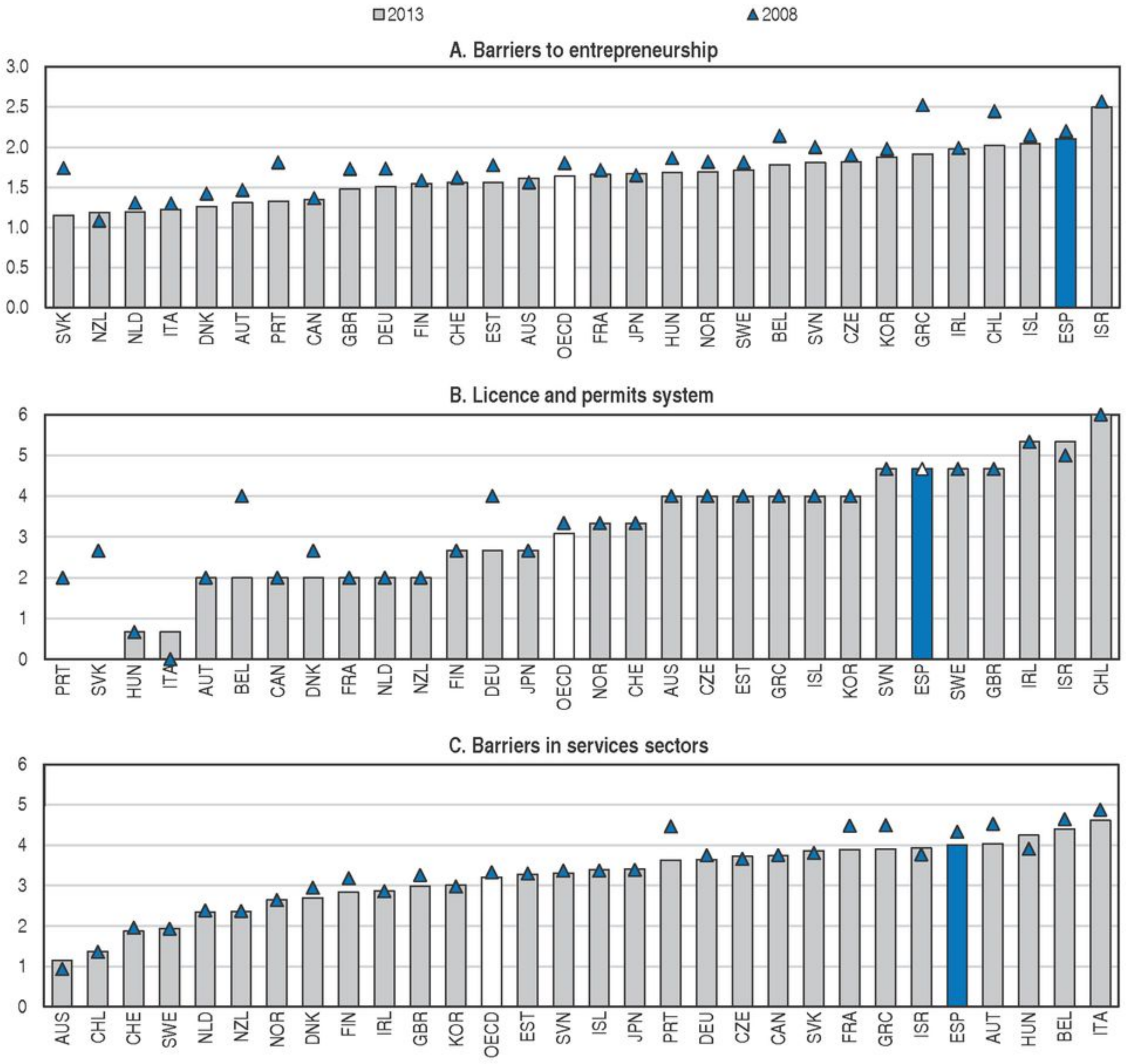
### *Favouring start-ups and firm expansion*

Spain ranks 142nd (out of 185) with respect to the ease of starting a business (World Bank and IFC, 2014) and has the second highest barriers to entrepreneurship in the OECD (OECD, 2014d). Obtaining licences and permits is more difficult in Spain than in most OECD countries (Figure 21). Contrary to best practice, there are no standard procedures to use the "silence is consent" rule for issuing the licences required to open up a business, and

Figure 21. **Product market regulation indicators: Barriers to entrepreneurship**

Index scale of 0-6 from least to most restrictive[1]




1. The OECD aggregate is an average of the data shown.

*Source:* OECD (2013), *Product Market Regulation Database, www.oecd.org/economy/pmr.*

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there are not yet single contact points for issuing or accepting all notifications and licenses that are required to open up a business. However, with the aim to address this obstacle the law on entrepreneurship creates entrepreneurial support point networks as a single window through which to support business start-up. Progress has been made in reducing administrative burdens for sole proprietor firms, but they are still higher than the OECD average.

Firms also suffer the inconveniences of a regulatory framework that is fragmented by regional or local administrations. To tackle this and move towards a truly single market, the government has introduced the Market Unity Law to simplify business licensing requirements by increasing the use of notification procedures, reducing the need for prior

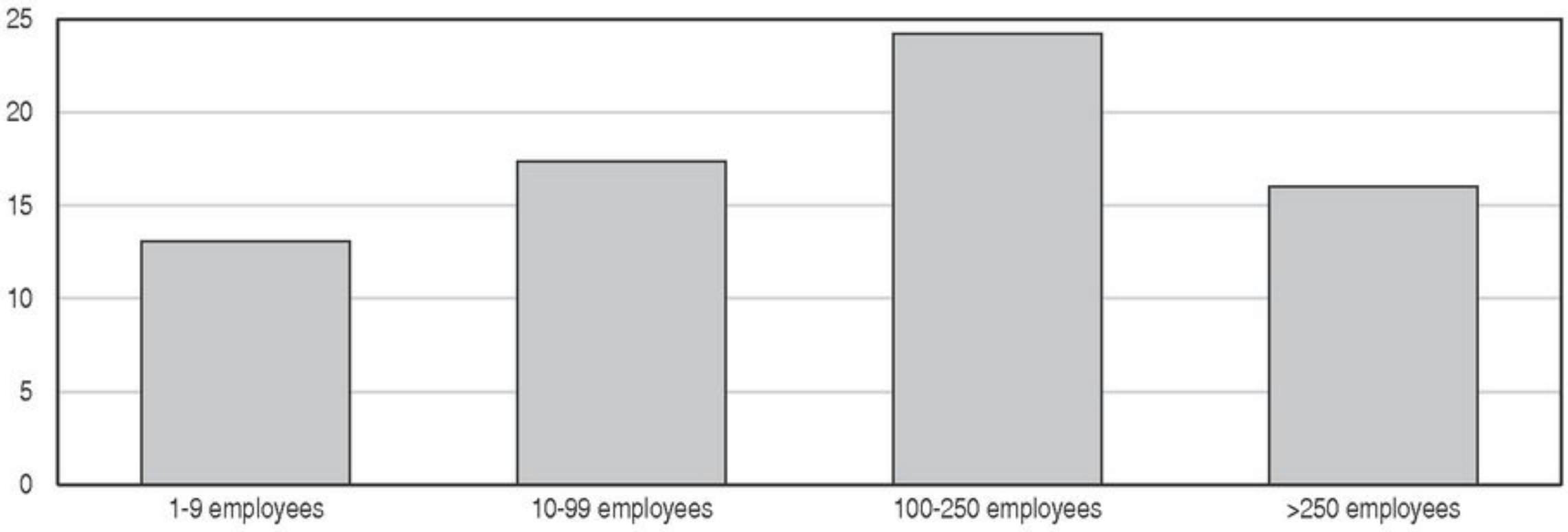
authorisations, and by ensuring that permits issued in one region will automatically be valid for the others. According to the law, all legal texts enacted at local, regional and central government level that may be considered inconsistent with the market unity law will have to be amended in the following six months. So far 2 700 regulatory barriers have been identified as inconsistent with market unity. This process is to be supported by enhancing administrative cooperation, and by setting up a procedure for responding quickly to complaints about obstacles to the single market. A swift implementation of the law, while challenging due to the technical complexity of dealing with a large body of regulation and the involvement of all levels of the government, will be crucial to boost the performance of the Spanish business sector.

Besides the Market Unity Law, Spain is currently embarking on other projects to improve the overall business climate. *Emprende en tres* is the electronic one-stop-shop designed to present declarations of responsibility required for entrepreneurs to start up a new economic activity. Spain will carry out an annual review of the business regulatory framework to detect and remove obstacles to businesses. Also, an agreement has been signed with the World Bank for the elaboration of a report on *Doing Business* at the subnational level in Spain during 2014 and 2015.

Some parts of the corporate tax system are not favourable for firms' growth. The standard corporate tax rate is 30%. The corporate rate for SMEs – defined as firms with an annual turnover below EUR 10 million – is 25% on profits up to EUR 300 000 and 30% above that. The rate is 20% for SMEs with net revenues below EUR 5 million and fewer than 25 employees who have not decreased the number of workers they employ. Despite these preferential rates for SMEs, larger firms can optimise deductions, resulting in differences between statutory rates and effective rates that widen as turnover increases. The result is a humped-shape effective tax rate that discourages growth up to about 100 employees (Figure 22). Broadening the tax base by reducing tax deductions, and using that fiscal space to establish a unique and lower corporate tax rate for all firms would reduce the capacity of larger firms to avoid taxation and provide better incentives for firm's growth and better align corporate taxation with the EU average.

Figure 22. **Effective corporate tax rates by firm size**

Per cent, 2011[1]




1. Since 2011 several measures have been adopted to broaden the corporate tax base.

*Source:* La Agencia Tributaria, Ministerio de Hacienda y Administraciones Públicas.

StatLink http://dx.doi.org/10.1787/888933128308

### *Towards more diversified financing*

Bank lending has traditionally been the predominant financing source in Spain. With the crisis, larger companies have raised capital directly from the markets, although less than in other European countries. By contrast, SMEs remain largely reliant on short-term bank loans. Compared with other large European countries, fewer alternatives to bank finance are available to Spanish firms, which affect business birth rates and growth (European Commission, 2013). Recent government initiatives (notably the strategy to promote non-bank financial intermediation under the Memorandum of Understanding agreed with European authorities) attempt to fill these gaps, with a special focus on SMEs and start-ups. They include a new securities market aimed at medium-sized companies and efforts to develop venture capital funding structures (especially FOND ICO Global, a public fund of funds) and to strengthen incentives to finance young technology companies (e.g. via better fiscal incentives for business angels).

While these initiatives have the potential to create a new landscape of financing alternatives, it will take some time until they are operating at their full potential. In the interim, strengthening some existing alternatives would help to improve the availability of bank financing. This includes the Official Credit Institute (ICO) intermediation facilities and mutual guarantee schemes (MGS). Through its intermediation facilities, ICO provides funds to banks on the condition that the funds are lent for a certain kind of activity (e.g. internationalisation) or to a certain type of firms such as SMEs (Ayuso, 2013; García-Vaquero, 2013). A more extended use of MGS would also contribute to further diversify and guarantee SME's risks, such as those adopted by CDTI (Centre for Industrial and Technological Development).

In addition to ICO there are numerous agencies and institutions providing financing support to Spanish companies. In some cases these institutions have cross-shareholdings and the instruments they offer are very similar (Ayuso, 2013). Simplification and consolidation may increase the effectiveness and cost-efficiency of the system, avoid duplications, and make it easier to access for firms, especially for SMEs that may have more difficulties to absorb information and navigate a complex system.

### *Strengthening competition*

Spain undertook several reforms in 2012 and 2013, such as introducing more flexible shop opening hours and simplification of licensing procedures for small retail outlets (Mineco, 2013), to foster competition in goods and services markets. Profit margins have moderated during the recession but have grown faster than in other euro area countries (BBVA, 2014). This partly relates to the need for firms to rebuild their finances in the context of tight credit conditions, but it also signals weaknesses in effective competition in some markets (Montero and Urtasun, 2014). Margins are currently being used by firms to reduce debt and finance new investment projects. As the recovery strengthens and external financing becomes available, it is essential to continue to foster competition in goods and services markets to maximise the impact of other reforms, such as those in the labour market, on job creation.

A key unfinished initiative is the law on professional services and associations, whose approval is suffering a long delay. Barriers to entry in professional services remain high in international perspective, especially concerning access to the legal, architect and engineering professions. It will be crucial that the final content of law remain as ambitious

as initially foreseen in order to eliminate existing restrictions (CNC, 2012). There is also scope for improving competition in the electricity market. The sector is to a large extent vertically integrated. Strengthening competition between incumbents and improving entry possibilities are important for ensuring that the recent electricity reform really facilitates more price competitive dynamics in the sector.

### Recommendations to boost business sector performance

**Key recommendations**

- Broaden the corporate tax base, lower the rate and eliminate regimes for small and medium-sized enterprises.
- Continue to promote diversified financing sources for firms, revamp the licence and permits system and reduce regulatory fragmentation by implementing the market unity law.
- Reduce the number of professions requiring membership of a professional body and the cost of membership.

**Further recommendations**

- Consider reducing the number of government agencies involved in providing financing support to firms.
- Adjust Official Credit Institute intermediation facilities to demand and make further use of mutual guarantee schemes.

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# ANNEX

# Progress in structural reform

*This annex reviews action taken on recommendations from previous Surveys. Recommendations that are new in this Survey are listed in the relevant chapter.*

## Banking policies

| Recommendations in previous *Surveys* | Actions taken |
|---|---|
| Viable banks with capital needs should be recapitalised promptly and non-viable banks should be resolved in an orderly manner as soon as possible, as foreseen in the Memorandum of Understanding. | On the basis of independent stress test results and the subsequent bank plans to address potentially identified capital shortfalls, all banks requiring fresh capital were recapitalised. Some banks relied solely on private sources, while others were restructured and received state funds. As a result of this process and previous injections of public capital, the state (via the Spanish Fund for the Orderly Restructuring of Banks, FROB) became the controlling owner of a significant part of the banking sector (holding an estimated 18% of system loans). The FROB will be gradually divesting itself of this ownership interest. Most illiquid and difficult-to-value assets (mainly real estate, including land, and related loans) were segregated from state-aided banks and transferred to a newly created asset management company (SAREB). |
| Holders of subordinated debt and lower-ranked hybrid capital instruments should absorb losses of banks which are resolved or are restructured, as foreseen in the Memorandum of Understanding. | From the total of EUR 56 billion (5.5% of GDP) in capital shortfalls identified by the stress test, 70% was met by public capital injections, 23% by bailing-in junior debt and 6% by private capital injections. |

## Public finance

| Recommendations in previous *Surveys* | Actions taken |
|---|---|
| The government should aim at meeting its new headline deficit targets, unless growth is far lower than expected, in which case the automatic stabilisers should be allowed to operate, at least partially. | Growth was lower than anticipated and as a result headline deficit targets were relaxed but the structural effort was maintained.<br>The deadline for complying with the European Commission criterion of 3% of GDP was postponed by two years to 2016. |
| The consolidation measures needed to reach the deficit target in 2014 should be spelt out. Their regressive impact, if any, should be minimised, to foster the social consensus around consolidation needs. | Consolidation measures to reach the 2014 deficit target were specified in Budget 2014 and in the Stability Program Update.<br>Two thirds of the fiscal consolidation measures are revenue-based, including higher revenues raised by regional administrations and higher corporate tax revenues. On the expenditure side, measures include reducing spending on personnel and labour market policies, less spending by regional administrations and a programme to increase efficiency in the public administration. |
| To improve the fiscal framework, establish a fiscal council with a strong mandate. Strictly implement control of regional government budget policies and the new requirements on the publication of regional government budget outcomes. | The Independent Authority for Fiscal Responsibility was established in November 2013 and it became operational in July 2014.<br>The Authority will monitor and report on compliance of all levels of government including regional and municipal.<br>11 out 17 regional governments complied with their deficit targets for 2013. Budgetary reporting at central, regional, and social security levels is now all published monthly on a national accounts basis. Local governments have quarterly budgetary reporting on a national accounts basis. |
| Raise taxes on environmental externalities, including on transport fuels. Apply the standard value-added tax (VAT) rate to more goods and services. Make increases in the taxation of real estate values permanent and reduce taxation of housing transactions. | No action on transport fuels. A tax reform proposal foresees moving medical goods to the standard VAT rate.<br>New environmental taxes on the sale of electricity energy, on the production of radioactive waste and on the storage of radioactive waste were introduced in 2013. Moreover, a new tax on fluorinated greenhouse gases has being introduced in 2014.<br>No action on taxation of real estate values and housing transactions. |

## Labour market and education reform

| Recommendations in previous *Surveys* | Actions taken |
|---|---|
| Further reduce compensation for unjustified dismissal. If the reform does not prove to be effective, a single contract with initially low but gradually increasing severance payments would reduce the still large difference in dismissal costs between temporary and permanent contracts. This would help reduce duality effectively. | No action. |
| An option to improve the flexibility to adapt to economic conditions is to abolish legal extension of higher level collective bargaining agreements or replace it by an opt-in system, where employers decide whether to be represented in sectoral wage bargaining. | No action. |
| Extend access to training and job-search assistance for unemployed youth. Introduce comprehensive monitoring and benchmarking of placement services and active labour market policy (ALMP) implementation at regional level. | In February 2013 a comprehensive strategy based on talks with social partners included 100 measures in the education and training spheres to tackle youth unemployment. A youth guarantee plan was presented in December 2013. The infrastructure (information systems, profiling tools, application procedure) is being developed in 2014.<br>The new Activation Strategy for Employment Strategy 2014-16 includes a regional ALMP performance model of 22 indicators. In 2013 and 2014, 15% and 40% respectively of ALMP funds were allocated by the central government to the regions based on the model. In 2015 it will be 60%. |
| Widen access to upper secondary education by narrowing criteria for grade advancement in lower secondary education to core competencies. Combine the school-based vocational education system and training contracts into one single scheme. | A new assessment system with standardised external exams will be implemented at the secondary level from the 2015/16 school year. The requirements to sit the lower secondary exam have been narrowed – a pass in Spanish and mathematics and the failure of no more than two subjects in internal assessment rather than an internally assessed pass in all subjects.<br>The dual VET regulation (Royal Decree 1529/2012) brings together the basic rules for vocational education and training contracts. |

## Product market reform

| Recommendations in previous *Surveys* | Actions taken |
|---|---|
| Further reduce the costs and procedures necessary to create businesses and eliminate sector-specific entry barriers, including for professional services as well as rail and road transport. | The Market Unity Law foresees broader use of the declaration and notice systems (with *ex post* controls) to simplify licensing procedures. The new system will be based on mutual recognition by all regions of approval in one region rather than requiring individual approvals from every region in which a business operates.<br>There are plans to open the national rail market for passengers to private operators in 2014. In road transport a modification of the Land Transportation Law was approved in 2013, including measures to reduce the number of licences required, reduce administrative burden and make contractual resolution easier.<br>A law on professional services and professional bodies, aiming at opening up professional services and highly regulated professions, has been prepared but its approval has been delayed. |
| Entry barriers for large-surface retail outlets imposed by regional governments should be lowered, and shop opening hours should be liberalised in those regions where restrictions remain. Raise the national minimum limit on hours that regions have to apply when regulating shop opening hours. | The 2012 simplification of licensing for small retail outlets (express license) was extended both in time and scope, covering larger outlets (up to 750 square meters) and activities beyond the retail trade.<br>A Royal Decree was approved to liberalise opening hours in areas declared as of tourism interest. The number of festive days when opening is allowed has increased to 16 days per year. Application of these new regulations varies across regions.<br>Royal Decree Law 8/2014 extends the list of Spanish cities that must include a Touristic Zone within their boundaries (*Zona de Gran Afluencia Turística*). These zones benefit from greater freedom on opening hours. This law also institutes as a general rule that the setting up, move or enlargement of commercial establishments does not require authorisation. It also diminishes the associated administrative burden and time associated with processing the authorisation. |

# Thematic chapters

*Chapter 1*

# Better harnessing talent and knowledge to boost sustainable medium-term growth in Spain

*Structural transformation towards a more knowledge-based economy will strengthen Spain's medium-term growth prospects. To deal with long standing impediments to higher growth the government has a substantial structural reform programme touching on education, the labour market and the business environment. Areas of particular weakness to be tackled include the high number of poorly qualified long-term unemployed, skills mismatches and a high school drop-out rate, and insufficient innovation. Spain has done well in reducing the carbon emissions intensity of GDP growth but will need to do more to meet future targets and manage its scarce water resources. The resolution of acute banking and fiscal problems, and the cyclical upswing, provide a more solid platform for sustained growth. Raising trend growth will boost job creation, which is the most effective antidote to the strong rise in poverty and inequality that accompanied the sharp deterioration in the labour market during the crisis.*

## Introduction

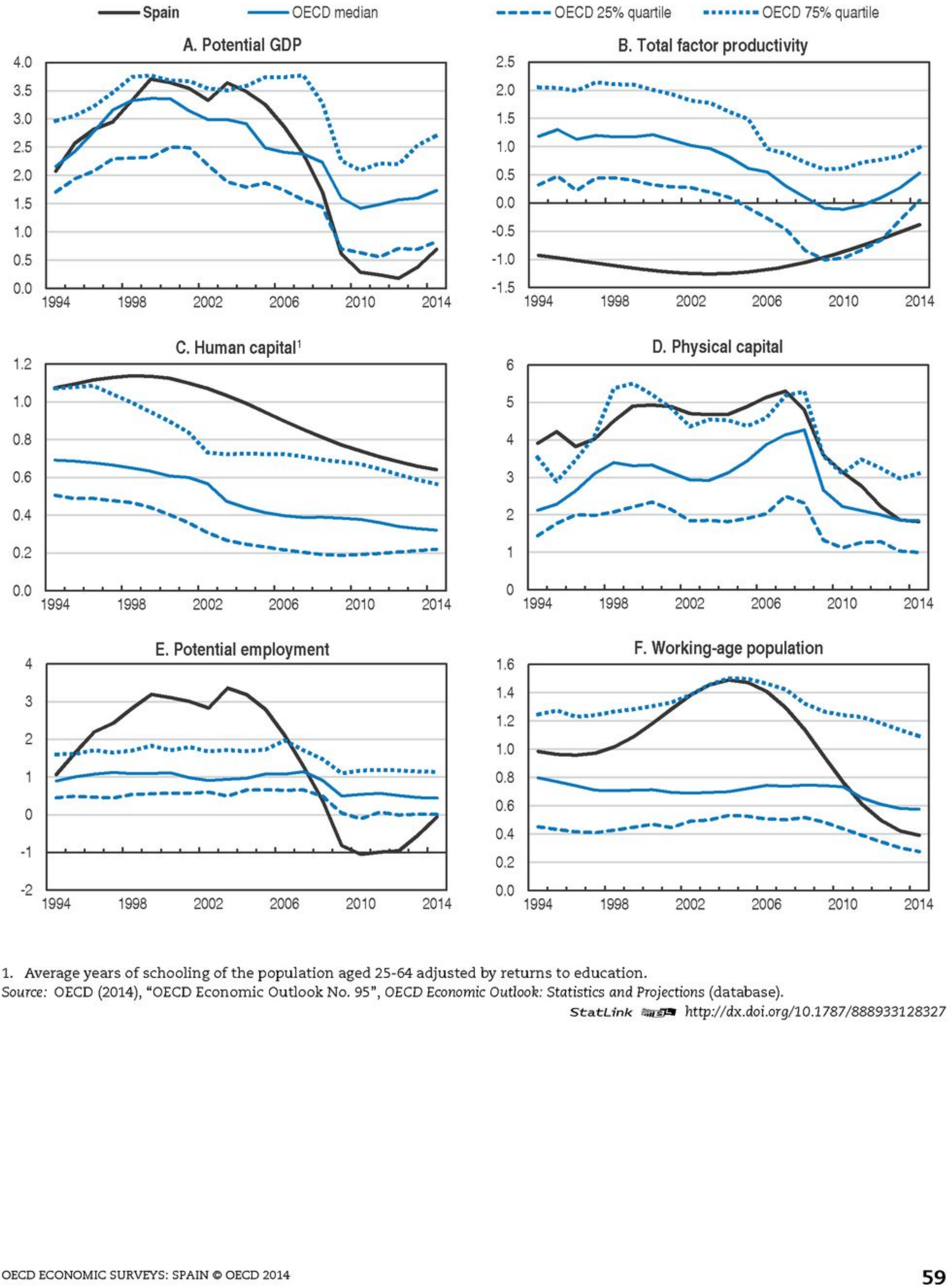
In order to sustainably recover from its economic, fiscal and jobs crisis Spain must build its medium-term capability to generate gross domestic product (GDP) growth. It would make improving living standards and reducing unemployment, inequality, poverty, the fiscal deficit and public debt easier. An inflexible and dualistic labour market and an inadequate regulatory environment for business (Chapter 2) have contributed to the low productivity growth rate (Dolado et al., 2011; Mora-Sanguinetti and Fuentes, 2012). This has been compounded by insufficient investment in innovation, which is closely linked with productivity performance (Hall et al., 2010; Westmore, 2013). Skill mismatches and a high drop-out rate are impeding the contribution of education to growth. If Spain's fertility rate remains at its current low level the working age population will likely shrink markedly with strong implications for growth and the fiscal position due to ageing. The government has a large structural reform programme underway to boost growth including through improving the business environment (Chapter 2), reforms to education and the labour market. However, it will need to maintain reform momentum as well as intensify its focus on areas of strong under-performance compared with OECD peers, including activating the unemployed and boosting innovation.

## How well is Spain placed to grow in the medium-term?

Over the decade leading up to the crisis, Spain's trend growth rate was above the OECD median (Figure 1.1). Growth was driven by strong increases in the supply of human and physical capital, although total factor productivity growth remained consistently and worryingly negative. Low productivity was largely due to poor within sector productivity performance across a wide range of sectors rather than specialisation in sectors that tend to have low productivity (Mora-Sanguinetti and Fuentes, 2012). This suggests that Spain's growth performance has been impeded by barriers that have a broad detrimental effect on business sector performance (Chapter 2). The strong contribution to medium-term growth from increased labour supply rather than productivity partially explains why, despite strong trend GDP growth, Spain was performing less well in generating higher living standards, as evidenced by per capita GDP growth well below the OECD median from 2002 onwards. Despite good progress in tackling greenhouse gas emissions, pre-crisis growth came at environmental cost affecting natural habitats, a high growth in urban sprawl (OECD, 2011a), and the construction of new buildings with low energy efficiency.

## Figure 1.1. **Potential GDP growth and selected components**

Percentage growth




1. Average years of schooling of the population aged 25-64 adjusted by returns to education.

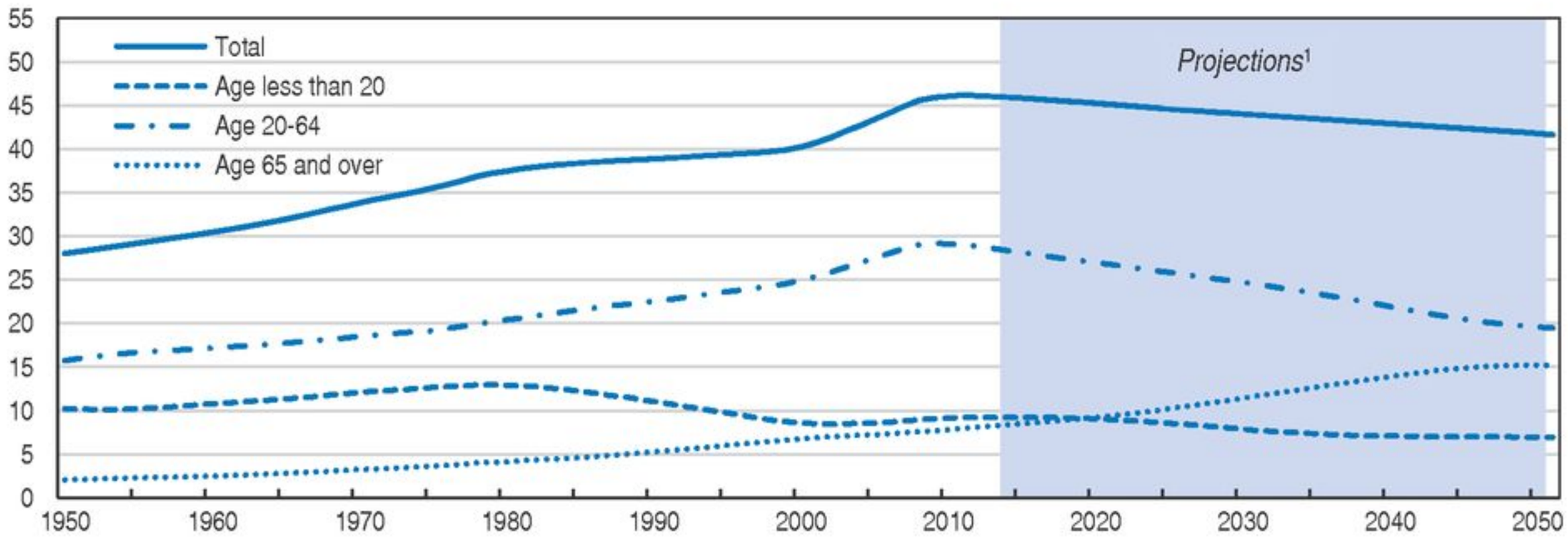
*Source:* OECD (2014), "OECD Economic Outlook No. 95", *OECD Economic Outlook: Statistics and Projections* (database).

StatLink http://dx.doi.org/10.1787/888933128327

Following the crisis, trend GDP growth is estimated to have collapsed to below 1% per annum, in the bottom quartile of the OECD. Total factor productivity growth remains negative and the contribution from human and physical capital growth has declined. Temporary factors that boosted labour supply prior to the crisis have disappeared or gone into reverse. Increased labour force participation, particularly due to increased entry into the workforce of women has plateaued. Net inward migration of more than half a million per year accounted for around 90% of the total population increase from 1998 to 2007, but turned negative after the crisis. Net outward migration combined with the accumulated effects of persistently low fertility mean that the level of core working-age population peaked around 2009 and is projected to steadily decline (Figure 1.2). While the recovery now underway will help to partially arrest and turn around migration and participation trends, the probability of a repeat of the pre-crisis boom in labour supply lifting trend growth seems remote.

Figure 1.2. **Spanish population: Historical and projections**

Million persons




1. Eurostat baseline variant.

*Source:* OECD (2014), "Historical Population Data and Projections (1950-2050)", *Demography and Population* (database), July.

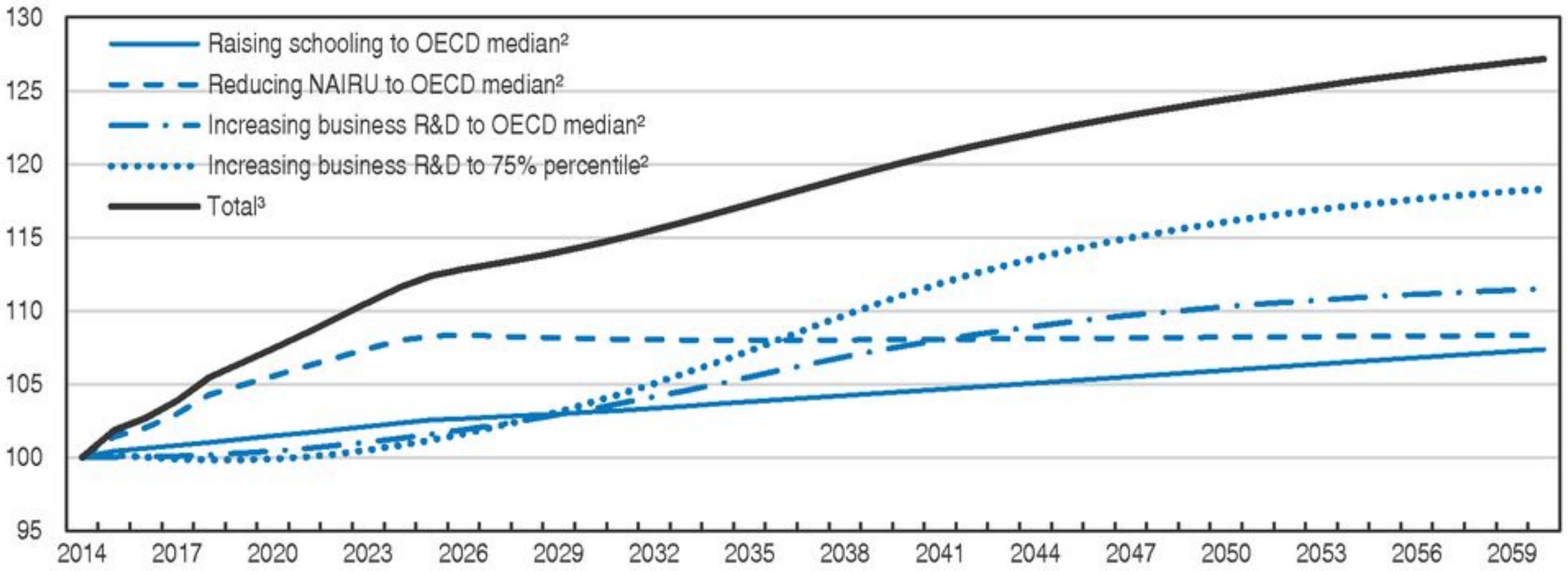
StatLink http://dx.doi.org/10.1787/888933128346

Sustainably lifting trend growth in Spain post crisis requires meeting three challenges: raising sustainable medium-term productivity growth by better harnessing talent and knowledge and putting the environment more at the centre of policy making; utilising existing labour resources more efficiently by reducing high structural unemployment and labour market duality; and in the longer run boosting trend labour supply by increasing the participation of women in the labour force by making it easier to balance family and work. To meet these challenges, the government will need to build on its significant structural reform efforts to date.

The payoffs from these reforms are potentially large. Simulations of the OECD's long-term growth model indicate that combined reforms that moved the non-accelerating inflation rate of unemployment (NAIRU), schooling and business research and development (R&D) to the OECD median by 2035 would raise Spanish GDP per capita by around 12% by 2025 and 17% by 2035 and 27% by 2060 (Figure 1.3). In the shorter run lowering the NAIRU and getting people back into work faster is likely to give the biggest boost to GDP. Increasing schooling and R&D would have sustained medium-run payoffs. OECD empirical work shows that investing in innovation is strongly linked with increasing productivity and growth (Box, 2009). Assuming business R&D in Spain moved to the median or 75% percentile of the OECD by 2035, Spain's GDP per capita would be higher by 11% and 18% respectively by 2060 (Annex 1.A1).

Figure 1.3. **Boosting growth through reform: Long-run GDP per capita scenarios**[1]

Deviation from baseline




1. For a description of the model see Å. Johansson, et al. (2013), "Long-Term Growth Scenarios", *OECD Economics Department Working Papers*, No. 1000.
2. By 2035.
3. Sum of the schooling, NAIRU (non-accelerating inflation rate of unemployment) and median R&D (research and development) scenarios.

*Source:* Simulations using the OECD's long-term growth model.

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## Boosting productivity sustainably: towards a more innovative, greener and educated economy

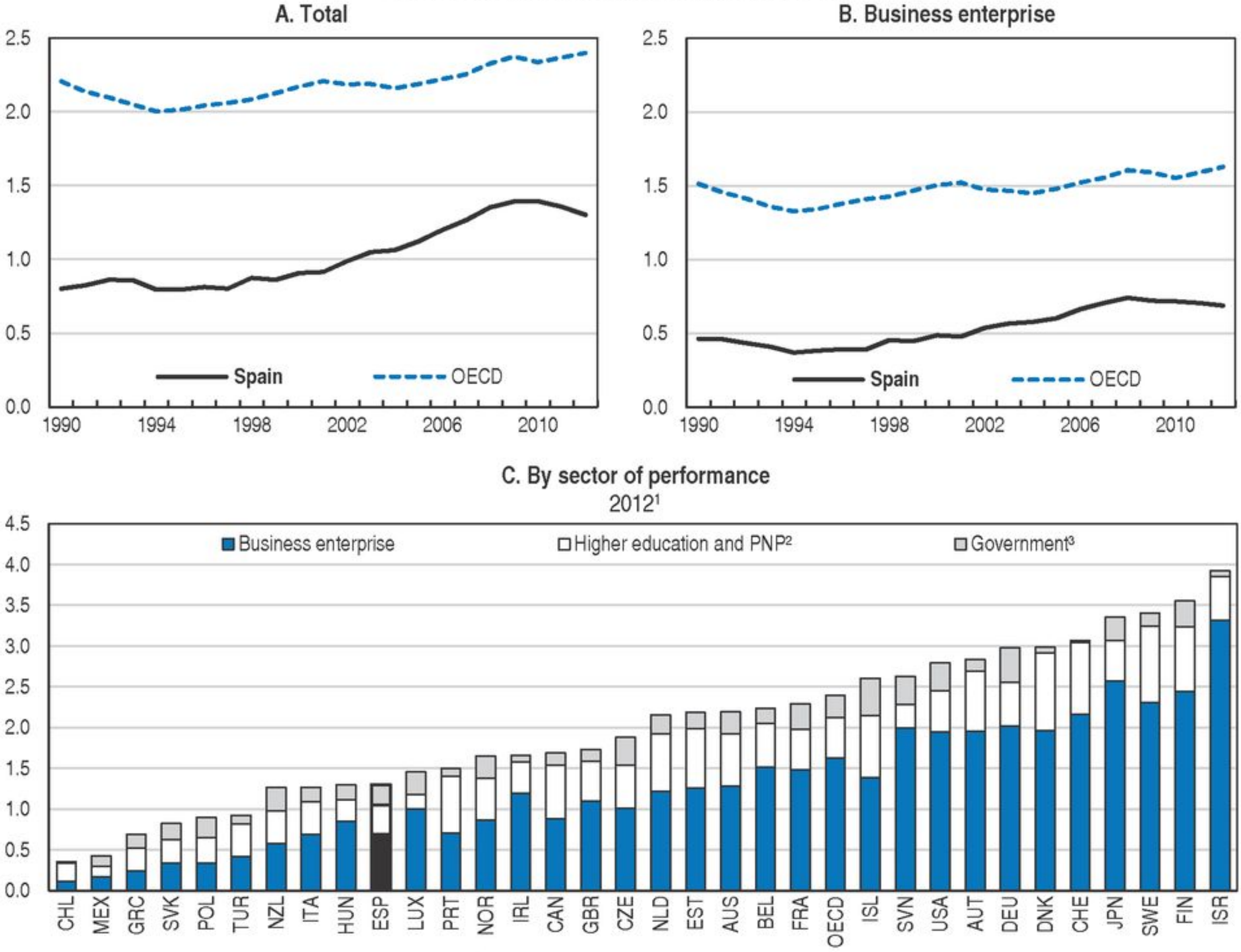
### *Boosting productivity through innovation*

Research, development and innovation (RD&I) policy is shared between the central government and the 17 regions, each with its own innovation strategy and policy instruments. Recent efforts to increase coordination have been incorporated in the Spanish Strategy for Science, Technology and Innovation. The Council for Science, Technology and Innovation policies has been created to improve the governance of the innovation system. At a central government level the overall aim of current and previous RD&I policy has been to expand the Spanish innovation system in terms of research capabilities, human resources for research, innovation outputs and linkages between science and industry from overall relatively low levels towards and beyond advanced country averages (Government of Spain, 2013).

Spain has made progress towards these goals, increasing its innovation inputs, capabilities and outputs. Since 2000, both gross expenditure on R&D (GERD) and business enterprise expenditure on R&D (BERD) have risen as a share of GDP (Figure 1.4). Spain has increased the number of scientific and engineering articles, and raised the proportion of researchers employed in the economy (Figure 1.5). It has also developed strong expertise in several scientific domains including energy and materials (European Commission, 2013). However, as discussed below, cuts in public funding for innovation post-crisis are likely to slow progress in coming years.

## Figure 1.4. **Research and development expenditure**

Gross domestic expenditure in per cent of GDP




1. 2011 for Iceland, Mexico and New Zealand; 2010 for Australia.
2. PNP: private non-profit sector.
3. Government intramural expenditure.

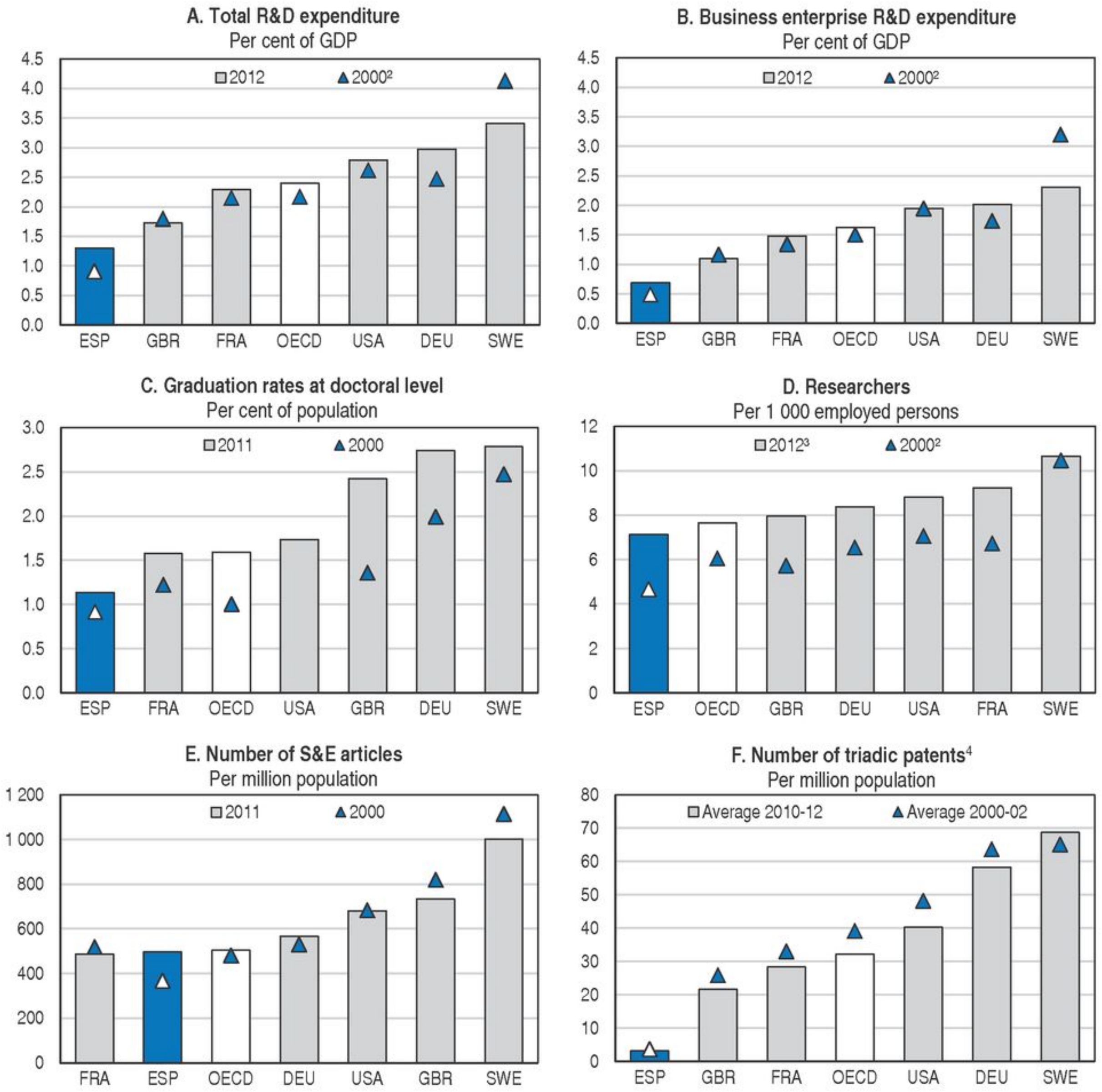
*Source:* OECD (2014), "Main Science and Technology Indicators", *OECD Science, Technology and R&D Statistics* (database), July.

StatLink http://dx.doi.org/10.1787/888933128384

A distinctive feature of innovation in Spain is the role of regions in innovation policy and its heterogeneous performance. Five of the 17 regions (Andalusia, Basque Country, Catalonia, Madrid and Valencia) account for over 75% of total R&D spending (Table 1.1). The core of Spain's innovation strength lies in the Basque Country, Catalonia and Madrid with some pockets elsewhere. Madrid has a high proportion of knowledge-intensive services employment by international standards and the highest in Spain. The Basque Country, along with neighbouring Navarra, appears to have the strongest business-orientated innovation system and has technological strengths in machinery and equipment. Business R&D is double the national average in both and also in the top 25% of OECD regions and countries. Catalonia stands out less on any single indicator but scores above the national average on all of them and is technologically strong in pharmaceuticals and food chemistry.

Despite progress in building the science base, the overall innovation system remains underdeveloped relative to the OECD average and large country peers in Europe and there is limited cooperation between research entities and the business sector. Total spending on R&D was only 1.4% of GDP in 2010 compared with an average 2.4% in the OECD, and also

## Figure 1.5. **The innovation system**[1]




1. R&D: research and development; S&E: science and engineering.
2. 2001 for Sweden.
3. 2011 for France, United States and OECD.
4. Patents filed at the both the European and Japanese Patent Offices, and granted by the US Patent and Trademark Office.

*Source:* OECD (2014), *OECD Science, Technology and R&D Statistics* (database), July; OECD (2013), *OECD Science, Technology and Industry Scoreboard 2013*; and NSF (2014), *Science and Engineering Indicators 2014*, National Science Foundation.

StatLink http://dx.doi.org/10.1787/888933128403

below the level that would be expected given Spain's GDP per capita. This is due to lower business R&D spending, which amounted to only 0.7% of GDP in 2010 compared with an OECD average of 1.6%. This contributes to under-investment in accumulating innovative assets that would under-pin sustainable productivity and GDP growth. As a result, investment in knowledge based capital (KBC), a broad measure including computerised information, innovative intellectual property and economic competencies, is the second

## Table 1.1. **Spain's national and regional innovation system in international perspective**[1]

| Indicator | Unit | Year | OECD regions 25th-75th percentile[2] | Spain | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Total | Andalusia | Basque Country | Catalonia | Madrid | Navarra | Valencia |
| R&D expenditure spent in Spain | % of total | 2010 | .. | 100.0 | 11.8 | 8.9 | 22.1 | **26.4** | 2.5 | 7.4 |
| R&D expenditure | % of GDP | 2009 | 0.9-2.2 | 1.4 | 1.1 | 2.1 | 1.7 | 2.1 | **2.2** | 1.1 |
| Business sector R&D expenditure | % of GDP | 2009 | 0.3-1.4 | 0.7 | 0.4 | **1.6** | 1.0 | 1.1 | 1.5 | 0.5 |
| Tertiary qualified personnel | % of labour force | 2011 | 20-32 | 34.0 | 27.6 | **49.6** | 33.9 | 44.0 | 43.1 | 31.4 |
| R&D personnel | % of total employment | 2009 | 0.8-1.9 | 1.9 | 1.4 | **3.0** | 2.2 | 2.9 | **3.0** | 1.6 |
| Employment in high and medium high-technology manufacturing | % of total employment | 2008 | 3.4-6.9 | 4.8 | 2.0 | **9.7** | 8.9 | 4.6 | 9.4 | 3.5 |
| Employment in knowledge intensive services | % of total employment | 2008 | 26-42 | 28.9 | 26.9 | 31.0 | 29.8 | **40.0** | 26.3 | 24.1 |
| PCT patent applications | Per million inhabitants | 2010 | 9-113 | 38.4 | 21.8 | 63.0 | 65.4 | 63.7 | **110.3** | 37.4 |
| Gross value added per worker | Thousand USD[3] | 2010 | 49.9-64.7 | 60.0 | 54.8 | **70.0** | 62.7 | 64.7 | 64.4 | 58.5 |

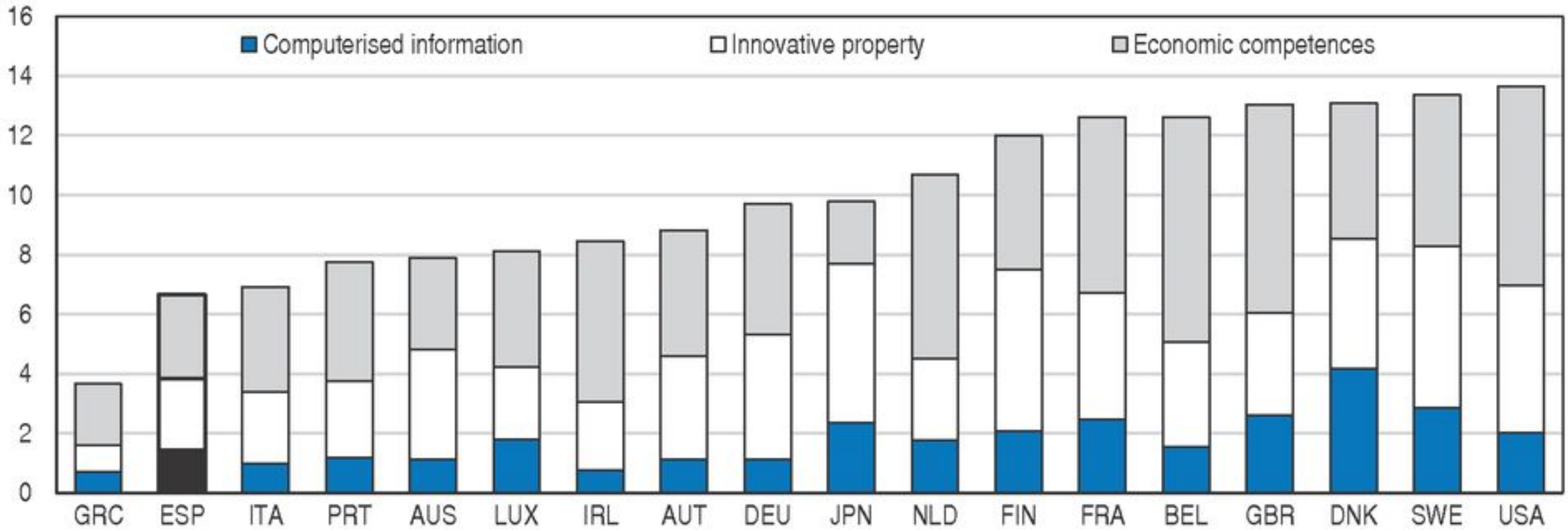
1. R&D: research and development, PCT: Patent Co-operation Treaty. A number in bold indicates the region with the highest level for that indicator.
2. Based on available data so coverage may vary across indicators.
3. Constant prices and purchasing power parities.

*Source:* OECD (2013), *OECD Regional Statistics* (database).

lowest of the 18 OECD countries for which data are available (Figure 1.6). To lift the contribution of innovation and knowledge based capital to productivity, economic growth and wellbeing in Spain requires tackling two inter-related challenges: increasing the capacity and quality of the research base and lifting the impact of innovation on the economy.

## Figure 1.6. **Investment in knowledge based capital**[1]

Per cent of market sector value added, 2010




1. Computerised information covers software and databases; innovative property covers patents, copyrights, designs and trademarks; economic competencies includes brand equity, firm-specific human capital, networks of people and institutions, and organisational know-how that increases enterprise efficiency. Data refer to the market economy unless otherwise stated, which excludes real estate, public administration, health and education. Figures for the United States correspond to the definition of the private sector of the national industry and production accounts (NIPA).

*Source:* OECD (2013), *Supporting Investment in Knowledge Capital, Growth and Innovation* and *OECD Economic Surveys: Ireland 2013*.

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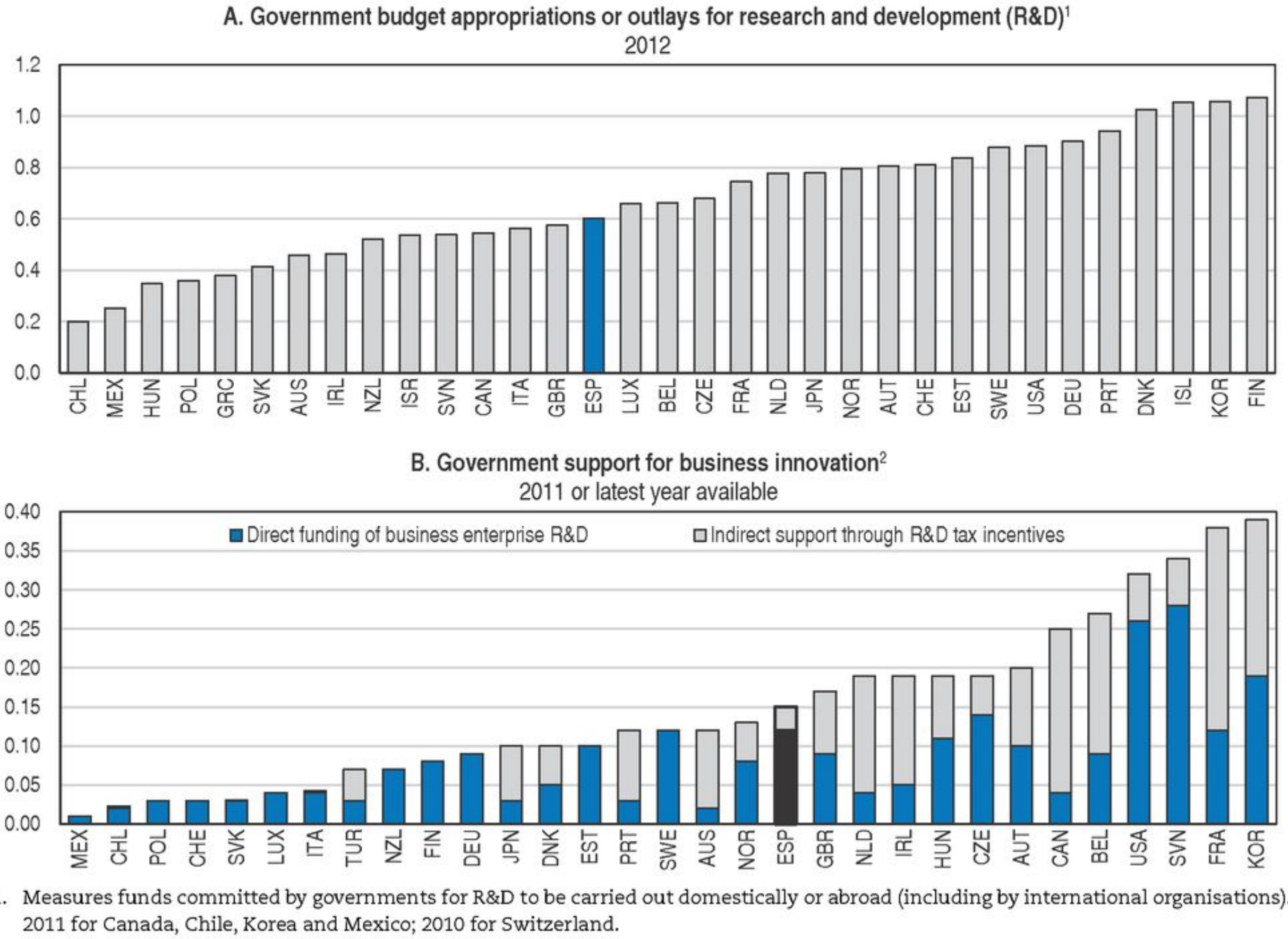
### *Increasing the capacity and quality of the research base by improving the funding mix*

The government, at both central and regional levels, plays a core role in fostering the development of the research and innovation base through its funding of universities and research centres. Current government appropriations for R&D remain below many OECD countries with more advanced innovation systems including Finland, Germany, Sweden and the United States (Figure 1.7). This means convergence to the innovation performance frontier will likely be slow unless public spending is extremely well allocated over time and across instruments and institutions. The impact of public spending could also be increased by reinforcing coordination between central and regional governments to avoid duplication and by leveraging business R&D investment. The government has plans to create a national innovation agency that would help achieve this but they have not been implemented yet.

Figure 1.7. **Government support for research**

Per cent of GDP




1. Measures funds committed by governments for R&D to be carried out domestically or abroad (including by international organisations). 2011 for Canada, Chile, Korea and Mexico; 2010 for Switzerland.
2. This is an experimental indicator; international comparability may be limited. For more details see Indicator 2.11 of the OECD *Science, Technology and Industry Scoreboard 2013* or *www.oecd.org/sti/rd-tax-stats.htm*. For Spain estimates cover 2010 and refer to the R&D and innovation tax credit.

*Source:* OECD (2014), *OECD Science, Technology and R&D Statistics* (database), July and *OECD Science, Technology and Industry Scoreboard 2013*.

StatLink http://dx.doi.org/10.1787/888933128441

General government appropriations for R&D, including central and regional governments, as well as other innovation policies exhibit excessive volatility. Appropriations rose rapidly from 2005 to 2009, and then fell by 16% from 2009 to 2011, as a result of public budget adjustment. The government introduced, withdrew in 2012, and approved in June 2014 the

re-introduction of a similar reduction of payroll taxes associated with R&D activities. Although potentially beneficial, especially for small or new firms with little or no taxable profit to claim ordinary R&D tax credits, this volatility will reduce the policies' effectiveness (Guellec and van Pottelsberghe, 2003; Westmore, 2013). Investing in knowledge capital is a very different process from physical capital. The pay-offs from lifting innovation effort often take a significant time to materialise putting a premium on funding certainty to incentivise long-term investments in human capital, research programmes and networks. Sudden spending declines risk both cutting off innovation efforts before they have time to bear fruit and/or discouraging future commitments to train and research.

Recent volatility in public innovation spending, will likely slow Spain's progress towards improving innovation performance as outputs from key parts of the innovation system reduce in coming years. This is compounded by the tendency in recent years to increase the central government R&D budget by greater use of financial credits, which require collateral or co-financing by universities and business affected by financial constraints. This has contributed to systematic underspending of budgets.

Central government funding of Public Research Institutions has been reduced since 2009. For example, for the Higher Council for Scientific Research (*Consejo Superior de Investigaciones Científicas*, CSIC), Spain's premier public research organisation with 125 research centres across Spain and a key part of the research base, income from government budget transfers fell by around 25% between 2009 and 2012. It was increased in 2013 and 2014, allowing CSIC to balance its budget. However, the level of central government transfers is not yet back to the 2009 level. Research staff numbers have fallen due to a strict ban on hiring replacements. Although public funding stabilised in 2013 and increased slightly in 2014, the lagged effects of previous cuts could be felt in coming years with a drop in CSIC publications and other outputs.

Previous budget cuts are also impacting on Spain's capability to attract talent internationally. Spain was able to attract a significant number of researchers, both Spanish and foreigners, who had previously published abroad and who published high quality publications as measured by citations (OECD, 2013a). This created a self-reinforcing circle of growing scientific reputation increasing the attractiveness of Spain to top-performing researchers. However, these high-performing, mobile and young researchers are not protected by permanent civil servant status and therefore are more vulnerable to staff funding cuts and also have strong opportunities outside Spain. As a result they are over-represented in staff losses associated with funding cuts. In addition, the cuts have not been based on objective performance criteria with the inherent risk that high quality work has been sacrificed. Since 2009 there are also limitations on hiring new staff, in particular only 10% of staff retiring or leaving can be replaced.

Spain's fiscal resources are stretched but the government should nevertheless try to minimise instability in spending on R&D. A pre-requisite for ensuring this is increasing the commitment at the national level to a knowledge society by the political leadership of government, business and research sectors in Spain. It is important that there is broad political support and commitment at the highest levels of government. A possible vehicle for this would be a national level innovation network similar to Innobasque, a private non-profit innovation agency supported by government and business leaders in the Basque Country to promote cooperation between innovation actors.

Part of ensuring stability of funding should be to ensure that universities and research centres receive a minimum share of block grant funding, which is largely the responsibility of regional governments. For the university system and other research institutions the vast bulk of research funding is competition based (OECD, 2009a). This type of funding can help to encourage better performance but it needs to be complemented with sufficient block grant funding to sustain longer-term capability building research investments that under-pin shorter-term projects that would often be funded by contestable research funding.

The central government, as well as regions, also needs to allocate greater resources to solving long-standing problems in the innovation system, such as inadequate use of performance-based funding. This could be used to match one of the main challenges of the Spanish innovation system to scale-up strong research institutions.

To increase the quality of research outputs, efforts to stabilise and reallocate funding also need to be complemented by giving universities and research centres greater autonomy over and responsibility for spending and by promoting modern and flexible management practices. This should be coupled with the development of a more rigorous framework for allocating funding based on results and outcomes taking into account international peer review core principles and the inherent lags in the research process. This should include systematic external peer review.

### *Increasing scale and specialisation*

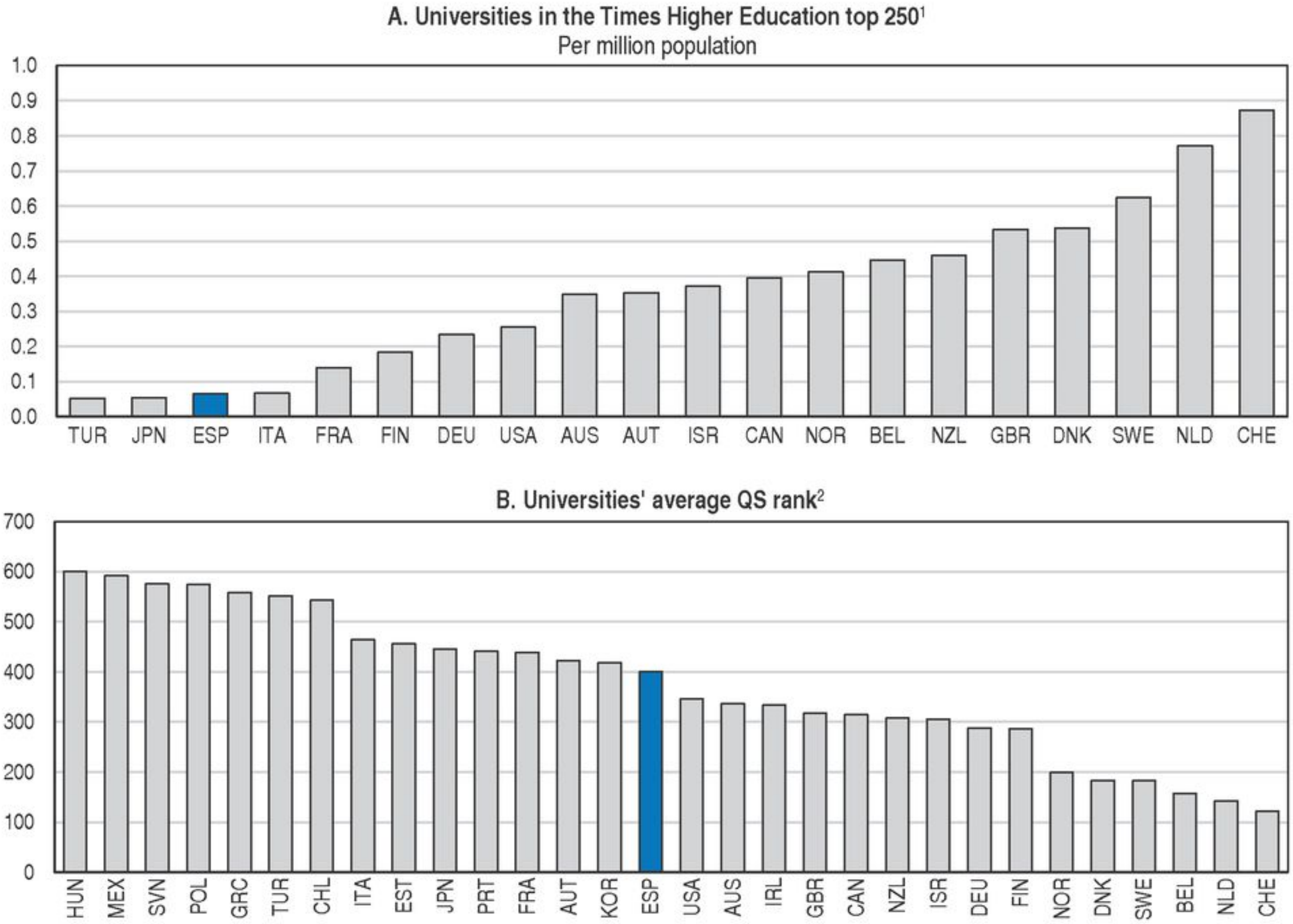
The university system has generated a large increase in human capital with the share of tertiary qualified in Spain increasing markedly. However, its contribution to the knowledge base and knowledge transfer could be improved (OECD, 2009a). The output of scientific and engineering articles has increased but the quality remains moderate, as indicated by a ratio of highly cited science and engineering articles to total articles below the OECD median. In addition, the international ranking of Spain's universities is modest (Figure 1.8). However, there are centres of excellence within the overall university system, both highly ranked individual departments within universities of an overall more modest rank and also some universities such as the Technical University of Madrid (*Universidad Politécnica de Madrid*, UPM) performing strongly overall.

High performing research based institutions in Spain have been created recently by the central government (e.g. CNIO and CNIC) and by regional governments, especially in Catalonia with more than 39 centres grouped in CERCA. Other technological centres resulted from the amalgamation or networking of smaller entities and exhibit both large scale and significant specialisation, such as Technalia and IK4. By contrast, generally universities are excessively homogenous as a result of heavy regulation leading to programme duplication and a loss of benefits from greater specialisation (OECD, 2009a). Greater information availability to students about future employability discussed below can potentially help to create demand-side pressure for specialisation as students gravitate towards degree programmes with proven employment prospects. However, the central government should also loosen regulatory requirements imposed on universities to provide such a wide variety of degree programmes at different levels.

To improve the quality of the research base and attract more outside funding, the central government should also move to actively encourage greater specialisation and scale in universities and other research institutions. In line with previous OECD recommendations (OECD, 2010a) Catalonia is already encouraging research centres to link

Figure 1.8. **University rankings: Summary**

2013/14




1. The ranking is based on weighted sum of 13 performance indicators of teaching, research, citations, industry income and international connections.
2. Quacquarelli Symonds' rankings of over 800 of the world's best universities. Rankings above 400 are given in ranges only so the mid-range value was applied and 701 were applied for all those given the rank 701+.

*Source:* OECD calculations based on THE (2013), *World University Rankings* 2013-14, Times Higher Education, *www.timeshighereducation.co.uk*; Quacquarelli Symonds (2013), *QS World University Rankings* 2013, QS Intelligence Unit, *www.topuniversities.com* and OECD (2013), *Demography and Population Statistics* (database).

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through its SUMA programme. At the national level one tool to increase scale is to expand performance based funding. This could be done by introducing new incentives and developing new tools aimed at fostering aggregation of capabilities, networking and specialisation, and by providing extra direct research funding from the central government to institutions that amalgamate, network or specialise and demonstrate a strong business case. Scale and specialisation are not only important for improving quality but also leveraging Spain's R&D spending by attracting European Union (EU) Horizon 2020 funds. For example, UPM, a large and specialised institution was the highest ranked university in Spain and number 23 in Europe for attracting EU innovation funding during the period 2007 to 2011 from Framework Programme 7 (for innovation) (FP7), the predecessor to Horizon 2020. As well as providing funding, a "centre of research excellence" designation by the central government can help universities and other institutions to attract greater private and international funding. To preserve this advantage the central government should be highly selective, a possible benchmark could be that the institution is or has strong potential to be recognised and compete at a European level.

An expanded use of performance based funding could also be used to increase scale in research centre networks and research technology organisations (RTOs), and regional cooperation across Spain starting by building on existing higher performing organisations. Spain's regionalisation of innovation policy is both a challenge and opportunity. The potential to generate new approaches to innovation is high but then the challenge is to expand high performing institutions including across the nation. For example, the central government could further foster the expansion of better performing research organisations across Spain by providing extra direct funding to research centres that join high performing institutions such as CSIC, Technalia, IK4 or CERCA. This may also help to give the groups a national level designation and increase regional cooperation. Similarly to universities, larger research groups have the advantage of being able to attract EU innovation funds with CSIC, Technalia and IK4 all having been instrumental in attracting these funds to Spain in FP7.

### *Improving human resources management and university governance*

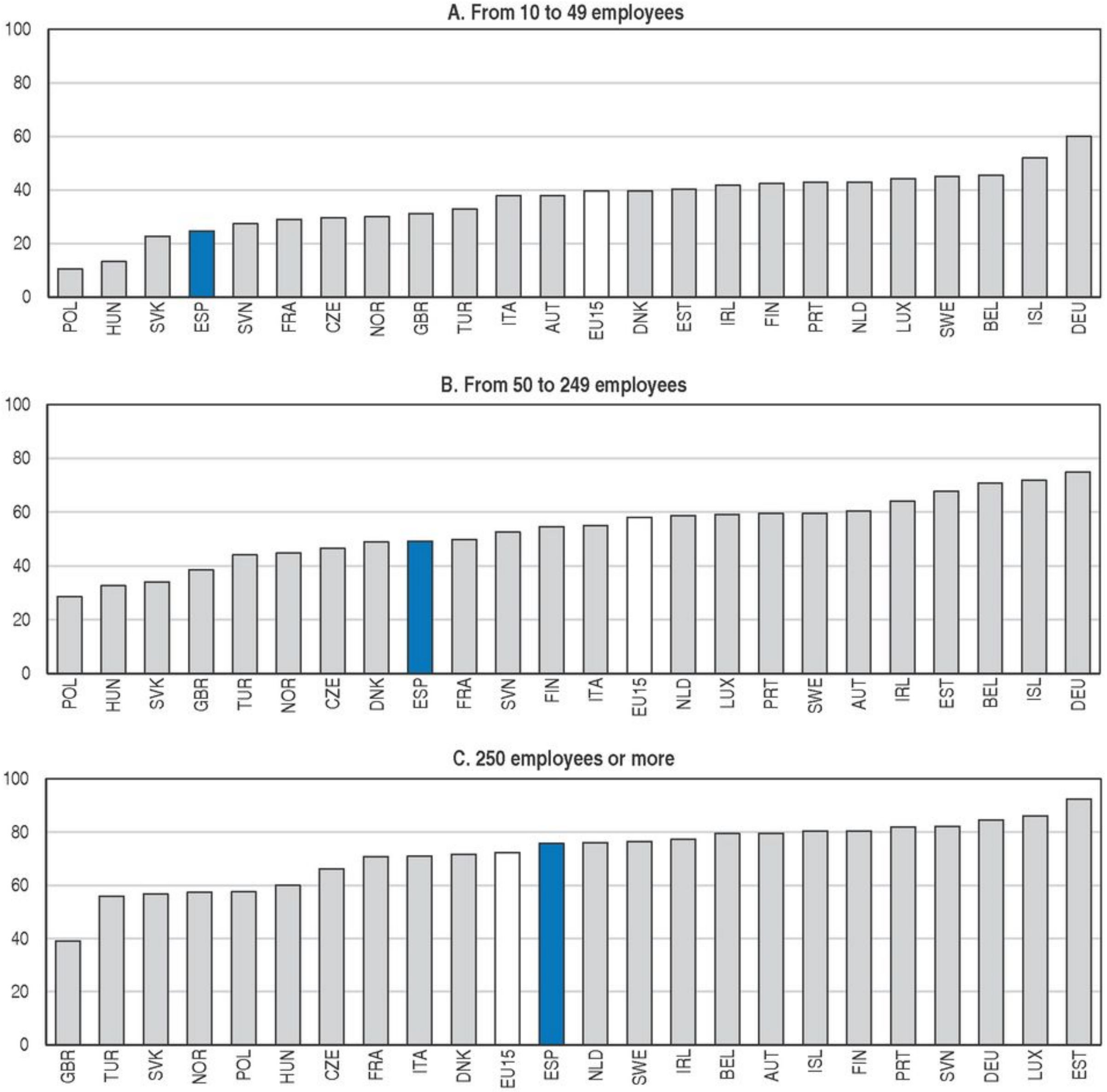
The contribution of universities as well as the largest public research organisation, CSIC, to the knowledge base is also hamstrung by the civil servant status of academic staff, antiquated human resources practices and university governance. Recruitment of academic staff hired as a civil servant is lengthy and their recruitment, promotion and compensation are subject to both heavy central and regional regulation. Although in theory it is possible for academics to freely transfer between institutions and regions, in practice there is a strong home institution hiring bias and very little mobility. University governance is largely in the hands of academics democratically elected for temporary periods rather than professional managers, from an academic background or otherwise, with the incentives and autonomy to meet performance targets. This has led to inward looking institutions (OECD, 2009a). Partly in response to these problems Catalonia has shifted research capability to publicly-owned research centres that have autonomy over human resources to avoid rigidities in the university system. Catalonia has also ceased to hire university staff as civil servants, and instead using ordinary permanent labour contracts, but there is a nationally imposed maximum ceiling of 49% on the share of staff that can be hired in this way. The central government should increase this ceiling to facilitate hiring on contracts with better matching of incentives and performance goals than heavily regulated civil servant contracts allow. In addition, senior university management elected by staff and students from amongst university staff should be replaced with management selected using modern recruitment practices. Research staff in universities and at the CSIC also need greater incentives to participate in knowledge transfer and more particularly commercialisation activities as discussed below.

### *Improving the impact of research and innovation on the economy*

Signs of a relatively restricted impact of research and innovation on the economy include low patenting rates, limited absorption of foreign technology as indicated by licence royalties, a small share of firms that innovate and low aggregate spending by firms on R&D, principally because of lower than OECD average spending by large firms. This share is one of the smallest in the OECD and is not because of the low share of large firms in the economy but because they spend a small share of their turnover on R&D by international standards. In aggregate small firm spending on R&D is around the OECD average, although it appears to be highly concentrated as the percentage of small firms that innovate is below average (Figure 1.9).

## Figure 1.9. **Innovation rates by firm size**

Per cent of firms that innovate, 2010[1]




1. Product and/or process innovative firms, regardless of organisational or marketing innovation (including firms with abandoned/suspended or on-going innovation activities).

*Source:* Eurostat (2013), "Results of the Community Innovation Survey 2010", *Eurostat Database*.

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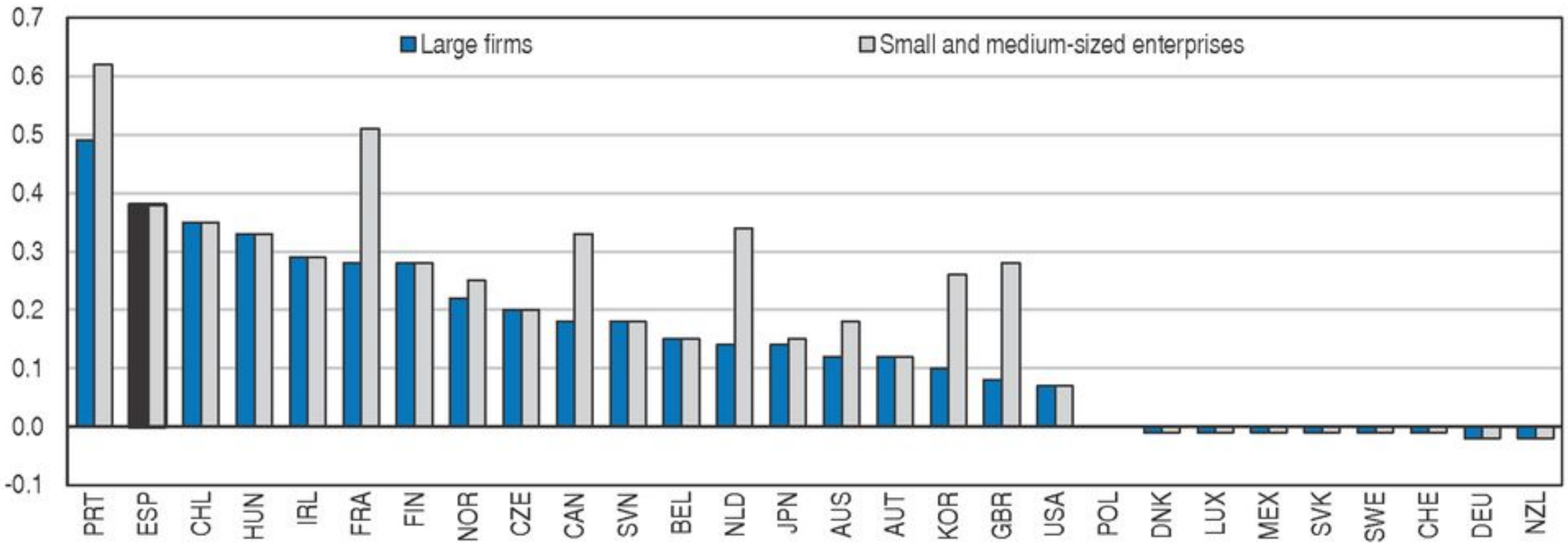
Overall government support for business innovation is around the OECD median with a mixture of direct support and R&D tax credits but business R&D is below the median, suggesting that support may not be working effectively to stimulate business R&D. Both direct support and tax incentives provide a potentially powerful lever to improve innovation and productivity in Spain. Empirical research suggests that both support types increase business R&D and that increasing business R&D spending boosts productivity (Westmore, 2013). However, policy design is crucial. The government should maintain its mix of R&D tax incentives and selective direct funding to firms (Andrews and Criscuolo,

2013), as each has strengths and weaknesses and their impact may vary across different types of firms (OECD, 2013b). Empirical results about whether direct support or R&D tax credits have a stronger multiplier effect on R&D spending and therefore productivity are mixed (Haegland and Moen, 2007; Westmore, 2013). R&D tax credits generally require fewer administrative resources to operate than direct grants. However, they appear to protect incumbents to the detriment of new entrants (Bravo-Biosca et al., 2013) and can be used as tax shelters, especially via cross-border tax planning by multinational companies (OECD, 2013c). By contrast, direct support makes small and medium-sized enterprises (SMEs) more likely to carry out R&D to smaller firms (Czarnitski and Ebersberger, 2010). Indeed, even if R&D tax incentives contain carry-over provisions and refunds (as they do in Spain), young firms may not fully benefit from the schemes if they lack upfront funds to start an innovative project, and in these cases public funding may be more beneficial (Busom et al., 2012).

Spain already has one of the most *a priori* generous R&D tax credits in the OECD as measured by the implied effective subsidy it provides (Figure 1.10). It is a hybrid volume-based, incremental R&D scheme (OECD, 2013b), which has the advantage of maintaining the level of R&D as well as rewarding high growth of R&D (Criscuolo, et al. 2009). However, it is not widely used, particularly by smaller firms, and business R&D remains low, suggesting it is not effective. The government should also carry out a full review of the credit to improve its effectiveness in stimulating new R&D.

Figure 1.10. **Tax subsidy rates on research and development expenditure**

1 – B-index, 2013[1]




1. The B-index is a measure of the level of pre-tax profit a "representative" company needs to generate to break even on a marginal, unitary outlay on research and development (R&D), taking into account provisions in the tax system that allow for special treatment of R&D expenditures. Here the tax subsidy (1 – B-index) is calculated for profitable firms able to claim tax credits/allowances. International comparability may be limited, for more information see *www.oecd.org/sti/rd-tax-stats.htm*.

*Source:* OECD (2013), *Science, Technology and Industry Scoreboard 2013*.

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A number of rigidities could discourage use of the credit, including a ceiling on the credit amount that can be claimed and employment number requirements to claim the credit. R&D tax credits have been limited to a maximum of 60% of corporate income tax payable, which is a binding constraint, especially for smaller and newer companies with low profits. In September 2013 the government amended the scheme to allow, subject to research and employment conditions, claims up to EUR 3 million without any limit imposed by corporate tax liability. Another potential problem is that firms are required to

apply for certification from the government to claim the credit. This appears to be too cumbersome and uncertain and also administratively costly. The authorities should streamline the certification process. Excessive auditing by the tax authority, or the perception of this by firms, could also be behind the low take-up rate. An evaluation of the credit should involve an independent assessment of current auditing practices and firm experiences. The evaluation of the effectiveness of the R&D credit should ideally be done using statistical methods that generate control groups to isolate the effect of the credit beyond other factors (OECD, 2010b). The evaluation requires matching micro data on firms claiming the credit from the business register with firm level tax data held by the revenue authority. In the meantime, the government could work more closely with larger research and development and innovation organisations to help propagate the use of the R&D tax credit among firms.

Beyond direct financial support to business R&D an important channel for raising the impact of the research base on the economy is to increase knowledge transfer, which will raise the share of firms that innovate as well as firm spending on R&D. An important challenge is to increase the number and quality of linkages between firms and other innovation actors. The *OECD's Science, Technology and Industry Scoreboard 2013* shows the share of Spanish firms of all size classes that cooperate on innovation with outside partners including international ones and higher education institutions is low. The weakness in higher education business linkages appears to be due to linkages being too narrowly concentrated. A partial indicator of linkages, the share of business funding of the higher education research sector is above the OECD average but fell a little from 2001 to 2011. However, the proportion of both SMEs and large firms that collaborate with higher education and public research institutes is below average.

Efforts to increase the scale and specialisation of universities, research centres and Research Technology Organisations can directly help to increase knowledge transfer to the enterprise sector and establish more effective collaboration. Empirical research suggests that larger Technology Transfer Offices as well as Science Parks both increase technology transfer activities in Spain (Caldera and Debande, 2010). Larger research organisations can afford to do this including set up support divisions to handle the intellectual property rights issues associated with commercialisation. They can also set up lab-type facilities required for testing new products as part of the commercialisation process, for example the Technical Universities of Madrid and Catalonia built new centres for support of technological innovation where activities in commercialising research will be concentrated. These larger research organisations also play a key role in helping firms to access EU innovation funds and this is facilitated by greater scale.

Knowledge transfer also depends critically on the circulation of researchers between sectors and the personal networks they build, and hence it is important that there are appropriate incentives to collaborate. Currently university and CSIC researcher promotion and bonus pay prospects depend almost exclusively on the quantity of scientific papers produced in six-year periods. Very little weight is given to knowledge transfer activities such as generating patents and spin-off companies. A second researcher progression track should be established at both universities and CSIC where knowledge transfer type activities, broadly defined and beyond simple quantitative outputs such as patents, would count heavily for promotion and pay. This requires giving more autonomy to universities and research centres to allow them to design and implement such career tracks.

Partially reflecting the industrial structure, Spain also exhibits a lower share of researchers in the business sector than the OECD average (OECD, 2013d). Part of the knowledge transfer track should be to establish a formal procedure for research staff to spend sabbatical periods in the enterprise sector. Governments at both the regional and central government level can foster these human resources practices by providing extra research funding to universities that implement them. Graduate student placements can also play important role in knowledge transfer partly by helping to build firm capacity to absorb innovation, which is a key barrier to increasing SME innovation rates. Following previous OECD recommendations (OECD, 2010a and 2011b) both the Basque Country and Catalonia have introduced pilot industrial doctorate (PhD) programmes. The central government is also launching an industrial PhD programme and it should work with the regions to spread best practice for industrial PhD programmes across Spain.

Tailoring policy supports to enterprise needs can also play a role in increasing knowledge transfer to the business sector. To meet the challenge of increasing innovation among SMEs, the Basque country has developed a risk-sharing programme, where SMEs take only a partial share in innovation projects, reducing their risk and therefore making it more financially possible for them to participate. The central government's Centre for Technological and Industrial development (*Centro para el Desarollo Tecnológico Industrial*, CDTI) *Innodemanda* programme, which allocates grants to firms to supply innovative solutions to meet public procurement needs, is another potential mechanism to expand the pool of innovating SMEs. Public procurement programmes carry the risk of crowding out of private-financed R&D (Wallsten, 2000). To maximise the chance of success the government should focus procurement on areas such as healthcare where the government is the largest or only buyer and also has sufficient experience to effectively procure solutions.

Beyond innovation specific policies increasing the impact of innovation on the economy crucially depends on establishing a business environment where entrepreneurship, competition and innovation can flourish (Chapter 2).

### *Greening growth*

Putting environmental considerations more at the centre of economic policy making should be an integral part of Spain's strategy to improve medium-term sustainable growth. This can pay double dividends for living standards in Spain and can help improve the physical environment. It can also help to green Spain's technological base and thereby increase the resilience of the economy to fossil fuel price shocks as well as generating greater productivity, sales and jobs. Spain's overall policy mix is moving in this direction and since 2000 Spain has reduced the emissions intensity of the economy and is an above median performer in this domain (Table 1.2).

Indeed, more systematically considering the environment across the policy spectrum would help to improve decision-making in areas such as buildings, energy, infrastructure and transport planning. A core tool for this is systematically altering charges, taxes and subsidies to change consumer and firm behaviour and thereby achieve the government's environmental/sustainable growth goals. Spain has significant potential to shift the tax burden towards environmental taxes. Spain's environmental tax revenue was 1.6% of GDP in 2012, lower than in 2002, and one of the lower shares in the OECD (Table 1.2). Even more crucially, Spain can improve the mix of charges, taxes and subsidies and in particular make more use of pricing of natural resources.

## Table 1.2. **Green growth and policy levers overview**

| Indicator | Units | Year | **Spain** | OECD total | Spain's rank in OECD (best to worst)[1] |
|---|---|---|---|---|---|
| **Performance** | | | | | |
| Climate change/Air quality | | | | | |
| Production-based carbon dioxide ($CO_2$) | | | | | |
| Productivity | USD per kg of $CO_2$ | 2001 | 3.7 | 2.5 | 9/34 |
| | | 2011 | 4.6 | 3.1 | 9/34 |
| Intensity | Tonnes per capita | 2001 | 7.0 | 10.9 | 9/34 |
| | | 2011 | 5.9 | 10.0 | 10/34 |
| Emissions of sulphur oxides | Kg per capita | 2001 | 37 | 30 | 23/32 |
| | | 2011 | 12 | 14 | 20/31 |
| Emissions of nitrogen oxides | Kg per capita | 2001 | 33 | 38 | 21/32 |
| | | 2011 | 22 | 25 | 19/31 |
| Other | | | | | |
| Water stress, total gross freshwater abstractions | % of total renewable resources | 2005 | 32 | 10 | 26/27 |
| | | 2010 | 30 | 10 | 20/22 |
| | Cubic metres per capita | 2005 | 822 | 880 | 21/28 |
| | | 2010 | 728 | 843 | 18/23 |
| Threatened species[2, 3] | % of known species | Late 2000s | 18 | 19 | 16/32 |
| **Policy levers** | | | | | |
| Public spending on environmentally-related research and development[3] | % of total public spending | 2001 | 3.7 | 2.5 | 7/29 |
| | | 2011 | 4.6 | 2.7 | 4/31 |
| Green patents[4] | Index, 1990 = 100 | 2000 | 664 | 367 | 6/22 |
| | | 2010 | 4 310 | 894 | 3/22 |
| Total environmentally-related taxes | % of GDP | 2002 | 2.1 | 1.8 | 25/34 |
| | | 2012 | 1.6 | 1.6 | 28/34 |

1. For freshwater abstractions the ranking uses the closest year of data available for a few countries where data for 2005 or 2010 is not available.
2. Average of shares for mammals, birds and vascular plants.
3. OECD is an unweighted average.
4. Sum of patent applications on electric and hybrid vehicles, energy efficiency in buildings and lighting, renewable energy generation, air pollution abatement (from stationary sources), water pollution abatement and waste management. 2009 for the OECD total.

*Source:* OECD (2013), "Green Growth Indicators", *OECD Environment Statistics* (database).

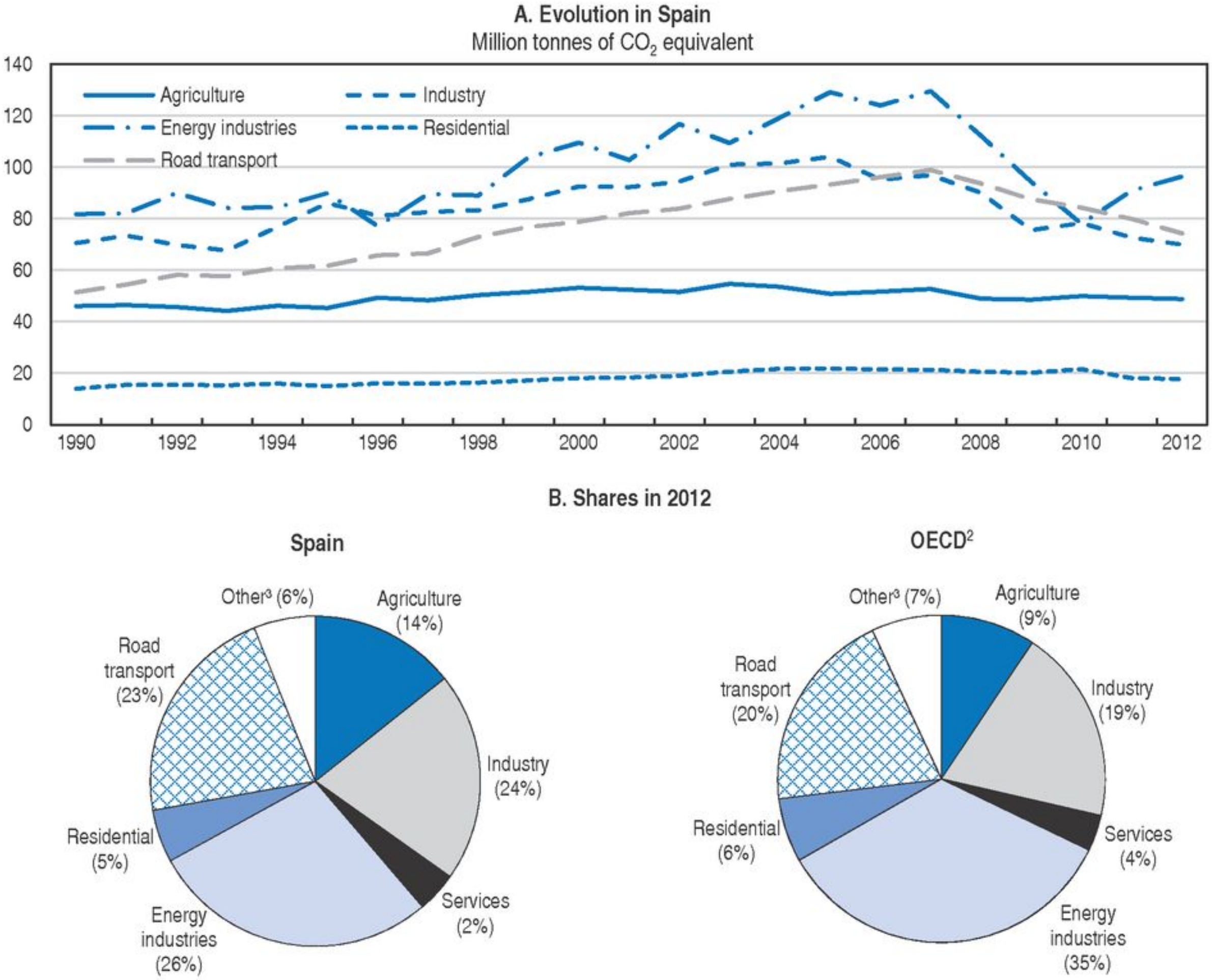
### *Spain should move towards more equal carbon pricing*

Spain has reduced emissions intensity particularly by reducing emissions from energy industries and industry. Energy industries now account for a lower share of total emissions in Spain than the OECD average, while the share of emissions from industry, road transport and agriculture are a bit above (Figure 1.11). The reduction in greenhouse gas (GHG) emissions from energy industries has partly been brought about by doubling the share of renewables in electricity generation to 30% in 2010, just below its EU mandated target (Table 1.3). Despite this and the economy being in recession, Spain's total GHG emissions exceeded the target for 2008-12 by 9%.

Around 40% of GHG emissions are regulated by the EU's Emissions Trading System (ETS) scheme, including those related to energy generation and production as well as emissions intensive industries such as oil refining, cement, pulp and paper. For the period 2013-20 the EU has a single EU wide cap for ETS emissions to be 21% below their 2005 level but there is no country cap. The ETS is a potentially efficient and relatively low cost mechanism for reducing emissions (Duval, 2008; OECD, 2013e). There is evidence that the ETS was effective in inducing energy efficiency increasing technological change in

## Figure 1.11. **Sectoral contributions to greenhouse gas emissions**

Total carbon dioxide ($CO_2$) equivalent emissions[1]




1. Excluding land use, land-use change and forestry.
2. Unweighted average excluding Chile, Israel, Korea and Mexico.
3. Includes waste; other transport; solvent and other product use; and other not elsewhere specified.

*Source:* UNFCCC (2014), *GHG Data*, United Nations Framework Convention on Climate Change, July.

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the period 2007 to 2010 (Petrick and Wagner, 2014). In the past, in part due to the economic recession, the supply of allowances was excessive leading to very low carbon prices (Lawson, 2010; Radziwill, 2012). However, in early 2014 the emissions allowance price had increased significantly due to the EU back-loading initiative to delay the auctioning of additional permits.

Spain like other EU countries also has a separate EU mandated target for the share of renewables in gross final energy consumption and needs to increase this share to meet its 2020 target. In the past Spain made heavy use of feed-in tariffs (i.e. premiums over the market price paid to renewable producers) and from 2004 feed-in premiums (guaranteed mark-ups over the market price) to encourage renewables installation. This has helped to sharply increase the share of renewables in total electricity production and Spain's actual ETS emissions were below target for 2008-12. However, the cost of this scheme to Spain per tonne of carbon emissions abated is estimated at EUR 193-225 compared with an

## Table 1.3. **Climate change scorecard**

Greenhouse gas emissions, thousand tons of carbon dioxide ($CO_2$) equivalent[1]

| | Year | Actual | Target |
|---|---|---|---|
| Total greenhouse gas emissions | 1990 | 282 789 | .. |
| | 2000 | 378 776 | .. |
| | 2008-12 | 361 400 | 333 239 |
| | 2020 | .. | Single EU-wide cap of 20% below 1990 emissions[2] |
| Emissions Trading System (ETS) | 2008-12 | 138 100[3] | .. |
| | 2013-20 | .. | Single EU-wide cap of 21% below 2005 emissions |
| Non-ETS greenhouse gas emissions | 2008-12 | 223 300 | .. |
| | 2020 | .. | 10% below 2005 emissions |
| Non-ETS EU annual emissions allocation (AEA) target | 2020 | .. | 215 500 |
| Renewable electricity (% of total electricity generation) | 1990 | 17.2 | .. |
| | 2000 | 15.6 | .. |
| | 2012[4] | 29.5 | 31.2 |
| | 2020 | .. | 40.0 |
| Area with greatest potential to reduce emissions | .. | .. | Transport and buildings |

1. Excluding land-use, change and forestry (LULUCF).
2. Equivalent to 14% below 2005 emissions.
3. Spain was assigned 152.3 million EU allowance units under the ETS.
4. Estimate for actual.

*Source:* European Commission (2013), "Report from the Commission to the European Parliament and The Council. Progress Towards Achieving the Kyoto and EU 2020 Objectives", *Commission Staff Working Document*, SWD(2013) 410 final and "Commission Decision of 26th March 2013 on Determining Member States' Annual Emission Allocations for the Period from 2013 to 2020"; IEA (2013), *Renewables Information 2013*, International Energy Agency; and Government of Spain (2010), *Spain's National Renewable Energy Action Plan*.

abatement cost of under EUR 20 per tonne for reducing emissions via the ETS in Denmark, France, Germany and the United Kingdom (OECD, 2013e). The scheme also had high information requirements as it is necessary to determine what reasonable cost and return on renewables investments should be.

Renewables technologies (both photovoltaic and wind) have become more cost-competitive over time and the government has now cancelled feed-in tariffs for new projects. New regulations that aim to ensure reasonable profitability for producers were introduced in mid-2014. With a cap and trade system in place, the most efficient policy lever to create higher EU wide incentives to reduce GHG emissions is to reduce the supply of emissions allowances and thereby increase the carbon price and incentive to innovate (Braathen, 2011). For example, if Spain increases feed-in tariffs and this induces more renewables production in Spain, this will reduce demand for ETS allowances, reduce their price and induce greater emissions in other countries. Depending on the ETS price and developments in the costs of renewables, Spain may need to introduce other policy measures to meet its renewable targets. The costs of such measures should be fully passed onto consumers and minimise fiscal costs.

For non-ETS emissions Spain is already preparing a roadmap in order to comply with its target for 2020. However, with growth returning there will likely be upward pressure in non-ETS emissions, which include those from the agriculture, residential, transport and less energy intensive parts of the manufacturing sector. Currently a mixture of subsidies, taxes and regulations is used to mitigate emissions in these sectors. These include subsidy programmes, CLIMA (projects to reduce emissions across a variety of production sectors) where the government buys carbon dioxide ($CO_2$) at a fixed price of EUR 7 per ton, and PIMA (renovation projects to reduce building emissions in the tourism sector, budget EUR 400 million – PIMA-SOL; the replacement of older heavily polluting commercial vehicles as well as acquisition of motorcycles, mopeds and electrically-assisted bicycles vehicles,

budget EUR 54 million – PIMA-AIRE; renewal of the "heavy duty" vehicle fleet, budget EUR 400 million – PIMA Transporte; renewal of older agricultural machinery, budget EUR 5 million – PIMA Tierra). More funds (EUR 500 million) have been devoted to the PIVE 1-5 car scrappage schemes operating from 2012-14. These provide a subsidy to encourage the replacement of older cars with new, less polluting vehicles. The government should coordinate these schemes in order to ensure that it is achieving emissions abatement at least cost and reallocate funding accordingly.

For residential buildings the Ministry of Infrastructure and Housing provides subsidies for renovations aimed at increasing energy efficiency. It is targeted at multi-property buildings (90% of the housing stock) and buildings constructed prior to 1980 (60% of the housing stock) when there was no energy efficiency requirements in the building code, first introduced in 1979. New energy efficiency requirements increasing stringency by about 30-40% were introduced to the building code in 2006 and in September 2013 the code was changed again to require all new buildings to be "nearly zero energy" by 2020 in line with EU goals, i.e. the building should consume almost no more energy than is produced on-site e.g. from solar panels.

The Ministry of Agriculture, Food and the Environment has been active in developing new environmental related taxes and charges. A new tax on fluorine gases (with approximately 4 000 times the heating effect of $CO_2$) used in cooling devices has been imposed from 1 January 2014 to encourage the repair of equipment and reduce leakages, rather than replace the gas, which is cheap to buy. In addition, the car circulation tax is being reformed in 2014 so that it will be based on the vehicle emissions rather than engine size. In addition vehicles will be inspected every four years to see if they comply with their EU emissions norm. If the vehicle deteriorates and does not comply with its norm the owner will no longer be able to drive it.

To encourage least-cost emissions abatement the goal should be to move towards a single carbon price in Spain to avoid distortions and encourage least cost abatement, the ultimate goal should be to apply a carbon tax per ton equivalent of $CO_2$ for all non-ETS GHG emissions regardless of source. The government can start moving towards this goal by at least partially equalising the price of GHG emissions across some taxes and charges. An important non-ETS area to tackle is fuel taxation given the large contribution the transport sector makes to overall emissions (Figure 1.11). In particular, as of 2013 diesel attracted a lower tax rate per litre than petrol despite the fact that using one litre of petrol emits less $CO_2$ and other particulate pollution than diesel. The government should increase the tax per litre on diesel so that is higher than the tax per litre on petrol to ensure that the carbon price is identical for both.

The central government should also equalise the taxation treatment of other air pollutants across Spain. Currently some regional governments tax these pollutants. To increase the efficiency of abatement, these pollutants should be uniformly taxed across Spain by the central government.

### *Pricing tools should play a larger role in managing water scarcity*

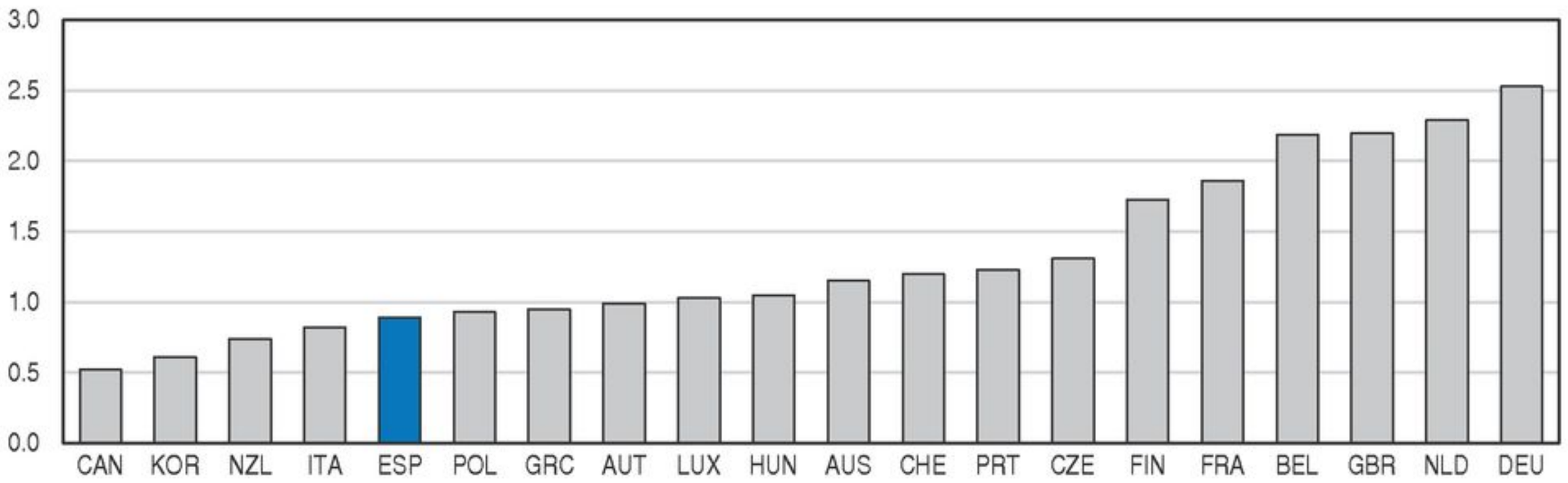
Around 70% of Spain has a semi-arid climate, rainfall is territorially uneven and highly volatile. Climate change is expected to exacerbate these problems resulting in more frequent droughts and lower rainfall (OECD, 2011c). Over time an extensive dam building programme has increased water abstractions per capita to one of the highest in the OECD. These abstractions are also high relative to available natural resources. In 2010 Spain had

the third highest level of water stress of the 22 OECD countries with available data. There is a general consensus that the potential for expanding water supply through new large-scale hydraulic projects has been exhausted. In addition local water experts in all water basins generally do not consider extending surface water storage capacity or raising groundwater extraction as the most desirable options for coping with water scarcity (Fuentes, 2011). Desalination plants constructed as part of the previous supply expansion strategy are expensive to run and water from these plants is heavily subsidised to make it affordable for farmers.

As substantially further expanding supply is not a feasible option, better demand management will be required. Spain should make greater use of water pricing signals to help ensure water is allocated economically efficiently across competing uses and also sustainably. Research suggests that price instruments are more cost-effective than non-price conservation programmes in managing demand and need not have more adverse consequences in terms of income redistribution (Olmstead and Stavins, 2008). Household water prices are low in international comparison (Figure 1.12). There also appears to be strong potential for efficiency gains through greater pricing of water used in agriculture. The substantial variation in water productivity across crops grown using irrigation illustrates the strong potential for efficiency gains with more use of water pricing. Over 75% of crop value-added is being generated by just 9% of irrigated water, with over 40% of irrigation water being used for very low value cereal and rice crops (Fuentes, 2011).

Figure 1.12. **Water prices**

USD per cubic metre, 2008[1]




1. Unit prices including taxes. For Belgium and the United Kingdom, data shown are averages of regional data available.

*Source:* OECD (2010), *Pricing Water Resources and Water and Sanitation Services*.

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In most municipalities both household and agriculture pay a water charge for infrastructure costs and this charge increases if they consume more. The exact amount of water supply costs being recovered from users is subject to debate but it is less than full marginal social cost (Fuentes, 2011). In the past even capital costs have been subsidised by EU and state funds but these will no longer be available so user charges will need to increase. The government is currently redesigning water charging policy for the capital costs of supplying water. The final policy has not been announced but it will likely involve increasing household charges, particularly in large cities, to continue the cross-subsidisation of smaller settlements. In agriculture there is already some differential charging for infrastructure.

There are no plans to adopt charging to more fully reflect the opportunity costs (scarcity) and environmental externalities of water use in Spain. Indeed, there are both legal and governance barriers to this. By law water charging cannot exceed the capital and operating costs of supplying water and there are significant legal barriers to trading water rights – seller's cannot sell rights that were not used prior to the sale, urban users are effectively banned from selling to farmers, and water dealers and traders are banned by law (Fuentes, 2011). Spain, should remove legal restrictions to charging for scarcity and environmental externalities, as well as those on trading water rights.

As already recommended in the *OECD Economic Survey 2010* the current system of allocating water rights concessions for consumptive and non-consumptive use such as electricity generation on the basis of past use should be replaced with auctioning of new concessions, as well as of concessions that expire. This would help ensure water is allocated to its most productive use and water prices reflect scarcity as required by the EU Water Framework directive. Charging for environmental and scarcity costs is complex so linkages between river basin authorities who manage water resources and academic experts in resource economics would also assist in implementing charging to cover these costs (González Gómez et al., 2012).

### *Fostering green innovation*

Green innovation can both lift growth and improve environmental outcomes. There was a large increase in green patent applications filed by Spain from 1999-2008, especially those related to renewable, particularly solar, energy. As a result Spain had the 9th largest number of applications in the OECD in 2008, although this remained below France, the United Kingdom, and especially Germany (OECD, 2011d). Increasing green innovation depends on improving both supply and demand side policies. On the supply-side green innovation, like all innovation depends heavily on the capability and interactions of different actors in the innovation system (universities, firms, government) as well as the broader business environment. The public sector is relatively heavily involved in green innovation in Spain, with the fourth highest share of public R&D spending on environmental related issues in the OECD (Table 1.2) and a relatively high share of green patents filed by public research organisations (OECD, 2011d). However, the links between public and private researchers, as well as commercialisation of innovative products, remains under-developed (Cochado et al., 2012). Research Technology Organisations (RTOs) can play an important role in building these linkages and bringing green technologies to the market. Part of an expanded centre of excellence programme could be to provide extra funding to RTOs specialising in linking the public and private sectors in the environmental technology area. In the interests of policy coordination, this could be done in areas where the government is through other policies, such as taxation on emissions, encouraging the use of greener technologies.

It is on the demand-side that green innovation faces particularly strong challenges as market prices often don't reflect the environmental costs and benefits of different activities and therefore provide poor incentives to innovate. Government policies can play an important role in ensuring that market prices reflect better environmental costs and benefits through such instruments as better carbon and water pricing. Such market instruments put less stress on limited fiscal resources and avoid the risk of technology capture and creation of vested interests that direct supports entail (OECD, 2011d). Such

pricing signals for green innovation should be further complemented by gradually tightening regulatory standards, as the government did in September 2013 with the introduction of the nearly zero emissions building initiative by 2020. However, to ensure maximum private sector investment, it is important that the government avoids abrupt policy changes as occurred with the feed-in tariff and premium policy. Strong and transparent signals about the future regulatory path should be set out. One of the aims of the government's recent electricity reforms is to ensure greater future and regulatory certainty. The government also has a green procurement strategy but should complement this with an evaluation programme to measure results, which is currently not the case.

### *Increasing the returns from education*

A central part of raising productivity is further boosting education and skill levels in the working age population, while making better use of the talent that has already been accumulated. Over the past decade, the share of persons with both upper secondary education and particularly tertiary qualifications has risen (Table 1.4). The level of education in the same age cohorts has also improved over time and relative to the OECD.

Table 1.4. **Educational attainment**

Per cent of population

| | | Lower secondary | | | Upper secondary | | | Tertiary | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2000 | 2012 | Change 2000-12[1] | 2000 | 2012 | Change 2000-12[1] | 2000 | 2012 | Change 2000-12[1] |
| Age 25-64 | Spain | 62 | 45 | -16 | 16 | 22 | 7 | 23 | 32 | 10 |
| | OECD | 34 | 24 | -10 | 44 | 44 | 0 | 22 | 33 | 11 |
| Age 25-34 | Spain | 45 | 36 | -9 | 21 | 25 | 4 | 34 | 39 | 5 |
| | OECD | 24 | 17 | -7 | 49 | 44 | -6 | 26 | 40 | 13 |
| Age 55-64 | Spain | 85 | 65 | -20 | 6 | 16 | 11 | 10 | 19 | 9 |
| | OECD | 51 | 35 | -16 | 34 | 42 | 8 | 15 | 25 | 9 |

1. Numbers may not add up exactly due to rounding.

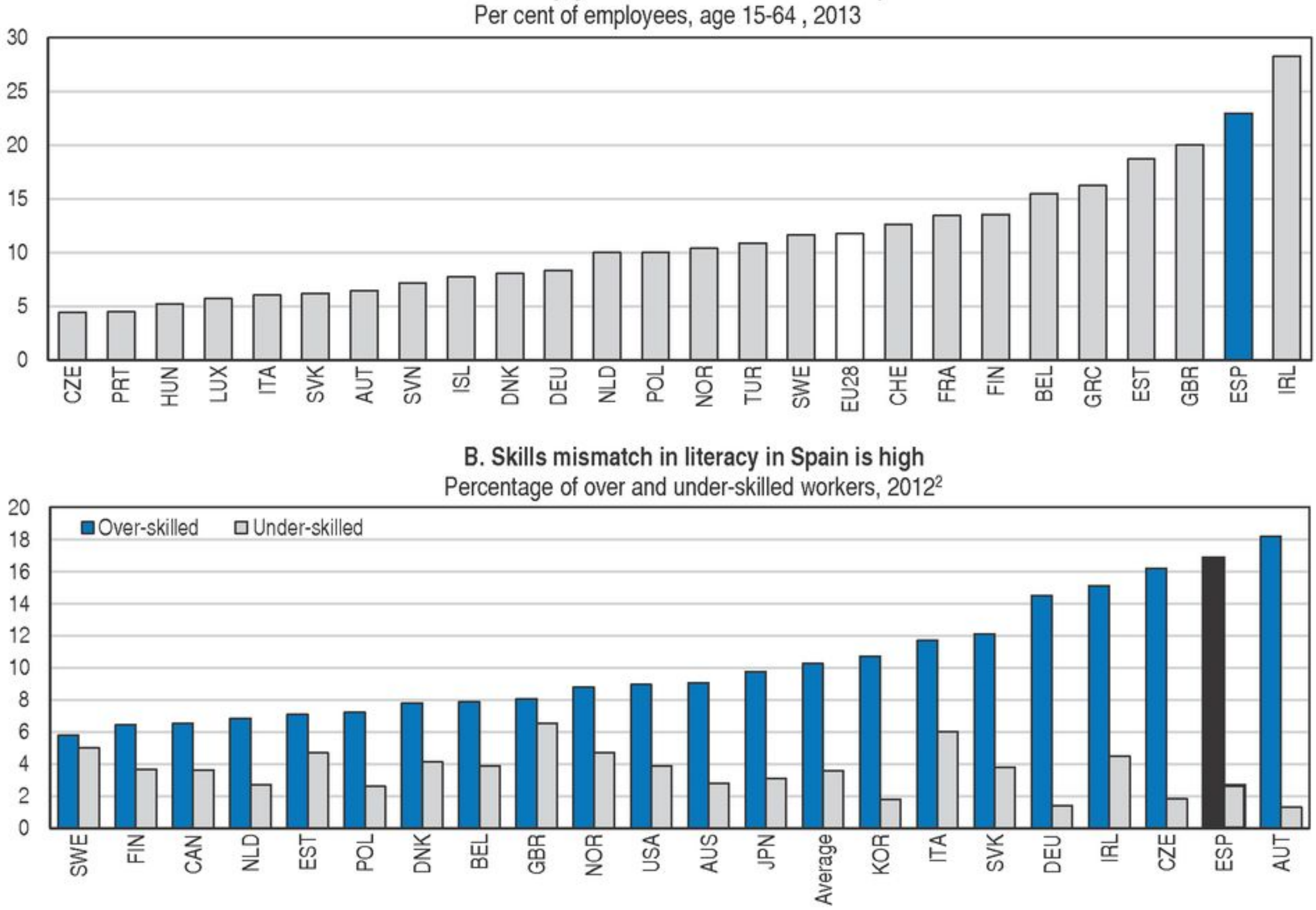
*Source:* OECD (2014), *Education at a Glance 2014: OECD Indicators*.

Despite this overall progress, 45% of the workforce aged 25-64 had only lower secondary education or less in 2012, well above the OECD average of 24%. Even in younger age cohorts the proportion was high, with 36% of even those aged between 25-34 having only lower secondary education or less, the fourth highest proportion in the OECD. Eurostat data for even younger cohorts (18-24 years old) suggests that Spain is continuing to generate a large group of poorly educated youth who have bleak employment prospects in a globalised economy. Over the past decade the share of this group with lower secondary education or less has remained over 40%. Consistent with having a large share of poorly qualified labour, the recent OECD Survey of Adult Skills (PIACC) found Spain has the worst numeracy and second worst literacy skills of the 23 countries and regions surveyed. However, encouragingly there does seem to be intergenerational improvement occurring.

At the other end of the education and skills spectrum, it appears that Spain is not fully harnessing the increased pool of tertiary qualified as well as the skills already existing in the workforce. The proportion of tertiary graduates employed in jobs that typically do not require this type of qualification has been constantly higher than most of the rest of Europe over the past decade, indicating this is a structural problem (Figure 1.13, Panel A). Partially

reflecting this, private and public net returns to tertiary education are less than OECD average in Spain. Consistent with this Spain also seems to be under utilising the skills that do exist with a high proportion of workers in occupations for which they are over-skilled (Figure 1.13, Panel B).

Figure 1.13. **Skills mismatches are high**




1. Share of employees with a first and second stage of tertiary education (levels 5 and 6 of ISCED, the international standard classification of education) in non-managerial, non-professional, non-technical occupations (levels 4-9 of ISCO, the international standard classification of occupations).
2. Over-skilled workers are those whose proficiency score is higher than that corresponding to the 95th percentile of self-reported well-matched workers (i.e. workers who neither feel they have the skills to perform a more demanding job nor feel the need of further training in order to be able to perform their current jobs satisfactorily) in their country and occupation. Under-skilled workers are those whose proficiency score is lower than that corresponding to the 5th percentile of self-reported well-matched workers in their country and occupation. The United Kingdom covers England and Northern Ireland only; Belgium covers Flanders.

*Source:* Eurostat (2014), "Population and Social Conditions", *Eurostat Database*, July and OECD (2013), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*.

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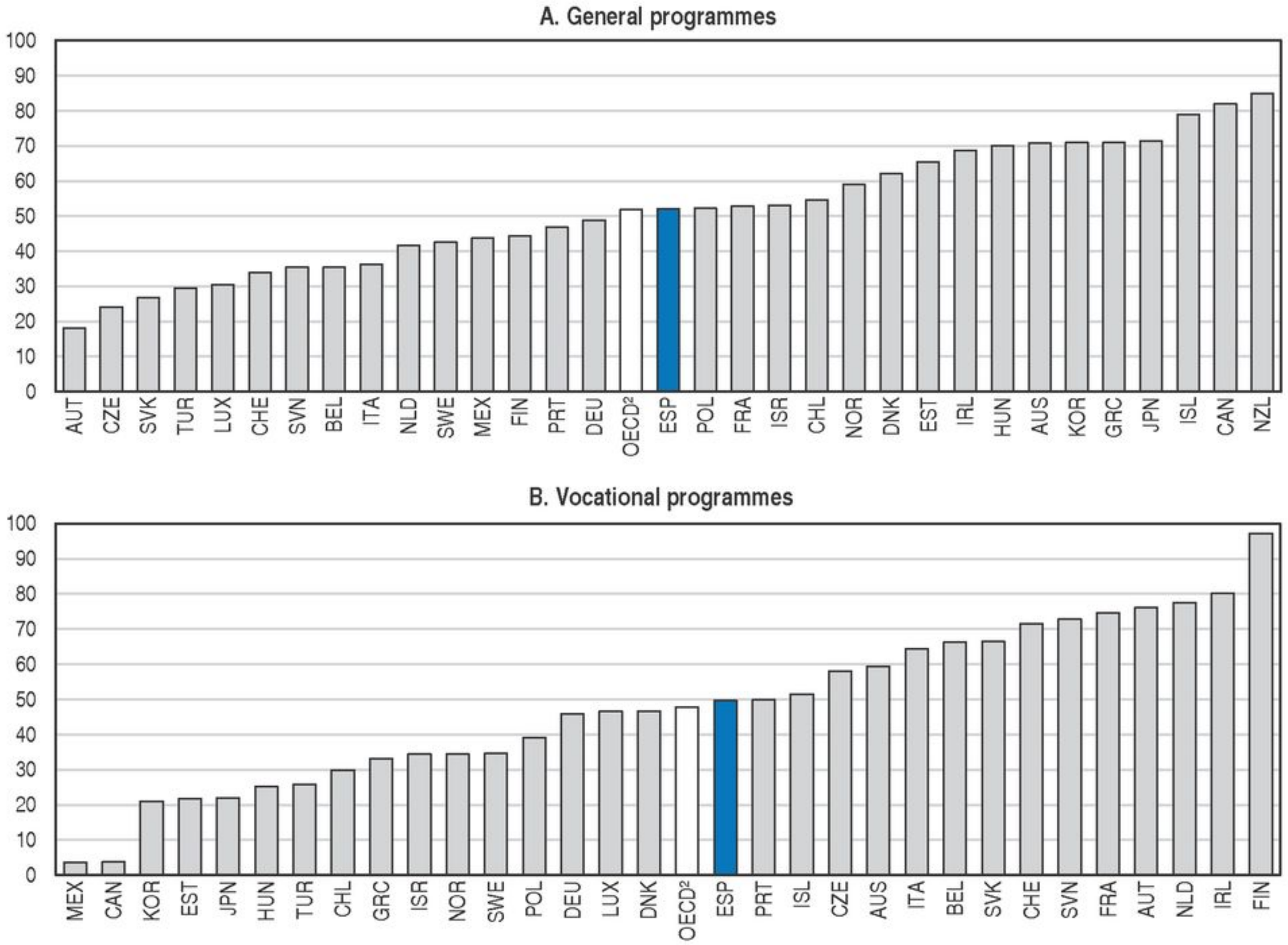
The main reason for the still large share of poorly qualified youth is that the drop-out rate from secondary school remains too high (Figure 1.14). This in turn appears to be associated with a cycle of poor performance, grade repetition and discouragement resulting from a relatively inflexible assessment system (Wölfl, 2013). Indeed, the average performance of Spanish secondary school students, as measured by the OECD's *PISA Survey 2012*, remained statistically significantly below the OECD average in mathematics, science, reading and problem solving. Pre-crisis favourable economic conditions for low-skilled workers also contributed to increased drop-out rates (Lacuesta et al., 2012).

Figure 1.14. **Graduation rates in upper secondary education**

Per cent, 2012[1]




1. 2011 for Australia and Canada.
2. Average of data shown.

*Source:* OECD (2014), *Education at a Glance 2014: OECD Indicators.*

StatLink http://dx.doi.org/10.1787/888933128574

To tackle the drop-out and the associated low achievement problem requires a genuinely strengthened vocational education and training (VET) track to complement the academic one. The government in 2013 reformed the secondary education system by: radically changing the system of assessment by introducing external and standardised tests at the end of each of the education levels (primary school, compulsory secondary school and upper secondary school); increasing school level accountability and autonomy including over the curricula and materials for elective subjects and teacher appointments; lowering from 16 to 15 the age when students choose a vocational or academic track; introducing a basic initial (VET) year (Basic IVET) in the final (fourth) year of lower secondary school; increasing the practical training component of the two VET year programme at the upper secondary level (intermediate VET) from currently around 20% to a minimum of 33% up to a maximum of 75%; and introducing a lifelong learning programme. Intermediate VET can be followed by tertiary non-university level VET (higher VET), the completion of which will allow direct entrance to university. The reform is

scheduled for implementation at the primary level and basic VET from September 2014, and secondary, post-secondary and intermediate VET from September 2015. Previously students needed to pass all internally assessed subjects to obtain the certificate of compulsory lower secondary education (ESO) to graduate to upper secondary education. This will be replaced with a national standardised exam (of the programme for international student assessment [PISA] type), which students will be allowed to sit at the end of lower secondary schooling, providing they failed no more than two subjects and passed mathematics and Spanish.

Experience suggests the reforms are going in the right direction. Earlier tracking of school students is controversial because it can reduce equality of opportunity but empirical evidence suggests that it does reduce drop-out rates (Felgueroso et al., 2013). Empirical evidence also suggests that standardised tests improve student performance (Hanushek and Woessmann, 2011; OECD, 2012a). The Madrid region, following the introduction of similar standardised tests at ages 7, 11 and 14, experienced higher PISA performance and lower drop-out rates than it had previously, and performed better than Spain overall. Greater school autonomy and accountability, by allowing more adaptation to local needs, both improve student performance (World Bank, 2009 and 2011).

However, the enduring negative consequences for low-skilled youth of unemployment following school drop-out including lower earnings, health and life satisfaction (Scarpetta et al., 2010; Bell and Blanchflower, 2009), and the lengthy time it will take to fully implement such a large reform, argue for complementary radical action now to mitigate drop-outs. Schools should be more flexible with the requirements to move to upper secondary school education, except where it is clear the student does not have basic pre-requisites to succeed in the VET or academic tracks. This needs to be complemented with specific support for student lagging behind and at risk of drop-out. To improve equity in education the government should fully implement the components of the new law dealing with improving and raising students' achievements. This should include fully implementing a strategy for low performing and disadvantaged schools to improve and raise their students' achievement (OECD, 2012b). Part of this should be a regular evaluation of school performance in lifting student skill levels.

In 2012 the government introduced a new dual VET (simultaneous school and firm training, with 75-80% of time spent at the firm). Such a system plays an important role in Austria, Belgium, France, Switzerland and most notably Germany, where 90% of students participate in dual VET (García Perea and García Coria, 2014). As the dual system has a greater practical component and more company involvement in training design, this should help to improve the labour market relevance and employability of students. Encouragingly the training and apprenticeship labour contract reformed in 2012 had an increase of 60% year-to-year. However, it will take time to establish an extensive dual VET system. Finding firms willing and able to participate in the system will likely be challenging, especially given the prevalence of very small firms. For more immediate results the government should complement the introduction of the dual VET, by further increasing the minimum work-based component of existing intermediate VET at the upper secondary level in Spain, where around 95% of VET students are located. This should be done particularly by further increasing the time spent with companies.

The central government is also planning reforms to university education to improve efficiency in a system where 30% of degree programmes have fewer than 30 students. With some important exceptions there are relatively few highly ranked universities by international standards, and an excessive degree of homogeneity across universities (OECD, 2009b). One of the aims of the reform is to improve the relevance of university education to the labour market. A number of new tools are being designed at the central government level to help universities better plan the supply of places and to better inform students about the labour market outcomes from different degrees and institutions. On the supply side, a new accounting system will be rolled out in 2015 that will better identify the cost of providing additional places in different degrees.

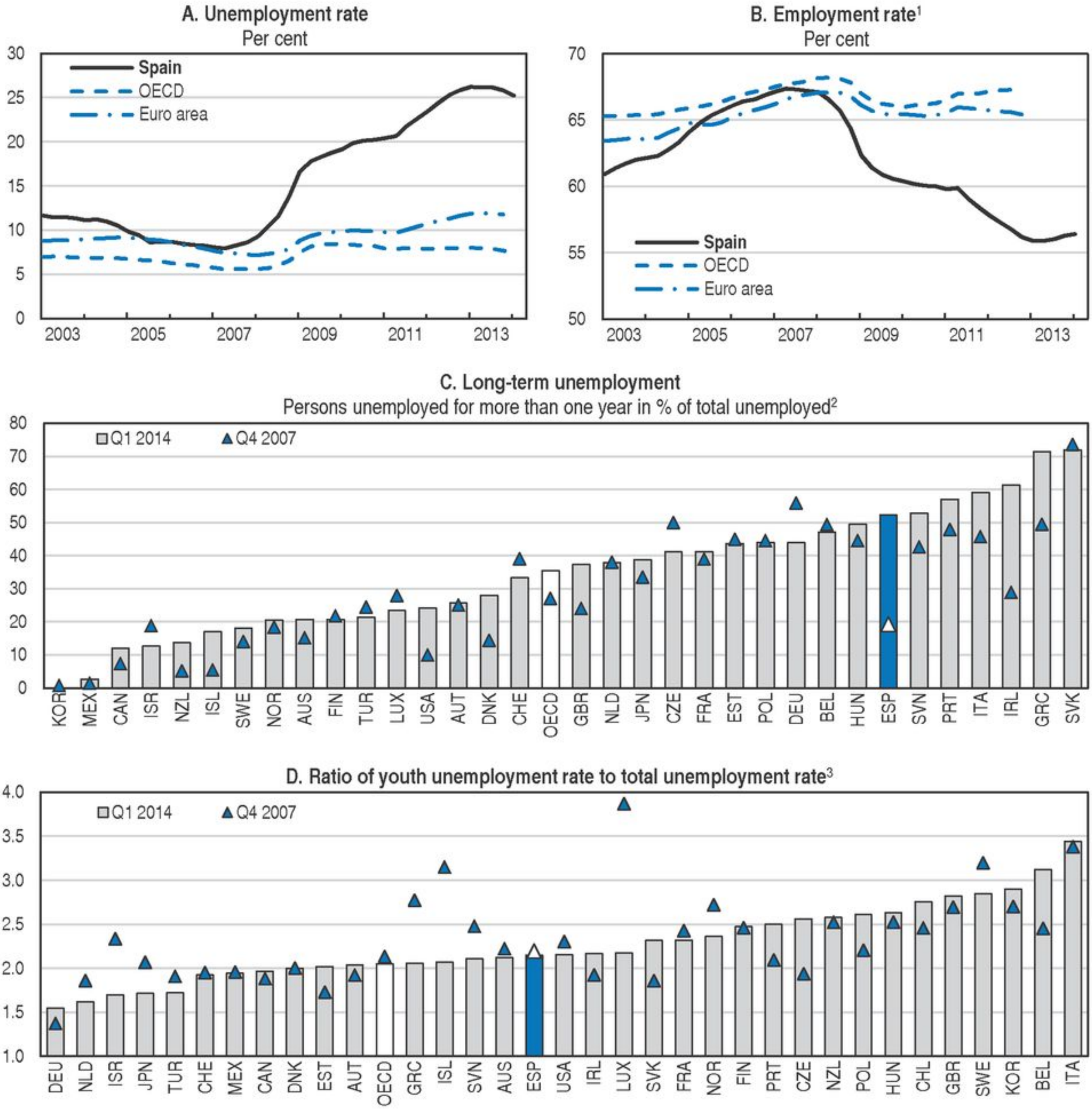
On the demand side, based on the matching of graduation and social security records, in 2014 the government is making available data on the labour market outcomes of graduates in terms of labour market status and broad income band by degree and institution. Currently, demand signals appear weak with over 80% of students remaining in their home regions for their university education. Providing greater information to students is potentially an important device to encourage competition and specialisation amongst the teaching offer across universities. The presence of departments with an international reputation for quality within universities of lesser overall performance suggests that there is already a base on which to build specialisation and improve both quality and labour market relevance of degrees.

A significant challenge in this reform will be to ensure students are really aware of, and make use of, this information about transitions to labour market and employability. In order to achieve meaningful decision making by students, the authorities together with schools should support and further develop an adequate career guidance system throughout the whole education system including VET. Integrated guidance provision is an important tool for helping citizens to make educational training and occupational choices. Communication efforts, such as ensuring careers guidance services at schools making information from the new employment outcomes data part of their advice tools, would be an important part of implementing this reform. The government should ensure that this information is widely communicated and the responsibility for its collection and dissemination transferred to the National Statistics Office to ensure the data remains in the public domain. The government should also complement these efforts by removing national regulatory barriers to specialisation that set a minimum on the number of degree courses and types that any University, whether public or private must offer.

## Better harnessing labour resources

Better utilising labour resources is one of the main ways Spain can boost potential growth. Labour market inflexibility has been identified as one of the most important causes of low productivity growth in Spain (Mora-Sanguinetti and Fuentes, 2012). More flexible labour markets can boost medium-term growth by reducing the structural unemployment rate and boosting productivity, including by facilitating the entry of new and more dynamic firms (Chapter 2). Spain has an unemployment rate of around 25%, the second highest in the OECD after Greece (Figure 1.15). Spain's youth unemployment rate is also extremely elevated at 55% but the ratio of youth to aggregate unemployment is not exceptional, suggesting the unemployment problem is general rather than particularly a youth one.

## Figure 1.15. **The labour market situation is difficult**




1. Employment in per cent of working-age population. The OECD aggregate is an average of the country rates.
2. Data are smoothed using three-quarter moving averages and include adjustments for breaks in series. Q4 2013 instead of Q1 2014 for Israel.
3. Instead of Q4 data for 2007 data cover Q2 for Switzerland.

*Source:* OECD (2014), *OECD Economic Outlook: Statistics and Projections* and *OECD Employment and Labour Market Statistics* (databases), July; and *Online OECD Employment Database*, July, *www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm*.

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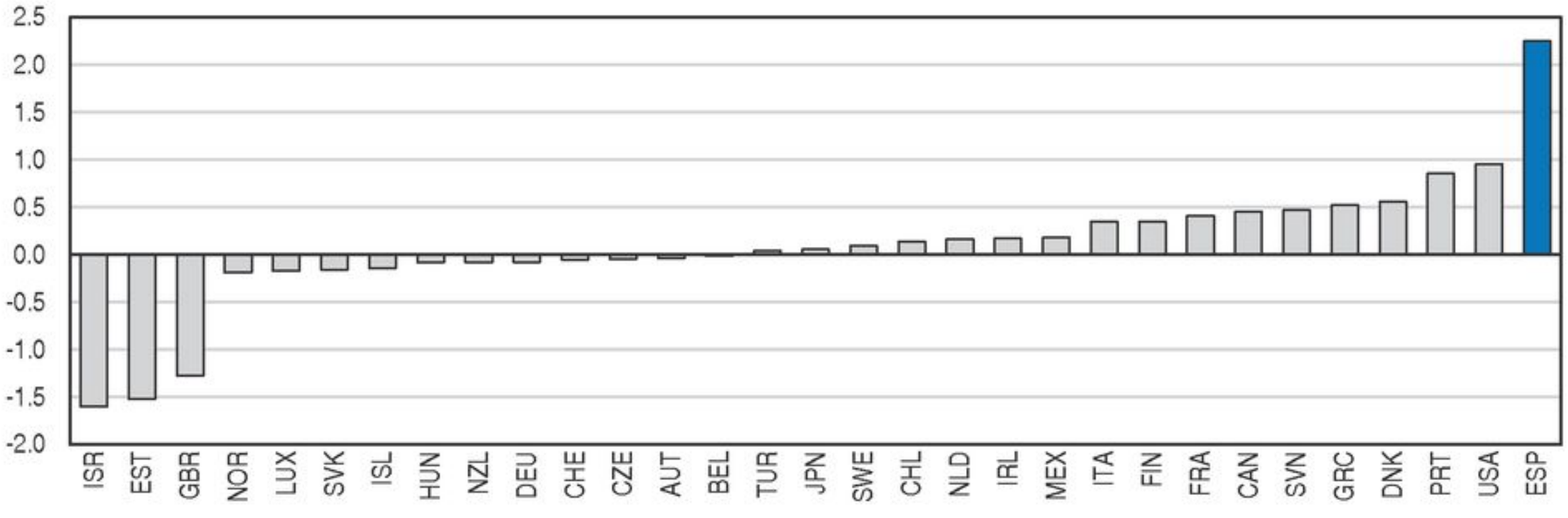
Property-related booms and busts tend to be associated with sharp rises in the unemployment rate (OECD, 2010c). However, the high unemployment rate is also the legacy of structural problems, including an inadequate activation regime, insufficient responsiveness of wages to economic conditions (real wages rose during the 2008-09 recession); a high level of protection for permanent relative to temporary contracts

resulting in dualism, and housing market impediments to labour mobility. As a consequence one of the main adjustment mechanisms in the face of downturns has been to fire temporary workers, rather than using other forms of adjustment such as reducing hours, further exacerbating unemployment (Figure 1.16). This has resulted in one of the strongest reactions of employment to activity in the OECD in Spain's double dip recession (2008-09 and 2011-13). Indeed, during the 2008-09 recession, average hours rose, while labour shedding relative to the decline in GDP was so intense that productivity increased, contrary to the standard recessionary pattern when productivity normally falls (OECD, 2010c). The ratio of employment to GDP decline was stronger still in the 2011-13 recession.

Figure 1.16. **Okun's coefficient**

Peak-to-trough ratio of the decrease in employment to the decrease in GDP since 2008[1]




1. Ratio of the percentage point decrease in the employment rate to the percentage fall in real GDP. Average of recession ratios since 2008. Recessions are considered to occur between local peaks and troughs of real GDP (y) series in levels. A local peak (trough) occurs at time t when $y_t > (<) y_{t \pm k}$ where k = 1, 2. The turning points are further refined by the following requirements: the peaks and troughs must alternate, each cycle must have a minimum duration of five quarters and each phase (expansion, recession) must be at least two quarters long. Australia, Korea and Poland are not considered to have experienced a recession.

*Source:* Calculations based on OECD (2014), "OECD Economic Outlook No. 95", *OECD Economic Outlook: Statistics and Projections* (database).

StatLink http://dx.doi.org/10.1787/888933128593

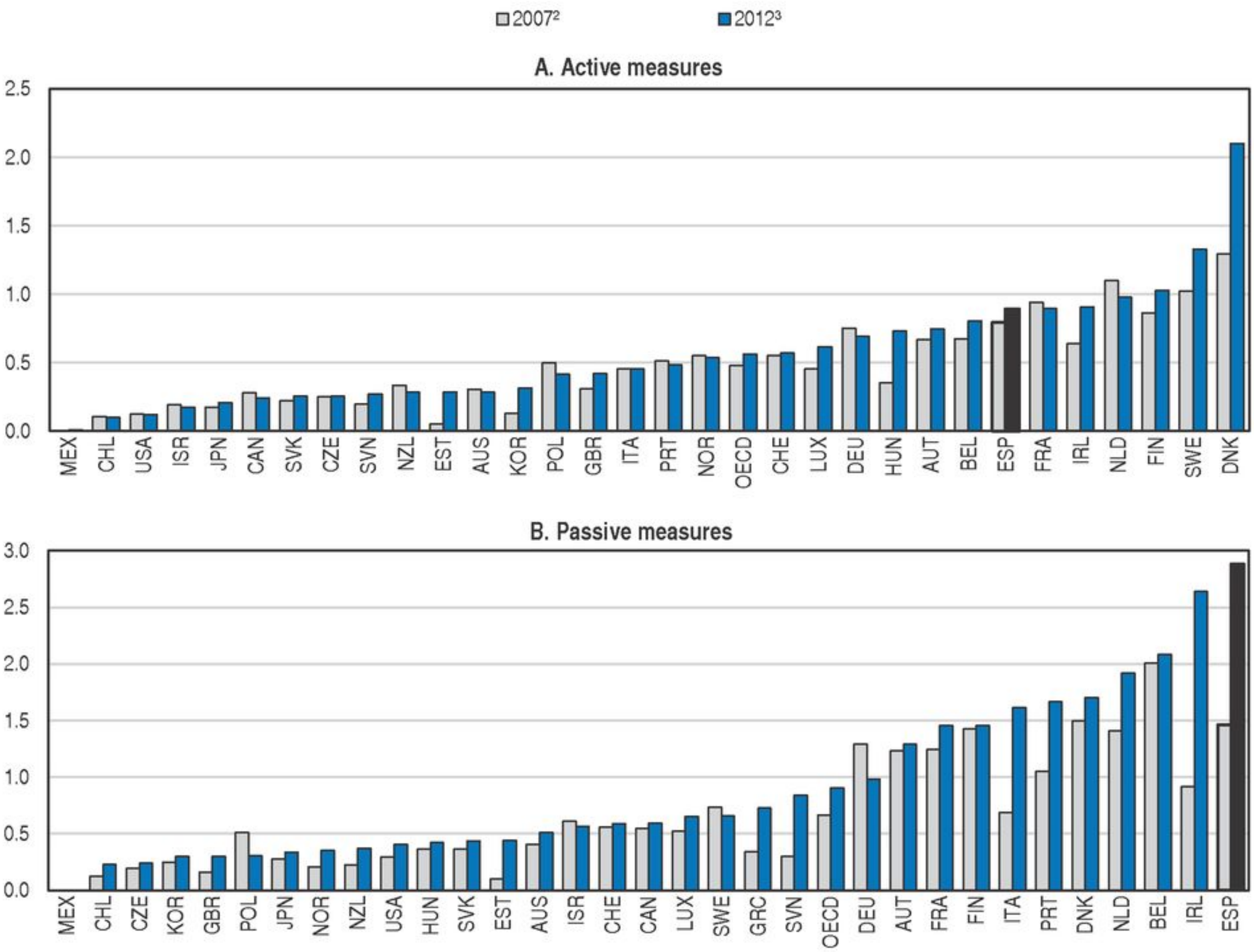
According to the household labour force survey, more than half of the total of nearly 6 million unemployed in Spain is long-term (over one year). Around half of total unemployed as well as youth unemployed under the age of 30 and first-time job seekers have attained only lower secondary education or less. In addition, up to ¾ million of the unemployed formerly worked in the construction industry. These groups are highly vulnerable to being structurally unemployed. They have skills that are inadequate for the types of employment that Spain will likely generate in coming years. There is a high risk that many of the unemployed will be left behind as a permanent legacy of the recession. Consequently, the most pressing labour market issue is how to deal with the huge number of unemployed people. Improving the functioning of the labour market and getting the unemployed back into work is the strongest lever the government can pull to sustainably reverse the significant rise in poverty and inequality in Spain. The long-term unemployed and low-skilled need to be activated and re-trained now so they can take advantage of the recovery as it strengthens.

### *The activation regime is in need of a major overhaul*

Improving active labour market policies (ALMPs) is key to reducing unemployment. Reforms to ALMPs are less advanced than to employment protection, and wage bargaining and activation policy in Spain is far from the OECD's best practice. Despite being kept as a budget priority, spending on activation has increased by only 10% since 2007 despite the number of unemployed more than doubling, the public employment services have room to improve their inefficiency, and the balance of public spending is skewed towards passive measures (Figure 1.17). Spending on job search assistance is low by international standards with one employee of public employment service (PES) in charge of more than 250 unemployed, which is at the higher end of the range for European countries. (Table 1.5).

Figure 1.17. **Public expenditure on labour market programmes**[1]

Per cent of GDP




1. Active measures cover public employment services and administration (placement and related services, benefit administration), training, employment incentives, supported employment and rehabilitation, direct job creation and start-up incentives. Passive measures cover out-of-work income maintenance and support, and early retirement. The OECD aggregate is an unweighted average of data shown.
2. 2008 for Chile in Panel A.
3. 2011 for Australia, Ireland, Israel, Luxembourg, Poland and Spain; 2009 for the United Kingdom in Panel A; 2010 for Greece and the United Kingdom in Panel B.

*Source:* OECD (2014), *OECD Employment Outlook 2014*.

StatLink http://dx.doi.org/10.1787/888933128612

Table 1.5. **Average caseload in the public employment service**
2011[1]

| | Registered job seekers (thousand)[2] | Public employment service (PES) staff (thousand)[3] | Job seekers per PES staff member |
|---|---|---|---|
| **Spain** | **5 745.3** | **21.4** | **269** |
| Austria | 258.6 | 4.9 | 53 |
| Belgium | 547.4 | 10.0 | 54 |
| Czech Republic | 509.2 | 7.3 | 70 |
| Denmark | 207.7 | 5.8 | 36 |
| Estonia | 53.2 | 0.5 | 108 |
| Finland | 470.4 | 3.9 | 120 |
| Germany | 5 207.6 | 110.0 | 47 |
| Greece | 576.6 | 3.4 | 169 |
| Ireland | 444.9 | 0.6 | 778 |
| Netherlands | 625.6 | 5.0 | 125 |
| Poland | 2 011.2 | 23.8 | 84 |
| Portugal | 639.7 | 3.6 | 177 |
| Slovak Republic | 401.5 | 2.3 | 172 |
| Slovenia | 110.7 | 1.0 | 112 |
| Sweden | 679.0 | 10.8 | 63 |
| United Kingdom | 1 571.7 | 72.9 | 22 |

1. 2010 for job seekers for Greece.
2. Data on the total number of jobseekers registered with the PES are broken down into those considered as registered unemployed according to national definitions and other registered jobseekers.
3. Latest data available from the country fiches of the European Commission website, 2010 or 2011 in most cases but 2012 for Spain. The remit of the PES varies across countries in terms of groups covered (e.g. disabled, employed jobseekers) and services provided (e.g. career guidance, in-house training). For more details see the "PES Business Models" study by Mobility Lab available from the European Commission website (link below).

*Source:* Registered job seekers from Eurostat (2014), "Labour Market Policy", *Eurostat Database*, May; PES staff numbers from Spain provided by the Ministry of Employment and Social Security; other PES staff numbers from European Commission, Employment, Social Affairs and Inclusion, Public Employment Services, *http://ec.europa.eu/social/main.jsp?catId=105&langId=en*, accessed April 2014.

Effective ALMPs are based on the mutual obligation principle, whereby the unemployed receive income and employment support and in return, are required to participate actively in job-search and/or training (Martin, 2000; Kluve 2006). The obligations of the unemployed appear insufficient. The unemployed must accept an adequate job offer but definitional uncertainty of what is "adequate" facilitates refusal making enforcing obligations of the jobseeker harder. The unemployed must also participate in recommended training but there are no systematic job search obligations. In addition, modern activation tools, such as profiling the unemployed to select them into low or more intense assistance groups, are only starting to be developed and systematic sharing of best PES practices across regions just started in early 2014.

Tightly linking activation and the payment of unemployment benefits in line with best practice is more challenging in Spain because activation is the responsibility of the regions, while the centre pays unemployment benefits. Communication between the regions and the national Public Employment Service (*Servicio Público de Empleo Estatal*, SEPE) has been stepped up, resulting in increased savings from monitoring and control activities. The central government is also building a new activation strategy 2014-16 (a cooperative model) with different components (profiling, a single Spain-wide portal for searching for job offers, best practice sharing between regional and the national PES, modernising the training system for the unemployed, contracting out) and a technical centre to provide common tools such as information technology. The central activation strategy will have a set of objectives and build a

set of impact measurements. These will be used to allocate central government funding to the regions for activation. In 2013 15% of central government funding was provided to the regions on a performance basis, and this has increased to 40% in 2014 and will reach 60% in 2015.

These changes appear to be going in the right direction, but implementation at the regional level is crucial and has been slow. In particular, the PES has been too slow to develop activation assistance to the unemployed based on modern practice, operating predominantly in a passive way. More efforts need to be made to implement activation reforms faster to avoid a crisis legacy of a large permanently unemployed cohort. Resources need to be shifted to activation from other government expenditure areas. The first priority should be to improve PES efficiency by increasing the range of tools and improving the institutional framework so as to strengthen the capacities of the PES. Once this is done the number of caseworkers at the PES may need to be increased. Fiscal constraints remain tight so a more cost-efficient measure than hiring new staff would be to redeploy existing staff to case-working roles. Experience in Ireland suggests that with some training existing Labour Ministry staff can be redeployed from more administrative functions to case working quite successfully as staff typically already have roles that require significant personal interaction. Contracting out placement to the private sector can also potentially help but care needs to be taken to avoid "cream-skimming" of the most employable candidates by private providers. Empirical evidence suggests there may also be a substitution effect whereby those unemployed that receive external placement assistance may get a job but at the expense of those unemployed that did not (Crépon et al., 2013). In this context, the central government's stronger collaboration on placement services with private agencies for participating regions, where private providers will receive payments made according to the employability profile of the person placed, is promising.

Placement services (whether public or private) should aim to have a regularly monitored individual assistance and obligations plan in place for all unemployed within a time limited period of registering as unemployed. Profiling can help with resource allocation by prioritising those with a high risk of falling into long-term unemployment for faster individual assistance, while those considered at low risk may initially only need to attend a group information session and sign a standard obligations contract. One element of an enhanced obligations approach should be to define more clearly what can be regarded as an adequate job offer using objective criteria such as the minimum pay premium the job must offer over unemployment assistance.

Part of the new activation strategy is to continue to modernise the training system by increasing the role of private sector providers in training and also the use of competitive tendering for allocating public training funds. More weight will be given to analysis of future job prospects in allocating training funds but predicting labour demand is difficult. To increase the labour market relevance of training for the unemployed, the regions should be incentivised using central government performance based funding to introduce systematic evaluation of training incomes and reallocate funding towards those schemes that prove *ex post* to be the most effective in increasing employability.

The high proportion of very low-skilled unemployed as well as low skill levels in the adult population more generally means that continuing education at the upper secondary (intermediate VET) level has a large role to play. A dual training system for the unemployed is being developed and six pilot projects in cooperation with Chambers of Commerce are underway in 2014. However, the strengthened vocational education track with a higher practical component being introduced at secondary school (discussed above) should also be

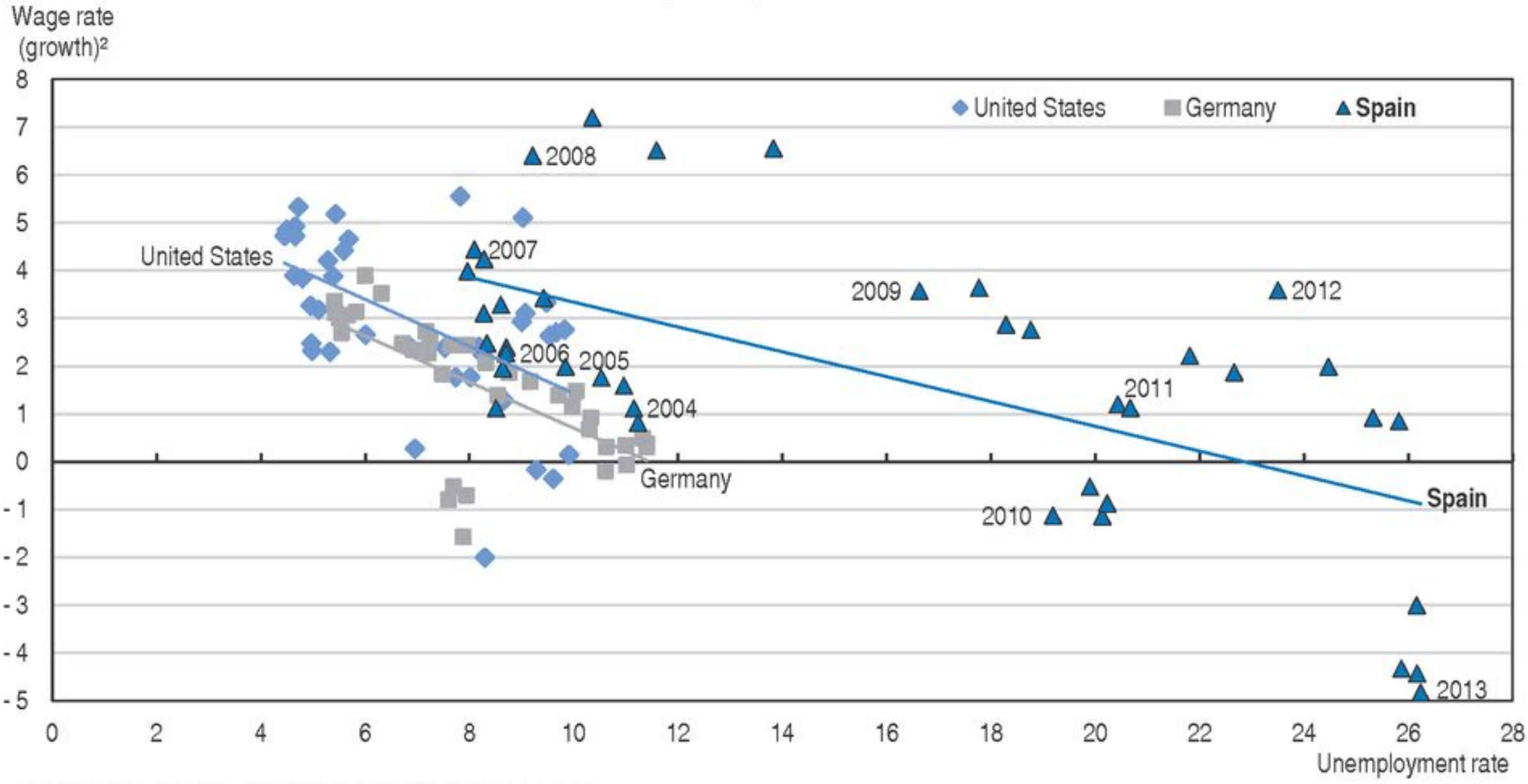
made available in parallel to the adult unemployed. International experience suggests that increasing work-based training opportunities, such as apprenticeships and internships, is likely to pay-off as it facilitates the labour entry, particularly of youth (OECD, 2009b). An appealing feature of this type of scheme is that it allows employers to train a potential employee for the actual needs of the company, as international experience shows that training needs to be targeted, and employer-employee initiated training can help achieve this since it is difficult for the public authorities to predict skill demands (Carcillo and Grubb, 2006).

### *The wage bargaining system is in transition and wage responsiveness can be further enhanced*

Rigidities in the wage bargaining regime, particularly high reliance on sectorial wage agreements and wage indexation to inflation (now with reduced use), have contributed to a lower responsiveness of wages to unemployment in Spain. A much higher unemployment rate has been required to induce a fall in nominal wages than other countries (Figure 1.18). Significant reforms to both the wage bargaining and employment protection regimes were undertaken in 2012. These increased the potential for greater responsiveness of wages to economic conditions and reduced employment protection for permanent contracts (OECD, 2012c). A recent OECD review of the reforms, which used statistical techniques to distinguish policy from other effects, found that they had contributed to wage moderation and increased hiring on permanent contracts (OECD, 2013f). However, further time will be required to fully evaluate the effect of the reforms. As the authors acknowledge, only a short period had elapsed at the time of the evaluation, and it is difficult to establish an effective counter-factual. Indeed, the evaluation was done during a period of significant evolution in cyclical conditions as the economy moved from a long recession towards recovery and it is hard to distinguish between cyclical and policy effects in these circumstances.

Figure 1.18. **Phillips curve: Wages and unemployment rate**

Per cent, quarterly data for 2004-13[1]




1. Year labels for Spanish data indicate first quarter.
2. Wage rate private sector, year-on-year percentage change. No data is available for Germany for 2013.

*Source:* OECD (2014), *OECD Economic Outlook: Statistics and Projections* (database), July.

StatLink http://dx.doi.org/10.1787/888933128631

An important component of the reforms was to abolish the indefinite automatic extension of sectorial wage agreements ("ultra-activity"), replacing it with a one-year maximum automatic extension. In a welcome development, many of these unrepresentative and competition stifling agreements have now been renegotiated or extended for a short-period to allow for renegotiation. In the few cases where they actually ceased altogether, it is not clear as yet what will replace them. However, there has not been a general expiration of previous working conditions. The new bargaining regime allows firms to opt-out of sectorial collective agreements but there appears to be little opting out. Only 5% of workers were affected by opt-outs covered by firm level agreements in early 2014 (Banco de España, 2014). However, the prospect of firms opting-out or signing their own agreements seems to have moved sectorial agreements towards adapting better to economic conditions. If needed, on the basis of further evaluation of recent reforms, the government could increase their effectiveness through further refinements, starting with imposing, and gradually increasing, representation requirements for both unions and firms for new sectorial collective agreements. As a second option, the government could further increase the effectiveness of the reform by requiring firms to "opt-in" rather than "opt-out" of sectorial collective agreements. A more decentralised wage bargaining system and greater heterogeneity in wage and working conditions would generate a more dynamic and employment-rich labour market. Cross-country evidence shows new firms are the most important source of employment creation including in Spain (Bravo-Biosca et al., 2013; Criscuolo et al., 2014), and establishing different wage and employment conditions is an important way for them to compete with established firms.

### *More needs to be done to reduce dualism*

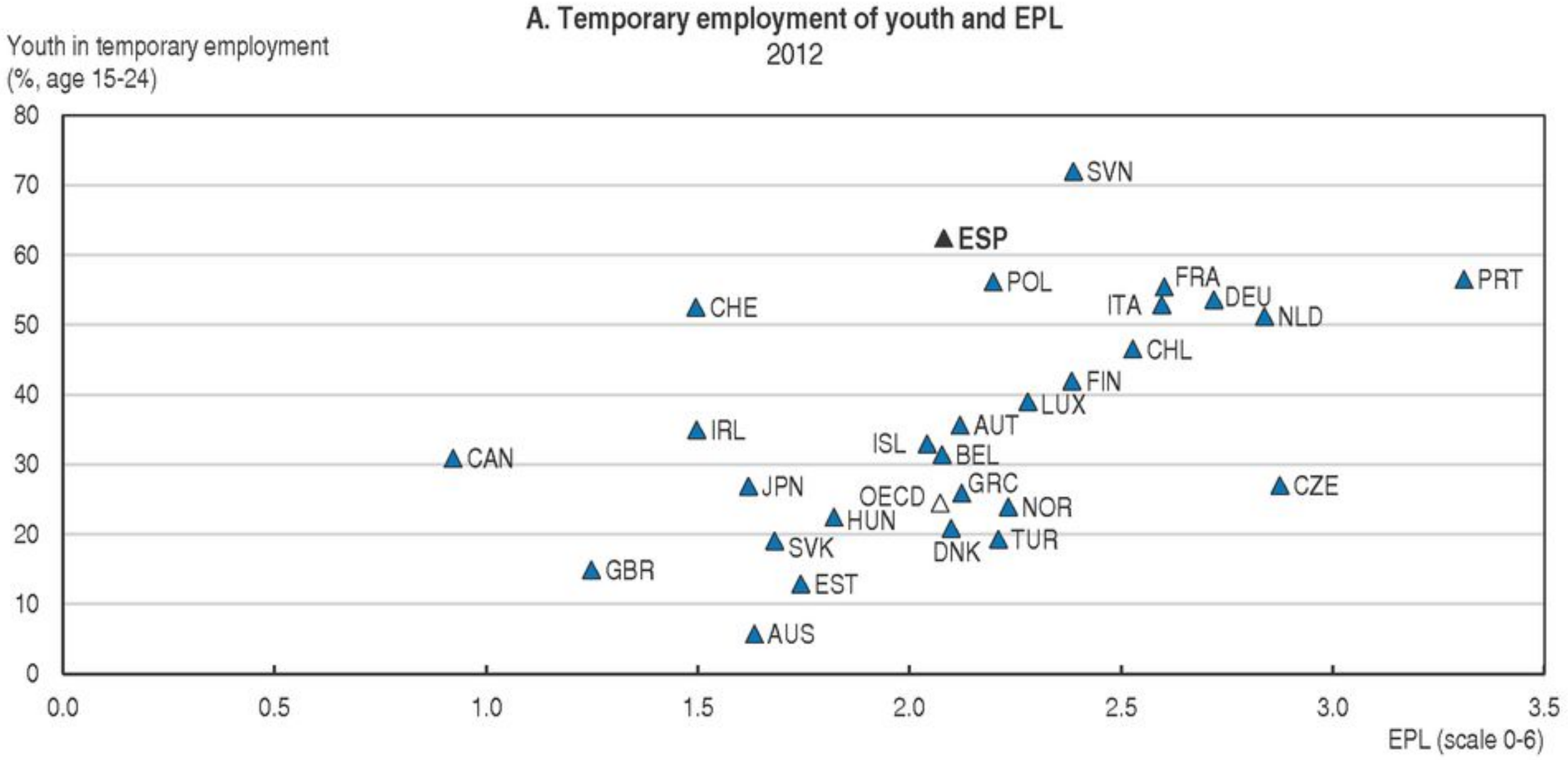
A high level of protection for permanent relative to temporary contracts has led to marked labour market dualism (Figure 1.19), which increases unemployment volatility and inequity, reduces firm and worker investment in training and hampers labour reallocation. It also reduces total factor productivity growth (Dolado et al., 2011). Despite the reduction in the employment protection for new permanent contracts in the 2012 reform to just below the OECD average, temporary contracts are still widely used. The share of workers with temporary contracts fell during the crisis as many temporary contracts were not renewed but the share has started to rise again and the duration of these contracts is often shorter than those before the crisis.

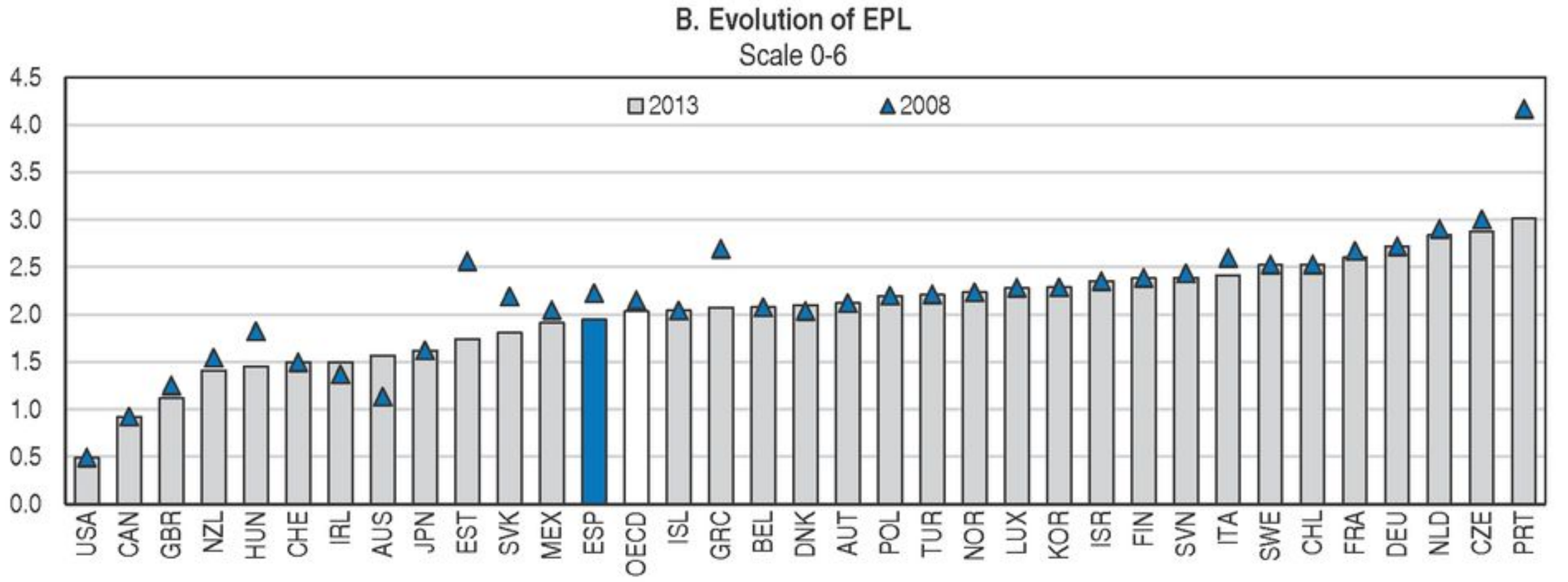
In March 2014, the government introduced a temporary, conditional cut in employer social security contributions for new permanent contracts to a flat rate of EUR 100 per month. The reduction will apply to positions created between 25 February and 31 December 2014 and will be valid for two years from the start of the contract. Following the two-year period firms with less than ten employees are entitled to a permanent 50% reduction in employer social security contributions. The cut is conditional on the firm having not fired workers in the previous six months and the contract resulting in a net increase in employment.

The most recent data on new hiring show a significant increase of 23.9% in the annual growth of new permanent hiring. However, the across the board flat rate is expensive, with most lost revenue coming from higher paid jobs. In addition, temporary measures cannot be expected to fully stimulate long-term hiring or investment plans. It would be preferable to introduce a permanent cut in employer social security contributions focussed on lower-paid workers where the need to stimulate labour demand is the most acute. Simulations conducted for the Fiscal Expert's Commission show a larger effect on GDP and employment

## Figure 1.19. **Employment protection legislation**[1]

Individual dismissal of workers with regular contracts




1. Synthetic indicator of the strictness of employment protection legislation (EPL) with a scale of 0-6 from least to most restrictive. The EPL shown in this figure incorporates three aspects of dismissal protection: procedural inconveniences that employers face when starting the process; notice periods and severance pay; and difficulty of dismissal.

*Source:* OECD (2014), *OECD Employment and Labour Market Statistics* (database), July.

StatLink http://dx.doi.org/10.1787/888933128650

from cutting employer social security contributions than income taxes (Comisión de Expertos, 2014). To keep administrative costs low and reduce barriers to firm growth conditionality and discriminating between firms based on firm size should be avoided.

One key issue to make the 2012 reform successful is a wider use by firms of "fair" dismissals justified by law as opposed to "unfair" dismissals, which are more costly. The share of fair dismissals has increased from 30% in 2010 to nearly 60% of total dismissals. There is room for further increase although the economic cycle also plays a role in the share of fair dismissals – during a downturn the share is likely to increase. If the increase stalls at this point this could indicate that either firms are still worried about reclassification by the judges or that judges continue to frequently reclassify dismissals as "unfair". The latter would be worrisome for the success of the reform.

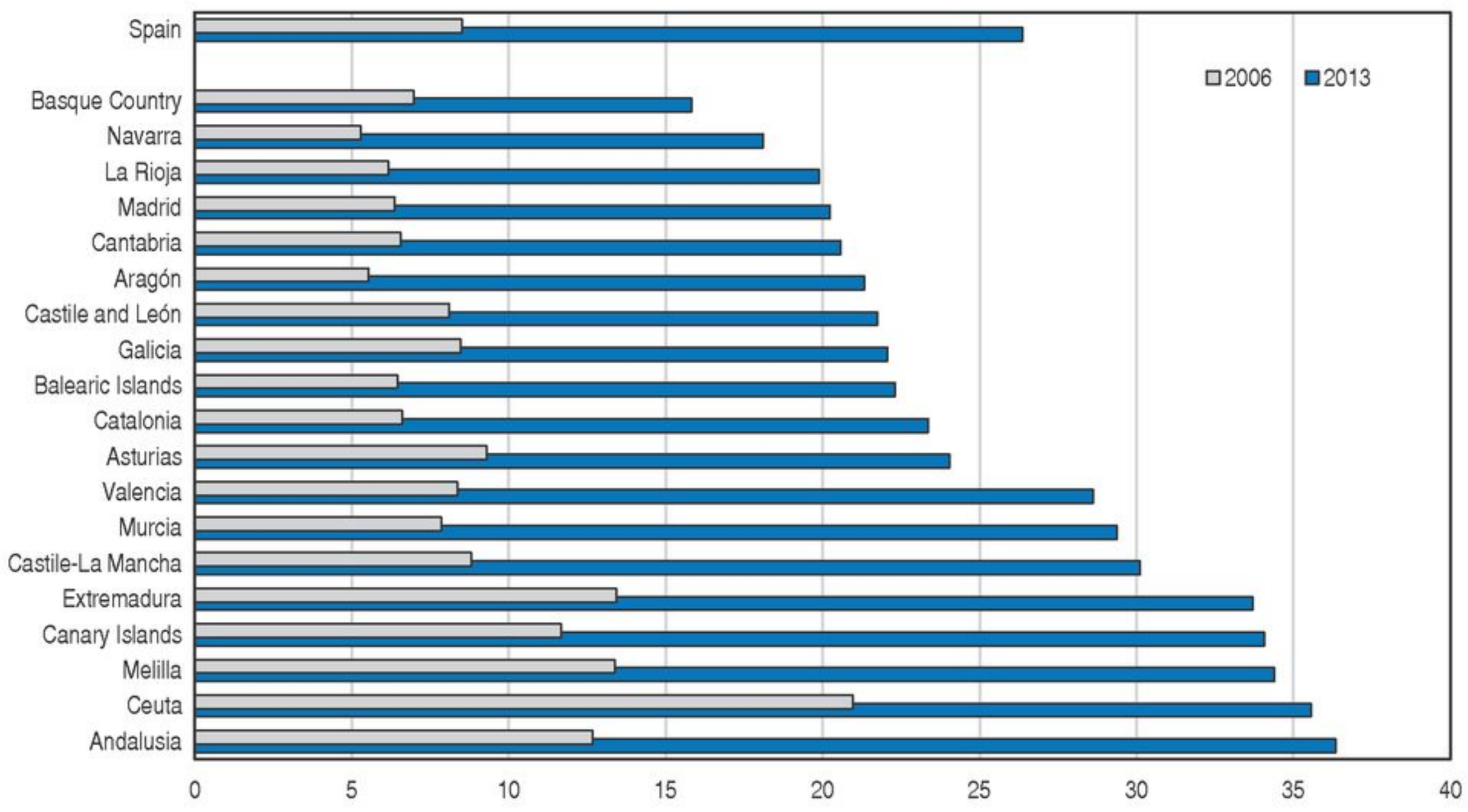
To further reduce duality, the government should pursue a greater convergence of termination costs between fixed-term and permanent contracts (Blanchard and Tirole, 2003; Cahuc, 2012). An important pre-requisite for this to be effective is to further restrict the grounds for ordering reinstatement in cases of unfair dismissal to false reasons, discrimination and prohibited grounds only (OECD, 2014).

### *Improving labour mobility can help to reduce unemployment*

There are large and persistent differences in unemployment rates from region to region (Figure 1.20). Wage inflexibility arising from nationwide sectorial agreements that have set wages too high relative to regional productivity, which varies significantly across regions, can partially explain this (OECD, 2007).

Figure 1.20. **Regional unemployment rates**[1]

Per cent



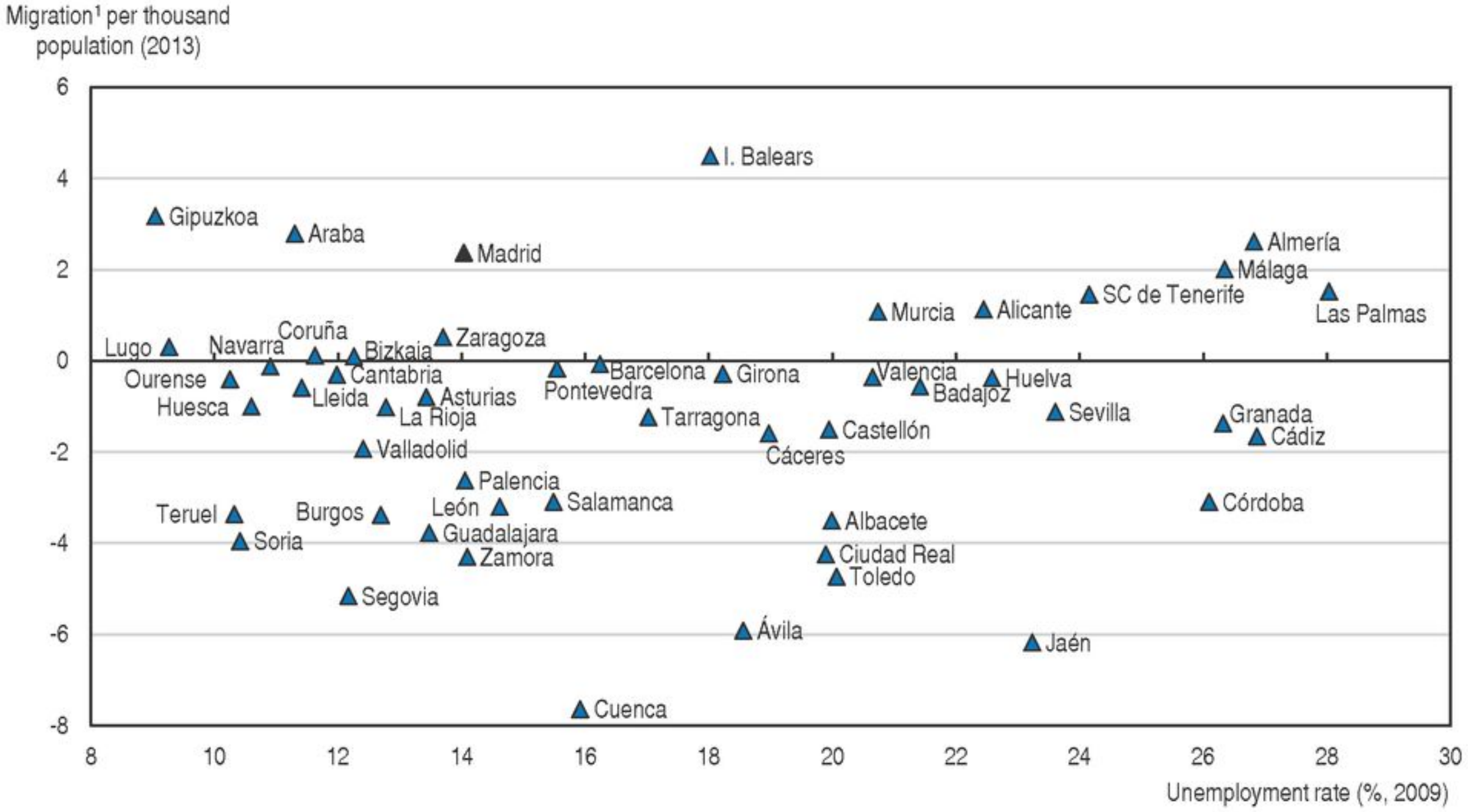

1. The results for Ceuta and Melilla should be viewed with caution as they may be affected by large sampling errors.

*Source:* INE (2014), "Economically Active Population Survey", *INEbase*, Instituto Nacional de Estadística, April.

StatLink http://dx.doi.org/10.1787/888933128669

Such large and persistent differences in unemployment rates should provide an incentive for the unemployed to move from high to low unemployment regions. In an international context (for example Ireland and the United Kingdom) this gap is a significant explanatory variable of net migration flows (Fitzgerald et al., 2008). However, barriers to labour mobility, including the monetary costs of moving and social ties, can impede the flow of unemployed. In Spain, internal migration does not appear to be reacting to the incentives provided by large differences in regional unemployment rates, with no apparent correlation between regional net migration and regional unemployment rates, even allowing for some reaction time (Figure 1.21).

Figure 1.21. **Provincial unemployment and migration**




1. Inter-provincial migration balance, provisional data.

*Source:* INE (2014), *INEbase*, Instituto Nacional de Estadística, July.

StatLink http://dx.doi.org/10.1787/888933128688

A long-standing impediment to internal labour mobility is a strong bias towards home ownership and an inflexible and under-developed rental market (OECD, 2008). The rate of home ownership has increased over time and is very high by international standards at over 80%. Demographic factors can only partially explain the increase in home ownership (Andrews and Caldera Sánchez, 2011). The tax system has been biased towards home ownership. Investment in rental property has also been discouraged by strict tenancy laws, which imposed five year fixed-term leases and a requirement for the landlord to preferentially sell to the tenant. Investment has been further discouraged by difficulties in enforcing evictions, for example for failing to pay the rent, due to inefficiencies in the court system (OECD, 2008). There has also been very little investment in rental properties by institutional or corporate investors, with most rental agreements being between private landlords and tenants.

A number of reforms have been taken to improve the supply of rental property by providing new investment vehicles and increasing the flexibility of rental markets, and on the demand side to reduce home ownership bias. The withdrawal of deductibility from income tax of mortgage payments has helped to reduce the tax bias towards housing ownership. In 2009 the government introduced legislation allowing the possibility to set-up Real Estate Investment Trusts (REITs), akin to a mutual fund and often listed on stock exchanges, to encourage investment in rental property by providing a liquid and diversified method of investing in real estate. In January 2013 REITs legislation was modified to allow for more flexibility to adapt its taxation to that applied in other countries. REITs are widely used in several OECD countries, including Australia and the United States, and investor interest in Spain in 2013 and 2014 has been reportedly strong.

The government also passed a new Rental Housing Act in May 2013, which provides for shorter three year fixed-term leases (although the tenant can exit the lease earlier) and for shorter automatic lease extensions (one year instead of three). It also removes the obligation to sell preferentially to the tenant and allows landlords to terminate the lease with notice if they sell the property. It replaces indexing of rents to the consumer price index with rents to be freely negotiated between the parties. It allows the eviction of tenants ten days after filing of a lawsuit for non-payment of rent – previously a declaratory judgment was required before eviction. Following the reform, rent setting flexibility has increased to equal the highest in the EU, although tenant protection is still above the median in the EU (Cuerpo et al., 2014).

A pre-requisite for ensuring an efficient rental housing market requires reducing the high level of formalism and slow speed of the Spanish judicial system. A network of local arbitration bodies with simple procedures requiring no legal representation should be set up to handle landlord-tenant disputes in the first instance. The government should also introduce periodic leases (for example, one month rolling leases that continue unless one party gives notice) to give greater scope for landlords and tenants to match rental contracts to labour market situations such as temporary contracts, seasonal work or those that need to move frequently to advance in their careers. Living in social housing reduces willingness to move residence to obtain a job and thereby unemployment durations (Barceló, 2006; Ménard and Sellem, 2010). To further facilitate labour mobility, while maintaining social protection, the government should reallocate some funding away from social housing towards means tested housing benefits.

### *A more family friendly labour market: boosting employment of women*

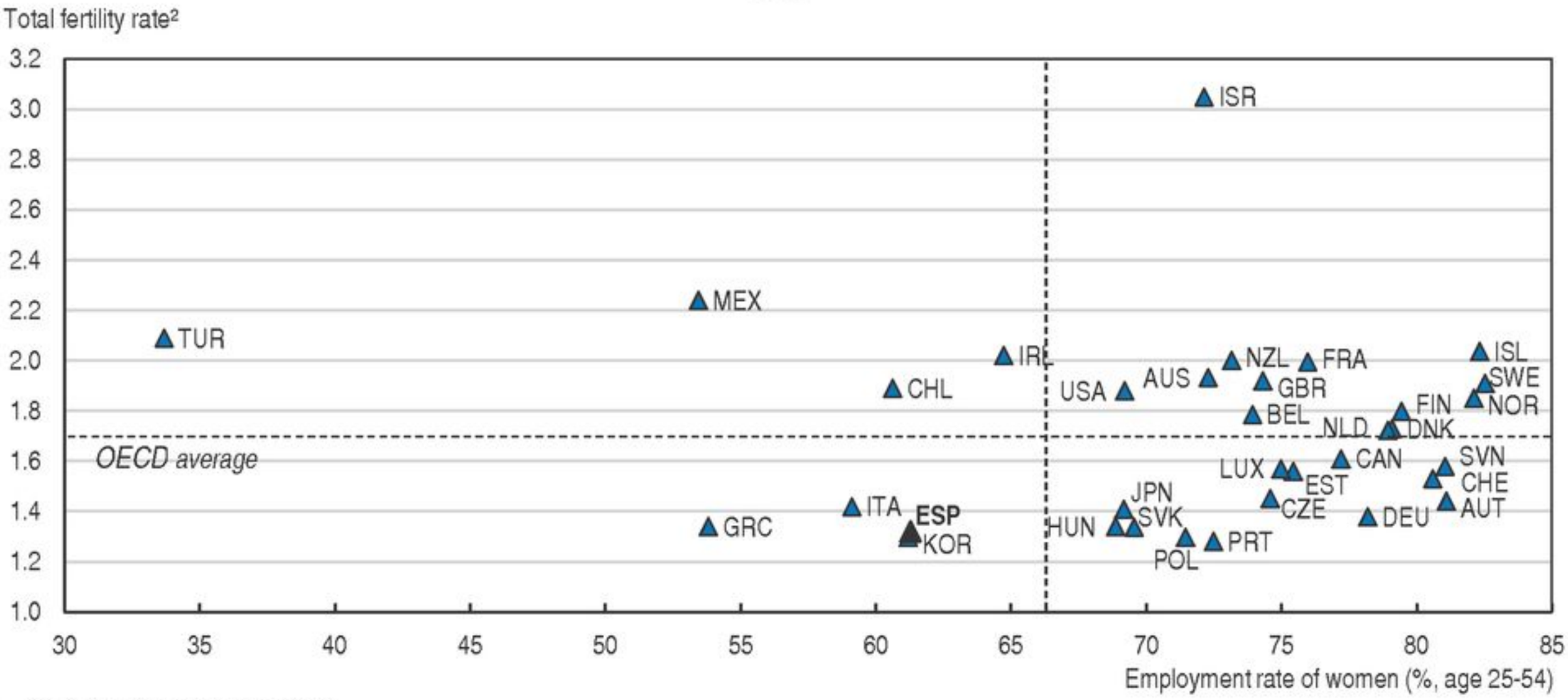
The employment rate of women aged 25-54 is low in Spain (Figure 1.22). As discussed above, at current low fertility rates the working age population will shrink markedly reducing potential growth. It will also sharply decrease the ratio of the working age to retired population making it more difficult to fund pensions and health expenditures.

The participation rate of women continued to rise during the crisis and is close to the OECD median (Figure 1.23). The low employment ratio of women is mainly a result of high general unemployment in Spain. A fall in the unemployment rate of women from over 20% to around 8% would increase the employment ratio to around the OECD median.

There appears to be room to remove barriers to combining paid employment and motherhood to increase women's labour force participation further. Less dualism and more time flexibility including a higher use of permanent part-time contracts, which is low by international standards, would both help. The government should re-examine how to protect parents that choose to work part-time from dismissal. The law allows those on permanent contracts with children aged under twelve to reduce their working-time even without employer consent and with a protection from dismissal. Empirical work suggests this increased part-time working by women on permanent contracts but also increased the dismissals of non-eligible women and the use of fixed-term contracts to hire women of child-bearing age (de la Rica and Gorjón García, 2013). Measures to fight duality would also help to eliminate this type of substitution towards fixed-term contracts.

Figure 1.22. **Fertility rates and employment rates of women**

2012[1]




1. 2011 for Canada and Chile.
2. The total fertility rate is the number of children that would be born to a woman if she were to live to the end of her childbearing years and if the likelihood of her giving birth to children at each age was the currently prevailing age-specific fertility rate. See indicator SF 2.1 of the OECD Family Database for further information.

*Source:* OECD (2014), *OECD Employment and Labour Market Statistics* (database), July and OECD (2014), *OECD Family Database*, June, *www.oecd.org/social/family/database*.

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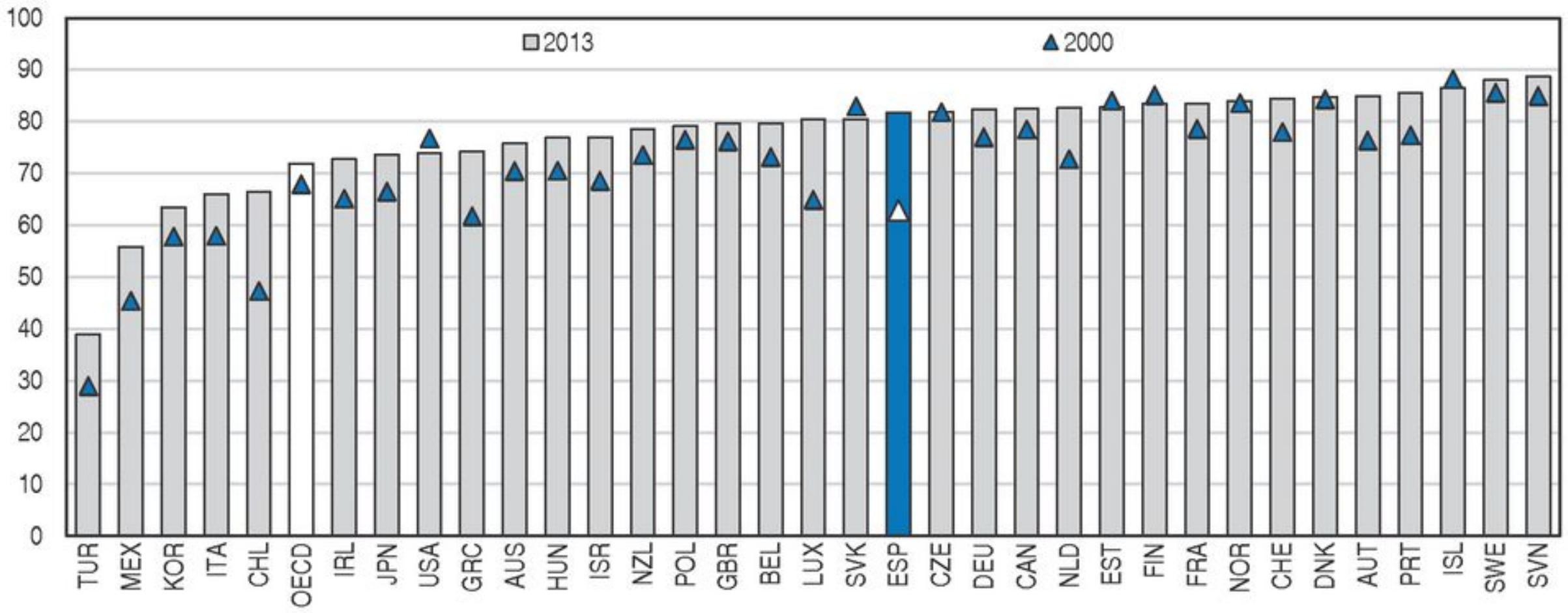
Figure 1.23. **Labour force participation rate of women aged 25-54**

Labour force as a percentage of population in same age group




*Source:* OECD (2014), *OECD Employment and Labour Market Statistics* (database), July.

StatLink http://dx.doi.org/10.1787/888933128726

Benchmarking suggests that there are a number of potential policy levers at Spain's disposal to make it easier to combine work and family and thereby encourage higher participation in the labour force by women (Table 1.6). In particular countries with both higher fertility and employment of women (the Nordics, France and New Zealand) have higher public spending on family benefits and childcare and early education services, lower childcare fees as proportion of wages, higher pre-school enrolment rates, a higher of share of women on leave for children aged under one and a lower share of both men and

## Table 1.6. **Working environment for families: Spain in international comparison**

| Indicator | Unit | Year | Spain | OECD[1] | | | |
|---|---|---|---|---|---|---|---|
| | | | | Best performers[2] | Average | 25-75% interquartile range | Number of countries |
| Public expenditure on | % of GDP | 2009 | | | | | |
| Family benefits in cash, services and tax measures | | | 1.8 | 3.7 | 2.6 | 1.6-3.6 | 33 |
| Childcare and early education services | | | 0.6 | 1.3 | 0.7 | 0.4-0.9 | 33 |
| Family cash benefits | % of average wage | 2011 | 1.0 | 3.6 | 3.8 | 2.1-5.4 | 30 |
| Childcare fees per two-year old attending accredited early-years care and education services | % of average wage | 2008 | 25 | 14 | 21 | 10-28 | 28 |
| Children aged less than three in pre-school | % | 2010 | 39 | 48 | 33 | 19-46 | 30 |
| Child-to-teaching staff ratio in formal day-care services, 0-3 year-olds | Ratio | 2008 | 14 | 11 | 15 | 12-18 | 25 |
| Leave | Weeks | 2013 | | | | | |
| Paid maternity | | | 16 | 15 | 18 | 14-19 | 32 |
| Paid paternity | | | 2 | 7 | 5 | 0-9 | 32 |
| Unpaid parental | | | 0 | 22 | 23 | 0-22 | 32 |
| Maternity leave payment rates | % of average wage | 2008 | 102 | 77 | 77 | 66-93 | 27 |
| Share of employed women with a child under age one on leave | % | 2006 | 27 | .. | 45 | 27-72 | 17 |
| Share of part-time employment | % | 2012 | | | | | |
| All persons | | | 15 | 17 | 16 | 8-20 | 32 |
| Women | | | 24 | 24 | 24 | 12-33 | 32 |
| Average effective tax rates for parents entering employment at 67% of average wage, spouse earnings also 67% | % | 2008 | 16 | 37 | 33 | 23-41 | 31 |
| Parents who work more than 40 hours a week, with two children aged 0-14 | % | 2008 | | | | | |
| Women | | | 41 | .. | 47 | 22-74 | 19 |
| Men | | | 84 | .. | 80 | 73-94 | 19 |

1. Unweighted average of data available for the number of countries listed in the last column.
2. Countries where women have a high employment rate and a high fertility rate: Denmark, Finland, France, Iceland, New Zealand, Norway and Sweden. Unweighted average of data available.

*Source:* OECD (2014), *OECD Family Database*, *www.oecd.org/social/family/database* and *OECD Employment and Labour Market Statistics* (database), May.

women working longer working hours (40+ per week) and a higher share of woman in part-time employment. The end of the working day is also typically earlier in these countries than in Spain, where family unfriendly late finishing times of 8 pm are common. Several of the levers are fiscally costly so policy should focus in the shorter-term on improving the family friendliness of working hours and parental leave norms. This could include setting a regulatory norm of compulsory core work hours of 10 am to 4 pm around which full-time employees are free to vary their starting and finishing times to meet their total hour's obligations, unless otherwise set by fixed shift work schedules.

Spain's paid maternity leave is around the OECD average. The maximum unpaid parental leave is also long. However, the proportion of employed women on leave with a child under one year old is low suggesting (assuming similar preferences as in other OECD countries) that in practice it is not easy for employed women to take an extended period of leave in Spain following the birth of a child. The high unemployment rate and dualistic labour market with many younger women on precarious temporary contracts means women might be reluctant to take extended leave for fear of being fired. In addition, taking extended leave may not be perceived well in many workplaces in Spain. Around 27% of men and 31% of employed women report requesting shorter working hours or leave for family reasons as actually or possibly having been negative for their career (Ministry of

Labour and Immigration, 2011). This appears to be a very high share given that between around 40% to 46% of working men and women live in households with children under the age of 14 or with a dependent person and therefore are likely to make such a request.

The government should also act to improve average childcare quality while not stifling competition. Pre-school enrolment of 0-3 year-olds has increased a lot over the past decade and is above the OECD average; and a competitive market of public and private providers has developed. The regulation of the sector was devolved to the regions in 2006 and the standards vary a lot across them. To help guarantee a minimum quality standard across Spain without overly impeding innovation and the variety of the offer, the central government should set a national minimum standard for safety and quality standards, including for the required training for carers and teachers. Broadening access to early childhood education, especially to poorer households, is also an important lever for lowering elevated school drop-out rates and improving adult life outcomes (Heckman, 2008).

**Recommendations for sustainable boosting of medium-term growth**

- Further increase the work-based component of existing school-based vocational education and training completed at firms. Schools should be more flexible in applying criteria to move to upper secondary school education.
- Publicise widely information on university graduate labour market outcomes by degree and institutions and ease the compulsory requirements to offer a minimum number of degree courses at under-graduate level.
- Raise the quality of innovation and strengthen competitiveness by encouraging greater scale and specialisation of universities and research organisations, by extending performance based resources allocation and the application of international peer review and by providing more career opportunities for highly qualified researchers.
- Retain and review the research and development (R&D) tax credit including the limits on the amounts that can be claimed and cooperate with larger research organisations to promote its use among younger firms. Streamline the certification process for R&D.
- Create an alternative career progression track at both universities and the Council for Scientific Research for researchers involved in knowledge transfer and commercialisation activities. Increase the ceiling on the share of university staff that can be hired on ordinary labour contracts.
- Equalise pricing of greenhouse gas emissions across sources and fuels using taxes and fees and move towards a single carbon tax. Increase the use of pricing tools to manage household and agricultural water demand by charging for environmental and scarcity costs. Ensure predictable and sustainable policy support to low-carbon technologies.
- Strengthen active labour market policies by improving vocational training, strengthening the capacities and efficiency at the public employment services and enhancing coordination between the different levels of administration.
- Reallocate spending to active labour market policies. Develop further profiling and individualised activation plans for the unemployed. Adjust funding for unemployed training based on tracking of labour market outcomes.
- To further increase the flexibility of wage bargaining, if needed require firms to gradually increase representation requirements for sectorial collective agreements or, as a second option "opt-in" rather than "opt-out" of sectorial collective agreements.

**Recommendations for sustainable boosting of medium-term growth** *(cont.)*

- To further reduce dualism, if the courts continue to find mainly in favour of employees in unfair dismissal cases, the government should legislate to further define the conditions for fair dismissals. The government should move towards converging termination costs for fixed term and permanent contracts.
- To improve the rental housing market and labour mobility, introduce a network of local arbitration bodies to handle landlord-tenant disputes, introduce periodic rolling leases and shift some funding from social housing to means tested housing benefits.
- Improve the family friendliness of the working environment by setting a regulatory norm of compulsory core work hours. Set a national minimum standard for safety and quality standards for childcare providers.

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# ANNEX 1.A1

## Medium-term growth simulations

The OECD's long-term growth model, a calibrated production-function based model of the economy, described in (Johansson et al., 2013) was used to quantify illustrative scenarios for the effects of improving three key drivers of trend growth, in which Spain is currently under-performing relative to the OECD average (education, business research and development [R&D], structural unemployment) and on which, as discussed above, government policy can play a large role. Three main scenarios were run relative to the model baseline:

- Raising Spain's schooling to OECD median schooling by 2035 (adds one year to the baseline schooling by 2035).
- Increasing business R&D to the median and 75% percentile of the OECD by 2035. This assumes that a 1% increase in business R&D intensity results in around a 0.5% increase in total factor productivity (TFP) growth and that a shock to business R&D takes roughly five years to be fully transmitted to long-run TFP (Griffith et al., 2004; Guellec and van Pottelsberghe, 2001). Spain's GDP (and GDP per capita) would be higher by 11% and 18% respectively by 2060.
- Reducing the Spanish non-accelerating inflation rate of unemployment (NAIRU) to the OECD median by 2035 (NAIRU around 7 percentage points lower by 2035 compared to baseline).

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*Chapter 2*

# Moving towards a more dynamic business sector in Spain

*Policy efforts to revitalise entrepreneurship and investment in Spain are key to generating growth and new jobs. The government has a substantial reform program to make it easier to do business in Spain, which should in some cases be deepened. Boosting economic growth requires a new generation of high-growth companies and that resources flow towards the most productive firms. For this to happen, barriers to business growth have to be reduced by streamlining regulations and licencing procedures, internationalisation needs to be fostered, and competition strengthened. In addition, the negative impact of the crisis on companies, notably the high level of indebtedness and difficulties to obtain financing faced by some firms, has to be relieved. This would be facilitated by more efficient insolvency procedures and further development of non-bank financing.*

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

## Introduction

Policy efforts to revitalise entrepreneurship and investment in Spain are of paramount importance to absorb people and capital that have become idle during the crisis. Boosting economic growth requires a new generation of high-growth companies to invest in more productive activities where labour could be reallocated. Resources should flow to the most productive firms at the expense of the least productive ones, which had not been the case in the years prior to the crisis. Lifting the performance of the Spanish business sector requires meeting three inter-related challenges: reducing barriers to firm start-up and growth; increasing exporting and innovation; and boosting competition. Additional constraints created by the crisis should also be removed by rehabilitating highly indebted viable firms and facilitating the exit of the non-viable ones, while improving access to credit and capital. The government reform programme already underway in these areas should be deepened along these lines, as detailed in this chapter.

## Key challenges affecting the Spanish business sector

### *Resources need to be reallocated to the most productive firms*

An extensive literature has highlighted the important role of reallocation of resources across firms, even within narrowly defined sectors, for overall productivity growth (Arnold et al., 2008; Foster et al., 2002; Hsieh and Klenow, 2009). Firm-level evidence suggests that Spain has lacked flexibility to re-allocate resources to more dynamic and productive firms (Figure 2.1). In Spain, firms with low productivity had stronger employment growth than others before the crisis. This contrasts with United Kingdom, Italy and France that show a strong positive association between productivity and employment growth. Productivity differentials between Spain and other high-income OECD economies cannot be fully explained by the shift of resources towards the construction sector in the boom years (Mora-Sanguinetti and Fuentes, 2012), but result from a lack of flexibility preventing resources from being efficiently reallocated (Crespo Rodríguez et al., 2012).

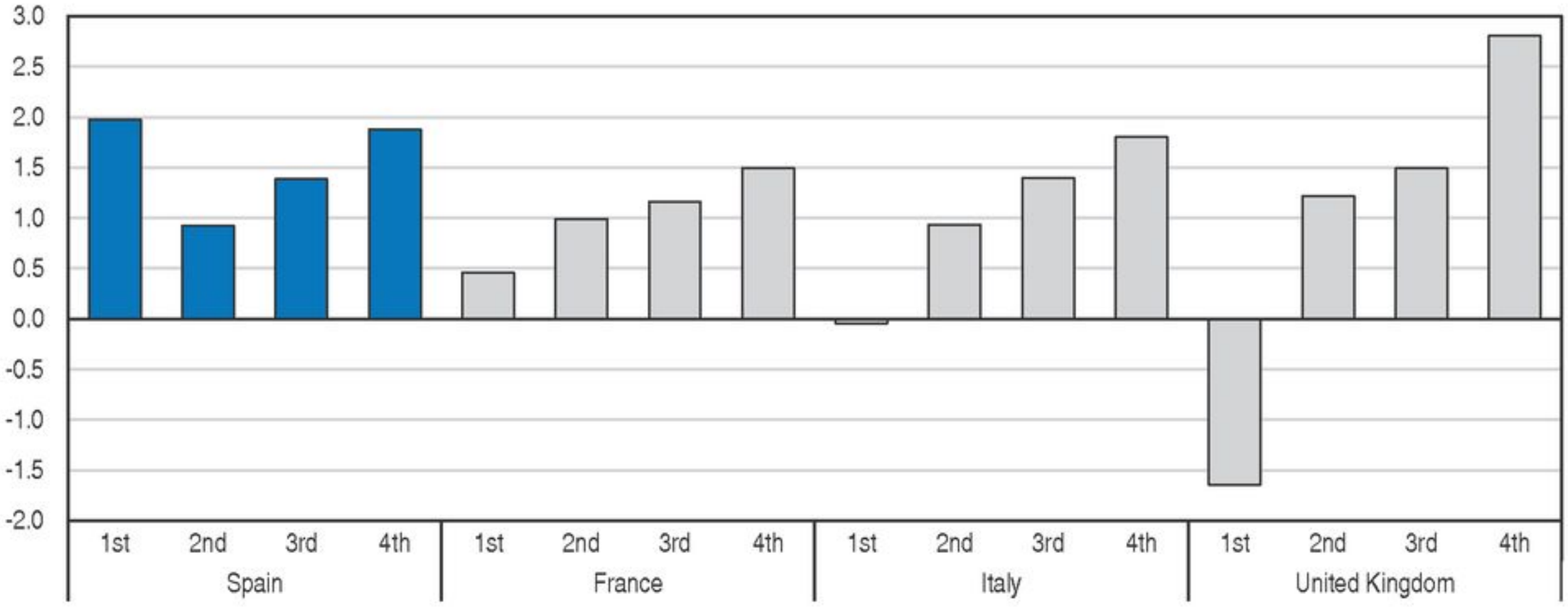
Implementing reforms that raise the productivity of existing firms, while at the same time fostering the flexibility needed for resource reallocation, will be one of the principal policy challenges for ensuring strong growth in the future. An environment that promotes reallocation and entrepreneurial risk-taking can also encourage innovative activity and investment in knowledge-based capital, which are associated with productivity improvements (OECD, 2013a; Andrews and Criscuolo, 2013). Structural policies can influence the ease with which such re-allocations occur (Andrews and Cingano, 2012). For example, administrative burdens can hamper firm entry, thresholds built into tax or labour codes can create disincentives for firms to grow beyond a certain size and credit markets may unduly favour incumbents at a time of crisis.

### *Barriers to firm start-up and growth are too high*

Regulatory barriers to firm start-up, growth and exit discussed below have resulted in a business sector with many low productivity micro enterprises and too few medium and larger firms (Figures 2.2 and 2.3). These features can be observed both in the manufacturing

Figure 2.1. **The link between productivity and employment growth across firms within industries**

Employment growth relative to average of country and sector, 1998-2009[1]




1. Or latest data available.

*Source:* OECD (2013), *OECD Economic Surveys: Brazil 2013*.

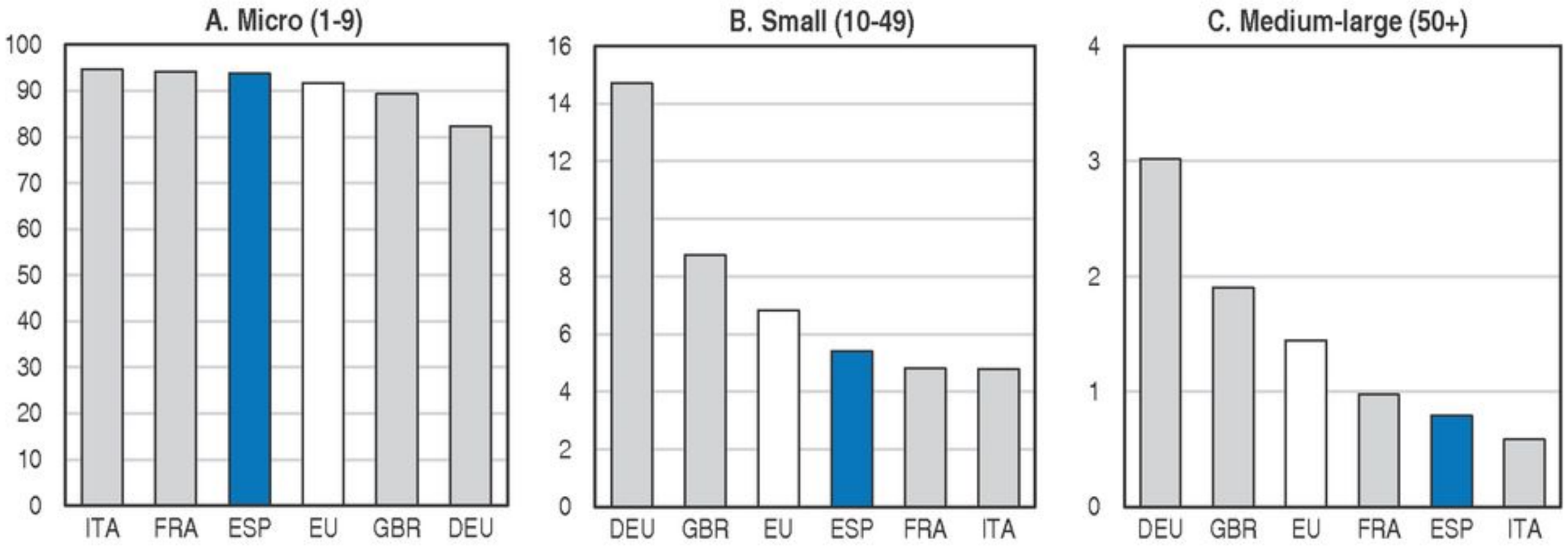
**How to read this figure:** The bars represent quartiles of firms within an industry ordered by productivity levels relative to the industry average. The height of the bars measures annual employment growth, relative to the average of the country and sector. A bar higher than zero means that employment growth in a set of firms was above average.

StatLink http://dx.doi.org/10.1787/888933128745

and services sectors and have remained unchanged over time. This dual distribution has serious implications for aggregate job growth, productivity and employment quality because, as elsewhere, larger firms have higher productivity. Spain, together with Italy, has more firms per unit of gross domestic product (GDP) than any other major European economy (OECD, 2013b), signalling that the business sector is fragmented. Spanish dual firm distribution is more similar to the one observed in developing countries, where many low-productivity locally focused micro firms coexist with a few large export-oriented multinationals, than with the one observed in other advanced economies.

Figure 2.2. **Distribution of firms by size class**

Based on the number of persons employed, per cent of total, 2010[1]



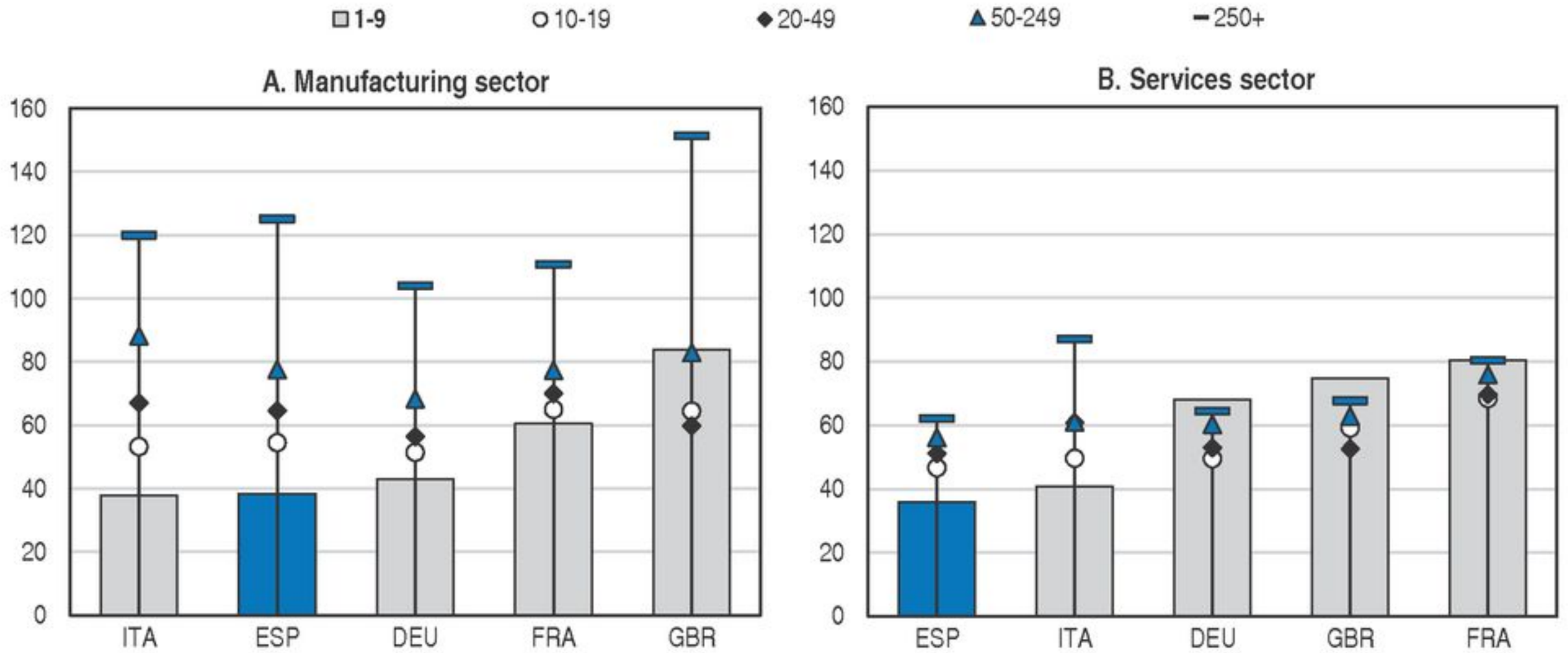

1. The sector covered is the total business economy (including repair of computers, personal and household goods; excluding financial and insurance activities). The EU aggregate is an unweighted average of shares for 23 countries.

*Source:* OECD (2013), *Entrepreneurship at a Glance 2013*.

StatLink http://dx.doi.org/10.1787/888933128251

Figure 2.3. **Productivity by firm size and branch**[1]

Value added at factor cost, thousand USD per person employed, 2010




1. Firm size classes based on the number of persons employed.

*Source:* OECD (2013), *Entrepreneurship at a Glance 2013*.

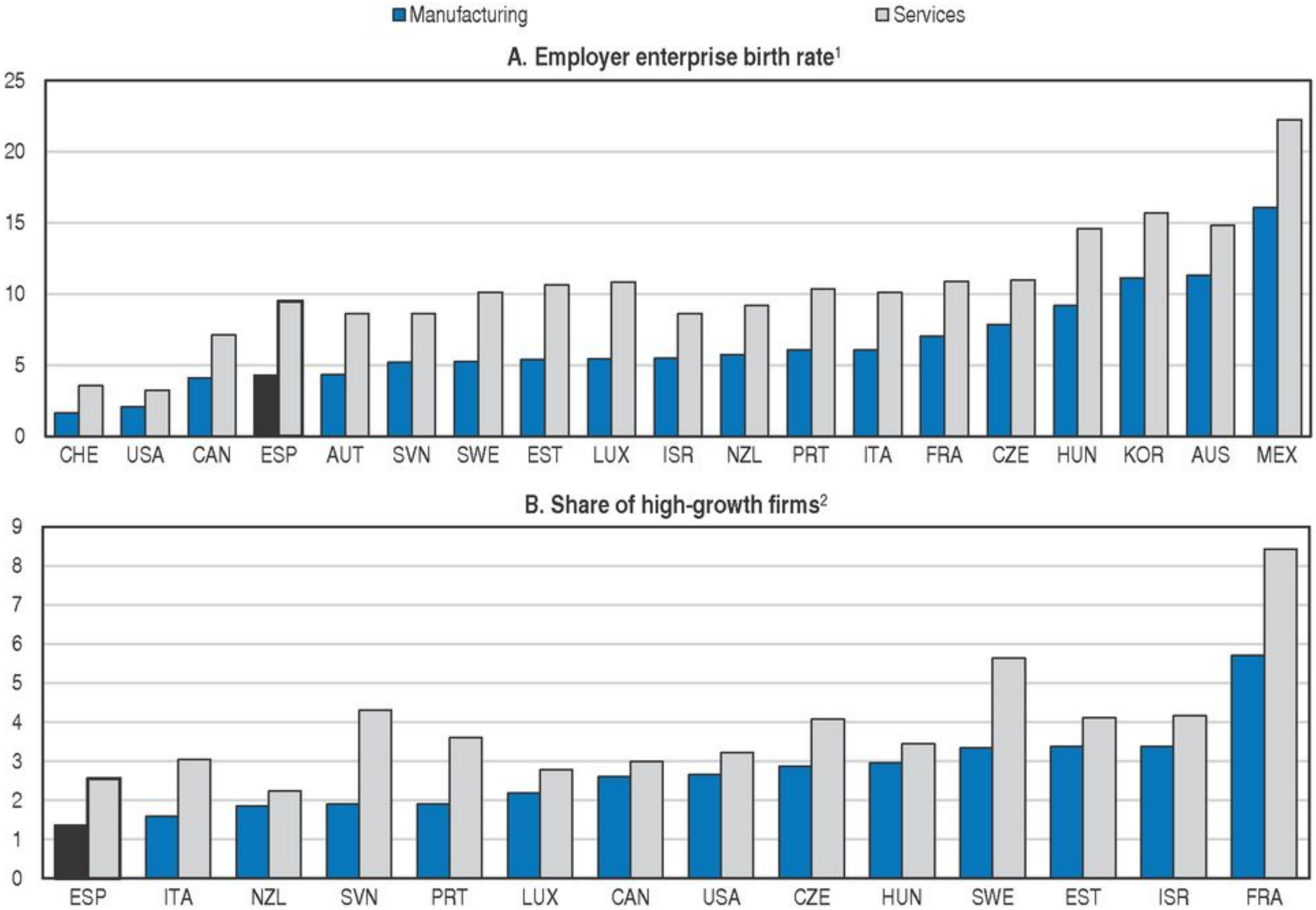
StatLink http://dx.doi.org/10.1787/888933128764

Barriers to start-ups have also resulted in low birth rates of firms and particularly of young high growth firms (Figure 2.4). Spain also has one of the lowest early stage entrepreneurship rates, a measure of start-up activity (Figure 2.5). This is a crucial impediment to aggregate economic performance and job creation. New enterprises yield a competitive pressure on incumbent companies, improving resource allocation by forcing inefficient firms out of the market. New start-ups also exploit knowledge unused or under-used by existing companies, drawing on knowledge spillovers to enter new and established markets (Acs et al., 2009). High start-up rates are strongly associated with high economic growth and job creation (Acs et al., 2006; Stangler and Litan, 2009). Net job-creation tends to be concentrated in few fast-growing firms, rather than dispersed across a large number of averagely performing enterprises. In general, around 4-6% of high growth firms generate half to three quarters of all new jobs (Henrekson and Johansson, 2010).

Empirical evidence confirms this. Spanish young firms have a significantly higher contribution to employment creation than older businesses. Indeed, the more favourable job-creation behaviour of young firms with respect to mature firms is relatively more marked in Spain than in other economies (Criscoulo et al., 2014). Over 50% of new jobs in Spain between 2001 and 2011 were due to young firms, though such firms accounted for only about 20% of total employment. Start-ups tend to be smaller in Spain than in other countries, and they do not appear to grow much over time, both in manufacturing and services (Figure 2.6). This suggests that the high proportion of small firms and the low presence of larger businesses in Spain might be reflecting two different features: start-ups are often small and there is a large share of more mature businesses that do not grow.

Figure 2.4. **Firms: Birth rate and high-growth by sector**

2010 or latest year available




1. Number of births of employer enterprises as a percentage of the population of active firms with at least one employee. 2011 for Israel, Korea, New Zealand and United States; 2009 for Canada, Estonia, France and Slovenia; 2008 for Mexico, Sweden and Switzerland.
2. Number of high-growth firms as a percentage of the population of firms with ten or more employees. A firm is considered high-growth when it has an average annualised growth in employees greater than 20% a year, over a three-year period, and with ten or more employees at the beginning of the observation period. 2009 for Canada, France and Slovenia; 2008 for Sweden.

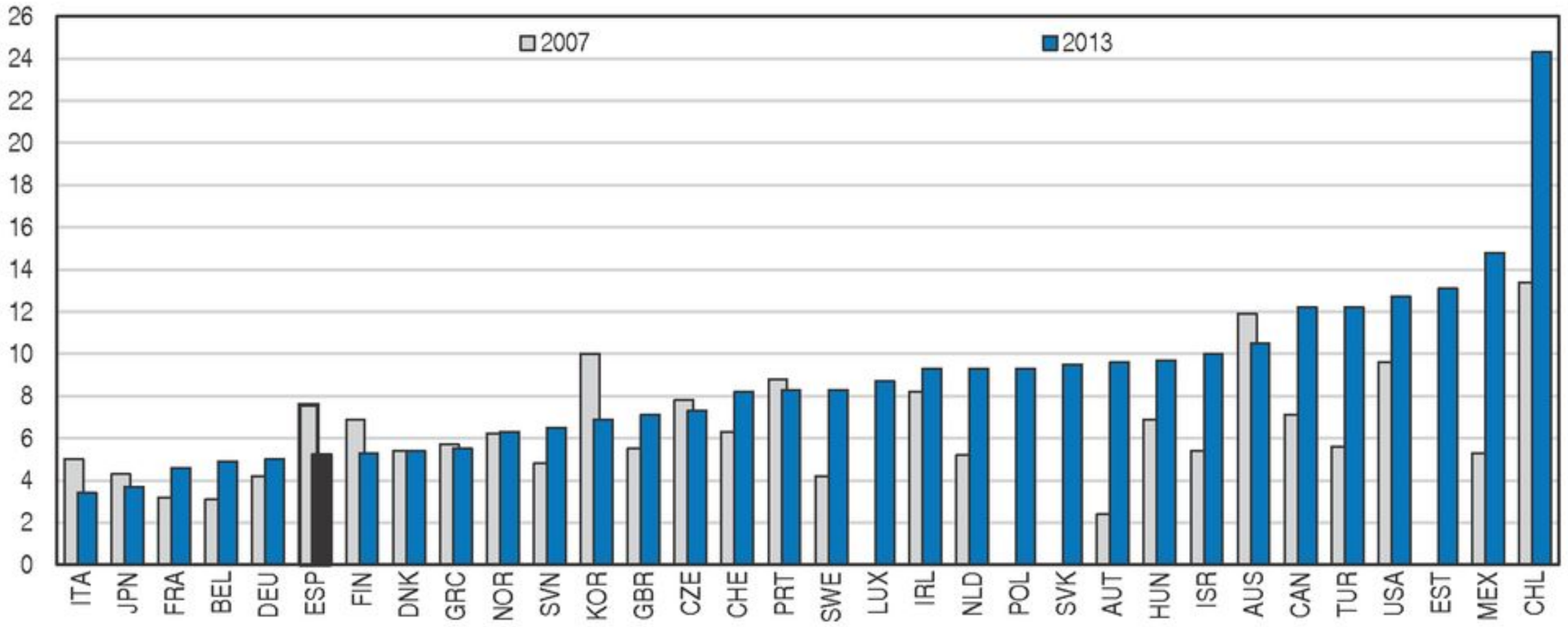
*Source:* OECD (2013), *Entrepreneurship at a Glance 2013*.

StatLink http://dx.doi.org/10.1787/888933128783

Spain displays relatively high rates of self-employment (Figure 2.7). On the positive side, this can be a signal of entrepreneurism. However, it can also be a sign that employers prefer to hire workers as independent contractors to benefit from lower social security contributions, which could increase the duality of the labour market and reduce labour skills. It could also indicate that the economy is not creating enough opportunities in the formal labour market. Indeed, a higher incidence of self-employment tends to be related to the size of the informal economy, which in Spain is estimated to be around 22% of GDP (Schneider et al., 2010), above the OECD average. On the one hand, the fall in construction activity, which tends to have a high incidence of informality, would have contributed to reduced informality. On the other hand, the recession reduced business and job opportunities in the formal economy and may have increased incentives for entrepreneurs and workers to move to the informal economy. Informality may be a source of jobs and livelihood in the short-term, but it hampers growth, job quality and productivity in the medium-term. Informal enterprises have an incentive not to grow to escape from tax authorities and there is a positive relationship between the size of the informal economy

## Figure 2.5. **Early-stage entrepreneuship activity rate**[1]

Per cent of population (aged 18-64) who are either a nascent entrepreneur or owner-manager of a new business



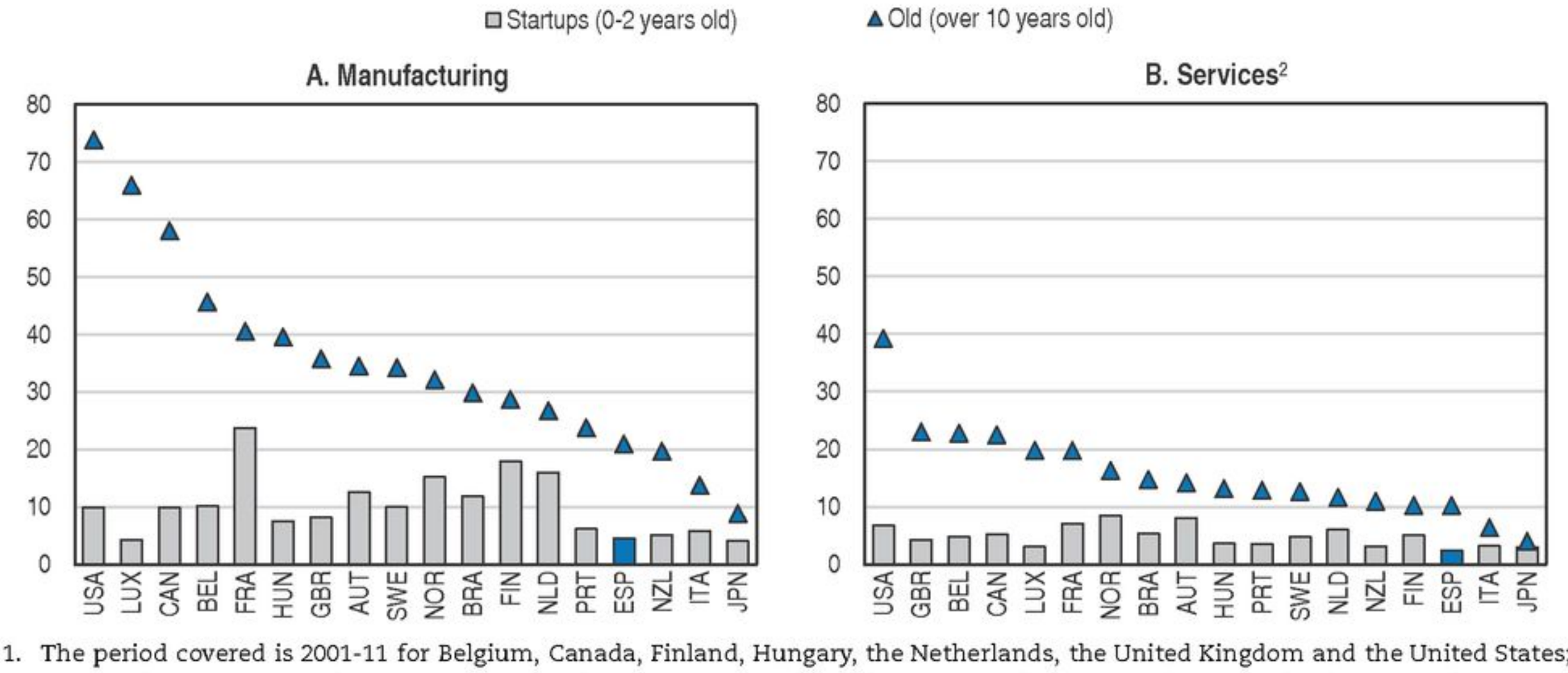

1. Defined as the prevalence rate of individuals in the working age population who are actively involved in business start-ups, either in the phase in advance of the birth of the firm (nascent entrepreneurs), or the phase spanning 42 months after the birth of the firm (owner-managers of new firms). The payment of any wages for more than three months is considered the "birth event" of the firm. Individuals who are actively committing resources to start a business (that they expect to own or co-own) but for whom the business has not yet yielded wages or salaries are considered nascent entrepreneurs.

*Source:* GEM (2014), "Key Indicators", *Global Entrepreneurship Monitor Database*, Global Entrepreneurship Research Association, London Business School, May.

StatLink http://dx.doi.org/10.1787/888933128802

## Figure 2.6. **Average size of firms by age and sector**

Number of employees, average over the period[1]



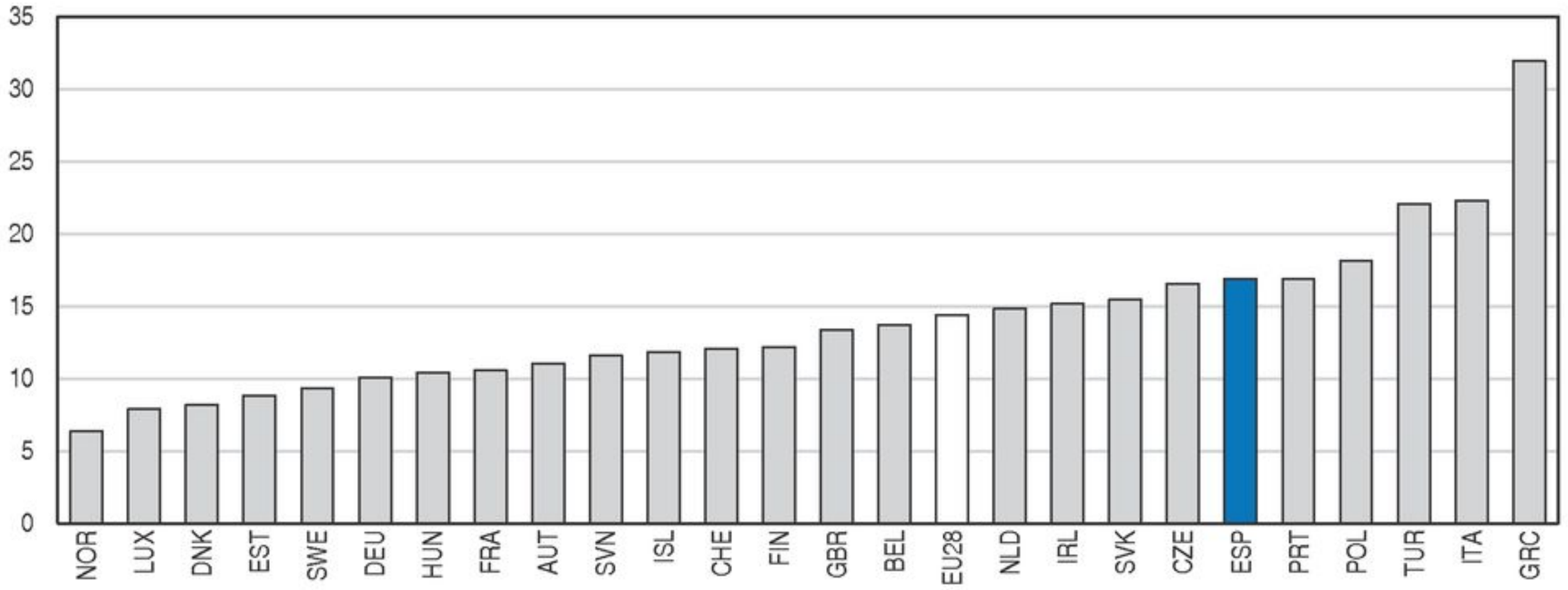

1. The period covered is 2001-11 for Belgium, Canada, Finland, Hungary, the Netherlands, the United Kingdom and the United States; 2001-10 for Austria, Brazil, Spain, Italy, Luxembourg, Norway and Sweden; 2001-09 for Japan and New Zealand; 2001-07 for France; and 2006-11 for Portugal. Owing to methodological differences, figures may deviate from officially published national statistics. For Japan data are at the establishment level, for other countries at the firm level. Data for Canada refer only to organic employment changes and abstract from merger and acquisition activity.
2. Non-financial business services.

*Source:* C. Criscuolo, P.N. Gal and C. Menon (2014), "The Dynamics of Employment Growth: New Evidence from 18 Countries", *OECD Science, Technology and Industry Policy Papers*, No. 14.

StatLink http://dx.doi.org/10.1787/888933128821

Figure 2.7. **Self-employment**

Self-employed as a percentage of total employment, age 15-64, 2013




*Source:* Eurostat (2014), "Employment and Unemployment (Labour Force Survey)", *Eurostat Database*, July.

StatLink http://dx.doi.org/10.1787/888933128840

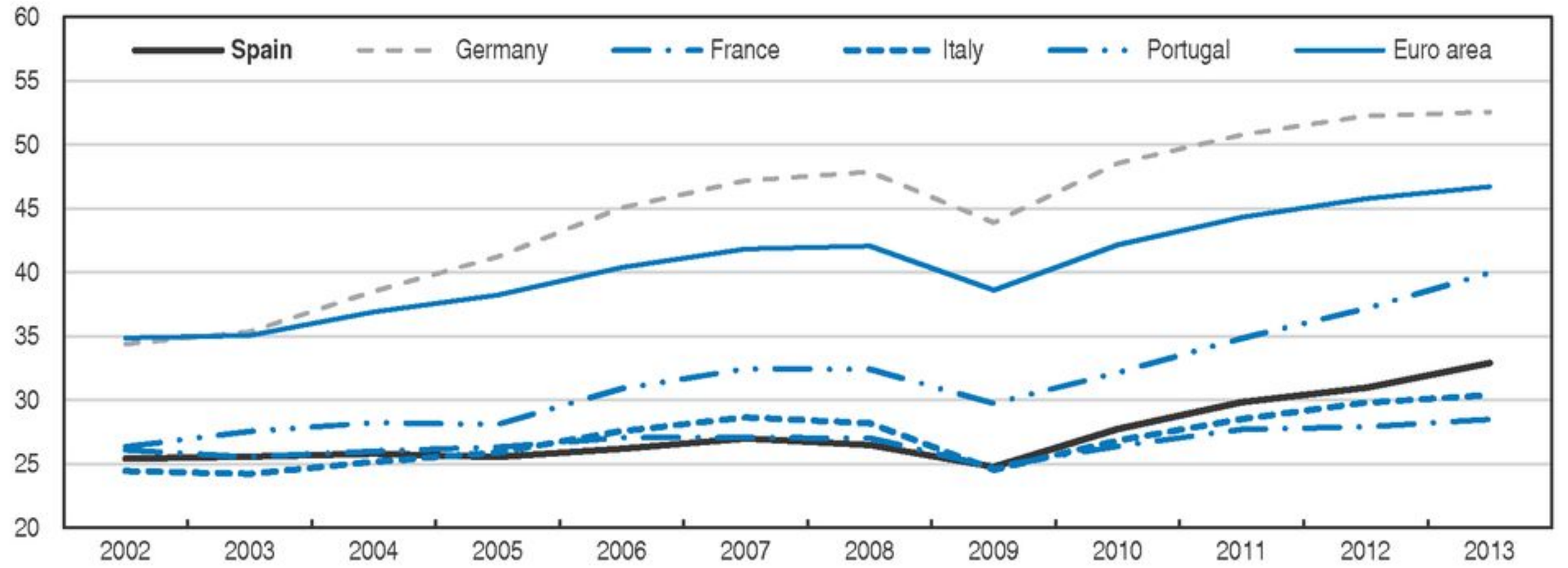
and the size of the micro-enterprise sector (OECD, 2013b). Informal firms also tend not to invest in modernising production. This translates into low productivity per worker and hence low wages. Moreover, the informal sector does not proportionally contribute to the financing of public services and infrastructure and acts as unfair competition to compliant firms.

### *Internationalisation and innovation are low*

Along with the collapse of the construction sector (and to a lesser extent the downsizing of the financial sector), the recovery of cost-competitiveness has allowed Spain to initiate a re-orientation of its productive system towards exporting sectors. The weight of exports in GDP has considerably increased, although it remains far below the euro area (Figure 2.8). It is essential that the Spanish business sector's efforts to internationalise its activities continue and extend.

Figure 2.8. **Evolution of exports**

Exports in volume, per cent of GDP




*Source:* OECD (2014), *OECD Economic Outlook: Statistics and Projections* (database), July.

StatLink http://dx.doi.org/10.1787/888933128859

Increasing further internationalisation would render positive effects on multiple fronts, since the performance of manufacturing exporting firms is significantly better than that of non-exporting firms (Table 2.1). They are substantially larger, have higher real productivity and physical capital stock per employee, rely more on skilled labour and are more likely to invest in research and development (R&D) and adopt foreign technology. On average, roughly 80% of the firms reporting either product or process innovations in a given year were also exporters (BBVA, 2012).

Table 2.1. **Characteristics of exporting firms versus non-exporting**

Manufacturing sector, average 1990-2010[1]

| | Units | Exporting | Non-exporting |
|---|---|---|---|
| Size | Average number of employees | 167 | 21 |
| Productivity[2] | | | |
| Value added | Thousand USD per employee | 33.2 | 20.2 |
| Output | Thousand USD per employee | 104.7 | 48.8 |
| Physical capital[2] | Thousand USD per employee | 31.4 | 12.3 |
| Innovation | | | |
| Highly-qualified employees[3] | % of total employees | 3.6 | 0 |
| White collar employees | % | 28.6 | 21.4 |
| R&D and technological adoption[4] | Thousand EUR | 24 | 0 |
| Foreign capital structure | % of share capital of the company | 26.3 | 3.1 |
| Market share in main market | % | 14.3 | 7.9 |
| Finance[5] | | | |
| Ratio of long-term debt over own funds | | 2.8 | 5.8 |
| Real average cost of long-term debt | % | 4.0 | 4.8 |
| Temporary employment | % | 9.3 | 12.9 |

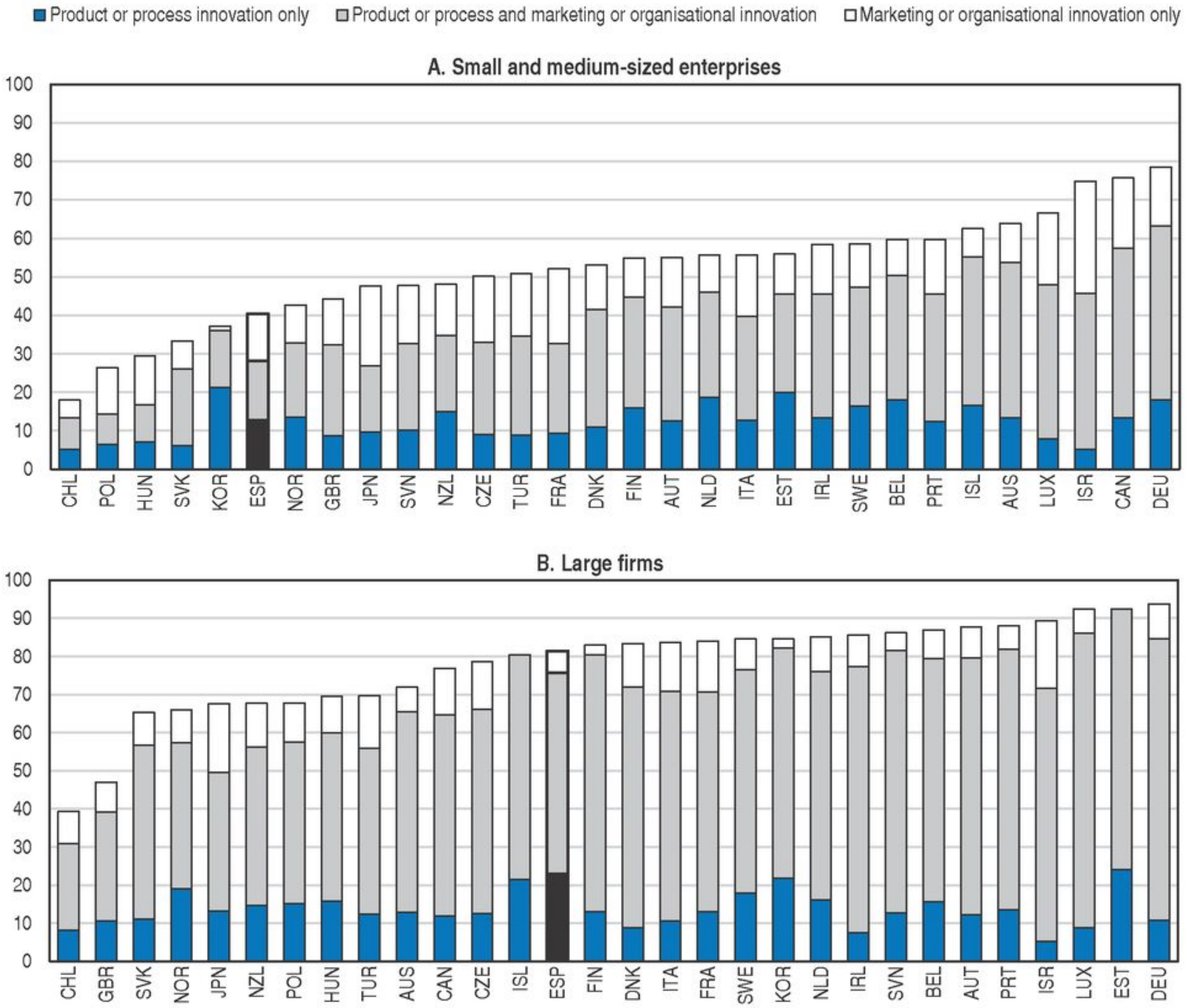
1. Median of the distribution except for foreign capital structure and market share which show the average. Data on employment, productivity, physical capital, qualifications and finance start in 1991.
2. Calculated using the perpetual inventory method, volume.
3. Engineers and graduates.
4. Expenditure on research and development (R&D) technology imports services.
5. Debt with financial institutions.

*Source:* M. Correa-López and R. Doménech (2012), "La internacionalización de empresas españolas" (The internationalisation of Spanish firms), *Documento de Trabajo*, No. 12/29, BBVA Research, Banco Bilbao Vizcaya Argentaria.

Increasing business innovation rates would also boost the number of exporting firms as innovative firms also tend to export more. It is also crucial for boosting business sector productivity in the medium-run. Business R&D was 0.7% of GDP in 2010, far below OECD (1.6%) and European Union (EU, 1.2%) averages. Around 50% of R&D is undertaken by large firms. This is one of the lowest percentages in the OECD and it couples with one of the most generous R&D tax credit schemes. The proportion of small and medium-sized enterprises (SMEs) that innovate is also well below OECD average (Figure 2.9). Few SMEs undertake new marketing, organisational methods or make product or process innovations. Around 80% of large companies do some kind of innovation, but this is again below rates observed in most OECD innovative countries. The government should deepen its efforts to expand the innovation system and encourage greater spillovers to the business sector (Chapter 1).

Figure 2.9. **Innovation types by firm size**

Per cent of total firms in same category, 2008-10[1]




1. Or latest data available. For full details of coverage see notes to Chapter 5 in the source publication.

*Source:* OECD (2013), *OECD Science, Technology and Industry Scoreboard 2013*.

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### *Competition and cost-competitiveness need boosting*

Increasing competition across the Spanish economy, and particularly in network and professional services sectors that all firms rely on, is crucial for cost-competitiveness. Spain has undertaken several recent reforms to foster competition in goods and services markets. Prior to the recession profit margins grew faster than in other euro area countries. Profit margins have moderated since the recession but remain higher than in other euro area countries (Table 2.2). High margins reflect the need for firms to rebuild their finances in the context of tight credit conditions, but it also signals weaknesses in effective competition in some markets (Montero and Urtasun, 2014; Banco de España, 2014). As the recovery strengthens and external financing becomes available at lower cost, it is essential to continue to foster competition in goods and services markets to consolidate and reinforce competitiveness gains and to maximise the impact of other reforms, such as those in the labour market, on job creation.

Table 2.2. **GDP deflator and contributions to changes**[1]

| | Total (% growth)[2] | Contributions to growth (% points) | | | |
|---|---|---|---|---|---|
| | | Wages | Productivity | Profit margins | Taxes |
| **1999-2008** | | | | | |
| **Spain** | **3.7** | **1.8** | **0.0** | **1.6** | **0.3** |
| Euro area | 1.9 | 1.2 | -0.3 | 0.8 | 0.2 |
| France | 1.9 | 1.5 | -0.4 | 0.7 | 0.2 |
| Germany | 0.8 | 0.6 | -0.6 | 0.5 | 0.2 |
| Italy | 2.4 | 1.2 | 0.0 | 1.0 | 0.2 |
| Netherlands | 2.6 | 1.9 | -0.7 | 1.0 | 0.4 |
| **2009-13** | | | | | |
| **Spain** | **0.1** | **0.7** | **-1.4** | **0.5** | **0.3** |
| Euro area | 1.2 | 0.9 | -0.2 | 0.2 | 0.2 |
| France | 1.2 | 1.1 | -0.3 | 0.1 | 0.3 |
| Germany | 1.4 | 1.0 | 0.1 | 0.1 | 0.2 |
| Italy | 1.4 | 0.7 | 0.1 | 0.2 | 0.4 |
| Netherlands | 1.0 | 0.8 | 0.0 | 0.3 | 0.0 |

1. The total represents the sum of the contributions from wages, profit margins and taxes, and productivity (measured as output per worker). The contribution of profit margins has been calculated as a residual. Based on AMECO.
2. Average annual growth rates.

*Source:* OECD calculations based on BBVA (2014), "Spain Economic Outlook, First Quarter 2014 – Economic Analysis", BBVA Research, Banco Bilbao Vizcaya Argentaria.

**How to read this table:** The contributions to growth indicate how much of the changes in the GDP deflator are due to changes in wages, productivity, profit margins and taxes. Increases in wages, profit margins and taxes contribute to higher price increases, while higher productivity helps to reduce prices. For example, in the period 1999-2008 the GDP deflator increased by 3.7 percentage points in Spain. Most of the increase was due to increases in wages and profit margins. A small part of the increase was due to increases in taxes, while productivity had no impact.

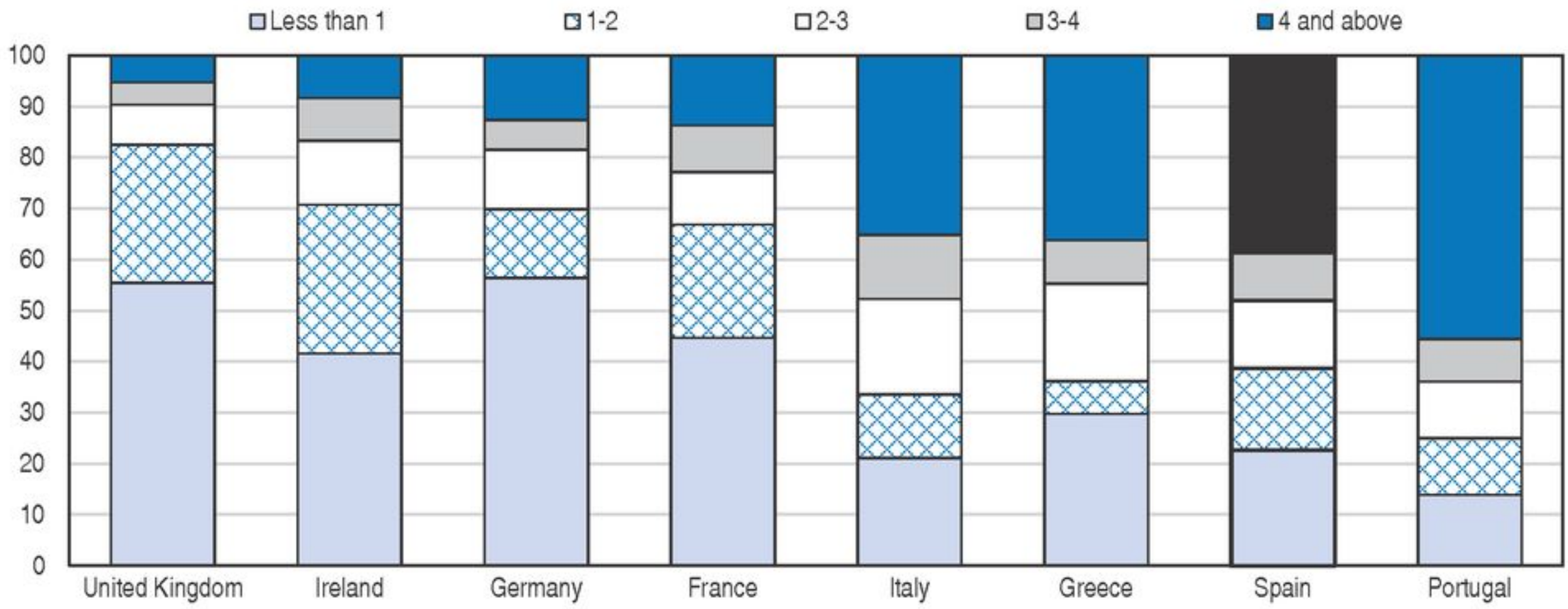
### *Debt remains high and financing conditions are tight*

The Spanish business sector is weighed down by a large share of highly indebted firms by international standards. At least one third of listed firms have a debt to EBITDA (earnings before interest, taxes, depreciation and amortisation) ratio of over four (Figure 2.10). There are substantial differences across sectors and also depending on firm size (Figure 2.11). The level of indebtedness, defined as debt over total net assets, for small and medium-sized companies is significantly lower than for large companies (although it should be noted that the coverage of small firms in the sample is very reduced). In the large corporate sector the strongest deleveraging has taken place in information and technology companies, while large construction firm's indebtedness kept increasing until 2011, following valuation corrections that translated into lower asset values. Large companies in all sectors considered have debt-to-assets ratios above 45%, while the ratio is above 35% for medium-sized firms.

These high levels of debt are holding back businesses, as excessively indebted firms are unlikely to invest and hire and if they ultimately prove unviable are using capital that could be reallocated to better performing firms. The government has made significant efforts to improve the debt restructuring and insolvency framework to help rehabilitate these firms and close down unviable ones. However, further efforts are required to quickly unburden the business sector, and by doing so indirectly the banking sector, otherwise the recovery is likely to remain very slow.

## Figure 2.10. **Debt-to-earnings ratio of firms**

Per cent of firms with various debt-to-earnings ratios[1]




1. Earnings before interest, taxes, depreciation and amortisation. Data for Greece, Ireland and Portugal covers a limited number of firms compared to the other countries.

*Source:* RBS (2014), "The Revolver", Royal Bank of Scotland, 22 May.

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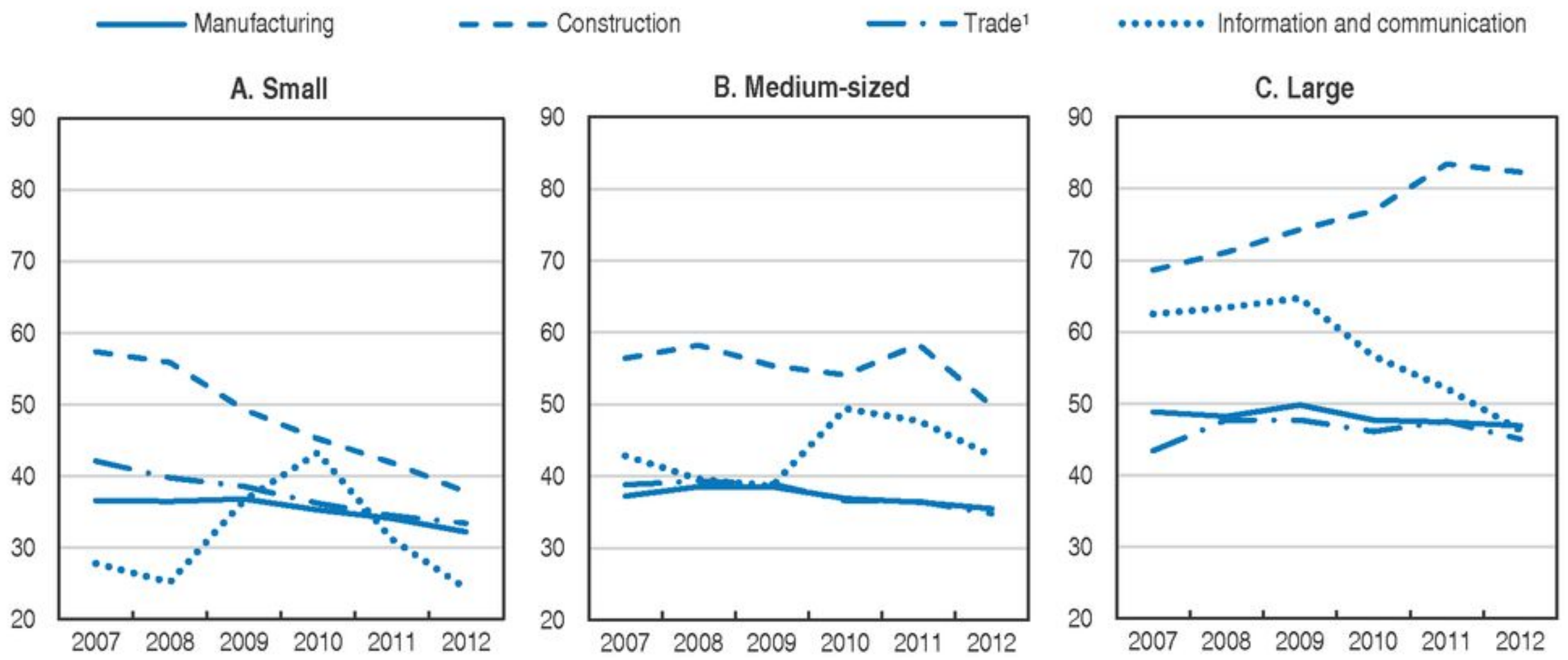
## Figure 2.11. **Debt ratios by firm size and sector**

Debt to net assets ratio




1. Wholesale and retail trade; repair of motor vehicles and motorcycles.

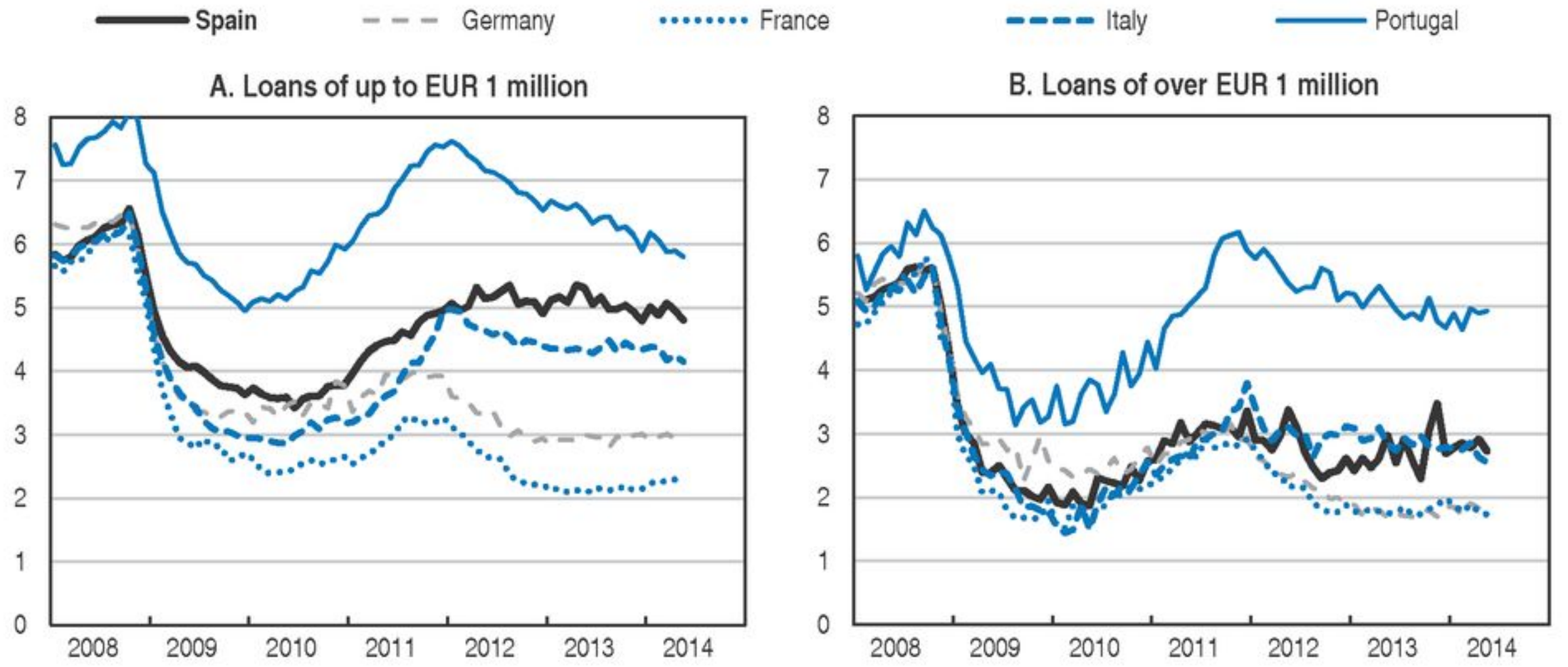
*Source:* Banco de España, Central de Balances.

StatLink http://dx.doi.org/10.1787/888933128897

At the same time the cost of borrowing remains high. Conditions are especially tight for smaller loans, predominately used by SMEs (Figure 2.12). SMEs are particularly vulnerable to banking sector stress (Ryan et al., 2014), as they have more difficulties in establishing new banking relationships and they tend to use real-estate assets as collateral. In addition, alternatives to non-bank financing have been so far very limited.

Figure 2.12. **Credit conditions**

Interest rates on loans to non-financial corporations, per cent[1]




1. Narrowly defined effective rates (NDER) for operations with an initial rate fixation period of less than one year.

*Source:* ECB (2014), "MFI Interest Rates", *Statistical Data Warehouse*, European Central Bank, July.

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## Improving the regulatory framework to favour business dynamism and growth

### *Favouring business start-ups*

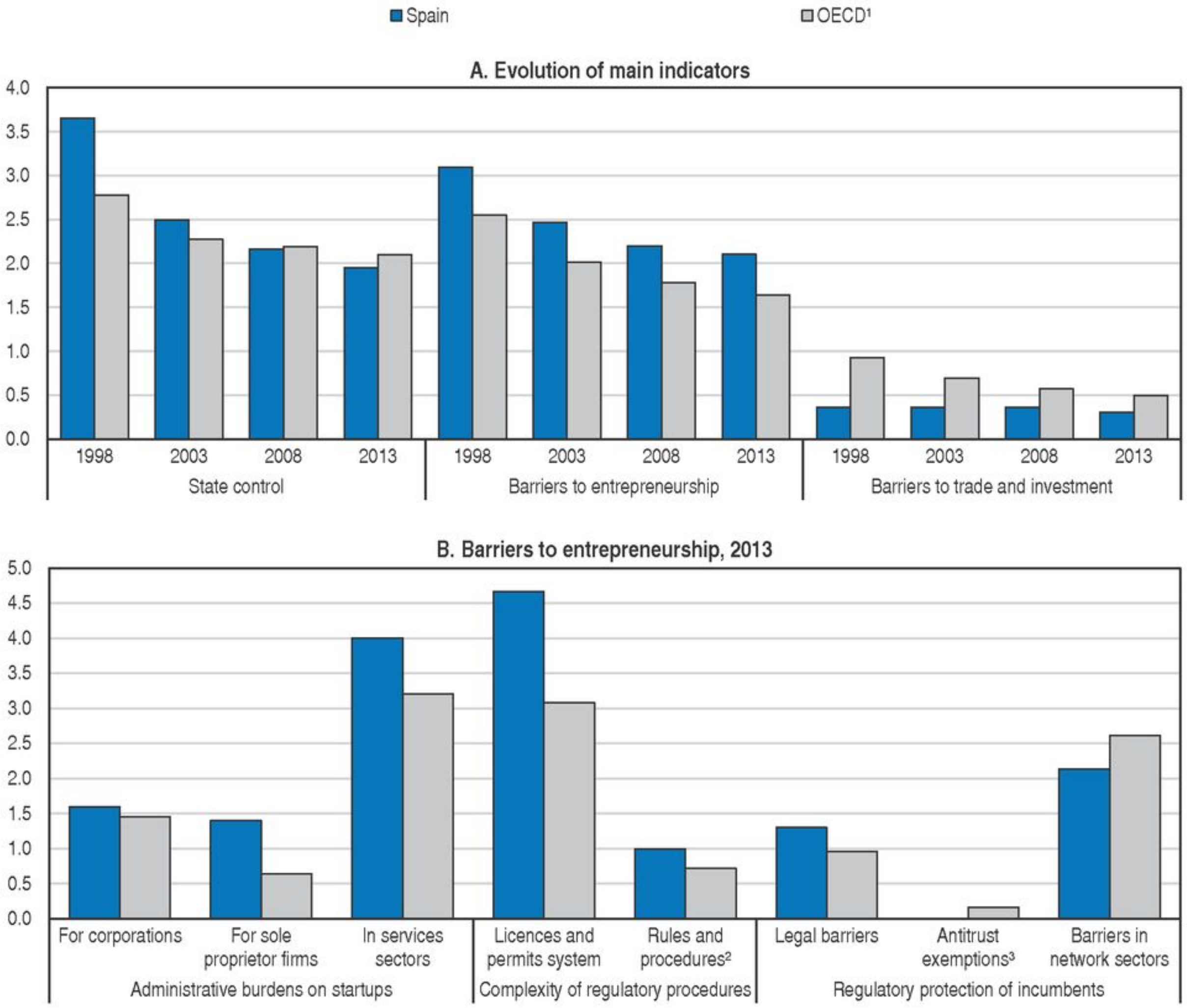
Fostering a dynamic and high performing business sector is complex and requires a broad combination of policies. Particularly important is the interaction between product and labour market policies. In Spain labour market policies that have resulted in dualism and precarious employment (Chapter 1) are reinforced by product, service and financial market regulation that have favoured incumbents and left capital in unviable firms for too long. Broad reform of product, tax, insolvency and financial market policies is required to reduce barriers to firm entry and to spur reallocation of resources towards a new cohort of more productive, innovative, export intensive and quality-job rich enterprises.

Spain has been making good progress in improving measured product market regulations and converging towards best practices in the areas of state control and barriers to trade and investment. However, progress has been more muted in reducing barriers to entrepreneurship (Figure 2.13, Panel A).

Starting a business is perceived to be far more difficult in Spain than in other advanced economies. Spain has the second highest barriers to entrepreneurship in the OECD (OECD, 2013c). Spain also ranks 142nd (out of 185) with respect to ease to start a business (World Bank and IFC, 2014). The regulatory procedures have been too complex so far, especially the licences and permits system. Obtaining licences and permits is more difficult in Spain than in most OECD countries (Figure 2.13, Panel B). Contrary to best practices there are no standard procedures to use the "silence is consent" rule for issuing the licences required to open up a business. And there are not yet single contact points for issuing or accepting all notifications and licenses that are required to open up a private limited company. With the aim of addressing this, the entrepreneurship law (law 14/2013) foresees the creation of the so-called "Entrepreneur support points" (*Puntos de Atención al Emprendedor*) network.

## Figure 2.13. **Product market regulations in Spain**

Indicator scale of 0-6 from least to most restrictive




1. The OECD aggregate is an average of data available (25-30 countries depending on the year covered).
2. Communication and simplification of rules and procedures.
3. Zero for Spain.

*Source:* OECD (2013), *Product Market Regulation Database, www.oecd.org/economy/pmr.*

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Crucially, firms have not been operating in a single market in Spain but rather have had to face the inconveniences of a regulatory framework, which is regionally and locally fragmented. A firm wishing to operate in multiple regions of Spain has been in many cases required to obtain a separate licence or permit for their activity from the different regions where they wish to conduct business. In addition, often requirements have differed, forcing higher costs on firms who have to adapt products to local requirements (for example in labelling).

To tackle this and move towards a truly single market the government has introduced the Market Unity Law. This law is a flagship reform and, if fully implemented, has the potential to revolutionise doing business in Spain. It aims at simplifying business licensing requirements, by increasing the use of notification procedures (with *ex post* controls) and reducing the need for prior authorisations to exert economic activities. It also aims at ensuring that permits issued in one region will automatically be valid for the others. Thus, it has the potential to improve substantially the regulatory framework, foster competition and eliminate barriers preventing firms from taking advantage of economies of scale. The law is inspired by the EU Services Directive, but it is broader in scope. It provides for principles of free establishment and movement of goods and services in Spain and for their application in practice.

According to the law, all legal texts enacted at local, regional and central government level that may be considered inconsistent with the market unity will have to be amended in the following six months. So far 2 700 regulatory barriers, most at the regional level, have been identified as inconsistent with the market unity. This process is to be supported by enhancing administrative cooperation, and by setting up a procedure for responding quickly to complaints about obstacles to the single market. Spain's Competition Authority has been granted power to file administrative appeals with regard to situations contrary to the law. Legislative amendments will be discussed by regional and central government representatives in sectoral conferences. The law also entails measurement and monitoring procedures, which should help to assess implementation progress. These procedures include the elaboration of a directory of good and bad practices and the publication of regulatory quality indicators. A swift implementation of the law, while challenging both technically, due to the complexity of dealing with a large body of regulation, and politically, due to resistance by some regions, will be crucial to boost the performance of the Spanish business sector. Effective coordination and cooperation among the different levels of government will be critical, in particular when it comes to amending sector specific legislation.

Besides the law on market unity, another on-going initiative to improve business climate is *Emprende en tres*, an electronic one-stop-shop designed to present declarations of responsibility required for entrepreneurs to start up a new economic activity, and a reduced tax rate for new corporate starts-up introduced in 2013. The rate is 15% for new companies. Spain also foresees conducting annual reviews of the business regulatory framework to detect and remove obstacles hampering entrepreneurship, investment and business activities. This initiative is conducted by the Ministry of Economy and Competitiveness with the collaboration of ICEX (Spanish Export Agency) and Invest in Spain (the Spanish body in charge of public relations with foreign investors). First meetings with representatives of several industrial and services sectors, academics and research services are already taking place. In addition, the World Bank will undertake a subnational *Doing Business* study in Spain during 2014 and 2015, with the aim of identifying regulatory best practices among Spanish regions and spurring regulatory improvement.

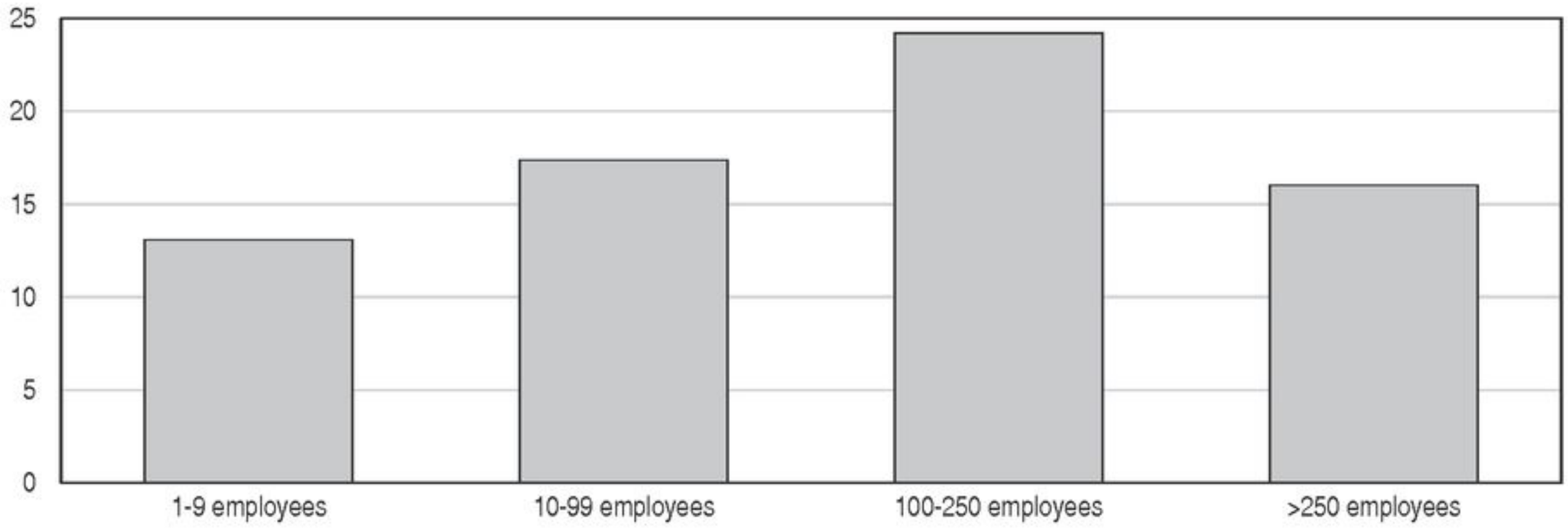
The law on Environmental Assessment 21/2013 also advocates for further standardising the legislation across Spain in the area of environmental assessment procedures, seeking greater collaboration and harmonisation across regions.

### *Favouring firms' growth*

Spanish business framework conditions include multiple size-dependent regulations, originally aimed at supporting SMEs. One of them is the corporate tax that has special clauses depending on firm sizes both in terms of turnover and number of employees. The standard corporate tax rate is 30%. The corporate rate for SMEs – defined for the tax as firms with an annual turnover below EUR 10 million – is 25% on profits up to EUR 300 000 and 30% above that. The rate is further reduced to 20% for SMEs with net revenues below EUR 5 million and fewer than 25 employees who have not decreased the number of workers they employ. Despite all these preferential rates for SMEs, larger firms are capable of optimising existing deductions, resulting in differences between statutory rates and effective rates that widen as turnover increases. The current configuration of the tax also implies differences in effective rates within the SME segment depending on the number of employees that the firms employ (Figure 2.14). The effective rate is highest for medium-sized enterprises having between 100 and 250 employees. This creates incentives for firms to remain small ("lock-in" effect), which has serious implications for aggregate productivity given the higher productivity that generally prevails in larger enterprises. All this indicates that the tax is not successful in supporting SMEs and may be penalising medium-size firms and biasing firm's distributions towards smallest sizes, to the detriment of medium-sized. Reducing tax deductions would decrease the capacity of larger firms to avoid taxation. Using that fiscal space to establish a unique and lower corporate tax rate for all firms would provide better incentives for firm's growth and would also align corporate taxation with the OECD average (25.3% in 2013, Figure 2.15), which would contribute to attracting investment. In this sense, the government announced in June 2014 a draft tax reform, which proposes broadening the base, reducing tax credits, reducing the standard tax rate to 25% by 2016 and suppressing the preferential rate for SMEs. The reduced rate for starts-up, introduced in 2013, is maintained.

Figure 2.14. **Effective corporate tax rates by firm size**

Per cent, 2011[1]




1. Since 2011 several measures have been adopted to broaden the corporate tax base.

*Source:* La Agencia Tributaria, Ministerio de Hacienda y Administraciones Públicas.

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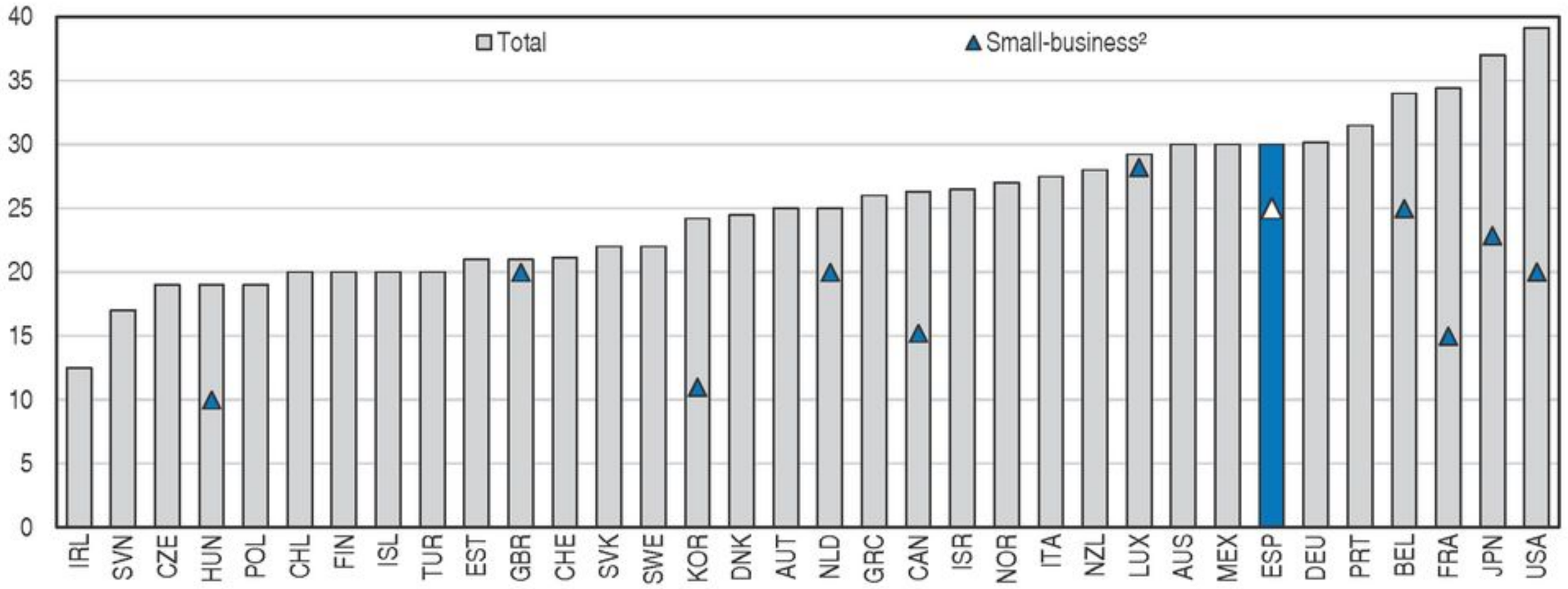
Figure 2.15. **Statutory corporate income tax rates**[1]

Per cent, 2014




1. Basic combined central and sub-central (statutory) corporate income tax rate.
2. Rates typically applying for or targeted at small (incorporated) business, where such targeting is on the basis of size alone (e.g. number of employees, amount of assets, turnover or taxable income) and not on the basis of expenditures or other targeting criteria.

*Source:* OECD (2014), *OECD Tax Database*, *www.oecd.org/tax/tax-policy/tax-database.htm*.

StatLink http://dx.doi.org/10.1787/888933128935

Other size-dependant fiscal regulations, such as different levels of tax enforcement, also affect the size distribution (Almunia and López, 2013). Firms with more than EUR 6 million in reported revenue are monitored by the large taxpayers' unit, which involves more frequent tax audits and more information requirements. The effect of this kind of threshold on firm behaviour is strong. There is excess mass of firms, or "bunches", just below the revenue threshold and there is evidence that firms have deliberately reduced reported revenue by up to 7.5% to avoid falling in the high enforcement regime. There is also evidence that firms locating below the threshold misreport their material and labour input costs to evade taxes.

There are also size-contingent regulations in the labour market that start to bind at different firm sizes. They relate to different workers representation obligations, the availability of special employment contracts (e.g. *Contrato de emprendedores*), social security contributions deductions and flexibility to change or terminate employment contracts (Table 2.3). Risk prevention obligations also differ depending on the size of the company. Companies above 250 employees need to elaborate, negotiate and apply an equality plan. All these size-dependent regulations start biting at different sizes. This prevents a marked "cliff" effect as in France at 50 employees (Garicano et al., 2012) but it compounds a complex system difficult and costly to navigate.

Size-dependent policies should be carefully designed to avoid they become unintended barriers to firm growth. In general, the emphasis should be on ensuring that policies support the specific needs of SMEs (for example providing direct innovation support, as young SMEs may not have the profits to claim R&D tax credits), rather than progressively tightening regulatory requirements with size, as is currently the case in Spain. When designing support policies, their potential effect on firms' growth dynamics should be explicitly recognised and examined, with the aim of minimising distortions and potential "lock-in" effects.

Table 2.3. **Firm size-dependent regulations in the labour market**

Size level (based on number of employees) at which additional regulations start affecting firms[1]

| Number of employees | Workers representation | Hiring | Fiscal incentives | Firing flexibility | Equality | Risks prevention |
|---|---|---|---|---|---|---|
| 6 | + | .. | .. | .. | .. | + |
| 9-10 | + | .. | − | − | .. | + |
| 25 | .. | .. | .. | .. | .. | + |
| 30 | + | .. | .. | − | .. | .. |
| 50 | + | − | − | .. | .. | + |
| 100 | + | .. | .. | − | .. | .. |
| 250 | + | .. | − | .. | + | + |
| 300 | .. | .. | .. | − | .. | .. |
| 500 | + | .. | .. | .. | .. | + |

1. The "plus" sign indicates when more demanding regulatory requirements kick in. The "minus" sign indicates at which size special conditions, such as fiscal incentives, are no longer available. For example, regulations on workers representation start operating when firms have six employees; when they reach 9-10 employees there are additional requirements and yet more kick in if the firm reaches 30 employees. As concerns hiring regulations, there is a special contract modality (*Contrato de emprendedores*), offering an extended trial period of one year and several hiring incentives and fiscal rebates. That contract modality is only available for firms with less than 50 employees.

*Source:* Confebask (2012), "Diseño de una política pública de redimensionamiento empresarial en Euskadi" (Designing a corporate resizing policy in the Basque Country), Informe final del grupo de trabajo de Confebask.

In general, business regulations *de jure* or *de facto* tend to be more detrimental for medium-sized companies than for large or small companies. It is easier to ignore regulations when businesses are small. Large companies have more legal and administrative resources that enable them to legally optimise and exploit existing regulations. Medium-size companies neither can ignore regulations nor have resources to deal efficiently with them.

## Increasing and deepening internationalisation

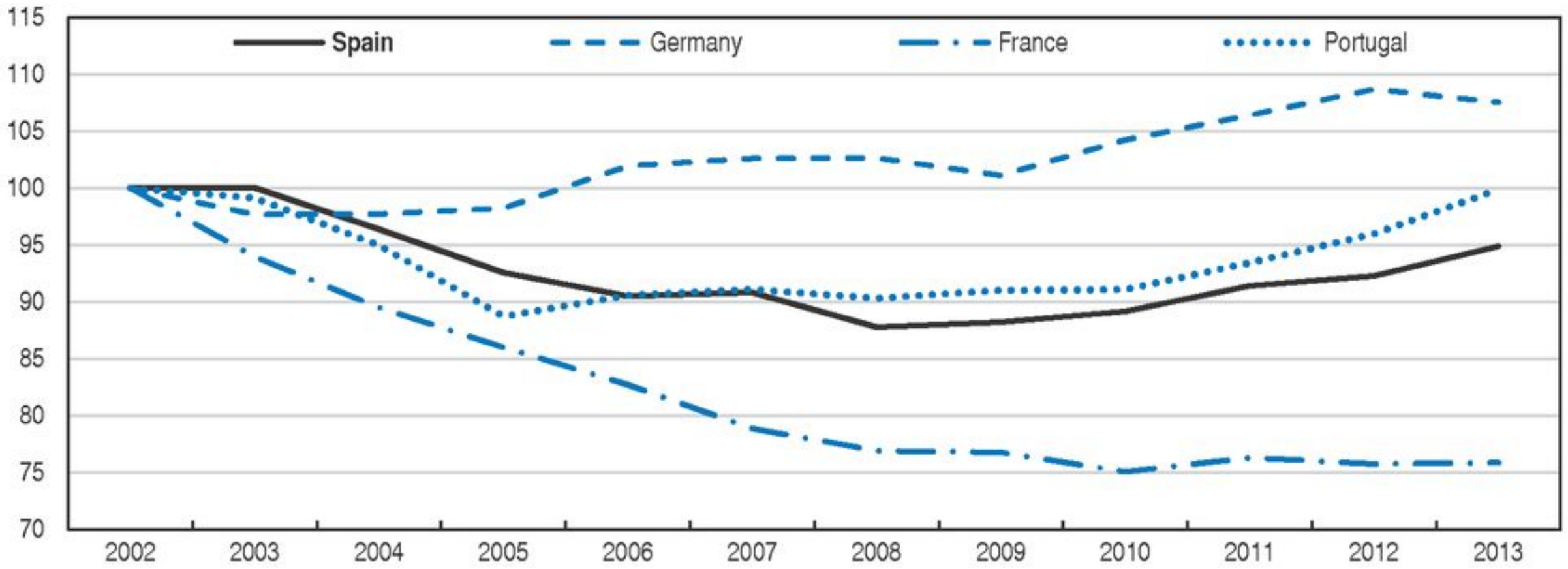
### *Export performance has been mixed*

The Spanish external sector has led the recovery and export performance has been better in Spain than in other European economies (Figure 2.16). Both goods and services explain this performance. On the back of improving cost-competitiveness and the need to search for new markets given the weakness in domestic demand, goods exports have increased across most product categories. Additionally, services exports, notably tourism, have also grown steadily since 2008. To further lift exports Spain faces four main challenges: increasing the number of regular exporters; up-grading the technological content of exports; diversifying trading partners; and ensuring that the business environment is favourable for both goods and services exports.

The export base has widened with an increasing number of firms becoming exporters (Figure 2.17, Panel A). Both the number of firms regularly exporting and the number of firms exporting above EUR 50 000 have remained constant though. Consequently exports are becoming increasingly concentrated in a few firms (Figure 2.17, Panel B): the top 25 exporters accounted for more than 25% of all exports in 2013; the top 100 exporters account for nearly 40% of exports.

Figure 2.16. **Export performance**

Ratio of export volumes to export markets, index 2002 = 100[1]




1. This measure includes both goods and services exports.

*Source:* OECD (2014), *OECD Economic Outlook: Statistics and Projections* (database), July.

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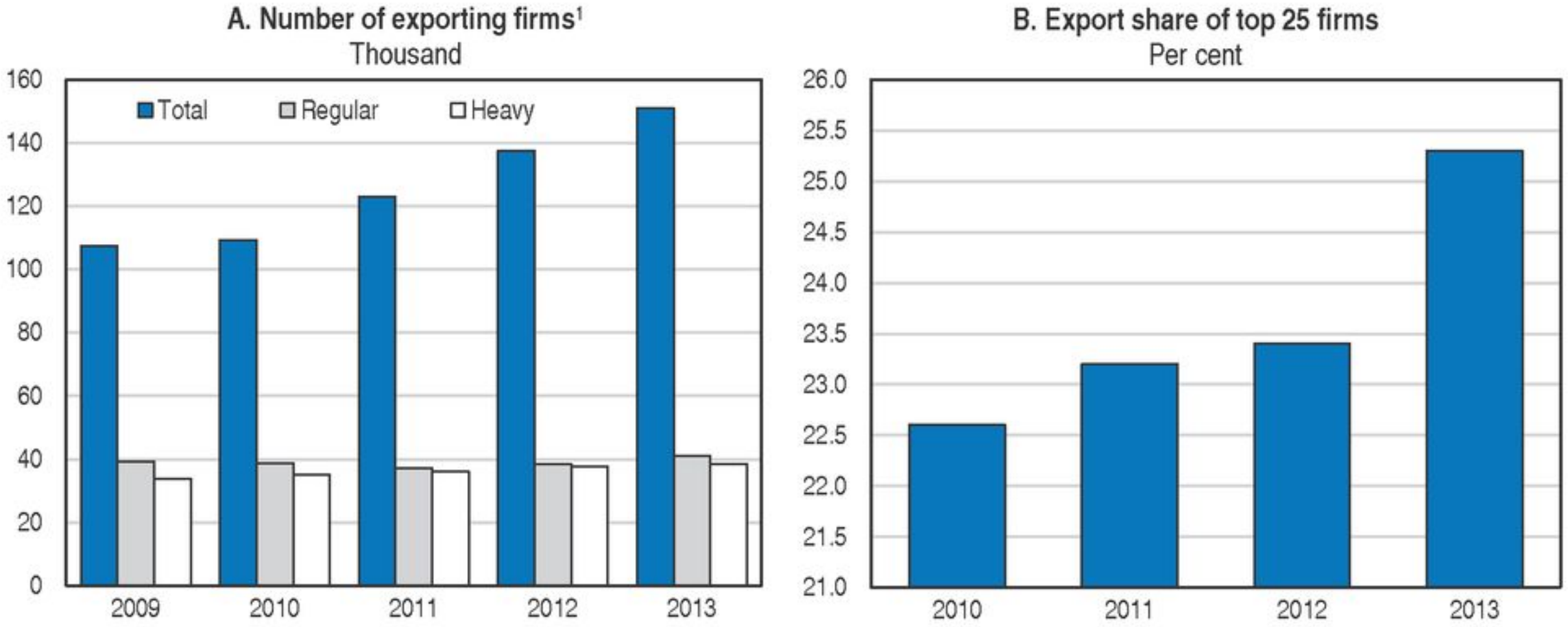
Figure 2.17. **Number of exporting firms and export concentration**




1. Regular exporters are those that have exported for the last four consecutive years; heavy exporters are those whose export value exceeds EUR 50 000 per year.

*Source:* ICEX (2014), "Perfil de la empresa exportadora española – enero-mayo 2014", España Exportación e Inversiones, Ministerio de Economía y Competitividad.

StatLink http://dx.doi.org/10.1787/888933128973

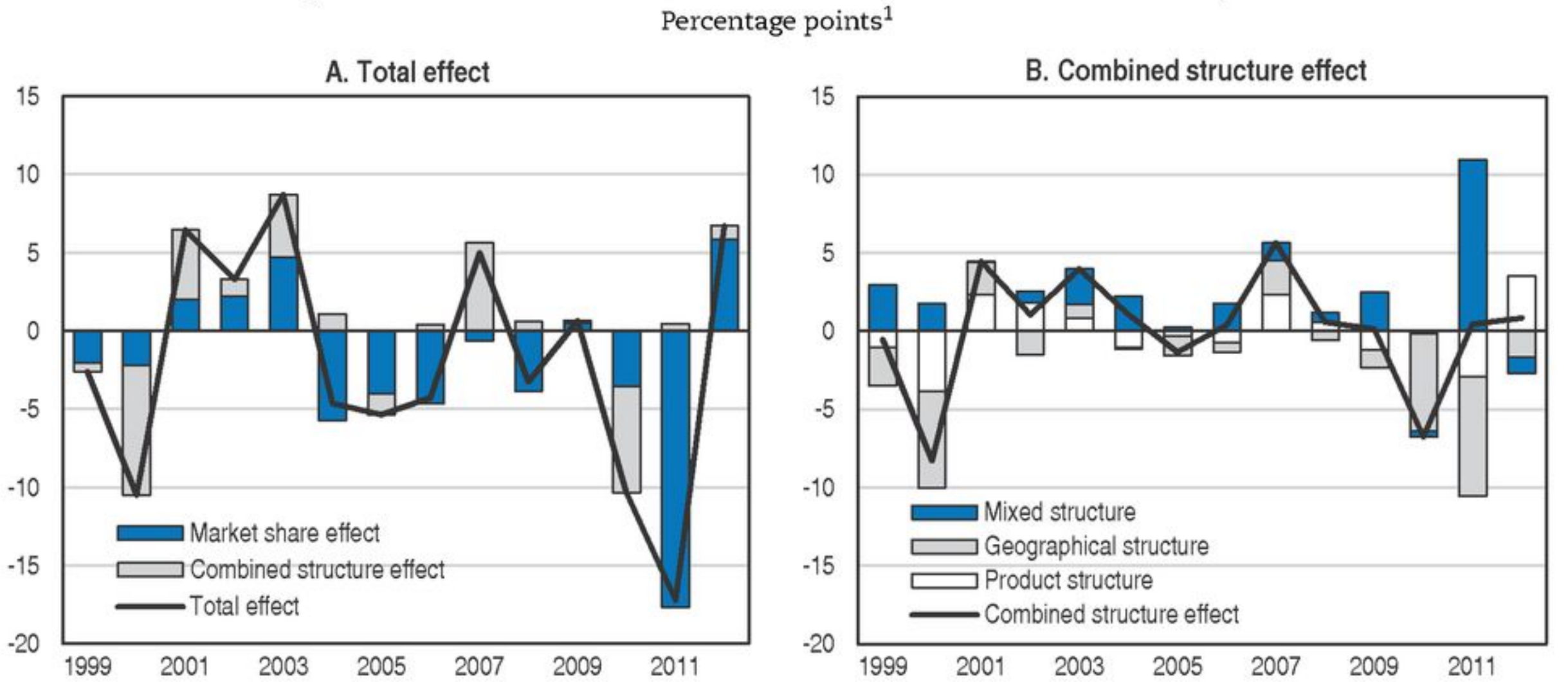
Export performance is influenced not only by changes in price and non-price-competitiveness, but also by the composition of exports, whether in terms of geographical destination or of type of product. For example, if a country specialises in exports of goods (or towards areas) where demand is particularly strong, exports will increase even if competitiveness does not improve. A constant market share analysis (CMSA) can help to disentangle and measure these factors (González Pandiella, 2014). The basic idea underpinning this analysis is that changes in exports are due either to changes in individual market shares or to a specialisation in particularly dynamic markets or industries. A CMSA decomposes the difference between the growth of Spanish

manufacturing exports and the growth of total exports of the rest of the world in two factors (Annex 2.A1). On one hand, the so-called market share effect captures the gain or loss in shares that would occur if the export structure, whether in geographical or sectoral terms, were to remain unchanged. It seeks to capture the extent to which changes in shares have been due to changes in price and non-price competitiveness. On the other hand, the structure effect quantifies the extent to which the country is benefiting from an advantageous position in terms of the composition of its exports. In turn, the structural effect can be divided into a product effect, a geographical effect and a mixed effect. The first two show the gain in share arising, respectively, from exporting products and from exporting towards regions where demand has been more dynamic. The mixed effect captures the interaction of both effects, given the impossibility of distinguishing perfectly between them.

The CMSA signals that, in the more recent periods, changes in market shares have been the main driving force behind Spanish manufacturing export performance (Figure 2.18, Panel A). The negative total effect indicates that Spanish exports grew less than world exports from 2003 to 2011, except in 2007. The main contributor was the market share effect, indicating that the below-average growth of exports was due to losses of competitiveness. However, a cross-country comparison reveals that losses of market shares were less pronounced in Spain than in other European advanced economies (Figure 2.19, Panel A), including Germany. Gains in competitiveness started to pay off in 2012 when Spanish goods exports grew above world exports.

Figure 2.18. **Main results of a constant market share analysis**

Percentage points[1]




1. Based on exports in US dollars, nominal values. The sector covered is manufacturing (excluding energy) plus agriculture, forestry and fishing.

*Source:* Calculations based on OECD (2014), *International Trade by Commodity Statistics* (ITCS Database), May.

**How to read this figure**: Total effect is the difference between the growth rates of Spanish exports and of world exports. The market effect aggregates the variation of shares in individual export markets. The combined structure effect can be decomposed into product and geographical structure effect plus a residual term (so-called mixed effect). Product and geographical effects are positive if a country has above average specialisation in markets that grow faster than overall world trade. Conversely, high specialisation in slow-growing markets gives rise to negative structure effects.

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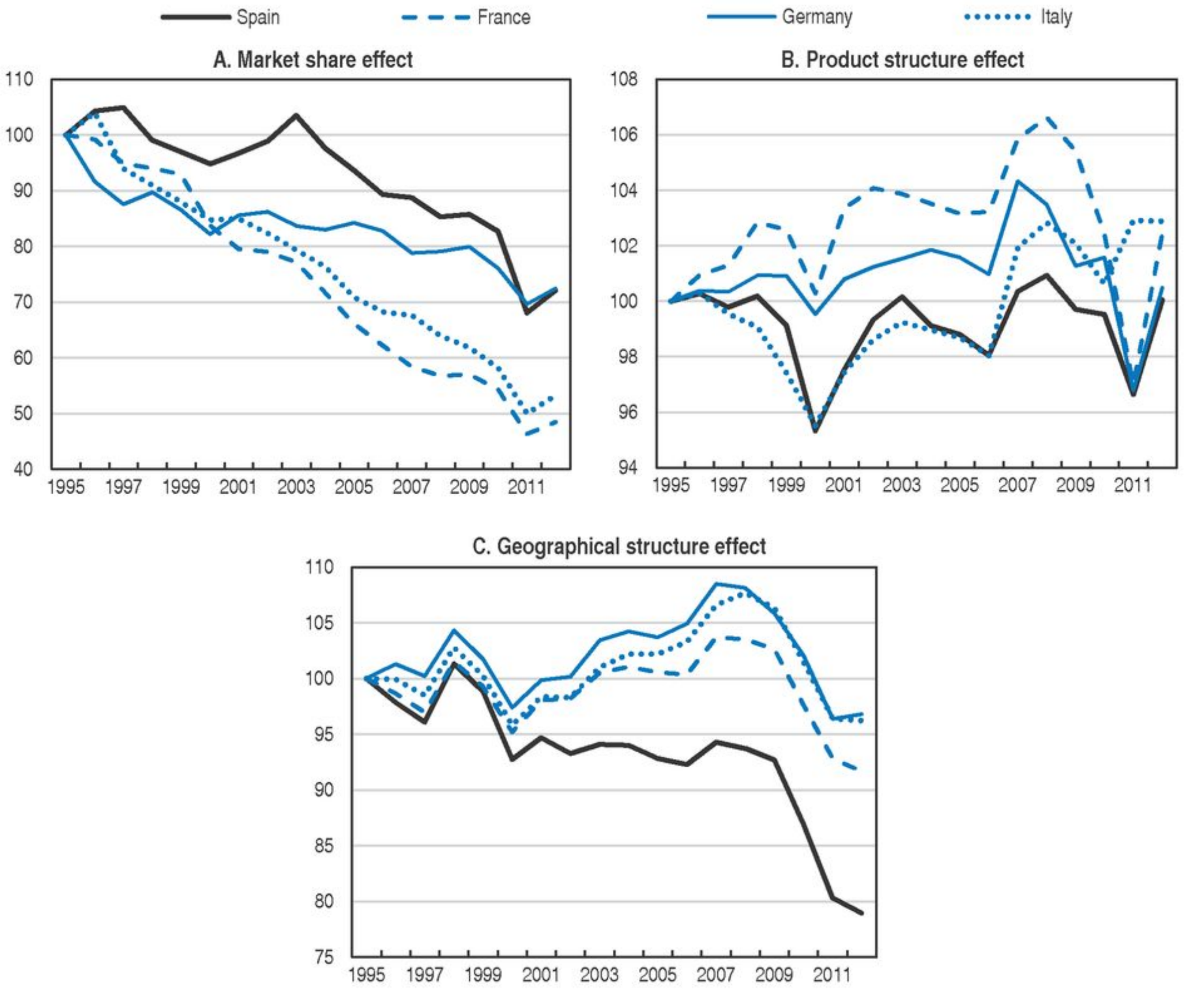
Figure 2.19. **Cross-country constant market share analysis results**[1]

Index 1995 = 100, cumulative results




1. Based on exports in US dollars, nominal values. The sector covered is manufacturing (excluding energy) plus agriculture, forestry and fishing.

*Source:* Calculations based on OECD (2014), *International Trade by Commodity Statistics* (ITCS Database), May.

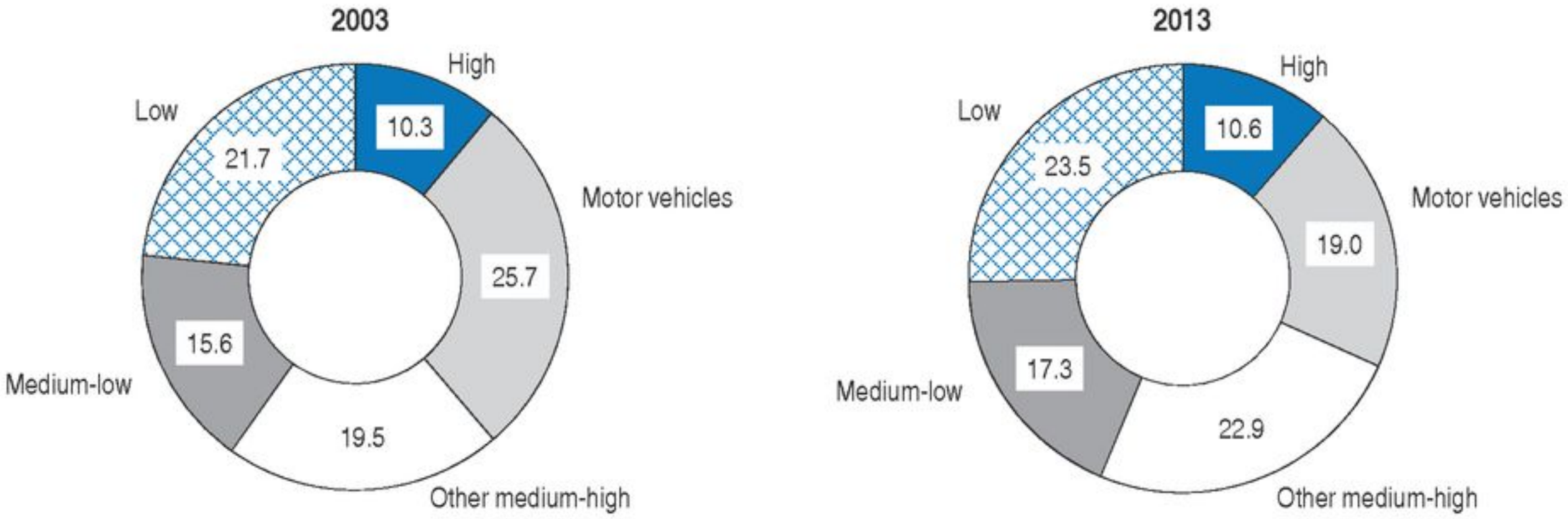
StatLink http://dx.doi.org/10.1787/888933129011

The CMSA also highlights that Spanish export performance could have been even better if industry and market specialisation were more geared towards more dynamic segments. For example the contribution of the product structure to export performance has remained broadly unchanged over time (Figure 2.19, Panel B). By contrast, Germany's evolution of product specialisation has been more favourable to its export performance, reflecting a higher specialisation in products experiencing higher growth such as medium to high technology products. Italy, had a similar evolution in product structure as Spain until 2006, and has also recently improved the contribution of product specialisation to export performance by shifting its sectoral export structure towards more dynamic products.

This highlights one of the main weaknesses of the Spanish external sector. Despite recent progress, the product structure has remained broadly unchanged in Spain during the last ten years (Figure 2.20). Low-technology exports have increased slightly even though this is an export segment that has grown below average in world trade. The share

Figure 2.20. **Spanish export structure by technology level**[1]

Per cent




1. Based on exports in US dollars, nominal values. Manufacturing sector (excluding energy) plus agriculture, forestry and fishing. Products are grouped by the level of research and development intensity in the industry.

*Source:* Calculations based on OECD (2014), *International Trade by Commodity Statistics* (ITCS Database), May.

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of motor vehicles and components in total exports has fallen but this remains a key sector in Spanish exports. Other medium-high technology exports have slightly increased but they have done so below aggregate growth. Last, the share of high-technology exports has remained unchanged.

Spain's mix of trading partners has not been conducive to better goods export performance either (Figure 2.19, Panel C). This reflects an over-specialisation in European markets that have grown below average, such as France, Italy and Portugal. Around 63% of exports are destined for the European Union. At the same time there is an under-specialisation in more dynamic markets, such as China and other Asian economies. Exports to markets such as China and other emerging economies have recently increased, but by less than world exports to those destinations.

Internationalisation policy needs to take also strong account of the services sector. Services account for an increasing share of Spanish total exports and have significantly contributed to the rebalancing of the Spanish economy and the return of the current account balance to positive territory. Most services categories have grown since 2007, the exception is financial services. In terms of product composition, tourism and travel account for more than 40% of total exports (Figure 2.21, Panel A). Geographically, as in manufacturing goods, nearly 70% of export services are destined for the European Union (Figure 2.21, Panel B). As in goods, Spain faces the challenge of increasing penetration of its services exports into non-European markets and widening its product specialisation beyond labour-intensive services.

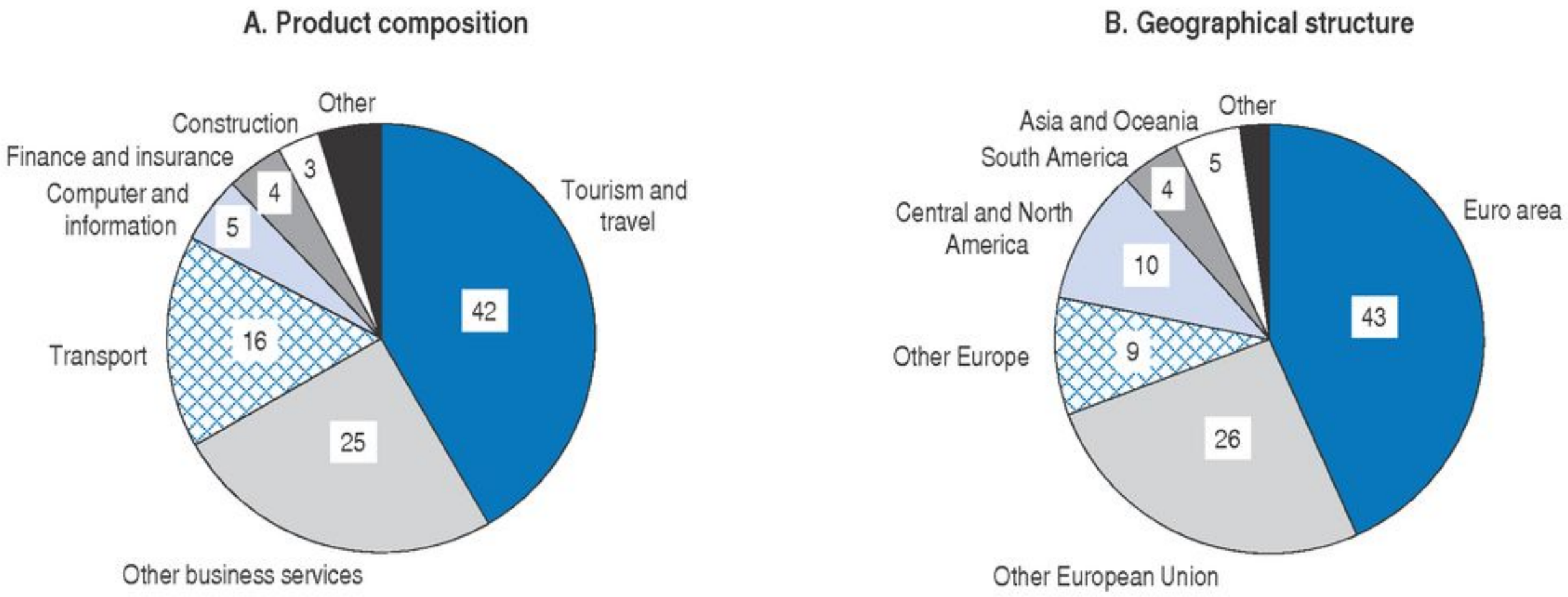
### *Policies to improve export performance*

A broad mix of policies is needed to meet these challenges. To increase the number of regular exporters, Spain should take advantage of the group of Spanish multinationals with substantial international experience by establishing more formal mechanisms of collaboration between them and SMEs attempting to gain access to new markets.

Moving towards a product structure with higher technology content requires stepping up business innovation activities. Innovation and export participation have been found to be heavily interlinked, both in Spain (Caldera, 2010) and internationally (Altomonte et al.,

## Figure 2.21. **Exports of services**

Per cent of total, 2013[1]




1. Total value of services exports is EUR 109.3 billion.

*Source:* Bank of Spain (2014), *Bolétin Estadístico* (database), July.

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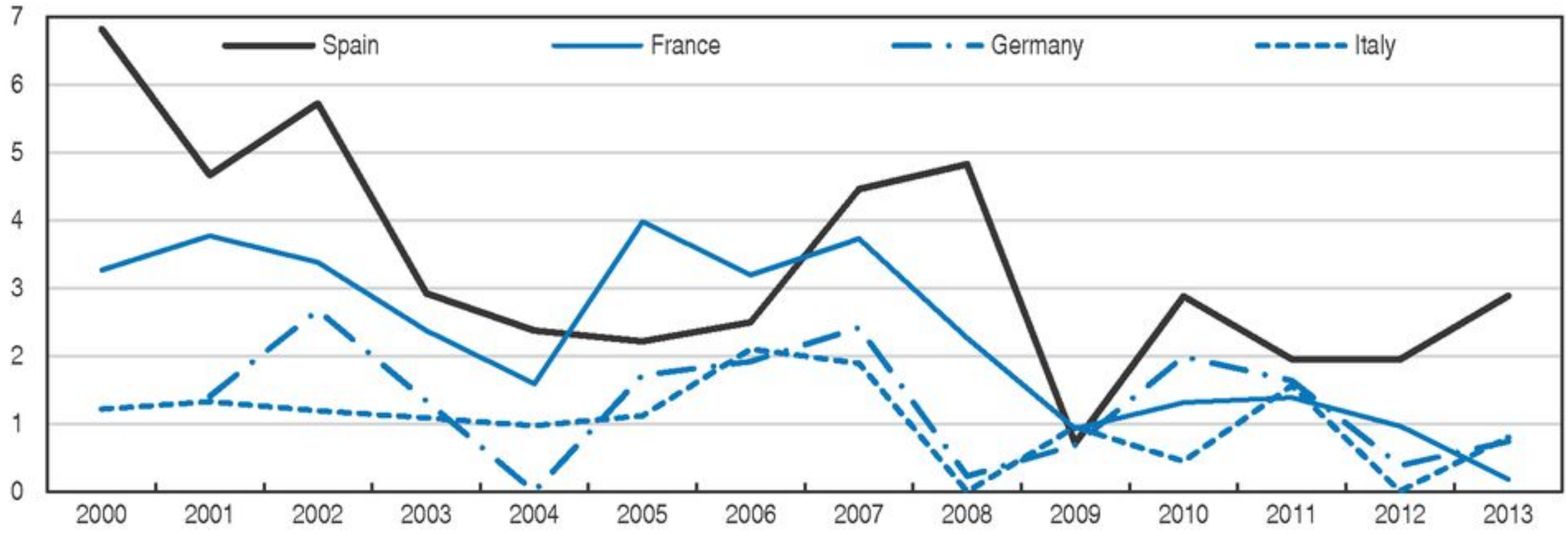
2013; Aw et al., 2011). Exporters often access diverse knowledge inputs not available in the domestic market (Salomon and Shaver, 2005). Product innovation is a very important driver of exports for Spanish firms, notably SMEs (Cassiman et al., 2010), suggesting that export promotion policies should be combined with policies focused on promoting product innovation. Thus, coordinating and integrating internationalisation and innovation policies under a single responsibility would likely be beneficial. It would allow effects of diverse policies to be internalised, avoid potential duplications and could increase synergies between various modes of innovation and internationalisation. In this sense, the Strategic Plan for the Internationalisation of the Spanish Economy includes measures for a closer collaboration between the export promotion agency, ICEX, and the Centre for Technological and Industrial Development (CDTI).

Efforts to improve business framework conditions are likely to have also a positive effect in attracting additional foreign direct investment (FDI). Encouraging greater FDI would help to boost the technological content of exports by bringing new technologies and processes to Spain. Indeed, economies such as Ireland have used foreign investment to establish entire new high technology industries such as medical devices and pharmaceuticals. Another of the measures of the Strategic Plan for the Internationalisation of the Spanish Economy is the establishment of a new programme to attract and facilitate direct foreign investment in the information and communication technology sector. Greater foreign investment would also provide more potential for linkages into global value chains for Spanish SMEs. FDI inflows into Spain have been falling since 2000 (Figure 2.22). Nevertheless, Spain has recently managed to attract and maintain a healthy pipeline of FDI in the automobile sector. FDI inflows increased in 2013, reflecting rising investor confidence and existing opportunities in some sectors under restructuring such as banking or construction. Nevertheless, inflows into higher-technology sectors are more limited. Although Latin American countries are having an increasing role, the euro area remains the main source of direct investment.

Figure 2.22. **Foreign direct investment inflows**

Balance of payments basis, per cent of GDP




*Source:* OECD (2014), "FDI series of BOP and IIP aggregates", *OECD International Direct Investment Statistics* (database), July.

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The cost to export remains high in international perspective (Table 2.4), and this is likely penalising exports to more distant destinations especially by SMEs and inhibiting market diversification. Maritime transport activities show low productivity and reducing these and other trading costs associated with more distant markets should be a priority (discussed below).

Table 2.4. **Trading across borders**

For a standardised cargo of goods using sea transport, June 2013[1]

| | Rank | Export | | Import | |
|---|---|---|---|---|---|
| | | Time (days) | Cost (USD per container) | Time (days) | Cost (USD per container) |
| **Spain** | **32** | **10** | **1 310** | **9** | **1 350** |
| Denmark | 8 | 6 | 795 | 5 | 745 |
| Germany | 14 | 9 | 905 | 7 | 940 |
| Italy | 56 | 19 | 1 195 | 18 | 1 145 |
| Netherlands | 13 | 7 | 925 | 6 | 975 |
| Portugal | 25 | 15 | 780 | 13 | 925 |
| United Kingdom | 16 | 8 | 1 005 | 6 | 1 050 |
| United States | 22 | 6 | 1 090 | 5 | 1 315 |

1. The time and cost (excluding tariffs) necessary to complete every official procedure for exporting and importing the goods are recorded. Cost measures the fees levied on a 20-foot container in US dollars. All the fees associated with completing the procedures to export or import the goods are included. These include costs for documents, administrative fees for customs clearance and technical control, customs broker fees, terminal handling charges and inland transport. The cost measure does not include tariffs or trade taxes. Only official costs are recorded.

*Source:* World Bank and International Finance Corporation (2014), *Doing Business Data* (database), *www.doingbusiness.org*.

In addition to the measures already mentioned, the Plan for the Internationalisation of the Spanish Economy 2014-15, includes 41 measures aimed at broadening the Spanish export base, in particular SMEs, diversifying foreign markets and improving Spain´s attractiveness for investors. The Plan encompass the above mentioned opinion surveys on regulation, the subnational *Doing Business* study by the World Bank and the market unity law. It also includes a new programme to facilitate the international mobility of investors,

entrepreneurs, researchers and professionals, the setting up a new Global Window at ICEX, to provide information to SMEs on all available public support instruments, and renewed programmes to access new markets. Progress will be monitored through a set of indicators.

## Strengthening competition and boosting cost competitiveness

Strengthening competition is also vital for sustaining and reinforcing the ongoing recovery of cost competitiveness needed to underpin further internationalisation of the economy. Countries with more competitive regulatory frameworks for services achieve higher added value, productivity and export growth in the manufacturing sectors that use services as inputs more intensively (Barone and Cingano, 2011). The potential beneficial effects are particularly strong for Spain, which is one of the OECD countries whose manufacturing exports embody higher value added from services (OECD, 2013d). Indeed, for Spain the adoption of the best regulatory practices in services could increase real goods exports by 18% (Correa-López and Doménech, 2014).

An important lever for boosting competition generally is to facilitate new firm entry and growth by allowing more flexibility in wage bargaining. New firms need to be able to offer different conditions from incumbents as a way of offsetting the often sizeable advantages of incumbency. Indeed, inflexible labour markets lead to less dynamic firm growth distributions (Bravo-Biosca et al., 2013). Stringent regulation increases the costs of downward adjustment and is likely to encourage a more conservative growth strategy (which in turns decreases the pressure on underperforming firms). Lower risk taking and slower job reallocation may in turn reduce productivity growth. Firms may be less willing to expand their workforce or enter into new markets if they cannot reduce their workforce later if their efforts prove to be unsuccessful. Recent changes in Spanish labour market regulations have provided a less stringent protection legislation regime that gives more scope for new firms to offer different wage and working conditions from incumbents. However, more can be done to decentralise wage-bargaining processes and thereby reduce the power of incumbent companies to use sectorial agreements as barriers to entry (Chapter 1).

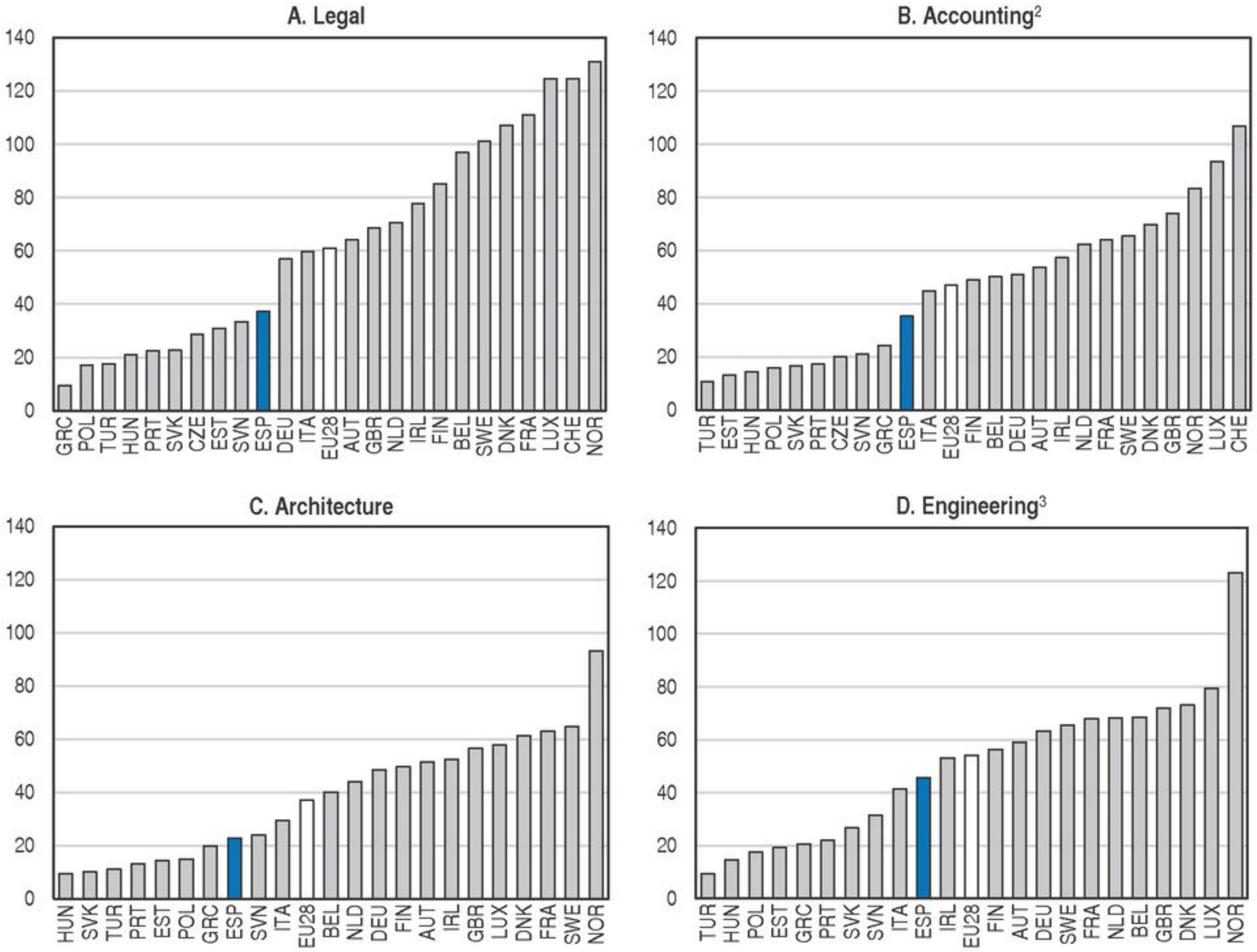
Actions need also to be taken to increase competition in sectors that provide inputs used by nearly all firms. This is an important avenue for reducing non-labour costs and improving competitiveness of Spanish firms in international markets. Areas of key concern include electricity, professional services, ports and oil distribution because of their pervasive use by the business sector and/or importance for exporting. Increasing the efficiency of the judicial system would also help to lower costs for a large part of the business sector.

### *Increasing competition in professional services*

Business services, in particular professional services which account for 75% of business services, are markedly less productive in Spain than in other European economies (Figure 2.23). This is coupled with entry requirements that are above the OECD average (Figure 2.24) and practices far from those in the best performing countries. The services trade restrictiveness index for Spain is also above the OECD average in business services, particularly legal and accounting services (OECD, 2014). In addition, there is an unusually large number of professions for which there is a requirement to be a member of the professional body. Opening up these services to competition would increase productivity, drive down prices, improve the quality of the services and provide more job opportunities.

Figure 2.23. **Productivity in professional services**

Apparent labour productivity, gross value added in thousand euros per person employed, 2011[1]




1. 2010 for Greece, 2009 for Turkey.
2. Accounting, bookkeeping and auditing; tax consultancy.
3. Including related technical consultancy.

*Source:* Eurostat (2014), "Structural business Statistics – Services", *Eurostat Database*, July.

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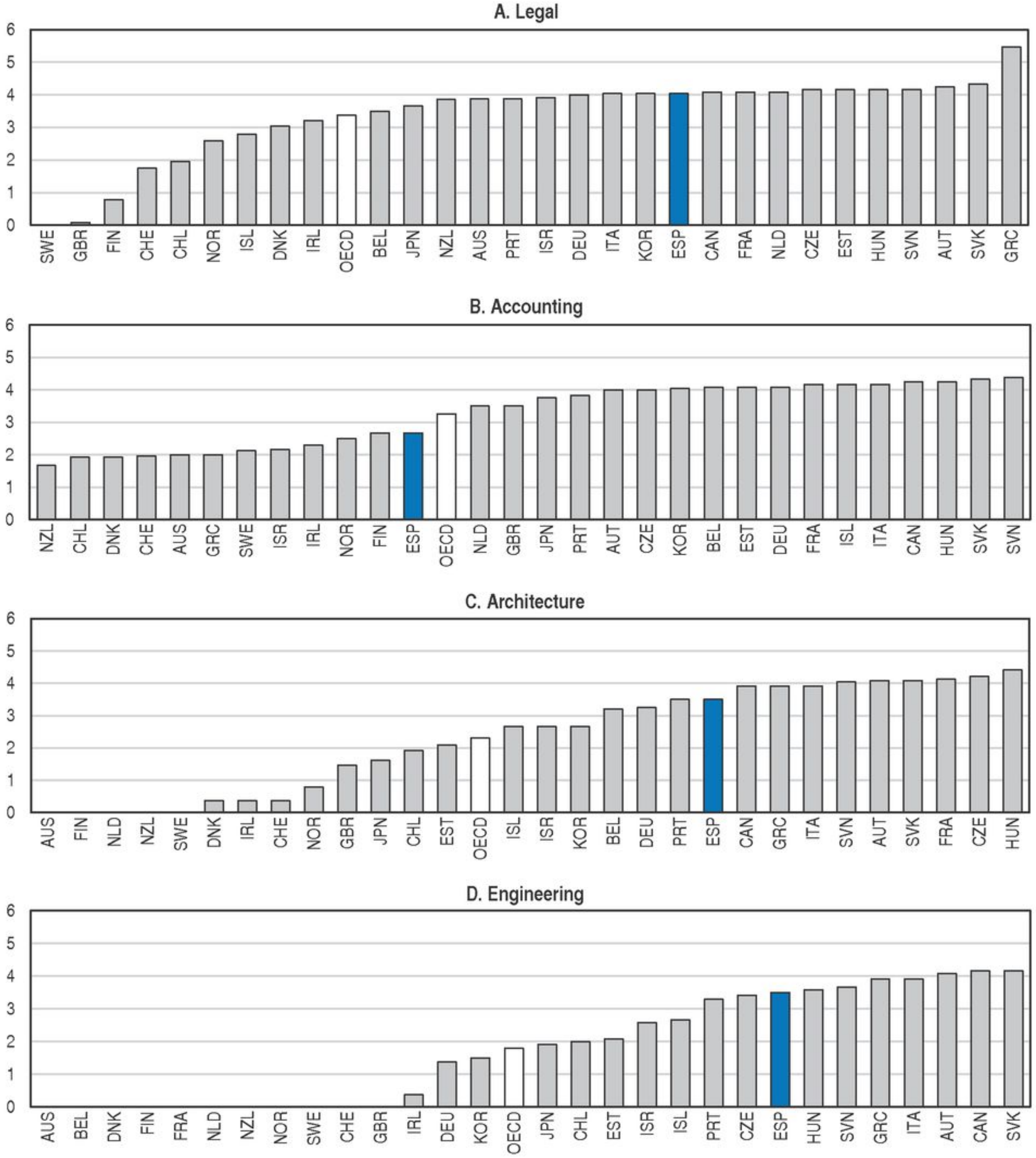
Further liberalisation of professional services has been planned for some time but the approval of the reforming law has been significantly delayed. The reform would provide a common framework for professional services and highly regulated professions based on the general principle of freedom of access to, and exercise of, those activities. The initial draft law foresaw a considerable reduction in the number of professions for which membership to the professional body would be compulsory. However, the final reform seems to be less ambitious than originally planned on this front. It would be important that the original ambition and spirit of the law is maintained by ensuring that membership fees cannot act as barriers to entry to the professions. The reform could also potentially increase the mobility and competition among providers of professional services throughout Spain and therefore can be framed within the effort being undertaken via the market unity law to create a truly unified domestic market. Once the law is approved, the consistency of sector specific legislation, including regional legislation and professional organisations' internal rules, with the new regulatory framework will also need to be swiftly ensured so that the liberalisation is fully effective.

Figure 2.24. **Entry regulations in professional services**

Product market regulation indicator, index scale of 0-6 from least to most restrictive, 2013[1]




1. The OECD aggregate is an average of the data shown. The index is zero for countries where no bar appears.

*Source:* OECD (2013), *Product Market Regulation Database*, *www.oecd.org/economy/pmr*.

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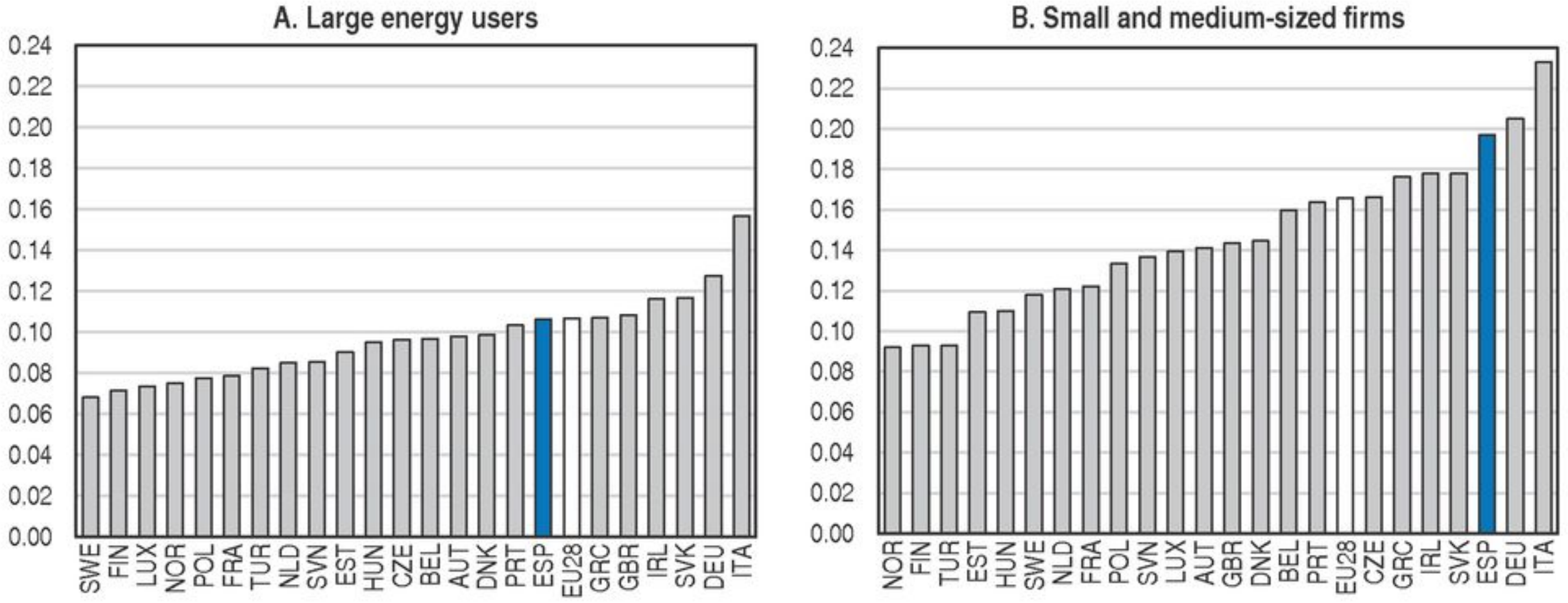
### *Fostering competition in network industries*

Spain has made good progress in liberalising network industries. At the same time some sectors, such as electricity and gas, are dominated by large vertically integrated companies. The electricity sector has recently been at the centre of intense debate because

of reforms to eliminate the so-called electricity tariff deficit (see Assessment and recommendations). Electricity prices are high in international comparison, especially for SMEs (Figure 2.25). The new electricity price mechanism has the potential to incentivise more effective price competition between different electricity providers. Nevertheless possible uncompetitive price setting practices have already been identified by the competition authority (CNMC, 2014a), which has claimed in multiple instances that the degree of competition in the wholesale market is insufficient (CNC, 2013a). The market is dominated by two firms (Endesa and Iberdrola) which are involved in all areas of activity and manage more than 70% of electricity demand via commercialisers and distributors. The existing separation between distribution and commercialisation activities has been deemed insufficient by the competition authority, despite existing requirements for legal and accounting separations. Competition in the electricity sector could be strengthened by reinforcing the separation between distribution and commercialisation, and also between distribution and other related activities such as the installation of measurement equipment, where distributors can take advantage of their incumbent position and information. Competition would be further boosted by ensuring a more level playing field between incumbents and potential entrants, such as independent commercialisers, and by reducing the cost associated to entering these activities.

Figure 2.25. **Electricity prices for industrial consumers**

Prices excluding value added tax, euro per kilowatt/hour, 2013[1]




1. Average of data for the two semesters of 2013. The consumption bands covered are 2 000-20 000 megawatt/hours in Panel A and 0-500 megawatt/hours in Panel B.

*Source:* Eurostat (2014), "Energy Statistics – Prices", *Eurostat Database*, July.

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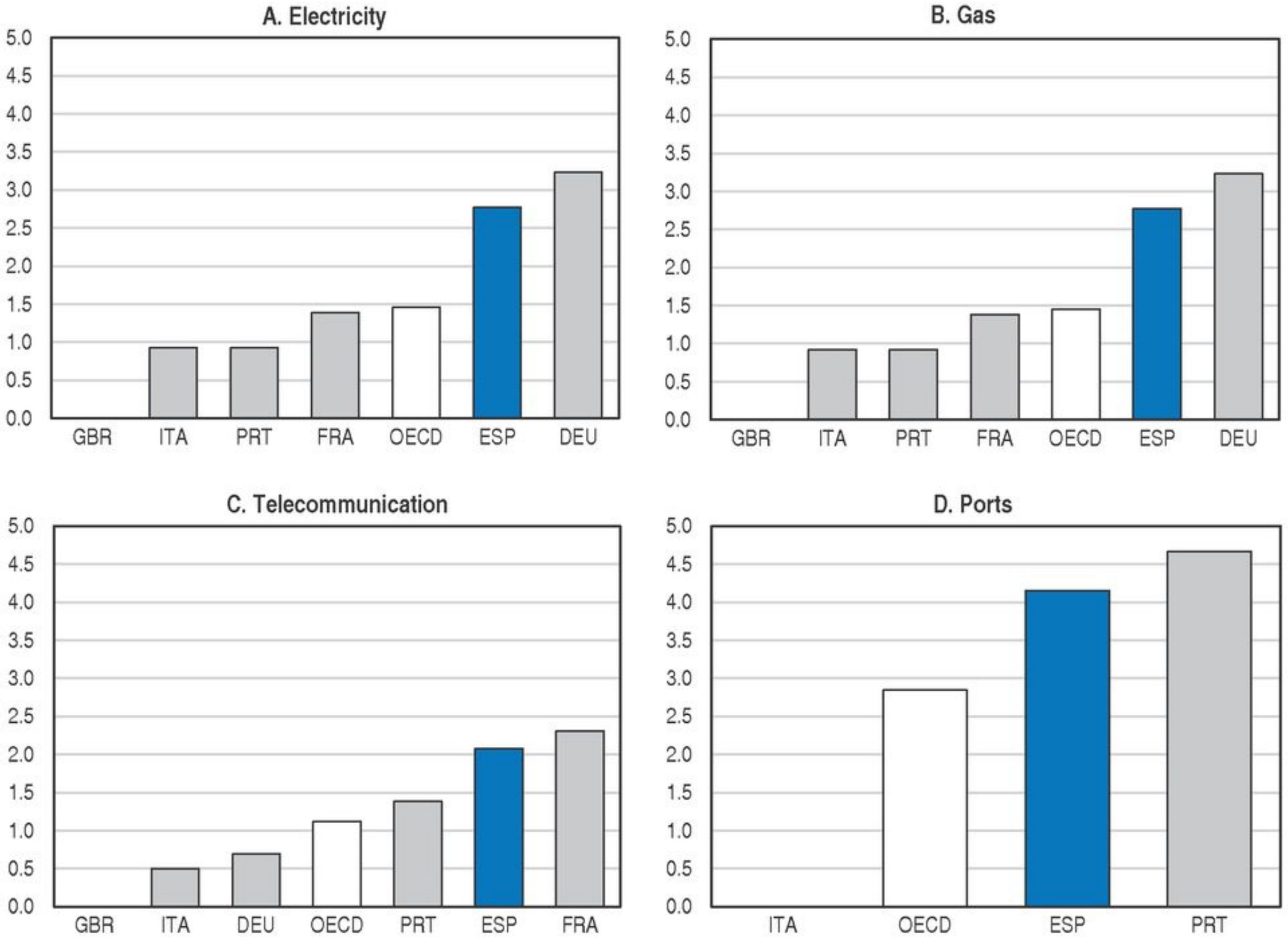
In this context, ensuring that the regulator can act effectively to avoid undue barriers to entry is fundamental. In international perspective, there seems to be room to widen the scope of actions that the regulator can undertake in electricity and gas areas (Figure 2.26). In particular, it would be beneficial that the regulator reviews and approves contract terms between regulated entities or market actors, and issues industry standards, guidelines and codes of conduct, as done in other OECD countries.

Low cross-border transmission capacity with France has also contributed to inefficiencies and higher costs in the Spanish electricity sector. It prevents Spain from engaging in cross-border trade in electricity and gas, and from profiting from its

Figure 2.26. **Scope of action by regulators**

Indicator of regulatory management, index scale of 0-6 from widest to lowest scope, 2013[1]




1. The OECD aggregate is an average of the data available for OECD countries (17 only in Panel D). The index is zero for countries where no bar appears.

*Source:* OECD (2013), *Product Market Regulation Database, www.oecd.org/economy/pmr.*

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overcapacity in electricity generation: only around 44 gigawatts are used at peak demand compared with 100 gigawatts installed. A new electricity interconnection with France was supposed to be operational in 2014 but its entry into service has been further postponed. More effective interconnections with Portugal and France would foster competition between electricity and gas companies, increase the liquidity of both markets, allow diversity of supply and provide a more competitive environment.

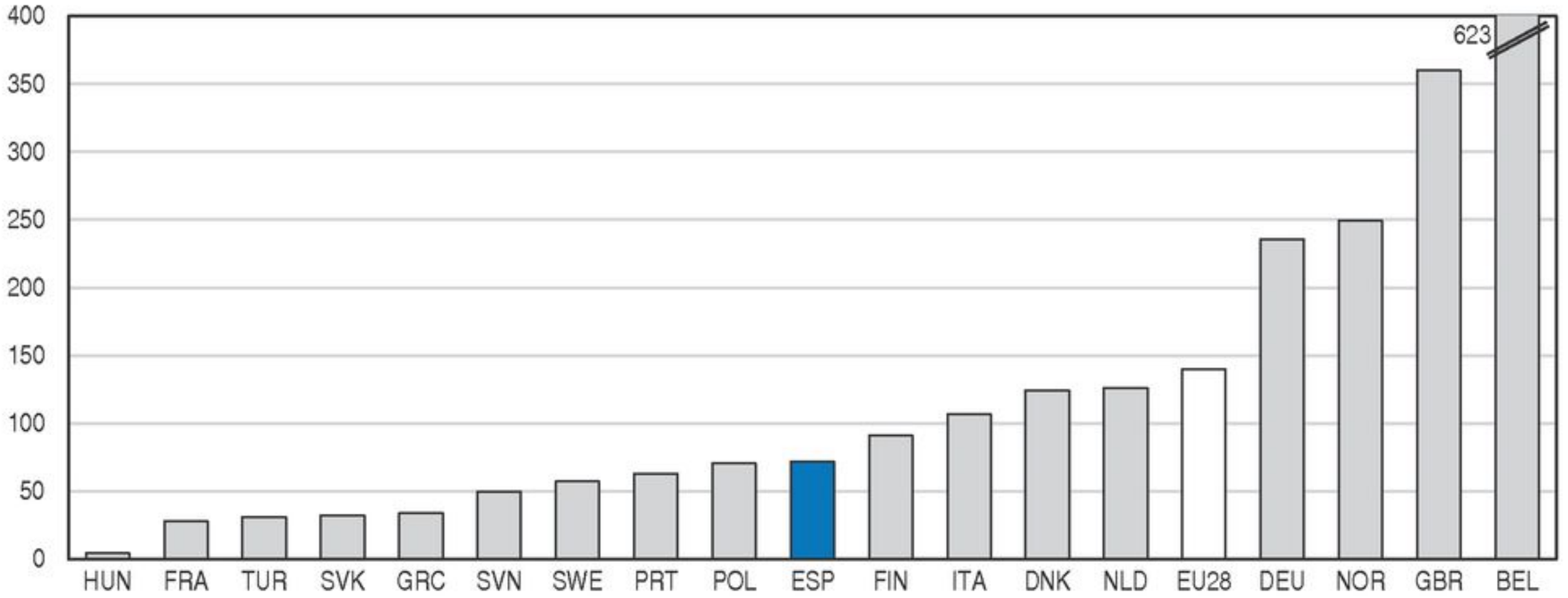
### *Boosting competition in ports*

Boosting competition in ports and lowering costs for exporters is key to boosting cost-competiveness of Spanish firms and fostering internationalisation. The port regulator is not an independent body, contrary to international best practices and to practices followed in other regulated sectors in Spain. Instead the regulator is a ministerial department or agency, whose decisions can be overturned by governmental or ministerial bodies. The port system in Spain is composed of 28 port authorities, which have ample autonomy and depend largely on regional authorities.

Sea and coastal freight water transport activities have low productivity (Figure 2.27), despite Spain having several ports that are large by European standards (e.g. Barcelona, Algeciras or Valencia), suggesting the possibility of significant economies of scale. One direct and damaging implication is that the cost to trade is significantly higher in Spain than in other OECD countries (discussed above). In some instances anticompetitive policies and undue barriers to entry have been identified (CNC, 2013b).

Figure 2.27. **Productivity in sea and coastal freight water transport**

Apparent labour productivity, gross value added in thousand euros per person employed, 2011[1]




1. 2010 for Greece, 2009 for Belgium and Turkey, 2008 for United Kingdom.

*Source:* Eurostat (2014), "Structural business Statistics – Services", *Eurostat Database*, July.

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Transport costs tend to have a disproportionate effect on trade volumes (Clark et al., 2004). In general, it has been estimated that raising transport costs by 10% can reduce trade volumes by more than 20% (Limao and Venables, 2000). While Spain's regulated port costs have been decreasing, stevedoring costs remain very high in international perspective, and these services typically account for the largest percentage of the total cost of moving goods through a port. Stevedoring activities are restricted to a pool of exclusive workers. Cargo-handling companies are not allowed to resort to the market to employ their staff. Instead, cargo-handling companies are required to participate financially in the capital of private companies, which in turn provide them with the required workforce. Only when the workforce proposed by these private companies is not suitable or not sufficient can the cargo-handling companies freely hire staff from the market. These restrictive labour practices discourage the entry of new cargo-handling providers, posing a barrier to attract new investment. This regime is having a significant impact in the productivity and competitiveness of Spanish ports and is hampering the Spanish export sector. According to the European Commission it violates the principle of free establishment of economic activity, although the issue has been brought to the court of justice of the EU. Access to stevedoring activities should be opened and adjusted to the EU legislation.

### *Increasing contestability in oil distribution*

Oil distribution continues to be impaired by lack of sufficient contestability. These are important input markets for many other sectors of the economy, whose international competitiveness is hampered. Recent trend in gross margins in the fuel distribution sector

are characteristic of uncompetitive markets (CNMC, 2014b). Consumers face high pre-tax fuel prices compared with international fuel prices and with pre-tax prices in other advanced European economies (Avedillo Carretero, 2013). The concentration in the automotive fuel sector remains too high and there is evidence of aligned pricing practices between the two main operators, REPSOL and CEPSA. There is also a high level of vertical integration between supply, refining and retail activities. Low-cost fuel retailers have a low market share and the competition between service stations located on major roads is low. In July 2013, the government simplified procedures for opening service stations and introduced some measures which reduce the power of established distributors against independent retailers. The number of openings of independent service stations has grown but increasing contestability in the distribution sector remains yet necessary. Simplifying the opening of service stations in supermarkets and hypermarkets and reducing the duration of long-term agreements giving exclusive operating rights over service stations have provided positive competition dynamics in the past in some regions, which should be further exploited.

### *Improving judicial efficiency*

The judicial system is also an important source of costs for business and improving its efficiency is an important path for increasing cost-competitiveness and economic performance (Palumbo et al., 2013). More efficient judicial systems have a positive effect on the size of firms, both internationally (Kumar et al., 1999; Beck et al., 2006) and in Spain (García-Posada and Mora-Sanguinetti, 2013a). It also has a positive effect on the entry rate of Spanish firms (García-Posada and Mora-Sanguinetti, 2014).

The Spanish judicial system does not rank well internationally in terms of efficiency. Spain holds position 26 out of a total of 35 legal systems in its ability to resolve disputes before the first instance courts (Palumbo et al., 2013). Spain ranks 21st out of 31 OECD countries in terms of enforcing contracts (World Bank and IFC, 2014). Clearance rates are low, the case backlog remains high, and procedures are relatively lengthy (European Commission, 2013), despite some recent improvement (European Commission, 2014).

The government has adopted measures to enhance the efficiency of the judicial system, including reorganising the courts, implementing electronic judicial files and promoting out-of-court solutions to conflicts. However, significant problems remain. A critical problem from the business perspective are the so-called *recursos administrativos*, which are appeals against the public administration, over for example a tax liability or denial of a permit, that need to be undertaken before reaching the ordinary judicial system. These administrative appeals are slow to make findings and rarely conclude on the merits of the case. They should be replaced by time limited administrative mediation processes that would automatically be deemed as in a firm's favour if the time limit is exceeded.

In addition, despite significant investment in information and communication technologies, the new tools are not yet readily available in all courts. Promoting further mediation arrangements can provide faster and more efficient conflict resolutions. Increasing competition in the legal profession could also induce lower litigation and hence have a positive effect on the efficiency of the system. The pressure exercised by competition among lawyers would constrain their potential rents, thereby reducing the number of cases that the lawyers may find profitable to bring to court rather than settle (OECD, 2013e).

## Tackling over-indebtedness and improving access to finance

### *Facilitating insolvency procedures to help restore credit growth*

Boosting the performance of the business sector requires faster rehabilitation or closing down of the high number of firms that carry excessive debt burdens. Quickly restructuring corporate debts and putting viable firms on the path to recovery would in turn clean-up bank balance sheets allowing banks to focus on new lending and reallocating capital to new and more productive firms.

An efficient insolvency regime is a pre-requisite for achieving this but so far the Spanish insolvency law has proved of little use to facilitate the restructuring of viable firms and swift liquidation of unviable ones (Mora-Sanguinetti and Fuentes, 2012). Business bankruptcy rates in Spain were among the lowest in the world before the 2009 economic crisis. Existing procedures appeared to be unduly complex and judicial resolution periods tended to be too long, which is part of the broader judicial efficiency problems discussed above. In 2012 regular procedures lasted an average of 649 days, while the duration of simplified procedures, that are supposed to be shorter, was 665 days (Van Hemmen, 2013). To correct this inefficiency the government introduced several changes within its entrepreneurship law. The government has recently reviewed them again (Decree of refinancing agreements and debt restructuring) to make it easier to get prior agreements on write-offs, maturity extensions and debt-for-equity swaps, and to reduce the majority needed for creditor agreements to be approved. In many cases liabilities with tax and social security authorities account for a very significant part of the debt, but so far both authorities have not been allowed to restructure their debts. Clear guidelines for the participation of both authorities in the restructuring process should be established.

Bankruptcy rates are low for SMEs, and, in particular, for micro enterprises. In contrast with the low incidence of business bankruptcies, business related mortgage foreclosures have soared during the crisis. Small business owners tend to finance their firms with loans secured on their homes, and, if lenders repossess the collateral, that will be reflected as residential foreclosures instead of as bankruptcies. The small rate of small businesses filing for bankruptcy suggests that these procedures are more costly and drawn out than the main alternative procedure, the mortgage foreclosure, and that the personal bankruptcy law is unattractive to the individual debtor (García-Posada and Mora-Sanguinetti, 2013b). The challenges ahead are to enable viable SMEs to restructure unsustainable debt and get recapitalised; and to ensure nonviable SMEs cease their activities in an orderly fashion to allow effective redeployment of capital and other resources. Insolvency procedures often fail to meet the needs of SMEs (European Commission, 2012). Alternative procedures, proportionate to the size of the business, should be put in place to make adequate solutions available for all types of SMEs. Given the limited capacity of the judicial system and the need for rapid resolutions, promoting and facilitating voluntary out-of-court restructurings for SMEs could provide a cost-effective and swift alternative to court supervised proceedings.

The government recently introduced new out-of-court pre-insolvency payment procedures for SMEs (*acuerdo extrajudicial de pagos*). The payment agreement must be approved by 60% of creditors, have a maximum haircut of 25%, and involve a payment moratorium limited to three years. Public creditors are excluded from the negotiations. This new procedure is a decisive step to alleviate financial distress of SMEs in a swift manner. Nevertheless, its current configuration does not offer sufficient incentives for its

use. The procedure could be made more effective by permitting the debt haircut to go above the current 25% maximum and the payment moratorium above three years. A significant proportion of SMEs' debts are liabilities with tax and social security authorities. Integrating these liabilities in the payment plan would be an additional step to make these procedures more effective. These procedures are facilitated by mediators. The government is planning to change the way mediators are selected, appointed and remunerated. This is welcome since the current system does not provide sufficient incentives to avoid long processes ending in the final liquidation of firms.

The recent entrepreneurship law created a new category to foster entrepreneurship (*empresario de responsabilidad limitada*), according to which the entrepreneur can preserve their main residence from any payment obligation originating from their entrepreneurship activities. This category puts undue emphasis on protecting housing assets to the detriment of other type of assets. In general, setting-up insolvency procedures providing clear and swift procedures for debt restructuring and resolution has been found to have a far more decisive impact in fostering entrepreneurship than partial measures to protect entrepreneurs' assets. In this sense, introducing a new personal insolvency framework allowing for a discharge of unresolved personal debt after liquidation or a payment plan for financially responsible individuals, as existing in other EU countries, is a preferable alternative to tackle over-indebtedness of individual entrepreneurs and increase entrepreneurship. Existing alternatives are too narrow in scope and too stringent in their requirements to be broadly used or to have a significant impact.

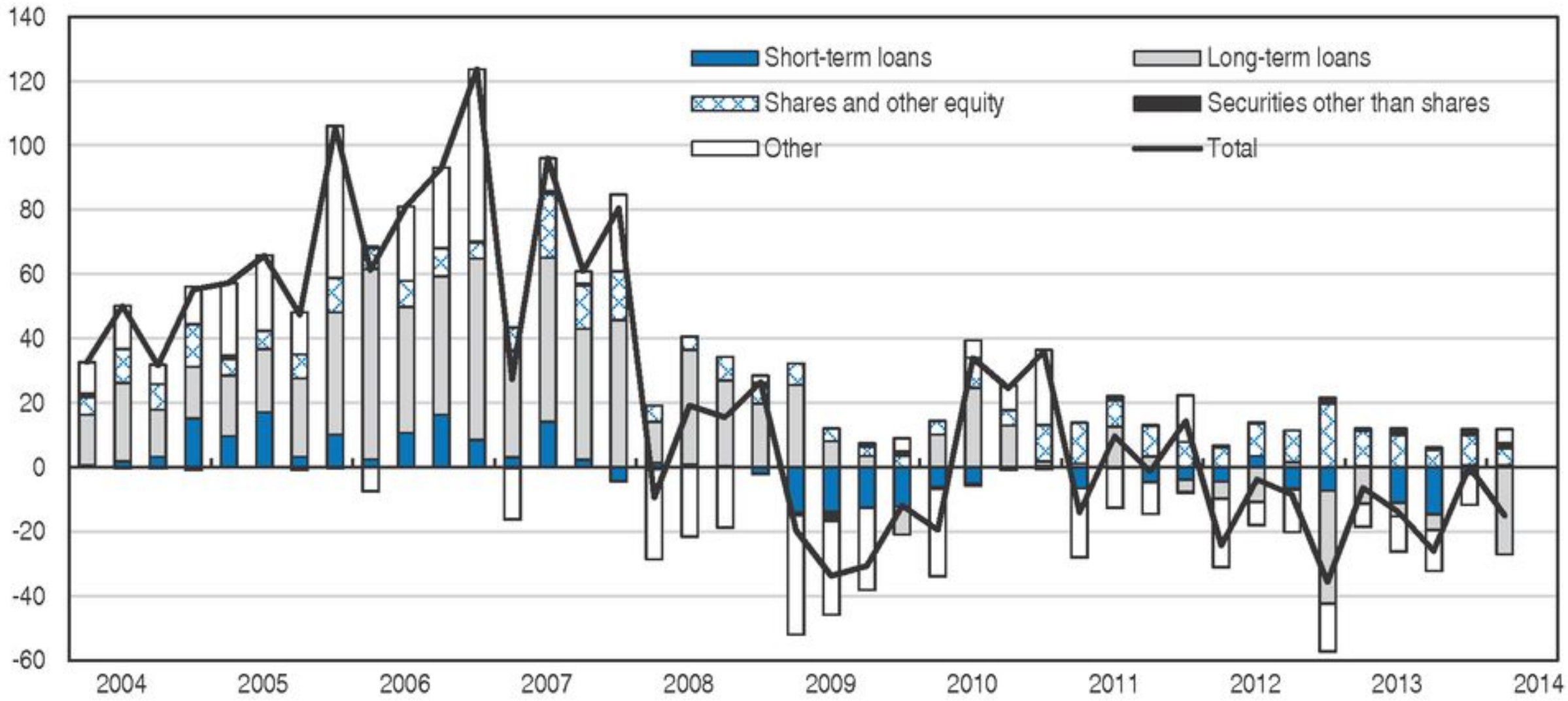
### *Moving towards more diversified financing*

Bank-lending has been the predominant financing source in Spain. The crisis boosted bank disintermediation, in particular for larger firms that have increased issuance of corporate debt (Figure 2.28). Issuance remains though below those observed in more developed corporate bond markets, such as Germany, France or Italy. Market funding opportunities for SMEs have been more limited though. Moreover, SMEs have more difficulties to establish new banking relationships and they tend to use as collateral real-estate assets, whose value has fallen, which complicates further their access to credit.

The downsizing of the banking sector makes the development of alternative, capital market-based sources of finance more urgent, especially for SMEs. Developing non-bank financing, would also reduce banks' market power, which may help to make Spanish bank lending rates more responsive to monetary policy. Where banks in Europe face limited competition, and firms depend on them, financing constraints for SMEs have been found to be higher (Ryan et al., 2014). Moreover, in normal downturns, healthy banks help to cushion the shock, but when recessions have coincided with financial crises the impact on GDP has been three times more severe for bank-oriented economies than for market-oriented ones (Gambacorta et al., 2014). Access to bank finance can be particularly challenging for young and innovative firms that do not have collateral or a track record. Thus, developing non-bank financing channels would make the Spanish financial system more balanced, more resistant to shocks and more prone to entrepreneurship. With that aim the government has launched a wide array of initiatives, including developing alternative securities markets, improving the public guarantee system and venture capital initiatives (discussed below). The effects of these initiatives will unfold progressively over time, and in the meantime measures to improve firms' access to bank finance are also required.

Figure 2.28. **Structure of non-financial corporations' liabilities**

Net incurrence of liabilities, billion euros




*Source:* Bank of Spain (2014), *Financial Accounts of the Spanish Economy* (database), July.

StatLink http://dx.doi.org/10.1787/888933129182

### *Improving access to bank financing*

One way to improve the financing conditions of SMEs is to provide banks with funds to be used to make loans to SMEs. In Spain, this is done via the Official Credit institute (*Instituto de Crédito Oficial*, ICO) intermediation facilities. Through these facilities ICO provides funds to banks at a lower cost on the condition that the funds are lent for a certain kind of activity or type of firm, including SMEs. Banks assume fully the credit risk and charge a premium to remunerate their operating costs and the credit risk assumed. ICO sets a ceiling for this premium, which currently stands at about 4%. The German government agency Kreditanstalt für Wiederaufbau (KfW), OSEO in France and the European Investment bank (EIB) also use these kind of facilities. Via these facilities ICO granted credit amounting to EUR 14 billion in 2013 (an increase of 20% with respect to 2012), having a material impact in the incipient recovery in the flow of new credit. In the first half of 2014 credit disposition amounted to EUR 10.9 billion, which is a record figure. In the short-term, these facilities can be effective in improving firms' access to finance. Nevertheless, in the medium-term, the emphasis should move towards more market-based alternatives currently under development (discussed below) and to make firms less dependent on publicly supported bank finance.

Well-structured mutual guarantee schemes (MGS) can also play a decisive role in improving firms' access to bank finance. They spread some of the risk and thereby enable banks to extend loans to firms that would find it difficult to access credit otherwise or to do it under better conditions (Columba et al., 2009). For banks they can act as an important risk mitigation mechanism since they do not need to provision loans guaranteed by MGS.

In Spain, MGS are a special type of limited liability society with two types of shareholders: "participatory members", who subscribe some shares against the guarantee service (currently about 100 000 SMEs); and "protective members", which include local authorities, banks, chambers of commerce and other entities that are involved in SME development. Typically, the guarantees issued by MGS cover 100% of the bank loan. The

Spanish system of public support to MGS is based on counter-guarantees granted by CERSA (Compañía Española de Reafianzamiento, SA), which is under the Ministry of Industry, Energy and Tourism (OECD, 2013b). CERSA can cover up to 75% of the risk, depending on size and conditions of the loan. The rest of the risk is covered by the MGS themselves. A new measure introduced recently in Spanish regulation allows banks benefiting from a guarantee from a MGS to request the reimbursement of its claim directly from the counter-guarantor, CERSA. This reduces significantly the counterparty risk of the bank with the MGS.

MGS could play an important role in the current financing environment, where SMEs face relatively strict financing conditions and banks must ensure a high level of capital quality. MGS offer the competitive advantage of being close to the borrowers. This allows an effective monitoring and screening of loan applications. It is estimated that banks can obtain 45% risk-weighted yields on operations with guarantees, compared with 16.5% without guarantees and that the cost of the loan for the SME would be reduced by 250 basis points (PWC, 2014). Moreover, MGS tend to provide firms with long-term financing, while SMEs usually obtain short-term loans from banks. Therefore they can contribute to SMEs moving towards a more balanced financing term structure.

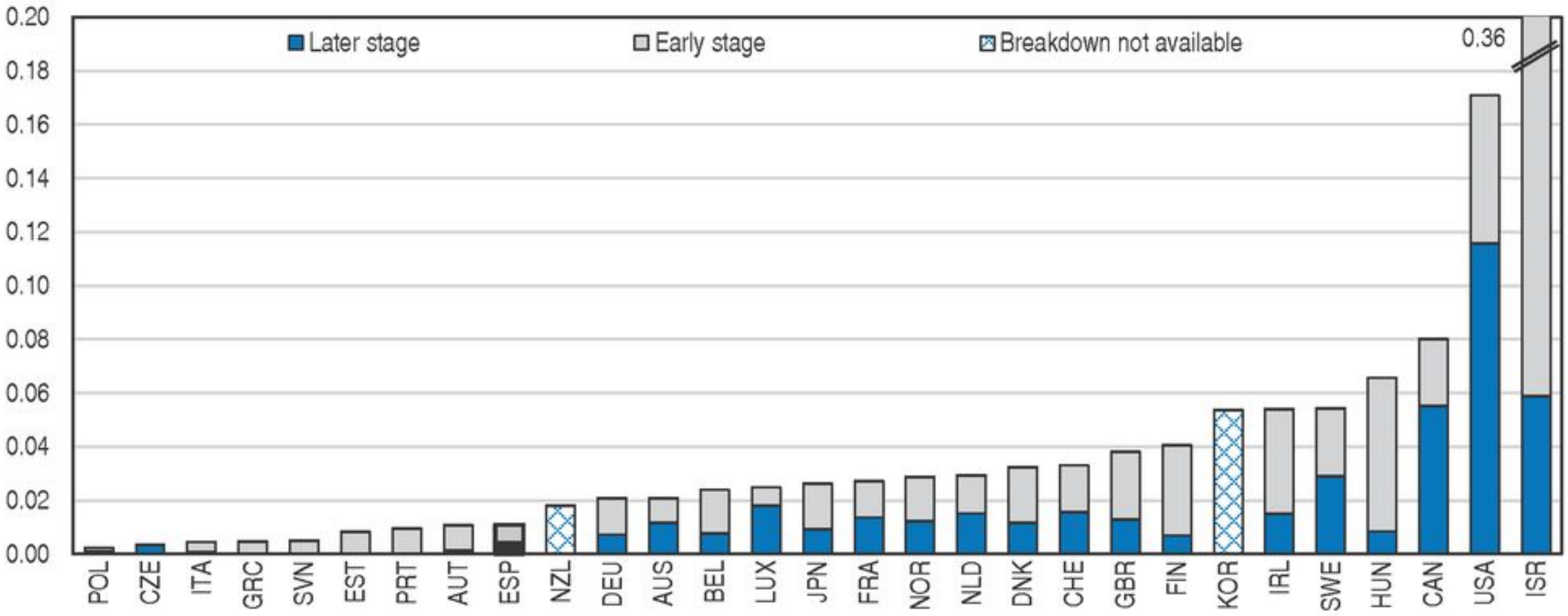
The use of MGS in Spain is lower than in other countries with a similar firm structure such as Italy and Portugal. The volume of outstanding guarantees amounted to 0.6% of GDP in Spain in 2011, compared with 2.2% and 1.9% in Italy and Portugal (OECD, 2013b). A more extended use of MGS in Spain will likely require a change in scale. There are currently 23 MGS in Spain, but some do not have sufficient capital to significantly expand their activity (PWC, 2014). In general, a change in scale, with mergers or consolidation can help reduce the relative costs of the service, as well as broaden the offer of guarantee instruments (OECD, 2013b). Larger MGS can also provide more professional management and screening tools. A consolidation process is underway, after the entrepreneurship law increased equity and resources requirements for MGS. At the same time, there is a trade-off between efficient scale and proximity to borrowers, which historically has been MGS' competitive advantage. Strengthening the public counter-guarantee by further increasing the resources of CERSA may also be required. That would imply an increase in contingent liabilities for the government. Thus, it should be accompanied by regular stress tests to check the solvency of the guarantee system.

### *Developing alternatives to bank-lending*

Besides bank loans, alternative financing sources are important, especially for high-growth firms that want to diversify their funding basis or need a mix of debt and equity. As Spain's recovery gains steam, it will be critical to supplement bank lending with new sources of finance, so that bank capacity constraints do not hold back the necessary financing of new business. One of the main alternatives is venture capital, which has remained underdeveloped in Spain so far (Figure 2.29). To contribute to the development of the venture capital market, the government has launched a programme called Fond-ICO Global. It is the first public venture capital "fund of funds" created in Spain, and has a budget of EUR 1.2 billion. It seeks to promote the creation of privately managed venture capital funds investing in Spanish companies at different stages of development, with the goal to mobilise around EUR 5 billion of funds. The venture capital funds in which Fond-ICO Global invests must have a majority of private capital and a presence in Spain. The amount of capital invested by Fond-ICO Global in each fund will depend on the stages

Figure 2.29. **Venture capital investment**

Per cent of GDP, 2012[1]




1. 2011 for Canada, Estonia, Greece, Japan, New Zealand and Slovenia.

*Source:* OECD (2013), *Entrepreneurship at a Glance 2013*.

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in which it invests and the size of the fund. The emphasis in ensuring a majority of private capital is welcomed, since government venture capital efforts have been found to have a positive impact when they have a minority position and not when they are leaders (Brander et al., 2012; Grilli and Murtinu, 2014). The selection of venture capital funds in which Fond-ICO participates is done via successive tender procedures. It would be important to ensure a systematic and unified evaluation of the results of the first tenders so that future calls can be adapted based on the results of that evaluation.

Stock markets geared towards smaller firms are important complement to venture capital schemes. Contrary to Germany or the United Kingdom where alternative stock exchanges are vibrant, the Spanish alternative market, MAB (*Mercado Alternativo Bursátil*), has remained less developed: 22 firms are currently listed, reflecting that not many SMEs comply with some of the requirements to list in the market (e.g. estimated value of the free float above EUR 2 million). Spain has also recently launched an alternative fixed-income market (MARF, in its Spanish acronym). MARF's potential issuers are large unlisted companies, with EBITDA levels of at least EUR 12 million. Given these requirements, a massive entry of issuers in this new market should not be expected (Guijarro and Mañueco, 2013). So far six issuances have taken place. MARF targets solely institutional investors and the minimum unit issue amount is EUR 100 000. The examples of Germany and Norway, with markets raising volumes of funds that represent 1% and 0.13% of GDP, are good benchmarks for MARF's potential capacity. Nevertheless, the predominance of small firms in the corporate sector in Spain will constrain the total funds that can be raised compared to other European economies more populated by medium-sized companies.

### *Other measures would also help firms financing*

Access to credit by SMEs would also be improved if assessing borrower creditworthiness becomes easier. Mechanisms to facilitate the regular production of uniform, quality data on the most important aspects of the business of SMEs would help. Banque de France has been identified as the institution collecting the most comprehensive set of data on SMEs

(IIF, 2013), and this is coupled with the lowest spread between loans to large companies and loans to SMEs in the euro area. Banque de France requires detailed reporting on all loans larger than EUR 25 000, and from this data they compile credit scores on around 280 000 companies operating in France, the majority of which are SMEs. The credit scores and related financial information, including aggregated bank claims for an individual SME, are made available to French banks. Establishing a comprehensive central credit registry similar to the Banque de France model would significantly reduce information asymmetries and contribute to banks providing SMEs with loans at better terms.

The current framework of public financial support for SMEs, which rests on a broad variety of instruments provided by various institutions, could also be simplified to make it easier for SMEs to absorb information and access support. Simplification and consolidation may increase the effectiveness and cost-efficiency of the system and avoid duplications. In addition to ICO there are several agencies and institutions providing financing support to Spanish companies such as Compañía Española de Financiación del Desarrollo (COFIDES) and Empresa Nacional de Innovación, SA (ENISA). In some cases these institutions have cross-shareholdings and the instruments they offer are very similar (Ayuso, 2013). Concentrating all financing support in ICO may contribute to achieving economies of scale and exploitation of all possible synergies, in addition to offering firms a clearer access point to support.

The financing of Spanish firms, in particular SMEs, is also seriously impaired by very late payments – or even failure to pay – in commercial transactions. To combat that, a new law (*Ley de Morosidad*) has established maximum terms of payment in commercial relations. These legal terms are compulsory and binding and therefore cannot be lengthened by mutual agreement of the parties. The maximum term is 30 days for administrative entities (from delivery of the document that accredits the total or partial fulfilment of the contract) and 60 days for private companies (from the date of receipt of the goods or rendering of services), in line with European Union directives. While payment terms have decreased, they remain above the maximums established by the law. The authorities should introduce sanctions for those firms systematically incurring late payments above the legal limits.

**Recommendations to move towards a more dynamic business sector**

**Boosting start-ups**

- Revamp the licence and permits system and reduce regulatory fragmentation by implementing the market unity law.
- Set up one-stop shops for issuing and accepting all notifications and licenses that are required to open up a business.

**Facilitating business growth**

- Broaden the corporate tax base, lower the rate and eliminate regimes for small and medium-sized enterprises (SMEs).
- Review other size-dependant policies and regulations. Adapt them to avoid them becoming obstacles to firms' growth.

**Recommendations to move towards a more dynamic business sector** *(cont.)*

**Fostering internationalisation**

- Integrate internationalisation and innovation policies under a single responsibility.
- Establish formal mechanisms of collaboration between Spanish multinationals and SMEs attempting to gain access to new markets.
- Strengthen the port regulator and ensure that entry barriers are eliminated. Open access to stevedore activities.

**Strengthening competition**

- Make access to professions easier. Reduce the number of professions for which being a member of the professional body is required. Ensure that membership fees do not act as barriers to entry to the profession.
- Progressively reduce the degree of vertical integration in the electricity market.
- Widen the scope of actions of electricity and gas regulators.
- Favour entry in the oil distribution market to increase contestability and reduce anti-competitive practices.

**Improving judicial efficiency**

- Pursue efforts to increase efficiency in the judicial system by ensuring a broader deployment of information technology tools, fostering mediation alternatives and increasing competition in the legal profession.
- Replace special administrative appeals with the public administration with time-limited mediation procedures.

**Tackling over-indebtedness**

- Increase incentives for the use of out-of-court and in-court insolvency procedures by SMEs by allowing more flexible payment plans, higher debt haircuts and participation from tax authorities.
- Introduce a new out-of-court negotiated personal insolvency regime.
- Establish clear guidelines for the participation of tax authorities in debt restructuring processes.

**Improving firms financing**

- Continue to promote diversified financing sources for firms. In the short-term, adjust the Official Credit Institute (ICO) intermediation facilities to demand and make further use of mutual guarantee companies.
- Make government financing support to firms more effective by considering a reduction in the number of government agencies involved and concentrating support in ICO.
- Ensure that private sector lead is maintained in venture capital schemes financed by FOND-ICO Global. Evaluate the results of first tenders and adapt consequently the subsequent calls.
- Establish a comprehensive credit registry for SMEs similar to the Banque de France model, including information on payment performance, financial transactions and balance sheet positions. Make that information available to all banks.
- Introduce sanctions for those firms systematically incurring in late payments above the legal limits.

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# ANNEX 2.A1

## Constant market share analysis

Following Nyssens and Poullet (1990) and Amador and Cabral (2008), the total change in the share of Spanish exports worldwide (i.e. the total effect, TE) is given by the difference between the growth rate of Spanish merchandise exports ($g$) and the growth rate of world merchandise exports ($g^*$):

$$TE = g - g^* = \sum_i \sum_j \theta_{ij} g_{ij} - \sum_i \sum_j \theta^*_{ij} g^*_{ij}$$

where

$$g_{ij} = \frac{X_{ij,t} - X_{ij,t-1}}{X_{ij,t-1}}$$

$$\theta_{ij} = \frac{X_{ij,t-1}}{\sum_i \sum_j X_{ij,t-1}}$$

$$g^*_{ij} = \frac{X^*_{ij,t} - X^*_{ij,t-1}}{X^*_{ij,t-1}}$$

$$\theta^*_{ij} = \frac{X^*_{ij,t-1}}{\sum_i \sum_j X^*_{ij,t-1}}$$

$X_{ij}$ ($X_{ij}^*$) denotes nominal Spanish (world) exports of product $i$ to market or destination $j$.

TE is decomposed into a market share effect (MSE) and a combined structure effect, comprising a product structure effect (PSE), a geographical structure effect (GSE) and a residual term (mixed structure effect, MIX).

$$TE = MSE + PSE + GSE + MIX$$

$$MSE = \sum_i \sum_j \theta_{ij}(g_{ij} - g_{ij}^*)$$

$$PSE = \sum_i (\theta_i - \theta_i^*)(g_i^* - g^*)$$

$$GSE = \sum_j (\theta_j - \theta_j^*)(g_j^* - g^*)$$

$$MIX = \sum_i \sum_j \left[ (\theta_{ij} - \theta_{ij}^*) - (\theta_i - \theta_i^*)\frac{\theta_{ij}^*}{\theta_i^*} - (\theta_j - \theta_j^*)\frac{\theta_{ij}^*}{\theta_j^*} \right] g_{ij}^*$$

where:

$\theta_i = \sum_j \theta_{ij}$ (share of product i in Spanish exports)

$\theta_i^* = \sum_j \theta_{ij}^*$ (share of product i in world exports)

$\theta_j = \sum_i \theta_{ij}$ (share of market *j* in Spanish exports)

$\theta_j^* = \sum_i \theta_{ij}^*$ (share of market *j* in world exports)

$g_i^* = \frac{\sum_j \theta_{ij}^* g_{ij}^*}{\theta_i^*}$ (growth rate of world exports of product i)

$g_j^* = \frac{\sum_i \theta_{ij}^* g_{ij}^*}{\theta_j^*}$ (growth rate of world exports to market *j*).

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# Glossary

**ADIF** *Administrador de Infraestructuras Ferroviarias* (Rail traffic infrastructure administrator)

**AENA** *Aeropuertos Españoles y Navegación Aérea* (Spanish airports and air navigation operator)

**AIRef** *Autoridad Independiente de Responsabilidad Fiscal* (Independent authority for fiscal responsibility)

**ALMP** Active labour market policy

**CDTI** *Centro para el Desarollo Tecnológico Industrial* (Centre for industrial and technological development)

**CERSA** *Compañia Española de Reafianzamiento SA* (Spanish refinancing company)

**CMSA** Constant market share analysis

**$CO_2$** Carbon dioxide

**CSIC** *Consejo Superior de Investigaciones Científicas* (Higher council for scientific research)

**EBITDA** Earnings before interest, taxes, depreciation and amortisation

**ECB** European Central Bank

**EDP** Excessive deficit procedure

**ETS** Emissions trading scheme

**EU** European Union

**EU15** EU member countries before enlargement in May 2004

**EU28** EU member countries as from 2013

**EUR** Euro

**FDI** Foreign direct investment

**FP7** Framework Programme 7

**FROB** *Fondo de Reestructuración Ordenada Bancaria* (Fund for the orderly restructuring of banks)

**GDP** Gross domestic product

**GHG** Greenhouse gas

**ICEX** España Exportación y Inversiones (Spanish export promotion agency)

**ICO** *Instituto de Crédito Oficial* (Official credit institute)

**MARF** *Mercado Alternativo de Renta Fija* (Alternative fixed-income market)

**MGS** Mutual guarantee scheme(s)

**NAIRU** Non-accelerating inflation rate of unemployment

**OMT** Outright monetary transactions

**PES** Public employment service

**PhD** Doctorate

**PIACC** Programme for the international assessment of adult competencies

**PISA** Programme for international student assessment

**PPP** Public-private partnerships

| | |
|---|---|
| **R&D** | Research and development |
| **RD&I** | Research, development and innovation |
| **REITs** | Real estate investment trusts |
| **RTOs** | Research technology organisations |
| **SAREB** | *Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria* (Asset management company) |
| **SMEs** | Small and medium-sized enterprises |
| **SOEs** | State-owned enterprises |
| **UPM** | *Universidad Politécnica de Madrid* (Technical university of Madrid) |
| **USD** | United States dollar |
| **VAT** | Value-added tax |
| **VET** | Vocational education and training |

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