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BETTER POLICIES FOR BETTER LIVES

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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 the Portugal were reviewed by the Committee on 24 October 2016. 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 15 November 2016.

The Secretariat's draft report was prepared for the Committee by Jens Arnold and Sónia Araújo under the supervision of Pierre Beynet. Research assistance was provided by Desney Wilkinson-Erb, Corinne Chanteloup, Gabor Fulop and Daniela Crosera and secretarial assistance was provided by Sylvie Ricordeau and Amelia Godber.

The previous Survey *of the Portugal was issued in October 2014.*

BASIC STATISTICS OF PORTUGAL, 2015

(Numbers in parentheses refer to the OECD average)*

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million)	10.4		Population density per km^2 (2014)	113.1	(36.8)
Under 15 (%)	14.2	(18.0)	Life expectancy (years, 2014)	81.2	(80.6)
Over 65 (%)	20.5	(16.3)	Men	78.0	(77.9)
Foreign-born (%, 2011)	8.3		Women	84.4	(83.3)
Latest 5-year average growth (%)	-0.4	(0.6)	Latest general election	October 2015	
ECONOMY					
Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	199.2		Primary sector	2.3	(2.5)
In current prices (billion EUR)	179.5		Industry including construction	22.3	(26.8)
Latest 5-year average real growth (%)	-0.9	(1.8)	Services	75.4	(70.7)
Per capita (000 USD PPP)	29.2	(40.5)			
GENERAL GOVERNMENT Per cent of GDP					
Expenditure	48.4	(42.0)	Gross financial debt	151.2	(115.2)
Revenue	44.0	(39.0)	Net financial debt	108.5	(75.7)
EXTERNAL ACCOUNTS					
Exchange rate (EUR per USD)	0.901		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	0.593		Machinery and transport equipment	25.9	
In per cent of GDP			Manufactured goods	23.0	
Exports of goods and services	40.6	(54.9)	Miscellaneous manufactured articles	17.6	
Imports of goods and services	39.8	(50.4)	Main imports (% of total merchandise imports)		
Current account balance	0.4	(0.1)	Machinery and transport equipment	27.6	
Net international investment position (2014)	-103.5		Manufactured goods	15.4	
			Chemicals and related products, n.e.s.	14.4	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate for 15-64 year-olds (%)	63.9	(66.2)	Unemployment rate, Labour Force Survey (age 15 and over) (%)	12.4	(6.8)
Men	66.9	(74.1)	Youth (age 15-24, %)	32.0	(13.9)
Women	61.1	(58.5)	Long-term unemployed (1 year and over, %)	7.1	(2.2)
Participation rate for 15-64 year-olds (%)	73.4	(71.3)	Tertiary educational attainment 25-64 year-olds (%)	22.9	(35.0)
Average hours worked per year	1 868	(1 766)	Gross domestic expenditure on R&D (% of GDP, 2014)	1.3	(2.4)
ENVIRONMENT					
Total primary energy supply per capita (toe)	2.1	(4.1)	CO_2 emissions from fuel combustion per capita (tonnes, 2013)	4.3	(9.6)
Renewables (%)	21.5	(9.6)	Water abstractions per capita (1 000 m^3, 2007)	0.9	
Fine particulate matter concentration ($PM_{2.5}$, µg/m^3, 2013)	9.9	(14.0)	Municipal waste per capita (tonnes, 2014)	0.5	(0.5)
SOCIETY					
Income inequality (Gini coefficient, 2013)	0.342	(0.311)	Education outcomes (PISA score, 2015)		
Relative poverty rate (%, 2013)	13.6	(11.1)	Reading	498	(493)
Median disposable household income (000 USD PPP, 2013)	14.1	(22.0)	Mathematics	492	(490)
Public and private spending (% of GDP)			Science	501	(493)
Health care	8.9	(9.0)	Share of women in parliament (%)	34.8	(28.6)
Pensions (2013)	14.0	(9.1)	Net official development assistance (% of GNI)	0.16	(0.38)
Education (primary, secondary, post sec. non tertiary, 2013)	4.7	(3.7)			

Better life index: *www.oecdbetterlifeindex.org*

* 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.

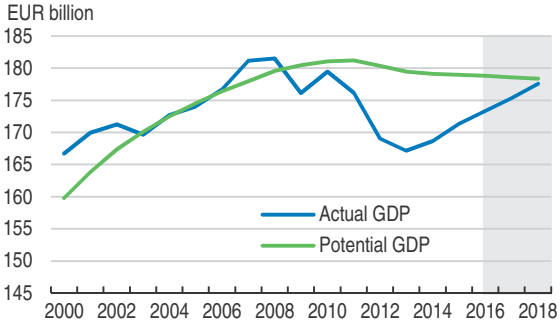
Source: Calculations based on data extracted from the databases of the following organisations: OECD, International Energy Agency, World Bank, International Monetary Fund and Inter-Parliamentary Union.

Executive summary

- *The economy is recovering*
- *Investment is still very low*
- *Improving skills is crucial for raising prosperity*

The economy is recovering

The economy's growth potential has declined



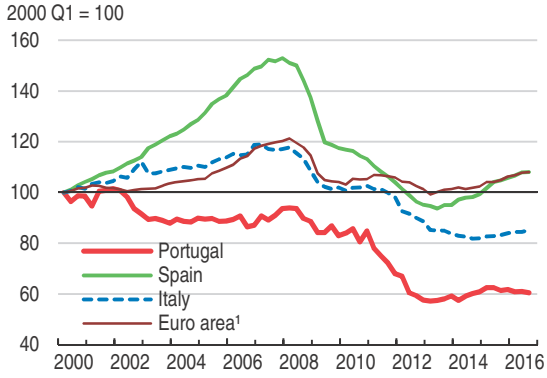
Source: Calculations based on *OECD Economic Outlook: Statistics and Projections* (database).

StatLink http://dx.doi.org/10.1787/888933447571

Portugal's economy has gone through a gradual recovery from a deep recession. A wide-ranging structural reform agenda has supported this recovery and the ongoing reduction of imbalances built up in the past. Stronger investment, skills, and productivity will increasingly be the basis for sustainable income gains.

Investment is still very low

Total gross fixed capital formation



1. Euro area countries that are also OECD members (including Latvia).

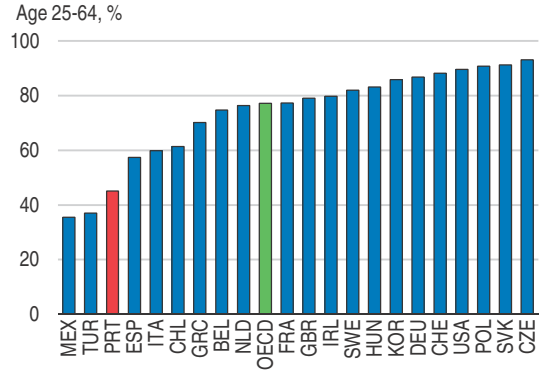
Source: OECD (2016), *OECD Economic Outlook: Statistics and Projections* (database).

StatLink http://dx.doi.org/10.1787/888933447581

Continuing the rebalancing of the economy will require more investment. Removing distressed legacy loans from bank balance sheets, addressing bottlenecks in insolvency procedures and opening up new sources of financing play a key role in this context. Incentives for new capital investments could be strengthened by improvements in judicial efficiency, administrative reform, product market regulation reforms or lower labour costs. A systematic evaluation of past reforms could help to identify areas for a new wave of structural reforms.

Improving skills is crucial for raising prosperity

Population with upper secondary education



Source: OECD (2016a), *Education at a Glance 2016*.

StatLink http://dx.doi.org/10.1787/888933447593

Overcoming a legacy of a low skilled labour force is key for higher living standards. Despite progress, the education system could do more to raise skill levels and reduce the link between learning outcomes and socio-economic backgrounds. The high share of early school drop-outs and frequent grade repetition would be reduced by improving teacher training and exposure to best practices and shifting resources towards primary education and students at risk. Unifying the current fragmented Vocational Education and Training (VET) system into one dual VET system, and more monitoring and evaluation, could enhance its effectiveness. Efforts need to continue to raise the skills levels of the low-qualified adult population.

MAIN FINDINGS	KEY RECOMMENDATIONS
Macroeconomic policies	
Structural reforms have improved productivity and competitiveness.	Maintain momentum for structural reforms, in conjunction with a continuous ex-ante and ex-post evaluation of reforms.
Public debt is high and poses risks in the weak growth environment.	Continue gradual fiscal consolidation to ensure the decline of public debt without jeopardising the recovery.
The efficiency of consumption taxes is undermined by the still frequent use of exemptions and special rules.	Reduce tax exemptions, special rates and tax expenditures.
Large stocks of non-performing legacy loans pose vulnerabilities for the banking sector and are limiting investment funding.	Strengthen current regulatory incentives for reducing non-performing loans (NPLs), including through write-offs and sales. Support the development of a market for distressed debt, notably through the creation of asset management companies.
Strengthening business investment	
Lengthy insolvency procedures make corporate loans more risky. The tax system encourages debt financing.	Improve the workings of insolvency rules by: • reconsidering the privileged treatment of public creditors • enlarging the scope for simple-majority decisions among creditors • shortening out-of-court settlement procedures.
Bottlenecks raise costs and curb competition, which holds back firm performance and reduces incentives to invest.	Revise land use regulations and limit discretionary powers of municipalities in licensing procedures. Ease entry requirements for professional services. Further reduce trial length and the backlog of pending court cases by expanding court capacity and assigning specialised judges to specialised courts.
Improving skills	
Until recently, Portugal has favoured general education over vocational training.	Perform a thorough evaluation of all vocational training programs. Unify the different systems of vocational education by establishing a single dual VET system, including work-based learning in companies.
Frequent grade repetition harms learning outcomes in Portugal and exacerbates inequalities.	Provide more and earlier individualised support to students at risk of falling behind to reduce grade repetition. Improve teachers' training and shift more resources towards primary and pre-primary education.

Assessment and recommendations

- *The economy is progressively recovering and rebalancing*
- *The outlook is becoming more challenging and vulnerabilities are rising*
- *Managing limited fiscal space*
- *Safeguarding financial stability*
- *Strengthening investment financing*
- *Improving the business climate to boost investment*
- *Raising skills*
- *Making growth more sustainable*

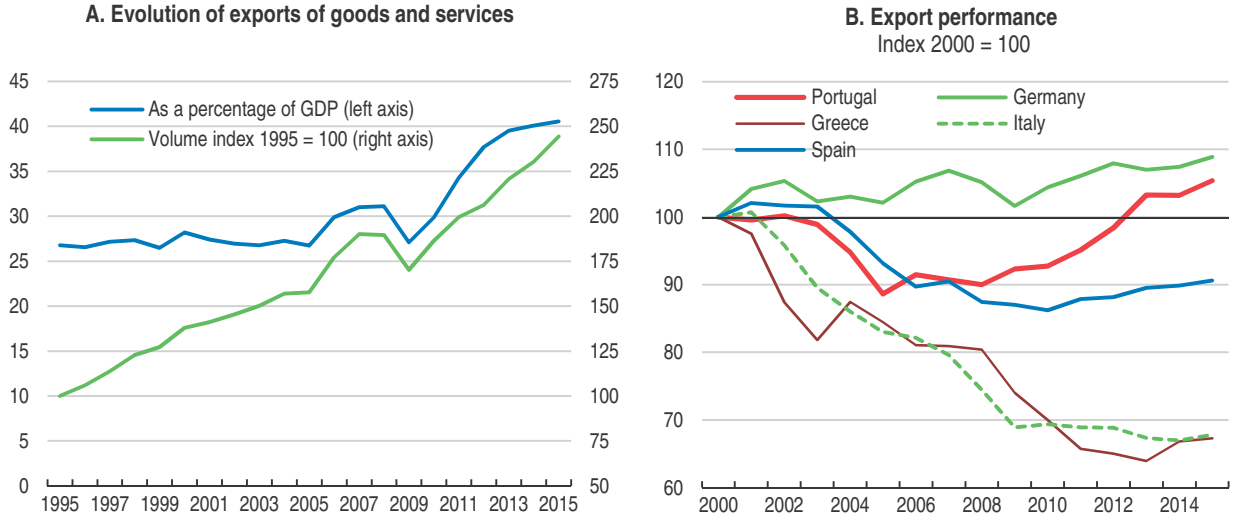
The economy is progressively recovering and rebalancing

Portugal has undertaken an ambitious structural reform programme since 2011. Reforms have spanned across a wide range of policy areas, product markets, labour markets, taxes, regulations and the public sector. These reforms have supported a gradual recovery of the Portuguese economy, with additional tailwinds resulting from highly accommodative monetary policy and low oil prices.

Past structural reforms have also led to a successful rebalancing of the economy towards exports, which appears to be gaining ground. In light of the economy's weak historical export performance, this is a remarkable achievement. When Portugal joined the European Union in 1986, its exports were intensive in relatively inexpensive labour, but this comparative advantage eroded with China's accession to the World Trade Organisation in 2001, the end of the multi-fibre agreement in 2005 and the Eastern enlargements of the EU in 2004 and 2007. Policy responses at that time included strengthening private and public consumption and an expansion of non-tradable sectors, financed by better access to external credit in conjunction with joining the Euro. Banks were the principal channel for these credit inflows, and current challenges in the banking sector are partly a legacy of this period.

The global financial crisis implied abrupt changes in access to external finance, with endemic high fiscal deficits and rising public debt leading to an external assistance programme in 2011. Since then, exports have increased significantly, both in volumes and relative to GDP (Figure 1, Panel A). Portugal now exports over 40% of GDP, up from 27%

Figure 1. **Exports have improved**



Source: OECD (2016), *OECD Economic Outlook: Statistics and Projections* (database).

How to read this chart (Panel B): Export performance measures the expansion of a country's exports relative to the expansion of import demand from its trading partners. Improvements in export performance reflect rising market shares in the imports of trading partners.

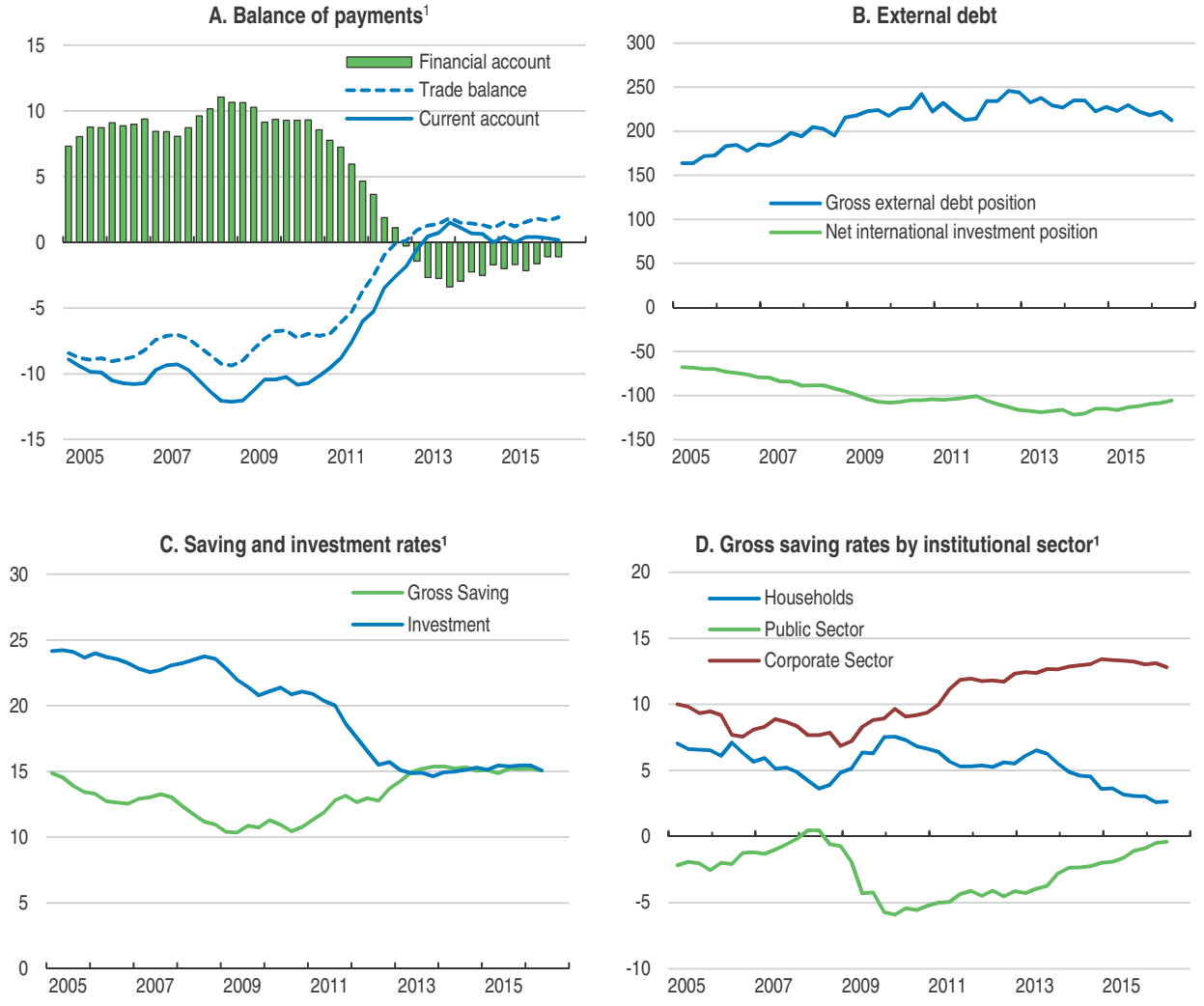
StatLink http://dx.doi.org/10.1787/888933447601

in 2005. Among other things, this reflects a larger number of firms that export than in the past, a process that has started even before the crisis. Improvements in the competitiveness of Portuguese exporters have underpinned this improvement in export performance (Figure 1, Panel B). Micro data suggests that the improvement in exports is of a structural nature (Bank of Portugal, 2016; Chapter 1 of this *Survey*).

Stronger exports have allowed a reversal in external imbalances. External liabilities and the international investment position have narrowed to 216% and -109% of GDP respectively, and the current account deficit has turned into a surplus (Figure 2, Panels A and B). Domestic savings have risen, reflecting rising saving rates in the public and corporate sectors, while household savings have declined (Figure 2, Panels C and D). As low

Figure 2. **External imbalances have declined**

As a percentage of GDP



1. Four quarter moving average.

Source: OECD (2016), *OECD Economic Outlook: Statistics and Projections* (database); Eurostat (2016), "National accounts (ESA 2010)", *Eurostat Database* and World Bank (2016), "Quarterly External Debt Statistics/SDDS", *World DataBank, INE: National Accounts.*

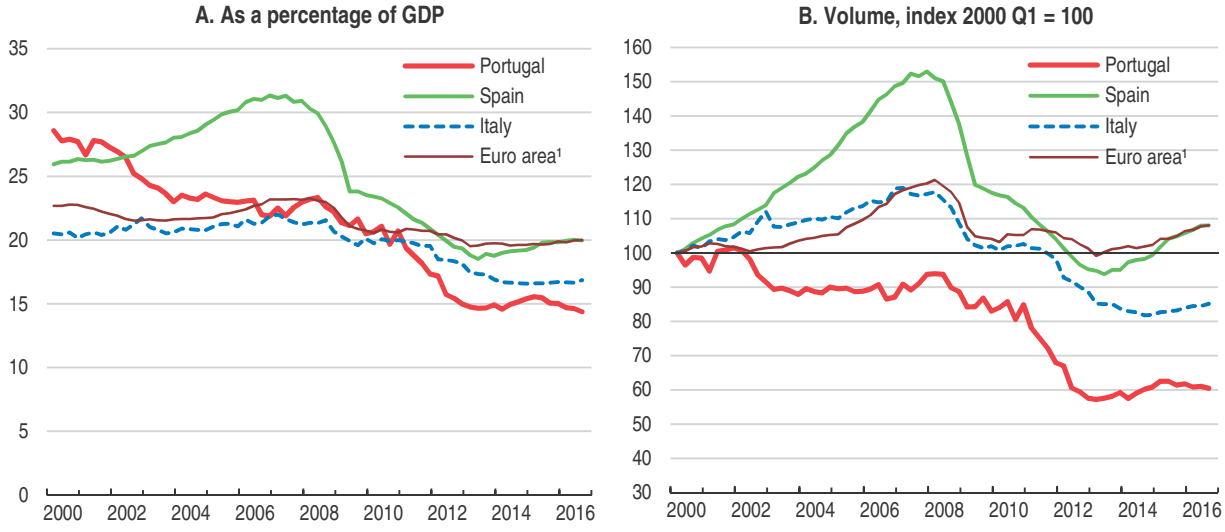
StatLink http://dx.doi.org/10.1787/888933447615

domestic demand in the context of the economic downturn has been part of the closing of the current account, additional structural improvements will be required to cement this early progress and ensure its continuation once import demand recovers.

Further expansions of export activities will require more investment in these sectors. Investment has been significantly weaker than in other euro area economies, particularly since 2010, when the investment rate dropped by 5.3 percentage points over the course of five years (Figure 3, Panel A). In volume terms, Portugal has had a less pronounced surge in investment since before the crisis than other euro area countries, and following the sharp post-crisis decline investment is now more than 30% below its 2005 level (Figure 3, Panel B). Private and public investment account for roughly similar shares of this decline, falling from 15.3% and 5.3% of GDP in 2010, respectively, to 13.0% and 2.3% in 2015. European Structural and Investment Funds (ESIF) now amount to 1.9% of GDP and finance a large part of public investment. During the first half of 2016, investment has fallen even further. Turning this around and rebuilding the capital stock is one of the key challenges for the economy.

Figure 3. **Investment**

Total gross fixed capital formation



1. Euro area countries that are also OECD members (including Latvia).

Source: OECD (2016), *OECD Economic Outlook: Statistics and Projections* (database).

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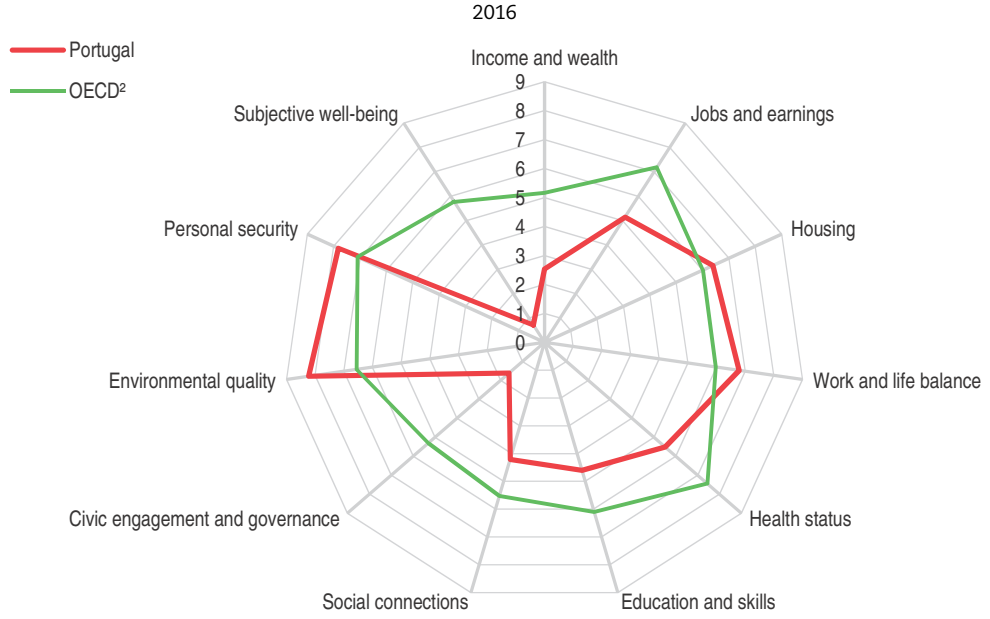
Well-being outcomes show a mixed picture (Figure 4). While Portuguese citizens have a remarkably low self-perception of their well-being, they rank above the OECD average with respect to work and life balance, housing, personal security and environmental quality. However, there are wider gaps in well-being relative to other OECD countries in key areas such as incomes, jobs, education, health, governance and social connections.

Figure 4. **Well-being outcomes: Better Life Index**[1]



1. Each well-being dimension is measured by one to three indicators from the OECD Better Life indicator set. Normalised indicators are averaged with equal weights. Indicators are normalised to range between 10 (best) and 0 according to the following formula: ([indicator value - worst value]/[best value - worst value]) × 10.
2. Including Latvia.

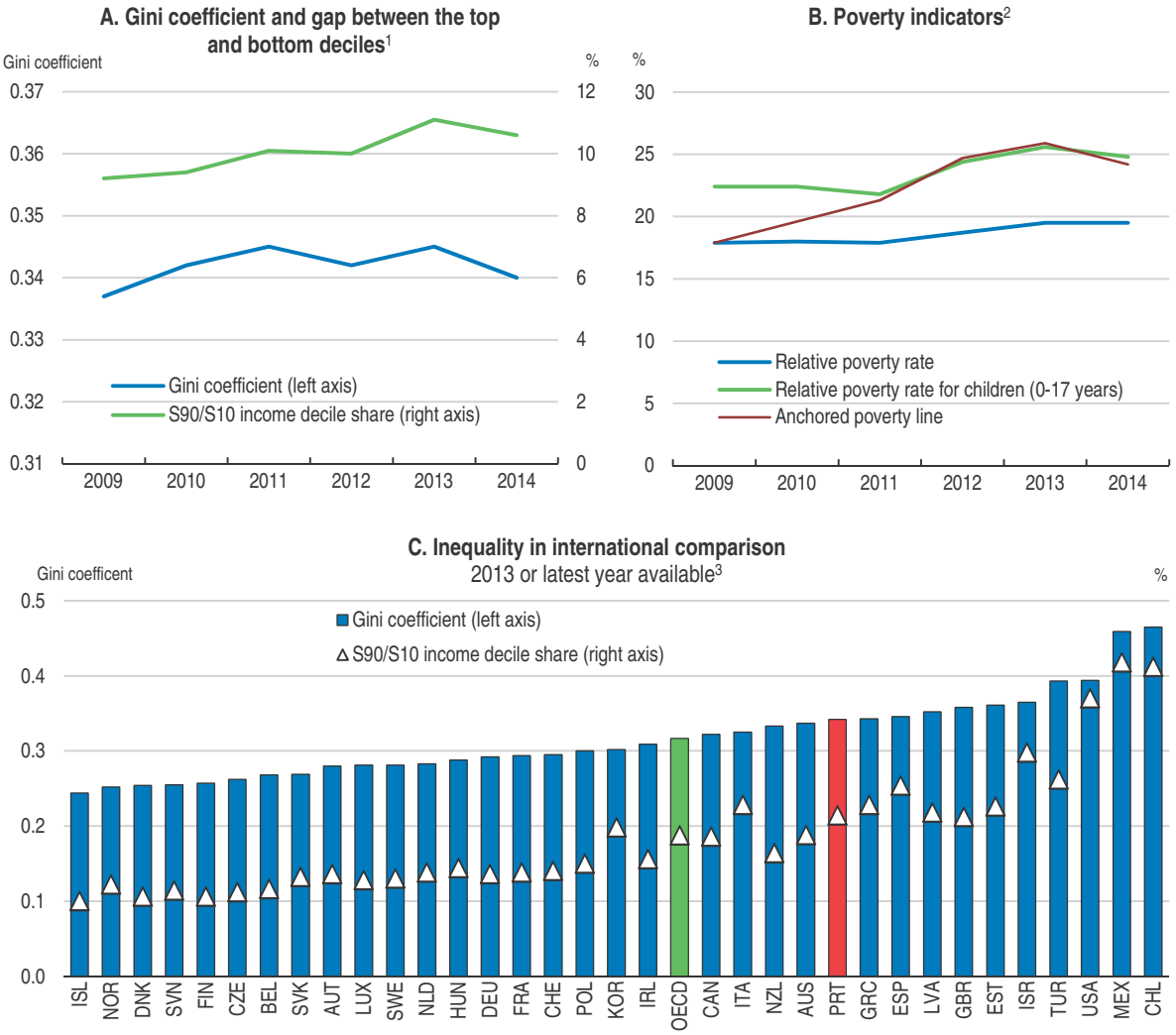
Source: OECD Better Life Index, www.oecdbetterlifeindex.org.

StatLink http://dx.doi.org/10.1787/888933447638

Portugal also has one of the most unequal income distributions in Europe, and both inequality and poverty have been rising since the crisis (Figure 5). Children and youths were most affected by rises in poverty, with a 3 percentage point rise in poverty in this age group, while poverty among pensioners has fallen by almost 6 percentage points since 2009.

Reducing inequalities in opportunities will be key to making growth more inclusive in the longer term. This will require rethinking some of the current governance mechanisms that afford advantages and rents to specific groups. For example, in labour markets, those with acquired rights and permanent contracts have maintained significant advantages, even though a less rigid labour market would improve the employment opportunities of the young and the unemployed. Pension reforms have placed the burden of adjustment on the young and on future retirees while those with acquired rights, particularly public sector pensioners, enjoy significantly more generous benefits than future retirees. Negotiations between workers and firms often represent only small fractions of workers and incumbent firms, while potential market entrants or the unemployed do not have much voice. The low levels of competition in many services sectors benefit small incumbent interest groups but harm those who use these services. Moving towards a more inclusive economy will involve starting a discussion on how to remove privileges and rents and provide more equal opportunities for all. Some fine-tuning has improved parts of the social safety net (Table 1).

Figure 5. **Inequality and poverty**



1. The Gini coefficient is calculated based on household equivalised disposable income after taxes and transfers. The S90/S10 ratio is the share of income received by the top decile divided by the share of income of the bottom decile
2. The relative poverty line is defined as 60% of the median equivalised income after social transfers. The anchored poverty line applies a constant definition of the poverty line based on 2009 so that its trajectory over time is not affected by changes in median incomes.
3. 2014 for Australia, Finland, Hungary, Israel, Mexico, Netherlands and the United States; 2012 for New Zealand. The OECD aggregate is an unweighted average of data shown (including Latvia).

Source: C. Farinha Rodrigues (2016), "Inequality in Portugal", PowerPoint presentation, ISEG, Universidade de Lisboa; and OECD (2016), "Income distribution", *OECD Social and Welfare Statistics* (database).

StatLink http://dx.doi.org/10.1787/888933447648

Table 1. **Past OECD recommendations on inequality and social benefits**

Recommendations in 2014 Economic Survey	Actions taken since 2014
Strengthen the social safety net and raise benefit levels of the minimum income support scheme RSI.	Changes to Portugal's guaranteed minimum income scheme, which excluded many children and youths from the programme and reduced transfer payments but had only a small budgetary impact, have recently been undone. This is likely to attenuate poverty among children and youths going forward.
Make unemployment benefits independent of age and reform eligibility requirements to widen their coverage.	No action taken since 2014.

Against this background, the main messages of this *Survey* are:

- Growth has been slow and faces renewed headwinds, posing difficult policy choices, especially for fiscal policy.
- The fragility of banks needs to be resolved sooner rather than later to reduce fiscal risks and restore credit growth. Reducing the amount of non-performing loans on bank balance sheets is key.
- Restoring investment will be fundamental to raising prosperity and ensuring competitiveness. This will require comprehensive action on many fronts, including strengthening banks, reducing corporate debt, more efficient insolvency procedures and improvements in the business climate.
- In the long term, better skills will be critical to improving well-being and reducing high levels of inequality.

The outlook is becoming more challenging and vulnerabilities are rising

Growth prospects will increasingly depend on policies that allow the economy to compete successfully and generate new income opportunities. At present, structural bottlenecks continue to hold back growth and exacerbate vulnerabilities. Addressing some of these challenges now will lay the foundations for robust growth over the next years, but this calls for renewing the momentum of structural reforms. Implementation of reforms could be improved and a systematic evaluation of the structural reforms already undertaken would allow future reform needs to be better defined. Current efforts in this direction, including the establishment of a dedicated unit in the Ministry of Finance, are welcome.

Against this background, moderate annual growth of 1.2% is projected for 2017 (Table 2). Private consumption has played a stronger role recently but is projected to lose steam as job creation is too weak for consumer spending to continue expanding at its current pace (Figure 6, Panel A). Investment is expected to remain weak against the background of contracting credit and bottlenecks in the implementation of structural reforms to improve the business climate, which have affected confidence. Confidence indicators have recently improved. Exports will grow less than in previous years, partly due to dampened demand from China and Angola, but continue to act as a buoyant force behind growth over this year and next. Against the backdrop of low growth, a higher minimum wage and remaining labour market rigidities, decreases in unemployment are projected to be much slower than over the past two years, and unemployment will likely remain at double digit levels, among the highest in the EU.

Unemployment has been declining, but it remains at the uncomfortably high levels of 10.5% (Figure 6, Panel B). Among youths, unemployment of 26.1% reflects significant remaining challenges in the labour market. Rising unemployment has been the main cause behind the increases in income inequality in the aftermath of the financial crisis. Long-term unemployment has fallen less than the general unemployment rate, and remains at 6.2%, after a peak of above 10% in 2013.

Table 2. **Macroeconomic indicators and projections**

Annual percentage change, volume (2011 prices)

	2013 Current prices (billion EUR)	2014	2015	2016	Projections 2017	Projections 2018
Gross domestic product (GDP)	**170.3**	**0.9**	**1.6**	**1.2**	**1.2**	**1.3**
Private consumption	111.1	2.3	2.6	2.0	1.2	1.2
Government consumption	32.5	-0.5	0.8	1.1	0.2	0.3
Gross fixed capital formation	25.1	2.3	4.5	-2.0	0.7	1.6
Housing	4.2	-1.1	4.3	-3.1	0.5	1.3
Final domestic demand	168.8	1.8	2.5	1.2	1.0	1.1
Stockbuilding[1]	-0.2	0.4	0.0	0.1	0.1	0.0
Total domestic demand	168.6	2.2	2.5	1.4	1.1	1.1
Exports of goods and services	67.3	4.3	6.1	3.3	3.7	4.0
Imports of goods and services	65.6	7.8	8.2	3.6	3.6	3.6
Net exports[1]	1.7	-1.3	-0.8	-0.1	0.1	0.2
Other indicators (growth rates, unless specified)						
Potential GDP	..	-0.2	-0.1	-0.1	-0.1	-0.1
Output gap[2]	..	-5.8	-4.3	-3.1	-1.8	-0.5
Employment	..	1.6	1.1	1.0	1.1	0.6
Unemployment rate	..	13.9	12.5	11.0	10.1	10.1
GDP deflator	..	0.8	2.1	1.5	0.9	1.1
Harmonised consumer price index	..	-0.2	0.5	0.7	1.1	1.1
Harmonised core consumer price index	..	0.2	0.6	0.9	0.8	1.1
Household saving ratio, net[3]	..	-3.3	-4.0	-3.6	-3.5	-3.5
Current account balance[4]	..	0.1	0.4	0.1	0.5	0.7
General government fiscal balance[4]	..	-7.2	-4.4	-2.5	-2.1	-1.9
Underlying general government fiscal balance[2]	..	-0.7	-1.1	-0.8	-1.1	-1.6
Underlying government primary fiscal balance[2]	..	3.5	2.9	3.2	2.8	2.3
General government gross debt (Maastricht)[4]	..	130.6	129.0	130.2	129.5	128.2
General government net debt[4]	..	107.9	108.5	108.1	108.1	107.4
Three-month money market rate, average	..	0.2	0.0	-0.3	-0.3	-0.3
Ten-year government bond yield, average	..	3.8	2.4	3.1	3.1	3.1

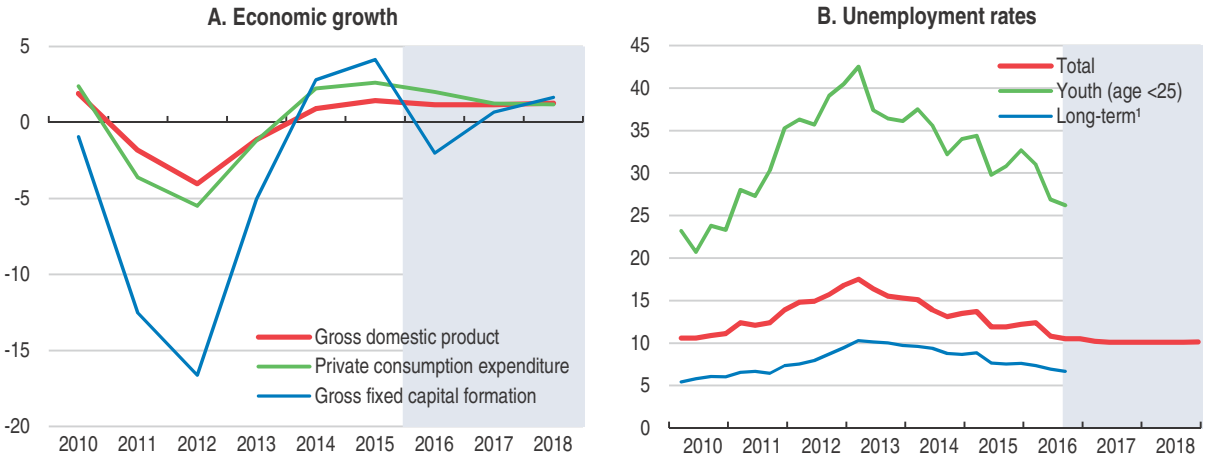
1. Contribution to changes in real GDP.
2. As a percentage of potential GDP.
3. As a percentage of household disposable income.
4. As a percentage of GDP.

Source: OECD (2016), *OECD Economic Outlook: Statistics and Projections* (database) with projections from "OECD Economic Outlook No. 100", November.

Downside risks stem from the fragility of the financial system which is highly vulnerable to external shocks and the high indebtedness of the private and public sectors. A rating downgrade of Portugal's sovereign debt could make access to external finance, including banks' ability to get ECB funding, more difficult. The banking sector remains constrained by weak profitability and a high share of non-performing loans. A continuing fragility of the banking system in the context of low growth could lead to a deterioration of public finances. Confidence in Portugal's banks could also suffer from contagion due to further difficulties in European banks. On the other hand, the successful implementation of a more determined policy stance towards reducing corporate debt and repairing banks' balance sheets, as described below, could restore confidence and allow more resources to flow into new productive investment. Beyond these short-term vulnerabilities, the economy is subject to a number of medium-term vulnerabilities, notably the large size of non-performing loans (Box 1 and Figure 7). Weakening world trade could also curb the prospects for stronger exports.

Figure 6. **Growth and unemployment**

Per cent



1. Unemployed persons who have been looking for jobs for 12 months or more as a share of the total labour force.

Source: OECD (2016), *OECD Economic Outlook: Statistics and Projections* (database); and Banco de Portugal (2016), "General Statistics", *BPstat* (database).

StatLink http://dx.doi.org/10.1787/888933447656

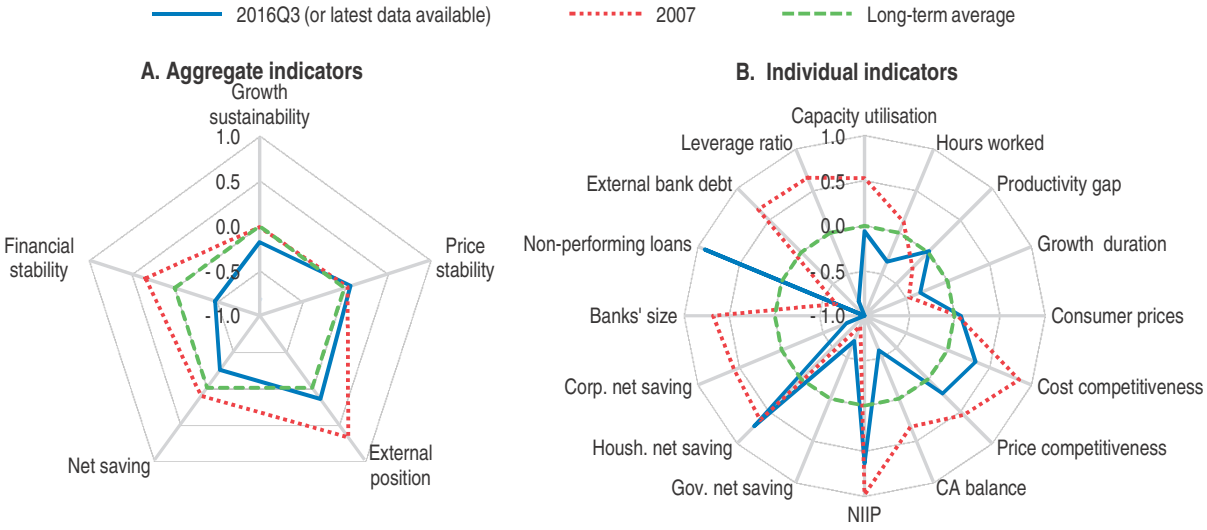
Box 1. **Medium-term uncertainties about the Portuguese economy's growth prospects**

Uncertainty	Possible outcome
Fragile banks	Adverse developments in the banking sector, in Portugal or at the European level, could lead to the need for further public support, while fiscal space is limited, and the bail-in of private creditors.
Stagnation and renewed tensions in Europe	A slower than expected recovery in main European trading partners would reduce export demand for Portugal.

Looking ahead, maintaining the current pace of growth will require improving the economy's growth potential, which has come down significantly due to years of low investment growth and a shrinking labour force (Figure 8). Stronger investment will be needed to rebuild the economy's capital stock and support further structural rebalancing of the economy towards tradable sectors, which is one of the objectives of the National Reform Programme. Raising the skills of the labour force will also lift potential growth. Both investment and skills have additionally important implications for raising multi factor productivity, and productivity improvements are the basis for higher wages and hence of living standards in the long run.

Figure 7. **Macro-financial vulnerabilities**

Deviations of indicators from their real time long-term averages (0), with the highest deviations representing the greatest potential vulnerability (+1), and the lowest deviations representing the smallest potential vulnerability (-1)[1]



1. Each aggregate macro-financial vulnerability indicator is calculated by aggregating (simple average) normalised individual indicators. Growth sustainability includes: capacity utilisation of the manufacturing sector, total hours worked as a proportion of the working-age population (hours worked), difference between GDP growth and productivity growth (productivity gap), and an indicator combining the length and strength of expansion from the previous trough (growth duration). Price stability includes headline and core inflation (consumer prices), and it is calculated by the following formula: absolute value of (core inflation minus inflation target) + (headline inflation minus core inflation). External position includes: the average of unit labour cost based on real effective exchange rate (REER), and consumer price based REER (cost competitiveness), relative prices of exported goods and services (price competitiveness), current account (CA) balance as a percentage of GDP and net international investment position (NIIP) as a percentage of GDP. Net saving includes: government, household and corporate net saving, all expressed as a percentage of GDP. Financial stability includes: banks' size as a percentage of GDP, the average of the share of non-performing loans of non-financial corporations and that of private individuals (non-performing loans), external bank debt as percentage of total banks' liabilities, and capital and reserves as a proportion of total liabilities (leverage ratio).

Source: OECD calculations based on OECD (2016), *OECD Economic Outlook: Statistics and Projections* (database), August; OECD (2016), *Main Economic Indicators* (database), August; Banco de Portugal; and Thomson Reuters Datastream.

StatLink http://dx.doi.org/10.1787/888933447666

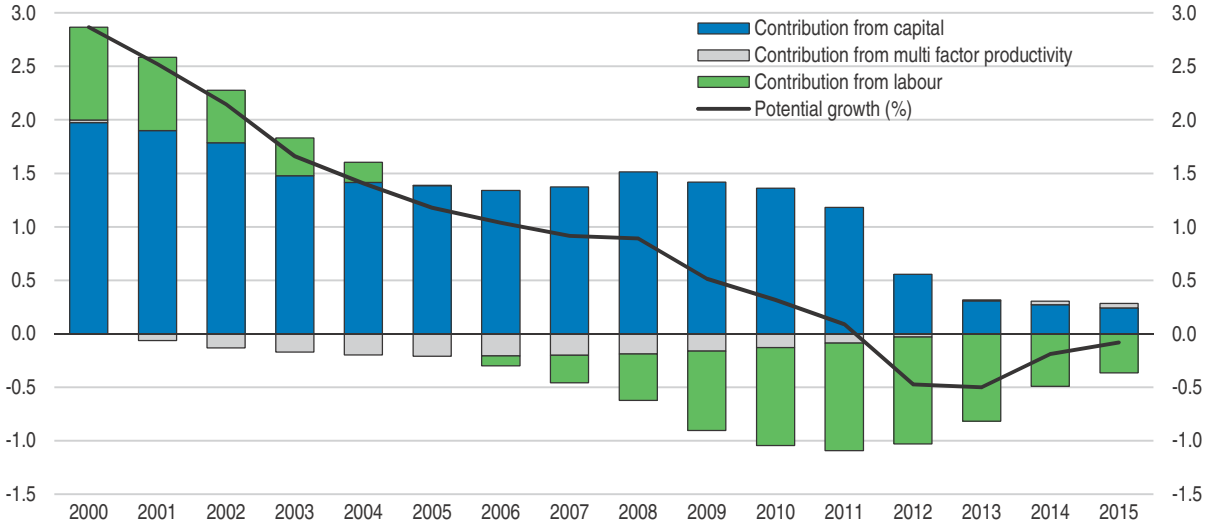
Managing limited fiscal space

Portugal has made strong progress in reducing public deficits since 2010, when the deficit peaked at 11.2% of GDP. Netting out a bank rescue that cost 1.4% of GDP in late 2015, the deficit for that year would have been at 3.0% of GDP, near the ceiling to which Portugal has committed. This is also significantly lower than in the pre-crisis period, as the fiscal deficit averaged 4.4% between 2000 and 2008. The structural deficit is smaller than 1% of GDP. The fiscal stance is broadly neutral in 2016 and 2017. In the short term, a neutral fiscal stance seems appropriate given the still fragile economic recovery.

However, fiscal policy is in a difficult spot. Putting off fiscal consolidation to support growth implies risks as fiscal sustainability remains weak. Gross public debt according to the Maastricht criterion was 129.0% of GDP at the end of 2015 and under current plans public debt is projected to decline only very slowly, to around 120% of GDP by 2030. This baseline scenario uses the projections of the latest *OECD Economic Outlook* until 2017. Under conceivable alternative scenarios to this baseline, however, the decline in public debt may not materialise (Figure 9). In a scenario where interest rates were half a percentage point higher than the baseline assumptions, public debt would remain almost constant relative to GDP. In an adverse scenario with 0.5 percentage points lower annual inflation and 0.5 percentage points lower annual growth, public debt would even rise relative to GDP.

Figure 8. **Low investment and a shrinking labour force have curbed the economy's growth potential**

Percentage points



Source: Calculations based on *OECD Economic Outlook: Statistics and Projections* (database).

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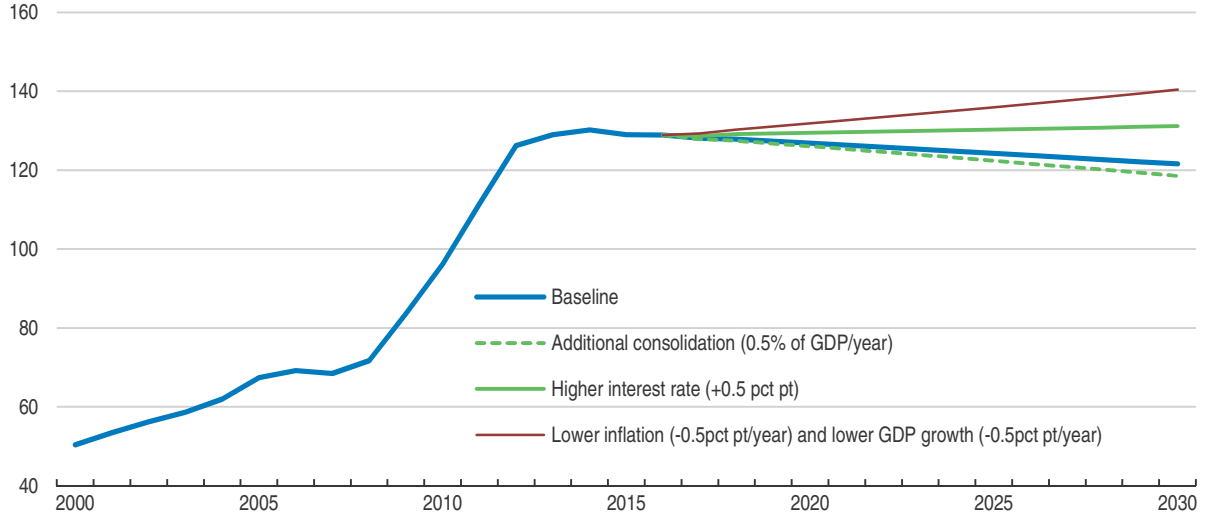
Figure 9. **Illustrative public debt paths**

General government debt, Maastricht definition, per cent of GDP[1]



1. The baseline consists of the projections for the *OECD Economic Outlook* No. 99 until 2017. From there on, baseline assumptions are real GDP growth of 1.2% per annum, a primary surplus of 1.6% in 2018 and 2019 and 1.5% thereafter, and an effective interest rate of 3.6%. These assumptions are in line with those in the Spring 2016 edition of the IMF World Economic Outlook.

Source: Calculations based on OECD (2016), *OECD Economic Outlook: Statistics and Projections* (database).

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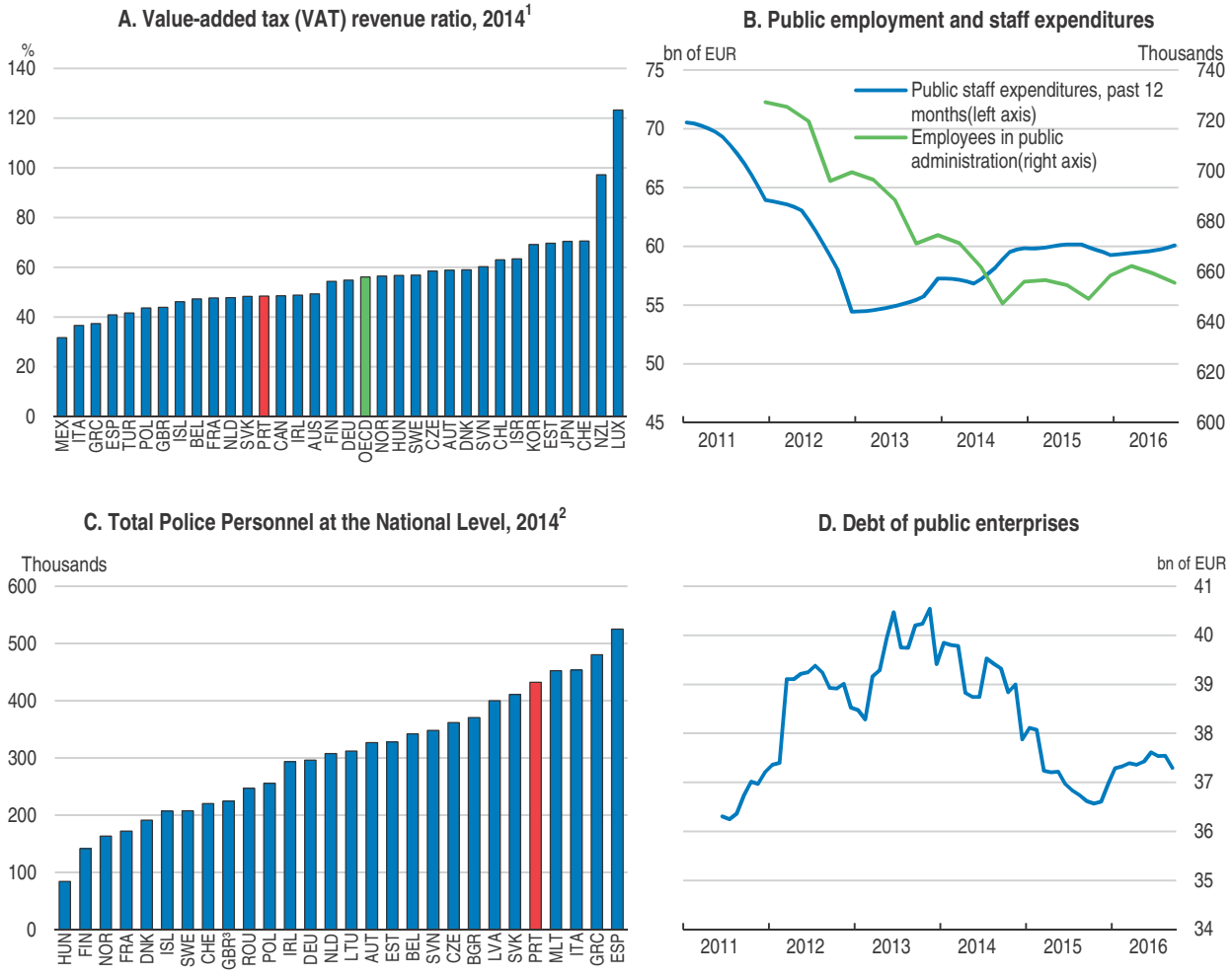
Additional risks to the trajectory of public debt include further distress in the banking sector, which could have significant one-off fiscal costs with permanent effects on debt. Conversely, a lower public deficit could put public debt on a more robust downward trajectory. One scenario in Figure 9 considers raising the primary surplus by an additional half a percentage point of GDP, taking into account its impact on growth.

Both the revenue and expenditure side of public accounts present opportunities for strengthening the efficiency of the public sector and improve fiscal outcomes. On the revenue side, consumption taxes make wide use of exemptions and reduced rates. Portugal's VAT revenue ratio, which can be seen as a measure of the efficiency of the VAT, is significantly below the OECD average (Figure 10, Panel A). Recommendations in the *2014 OECD Economic Survey* of Portugal have included enhancing of the efficiency of the tax system (Table 3).

Newly introduced VAT reductions for restaurant meals will further reduce the efficiency of VAT, but are unlikely to generate the expected positive employment effects and should be carefully assessed. France's experience suggests that the employment effects of such measures are very low, particularly compared to the foregone tax revenues (DG Trésor, 2011; Cour des Comptes, 2015). Moreover, the measure is itself regressive as

Figure 10. **Selected issues in public revenues and expenditures**



1. The VAT revenue ratio (VRR) is defined as the ratio between the actual value-added tax (VAT) revenue collected and the revenue that would theoretically be raised if VAT was applied at the standard rate to all final consumption. The OECD aggregate is an unweighted average of data shown (excluding Latvia) and data for Canada and Israel cover federal VAT only.
2. Includes personnel in public agencies whose principal functions are the prevention, detection and investigation of crime and the apprehension of alleged offenders, excluding support staff like secretaries and clerks.
3. England and Wales only.

Source: Calculations based on OECD (2016), *OECD Tax Database*, *OECD Revenue Statistics* and *OECD National Accounts Statistics* (databases); Bank of Portugal; DGAEP – SIOE; United Nations Office on Drugs and Crime.

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Table 3. **Past OECD recommendations on fiscal policy**

Recommendations in 2014 Economic Survey	Actions taken since 2014
Achieve planned structural fiscal consolidation targets but allow the automatic stabilisers to operate.	Despite some slippage with respect to targets, Portugal has made strong progress in reducing public deficits since 2010.
Continue to improve public sector efficiency by further reducing the number of civil servants.	The decline in public employment has been reversed.
Enhance the efficiency of the tax system including by eliminating tax exemptions and expenditures.	Consumption taxes continue to make wide use of exemptions and reduced rates, including the recently introduced reduced VAT rate applied to restaurant meals.

wealthy households tend to consume disproportionately more restaurant meals than others. Specific consumption taxes on fuels, vehicles and tobacco have been raised in tandem with lower personal income taxes, but fuel excise taxes continue to be lower for diesel fuel than for petrol, despite the absence of an environmental justification for this (Harding, 2014). Tax expenditures related to lower fuel tax rates in agriculture and fishing should be reconsidered.

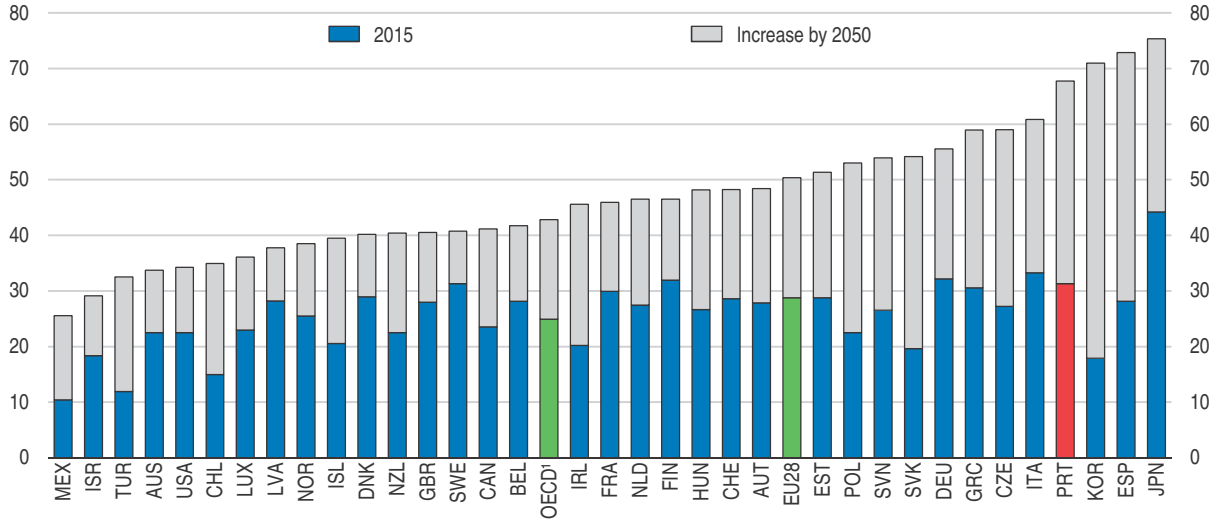
Public staff expenditures are rising again (Figure 10, Panel B). While it was expected that previous public sector wage cuts could not be made permanent (OECD, 2014a), a 35 hour work week has been reinstated for most civil servants and the decline in public employment, a continuation of which had been recommended in the *2014 OECD Economic Survey of Portugal*, has been reversed (Table 3). Public employment increased by 0.8% in the year up to mid-2016 (Figure 10, Panel B). Close monitoring will be needed to check if the commitment of one new hire for every two retirements will be adhered to. At present, staff shortages in some areas co-exist with evidence of over-employment in others, such as security forces and education. As one example, with 432 police staff for 100 000 inhabitants, Portugal's police is 36% better-staffed than police in the average EU country (Figure 10, Panel C). In education, declining student numbers have not been fully reflected in adjustments of the number of teaching staff. A mandated across-the-board nominal freeze in public intermediate consumption entails significant implementation risks and may not lead to sustainable spending restraint, as intermediate consumption could in principle be reduced by hiring staff to perform previously outsourced tasks. An expenditure review on health, education, public procurement and procurement in SOEs is ongoing. The results of this review should be implemented to ensure long-lasting efficiency gains. Measures to enhance the efficiency of social expenditures, including more means-testing of social assistance programmes and more frequent checks on recipients of sickness benefits, are welcome, but there is significant uncertainty to what extent the planned improvements will be achieved, especially in the short term.

Contingent liabilities are also a concern for the sustainability of public finances. The debt of state-owned enterprises has risen recently (Figure 10, Panel D). These enterprises continue to make losses, even if the overall losses have decreased markedly in recent years and some have started to achieve positive operational results. Operating losses have exceeded the budget forecast in 2015, largely due to state-owned hospitals. Higher losses could end up deteriorating public finances. Public-private partnerships (PPPs) are another source of contingent liabilities. Successful renegotiations of PPPs for motorways will result in savings of 13% relative to the original liabilities over the project lifetime and renegotiations for another seven road PPPs are close to being completed by another taskforce at the Ministry of Finance (UTAP). Given the success of UTAP, the government should consider expanding its remit to local PPPs and the water, sewage and waste sectors.

Aging costs are expected to rise substantially, but will remain manageable. Due to demographic developments, the old-age dependency ratio is rising significantly (Figure 11) and public pension expenditures are projected to increase from currently 13.8% of GDP to 15% in 2033, before falling to 13.1% of GDP in 2060 (European Commission, 2015). However, recent policy changes may have pushed ageing costs above these projections, which did not take into account the end of a freeze on early retirements (at the age of 60 with 40 years of contributions) or the recent plans to allow more generous early retirements terms. The relatively manageable ageing costs relative to other European countries have come at the cost of shifting much of the burden of adjustment onto future generations. With current policy plans, the gross replacement rate (pension benefits relative to working age wages) of those who will retire in 2060 will be only slightly more than half of those who retired in 2013. "Grandfathering clauses" have exempted current retirees from pension cuts and the Constitution imposes strong limits on the sort of modifications to key parameters of the system that would be required to improve intergenerational burden sharing.

Figure 11. **The dependency ratio will rise**

Population aged 65 years-old and over as a percentage of population aged 15-64



1. Including Latvia.

Source: OECD (2016), "Labour Force Statistics: Population projections", *OECD Employment and Labour Market Statistics* (database).

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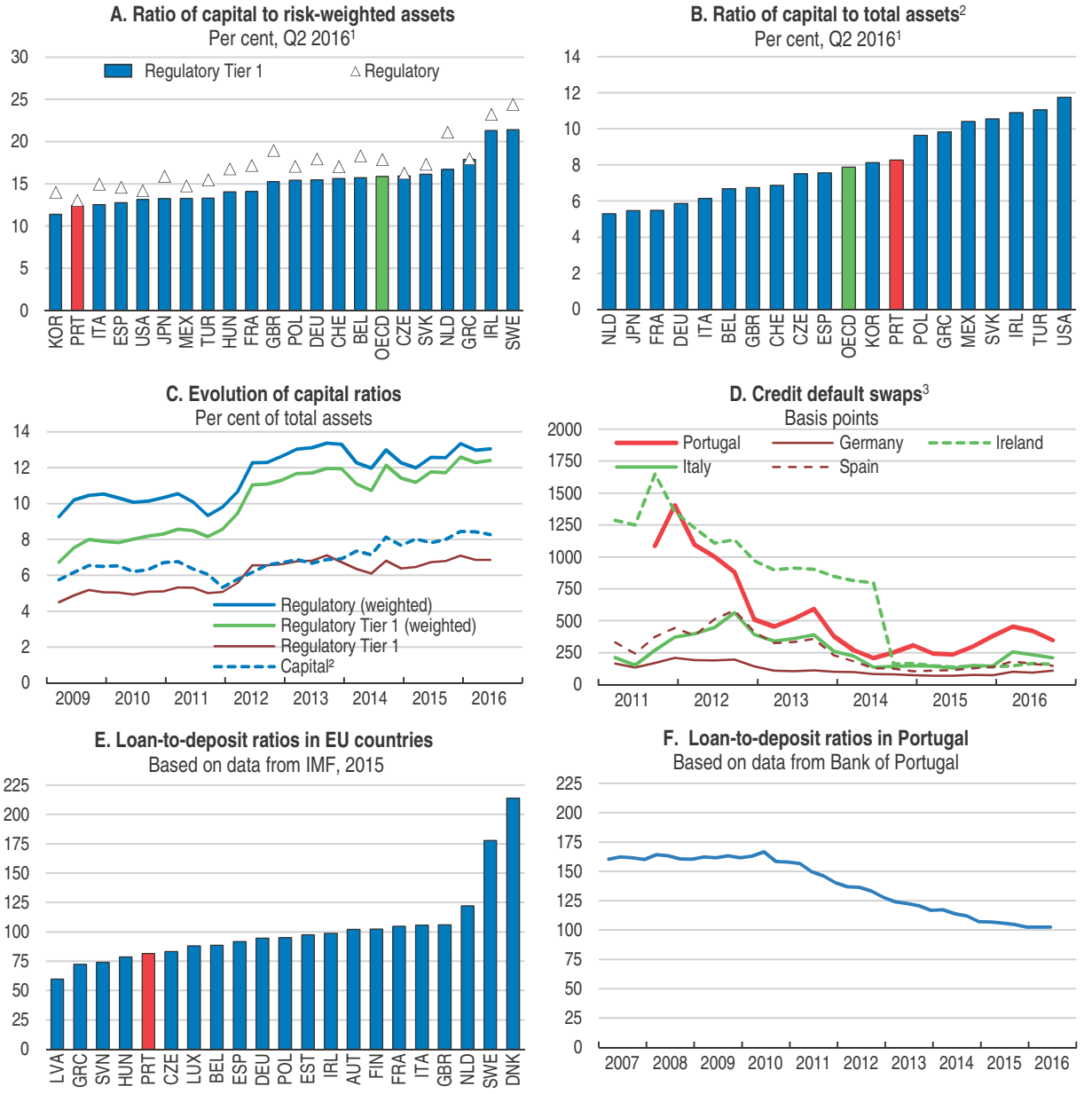
Safeguarding financial stability

Bank capitalisation has improved in unweighted and risk-weighted terms (Figure 12, Panels A-C, Table 4). More broadly, developments on the liability side of bank balance sheets reflect a return to a more traditional model of financial intermediation. Funding from deposits has increased, while funding from interbank or money markets, which was a vulnerability prior to the crisis has decreased substantially and is no longer significant. While ECB funding has supported banks, its continued availability is subject to risks as banks use mostly domestic government bonds as collateral for such funding. Only government debt instruments rated at investment grade are accepted as collateral by the ECB and currently only one of four relevant rating agencies has maintained Portugal's sovereign rating at investment grade.

Figure 12. **Banking sector indicators**



1. Or latest quarter of data available (Q4 2014 for Korea). The OECD aggregate includes Latvia and is an unweighted average of latest data for 32 countries in Panel A and 28 countries in Panel B.
2. Ratio of total capital and reserves (as reported in the sectoral balance sheet) to total assets.
3. Five-year senior debt, mid-rate spreads between the entity and the relevant benchmark curve; end of quarter data. For Portugal the series shown is an average of two banks – Banco Comercial Português and Banco BPI; for other countries the number of banks used in the calculation depend on data available.

Source: International Monetary Fund, Thomson Reuters, Banco de Portugal and European Central Bank.

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Table 4. **Past OECD recommendations on financial markets**

Recommendations in 2014 Economic Survey	Actions taken since 2014
Ensure a timely and consistent recognition of losses by enforcing precedent guidelines and continue to encourage banks to raise capital, when needed, by issuing equity and retained earnings.	High levels of legacy NPLs continue to be a challenge for banks in Portugal. Bank capitalisation has improved in unweighted terms, but risk-weighted capital ratios have stabilised at levels significantly below the OECD average.
Assess the performance of the recently introduced insolvency procedures and enhance them if necessary.	Recently announced policy plans to improve the flexibility and co-ordination of public sector creditors in insolvency proceedings can improve their functioning but further improvements are recommended in this *Survey*.

Low profitability is a major challenge for banks, and makes it hard for them to rebuild their capital through retained earnings. Banks have become increasingly reliant on deposits as a source of funding (Figure 12, Panels E and F). With 54 bank branches per 100 000 inhabitants, against a euro area average of 28, Portuguese banks also have further scope for reducing operating expenses. Market valuations of Portuguese banks have fallen by over 80% over the past 5 years, significantly more than in other euro area countries. Markets also continue to view Portuguese banks as more risky than their European peers, as evidenced by higher CDS spreads (Figure 12, Panel D).

A significant corporate debt overhang and low capitalisation of non-financial companies are reflected in weak legacy assets on bank balance sheets. Unlike in Spain, Portugal's external assistance programme did not include a major clean-up of bank balance sheets through the creation of a "bad bank" because fiscal space was deemed insufficient for this. Nonetheless, there have been repeated instances of state support for banks (Box 2). At the end of 2015, 11.9% of overall loans were non-performing according to IMF data, which is among the highest in Europe, both relative to gross loan volumes and bank capital (Figure 13, Panel A). Some banks are more affected than others, with one major bank having almost 23% of NPLs while two major banks have less than 5%. Among corporate loans, 19.7% are non-performing, a large part of which for more than 3 years. NPLs amount to over 30% of banks' capital after accounting for provisions, which implies potentially significant recapitalisation needs in case the value of collateral turns out smaller than expected (Figure 13, Panel B). Solving NPLs rapidly is a key issue for Portugal and requires a comprehensive approach.

Stronger regulatory incentives could induce banks to resolve long-standing non-performing loans. Differentiated capital requirements could reward banks that implement a credible and sufficiently ambitious plan for restructuring non-performing loans (NPLs), which could make it easier for them to raise new capital. This could also include penalties for banks that do not submit such a plan or do not comply with the plan approved by the supervisor. In addition, risk weights for NPLs could differentiate between new NPLs and those that have been kept on balance sheets for longer than a certain threshold, thus creating stronger incentives to write-off or sell long-standing NPLs (OECD, 2016b). More stringent implementing regulation on write-off modalities, the accrual of interest income for NPLs and the rules for the valuation of remaining collateral could also be considered. Some of these approaches have been successfully used in other countries. For example, Spain imposed a progressive reduction of the value of loan collateral after two years. Banks' efforts to reduce NPL stocks could be facilitated by a more favourable tax treatment of loan loss provisions, which currently cannot be held against taxable profits until a loan is actually written off.

Box 2. **Previous state support for banks in Portugal**

Public funds amounting to EUR 11.8 billion have been injected in the Portuguese banking system between 2008 and 2014, according to Portugal's audit court, equivalent of 6.6% of GDP in 2015.

Government support for bank recapitalisation largely took the form of contingent convertible debt instruments, which were remunerated at around 8.5% per annum. Being significantly above average lending rates, this presented challenges for the already weak profitability of Portuguese banks.

State support funds were reinforced under the 2011-14 Economic Adjustment Programme for Portugal, which included a EUR 12 billion Bank Solvency Support Facility (BSSF). EUR 7.25 billion of this facility have been called upon for the recapitalisation of four banks. In contrast to Ireland and Spain, Portugal's EUR 78 billion Economic Adjustment Programme was not specifically focused on the financial sector although EUR 12 billion were allocated for the sector. That amount was not entirely used.

In 2008, the nationalisation of Banco Português de Negócios (BPN) was the first state rescue in the Portuguese banking system. In 2011, BPN was sold to another private bank.

In 2008, Banco Privado Português (BPP), a small bank with less than 1% of the assets of the Portuguese banking system, received a EUR 450 million state guarantee. Following fraud allegations, the Bank of Portugal ordered the liquidation of BPP and withdrew its banking licence in April 2010.

In 2014, Banco Espírito Santo (BES), at the time Portugal's second private banking group, employing almost 10 000 people, was subject to a resolution measure. Most assets and liabilities were transferred to the newly created bridge bank Novo Banco, which received a EUR 4.9 billion capital injection from the Portuguese Resolution Fund, which in turn received a EUR 3.9 billion loan from the state. Privatisation plans exist for Novo Banco. The budget impact of the BES rescue in 2014 was 2.8% of GDP.

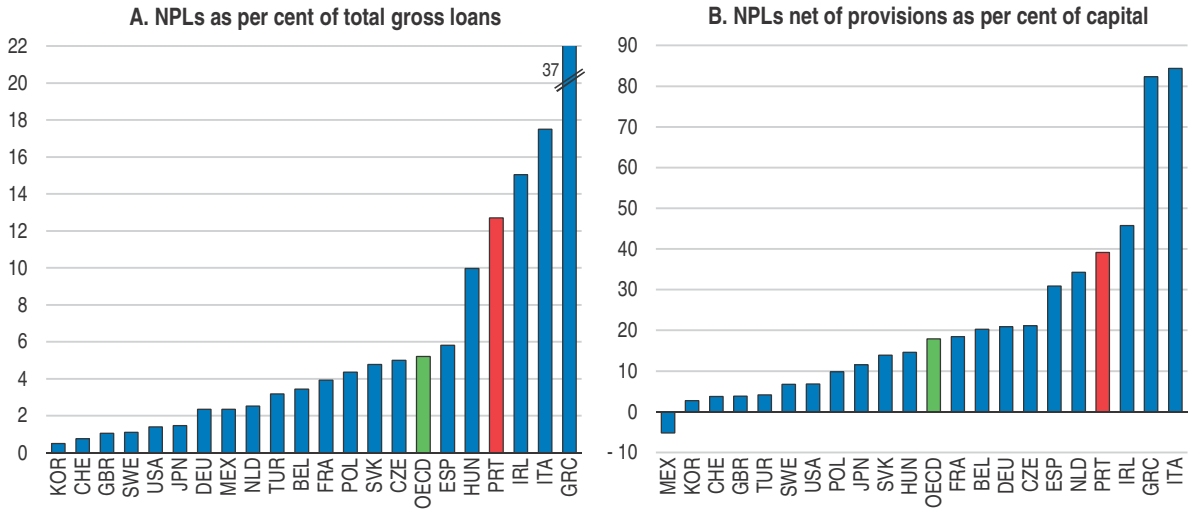
In January 2013, the Portuguese State injected EUR 1.1 billion into Banco Internacional do Funchal (BANIF), Portugal's seventh largest banking group with total assets of EUR 12.8 billion in June 2015. This support did not solve BANIF's financial difficulties and in 2015, the government decided to sell BANIF to a private bank for EUR 150 million in the framework of a resolution tool. The sale involved public support of EUR 2.26 billion to cover future contingencies, of which EUR 1.76 billion came from the state budget and EUR 489 million from the country's bank resolution fund. BANIF's public support added 1.4% GDP to the budget deficit in 2015.

Strengthening investment financing

Credit to the corporate sector is still contracting, mainly due to the construction sector. Loans to exporting firms are growing. Borrowing costs are still higher than in Spain or Italy, but this spread has returned to pre-crisis levels (Figure 14, Panels A and B). The debt of non-financial companies amounts to 145% of GDP on a non-consolidated basis (Figure 14, Panel C), placing Portuguese enterprises among the most heavily indebted ones in Europe. Since a peak of 168% in 2013, corporate indebtedness has come down by 14.4 percentage points according to OECD data, to a large extent as a result of the exit of highly indebted firms rather than deleveraging of existing firms (Bank of Portugal, 2015). Over 50% of the outstanding corporate loan stock is owed by firms that are considered as inactive (European Commission, 2016b). Around 16% of corporate loans are overdue (Figure 14, Panel D).

Figure 13. **Non-performing loans (NPLs)**

Per cent, Q2 2016[1]



1. Latest data available at end of period: Q1 for Japan, the United Kingdom and Turkey, Q4 2015 for Switzerland; 2014 for Germany and Korea. The OECD aggregate is an unweighted average of the latest data available for OECD countries including Latvia.

Source: IMF (2016), *Financial Soundness Indicators* (FSI Database), International Monetary Fund.

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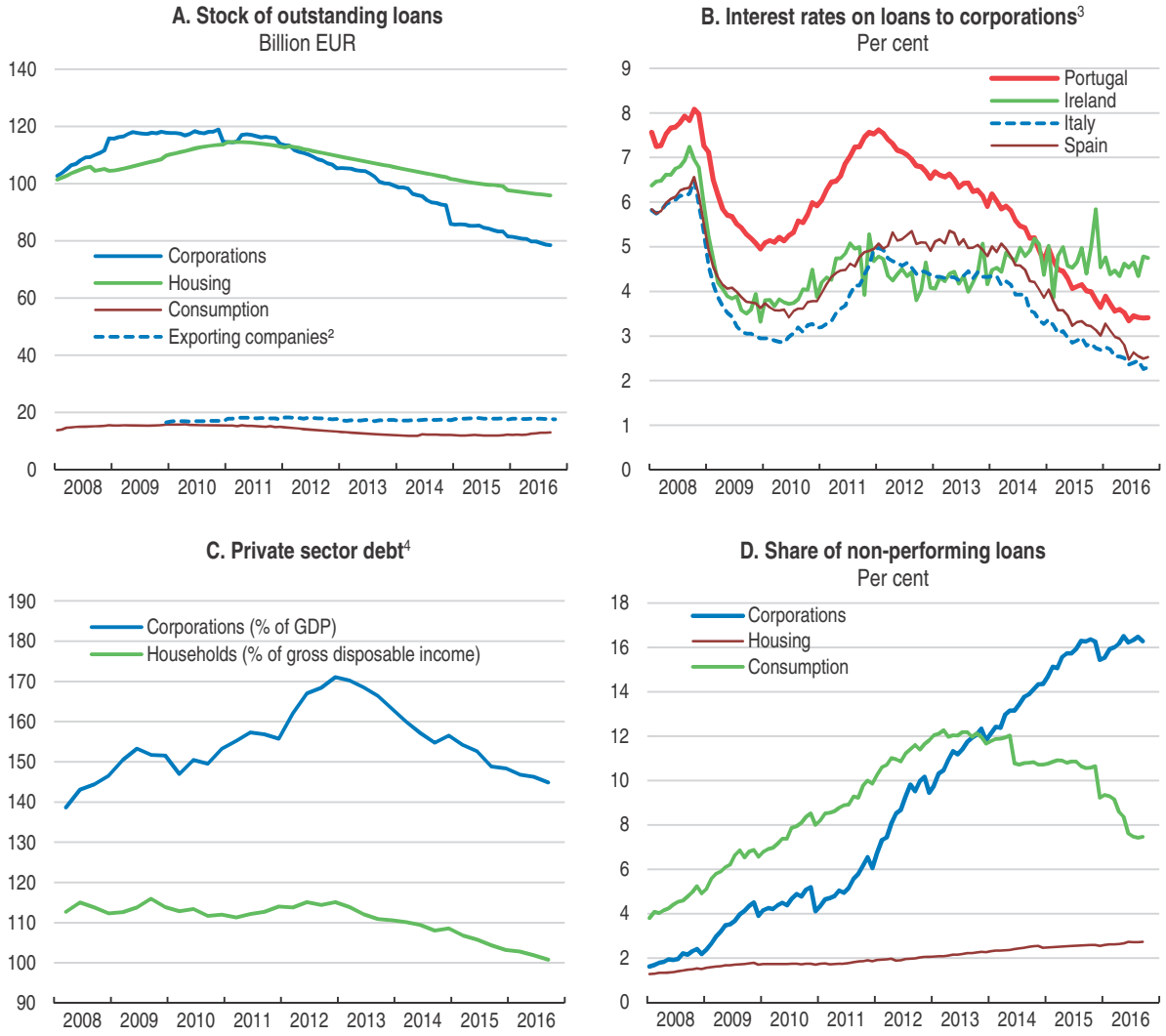
The corporate debt overhang limits the amount of financial resources available to finance investment by locking up funds in firms that have little capacity to invest, some of which may not be viable in the long term with their current debt burden. In 2014, the last year for which firm accounts are available, 30% of Portuguese firms spent 100% of their cash flow on servicing their financial obligations, and 21% had debt exceeding 100% of their annual gross value added. Although credit demand may also be subdued, delaying the exit of non-viable "zombie" firms can absorb financial resources that could be used more productively to finance new businesses and the growth of viable firms (Adalet McGowan et al., 2017; Andrews and Cingano, 2014).

In tandem with changes to supervision, the authorities should play an active role in developing distressed debt markets to assist banks in cleaning up their balance sheets. Specialised asset management companies (AMCs) for distressed assets can provide a liquid market for NPLs and are often better at managing impaired loans than banks due to their experience, scale economies and better technologies. Securitising distressed loans collected by an AMC allows creating assets that can be attractive for a wider range of investors, particularly if there is one single, transparent and standardised securitisation mechanism for SME loans. This in turn can narrow the remaining pricing gap between what investors are willing to pay and what banks expect to recover. Public support could take the form of providing guarantees for senior tranches of distressed debt securities and given the externalities of large NPL stocks on investment and growth, there is a case for the public sector to assist in bridging this pricing gap, although this has to be carefully balanced against the limited fiscal space available for such public intervention.

However, the alternative solution of betting on time to solve the issue is also a risky strategy, not only because it compromises the health of bank balance sheets, but also because investment and growth could be held hostage for years to come. The use of public funds has recently been limited by new EU rules on state aid. The authorities should seek

Figure 14. **Financial indicators**[1]



1. All corporations are non-financial (NFC) and loans are from monetary and financial institutions.
2. Privately owned and either export more than 50% of the turnover or export more than 10% of the turnover and the total amount exceeds EUR 150 000.
3. Loans up to and including EUR 1 million. Operations with an initial rate fixation period of less than one year for new business.
4. The non-financial sector debt presented includes loans, debt securities and trade credits. Households include non-profit institutions serving households.

Source: Banco de Portugal (2016), *BPstat Database*; and ECB (2016), *Statistical Data Warehouse*, European Central Bank.

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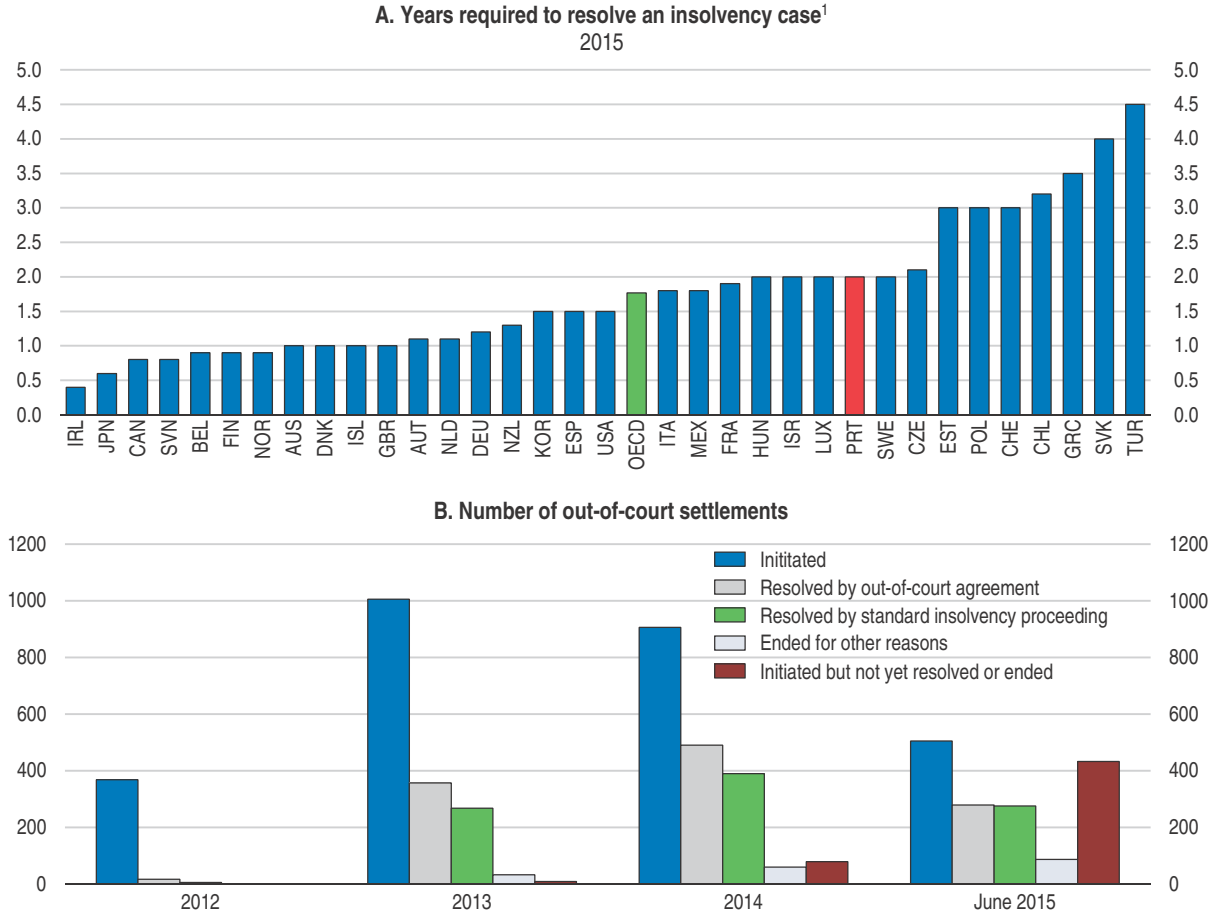
clarifications with the European Commission on the possible scope of intervention. In principle, exceptional clauses like the need to correct a market failure or a serious economic disturbance could be invoked, in light of the systemic dimension of the NPL problem in Portugal (*OECD Economic Surveys: Euro Area 2016*, OECD, 2016b).

A comprehensive strategy to reduce corporate leverage and improve access to investment financing should go beyond the narrow realm of the banking sector. Well-working insolvency frameworks are crucial for restructuring viable companies and to allow a speedy recovery of non-viable companies' assets before they lose value. This would raise recovery rates and lower the cost of removing NPLs from bank balance sheets.

Insolvency procedures have improved since 2012 (Table 4). Despite these improvements, in-court insolvencies still take an average of 2 years, which is average performance in the EU and unchanged from a decade ago, while good practice from Ireland, Japan, Belgium or the United Kingdom suggests insolvency cases can be processed in less than a year (Figure 15, Panel A). Speedy insolvency procedures translate into better recovery values of distressed loans higher prices for NPL-backed securities, so accelerating insolvency procedures would have significant benefits for Portugal. Widening the scope for decisions to be taken by a simple majority of creditors can promote a timely restructuring of viable firms. In Spain, the introduction of simple-majority decisions were part of an insolvency reform that shortened insolvency procedures and lowered the share of firms in liquidation (Adalet McGowan and Andrews, 2016). Eliminating the veto right of tax and social security authorities could also help, as Brazil's experience shows that reducing such public creditor privileges can speed up insolvency procedures and improve recovery rates (Araújo et al., 2012; Arnold and Flach, 2017). Current plans in the context of the Capitalizar programme include improving the co-ordination between different public sector creditors.

Figure 15. **Insolvency framework**



1. Time from the company's default until the payment of some or all of the money owed to the bank taking into consideration eventual delay tactics. The OECD aggregate is an unweighted average including Latvia.

Source: World Bank (2016), *Doing Business 2016: Measuring Regulatory Quality and Efficiency* (database); and APAJ (2015), "Processo Especial de Revitalização", *Turn Analysis*, No. 7, 2nd quarter, Associação Portuguesa dos Administradores Judiciais.

StatLink http://dx.doi.org/10.1787/888933447749

Moreover, investing more resources into court capacity could also help to shorten insolvency cases. Even more judges could be transferred to commercial courts, which appear to be the most overburdened part of the court system. Offering more specialised training to judges may lead to faster procedures and better recovery rates, as suggested by international evidence (OECD, 2013, World Bank, 2004). Evidence from a Brazilian bankruptcy reform suggests that firms operating in districts with less congested courts experienced higher access to loans and larger increase in investment than firms operating in districts with more congested courts (Ponticelli and Alencar, 2016).

Following reforms in 2012, large parts of the legal insolvency rules now compare well to other countries on paper (World Bank, 2014), but differences between the rules and their actual implementation exist. One pillar of the insolvency reforms was the introduction of out-of-court settlements in 2012. However, these have been less successful than anticipated. The approval rate for out-of-court settlements is only 50% and they regularly take significantly longer than the 4 months allowed for out-of-court negotiations under US law, for example (Figure 15, Panel B). Evidence on the average length of out-of-court settlements in inconclusive. Official statistics put their average duration at close to 5 months, while private analysts put the average duration at 7 months (APAJ, 2015). Granting a stay on assets and allowing time for restructuring is a key feature of out-of-court settlements, but excessively long stays risk creating scope for abuse.

De facto veto rights for tax and social security authorities frequently lead to failures of these procedures as public sector creditors are unable to take cuts on their claims or even define their position in time (APAJ, 2015). Recently announced policy plans to improve the flexibility and co-ordination of public sector creditors in insolvency proceedings go in the right direction but should be implemented earlier than the third quarter of 2017 as currently envisaged. Access to information for creditors and insolvency administrators is crucial for evaluating the economic potential of a distressed firm or the value of its assets, but on-site inspections by insolvency administrators are currently not possible. Evidence that owners/managers have used the procedure for the mere purpose of buying time and/or removing tangible assets from the firm suggests the need for better gatekeeping, including through a generalised embargo period during which the same firm cannot apply for another proceeding. Unlike in standard insolvency procedures, out-of-court settlements can be approved by a simple majority of creditors.

The differential corporate tax treatment of debt and equity has also incentivised businesses to accumulate excessive amounts of debt in the corporate sector. Until very recently, interest expenses could be deducted from taxable corporate income, while the return on equity could not. Tax neutrality even matters for the majority of Portuguese firms that are very small and for which stock market financing is an unlikely option, as it is widespread practice for owners/managers to extend loans to their own companies rather than to provide equity.

As of 2017, deductible interest expenses will be limited to 30% of cash flow income (tax EBITDA) or EUR 1 million, whichever is higher, in line with Action 4 of the BEPS Action Plan. In addition, Portugal has established a tax allowance for corporate equity (ACE) like in Italy, Belgium and Brazil. In order to stimulate new investment, the ACE applies only to new equity investment and avoids generating windfall gains for investment undertaken before its introduction. Restricting an ACE to subsets of companies and investors, by contrast, has

rendered Portugal's earlier experiments with an ACE ineffective and these restrictions have now been lifted. The new ACE seems well-designed, but its performance should be monitored and evaluated to see if further refinements are needed.

The removal of tax distortions will have a stronger impact when combined with a strategy to lead more medium-sized firms into stock market listings, as an alternative to debt financing. High listing fees on Portugal's only stock exchange are currently a major deterrent for medium-sized firms. Regulating the monopoly stock exchange operator's fee schedules for the listing of mid-cap companies could be justified by the same economic rationale applied in universal service obligations in telecommunications, where public intervention has for years reduced the cost of network access for clients for whom these would have otherwise been prohibitively high. Providing financial advice to mid-caps, as done under Italy's ELITE programme, would also be useful. Portugal has no independent investment banking company that could advise firms in going public or in attracting equity investment, or that could support them in the process, as required by the EU Prospectus Directive, and commercial banks have only weak incentives to assist companies in finding alternatives to the financing they provide.

Recent government initiatives have aimed to open up additional channels of finance for start-up companies in the context of the new Capitalizar programme, including business angels, venture capital, commercial paper and mechanisms to securitise SME loans. Entities with public participation, including a venture capital firm and business angel-type financing, are meant to co-finance start-ups in an early stage with a particular focus on innovative, scientific and technology-based companies, as well as on export-oriented companies. Broadening financing options for start-ups with innovative projects is a welcome initiative, as young firms currently account for only 3% of business investment, but it will be important to monitor and evaluate the progress of these initiatives to ensure their cost-effectiveness. A key challenge for public participation in venture capital activities will be to find instruments that increase the quantity of venture capital without diminishing its quality. Funds that operate like independent, limited partnership venture capital funds and where the selection and mentoring of investment projects is done by private partners have been successful in the United States (Lerner, 1999) and Australia (Cumming, 2007). Passive public participation in such funds could even raise the returns for private investors by capping its own returns while leaving its entire investment at risk.

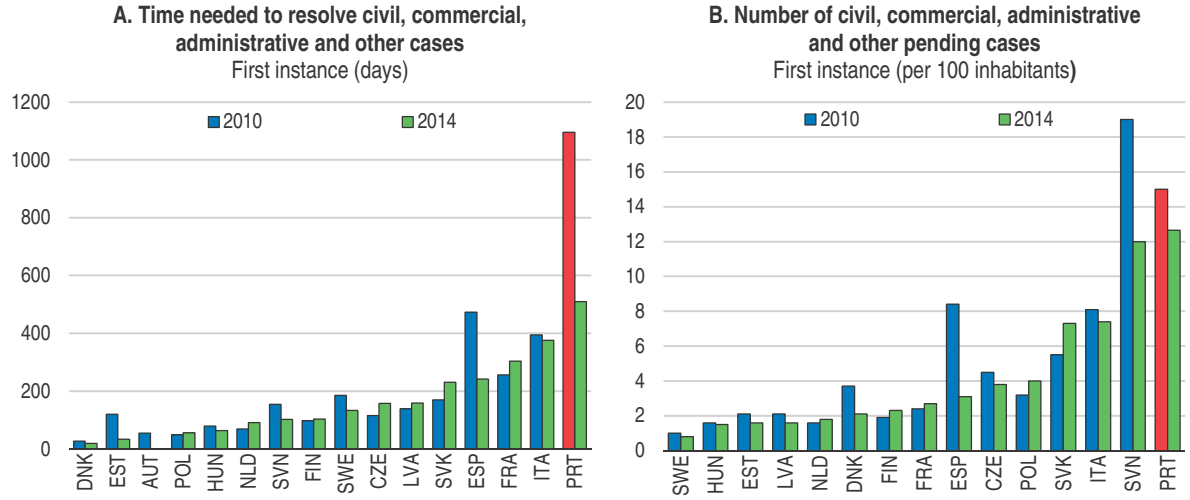
Improving the business climate to boost investment

Beyond measures that enhance access to financing, investment would also be strengthened by reforms that improve the business climate, hence reducing firms' costs and raising expected returns on investment. Portugal has undertaken an impressive array of structural reforms in this regard, but some of these have not been fully implemented.

Judicial system

A recent survey of 5 000 Portuguese companies identified difficulties with the judicial system as a major factor driving up costs, which became increasingly challenging over the last 3 years (INE, 2015). Significant court backlogs of 1.35 million cases persist despite progress made, particularly in first instance courts which deal with contract enforcement. Despite remarkable progress made, civil cases still take more than 500 days to be resolved, which is long by international comparison (Figure 16).

Figure 16. **Performance of the judicial system**[1]



1. Comparisons should be drawn with care as some countries reported changes in the methodology for data collection or categorisation.
Source: European Commission (2016a), *The 2016 EU Justice Scoreboard* and Direcção-Geral da Política de Justiça.

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A new civil procedure code has been able to address some of these shortcomings by giving greater process independence to judges, reducing the number of appeals and allowing for mediation and out-of-court settlements at different stages of a civil process. Even though Portugal ranks fairly well with respect to its legal framework, the implementation of some judicial reforms seems to be lagging (World Bank, 2015). International evidence suggests that the use of specialised courts can reduce trial lengths (Palumbo et al., 2013), but the benefits of specialisation are particularly strong if these courts are staffed with specialised judges. Portugal has specialised courts without specialised judges. In particular, it appears that there is scope to reduce trial lengths by increasing the number of commercial courts and staffing them with specialised judges. Recent efforts for training judges should be continued.

Regulation and red tape

Portugal has made strong progress in reducing administrative burdens for businesses. Less "red tape" reduces costs and raises the returns on investment. Recent measures plan to build on these improvements, including a new programme to simplify administrative procedures called Simplex+2016 and a single environmental licence that consolidates 11 current procedures. This useful programme includes an expansion of one-stop-shops, electronic applications and a wider application of silence-is-consent rules. At the local level, the pace of progress in easing procedures is heterogeneous, with some municipalities offering single windows and speedy service in almost all areas, while others are struggling to keep pace. Requiring all authorities involved in licenses or permits to publish their effective decision-making time would improve transparency in this area. A study of municipal best practices is currently underway, and the results should be used to encourage and assist less advanced municipalities to catch up. Going forward, new laws can only be approved once the corresponding implementing regulation is drafted. Economic impact evaluations of new regulations have also become the norm and firms may net out simultaneous claims and liabilities with tax and social security authorities in the future. A decade ago, procedures, costs and delays for opening a business were 4, 6 and 19 times higher than now, respectively (World Bank, 2005 and 2015).

Despite these promising initiatives and plans, the implementation of administrative reforms seems to lag behind ambitions and needs to gain track. Despite the introduction of "Silence is consent" rules in some areas, more than half of firms who had to deal with licenses for starting a business considered this process a high or very high obstacle and failed to see any improvement in the process (INE, 2015; Gershenson et al., 2016). Large and industrial firms appear to struggle the most with tedious licensing requirements. Despite single windows to receive applications, behind-the-scenes consultations between different authorities can be lengthy. Overlapping competencies and a patchwork of rules defined across different laws and precedence rulings by courts create ambiguities and contradictions, leaving room for discretionary decisions, including by local authorities. A concerted effort to clean up and consolidate the fragmented set of rules would reduce complexity and the scope for corruption. Regarding license requirements, these efforts should be focused on integrating all licenses and permits needed to start a business into one single procedure, but co-operation among all public entities involved is crucial for that.

Policies governing land use can also constitute an obstacle to investment as they give strong discretionary powers to municipal governments which can block licenses for investment projects. The efficiency of municipal governments and the delays involved in obtaining licenses varies widely across municipalities. While considerations of protecting the landscape or quality of life of citizens may be legitimate objectives, they can also be abused to deny or condition the start of an economic activity. Reforms of the discretionary powers of municipal authorities had been envisaged under the external assistance programme, but were never implemented. The net benefit of investment projects for local development should be analysed on the basis of transparent and objective criteria, limiting the discretion of local authorities, which will also help to prevent corruption. In other cases, land use conversions have been granted too easily and owners of farmland have regularly lodged requests for conversion with the sole purpose of increasing the resale value of their property. This has favoured new construction projects in non-urban areas over the use of existing dwellings, leading to excessive urban sprawl which then required additional infrastructure investment, while large urban areas were often poorly maintained. The authorities should limit discretionary powers of municipalities to speed up licencing procedures further.

Product market regulation in services and utility sectors

Services and utility sectors provide essential inputs for Portuguese companies, accounting for 16% of their direct costs, i.e. without breaking down the factor content of intermediate inputs. Since services inputs often have to be sourced domestically, their prices influence the competitiveness of Portuguese companies. In the past, services sectors have traditionally been characterised by low levels of competition and significant rents resulting from regulatory policies that stood in the way of competition. An ambitious reform agenda has led to improvements, but there is scope for further strengthening competition in many areas. An ongoing OECD competition assessment can help to identify concrete regulatory constraints to competition in services sectors and define further reform priorities.

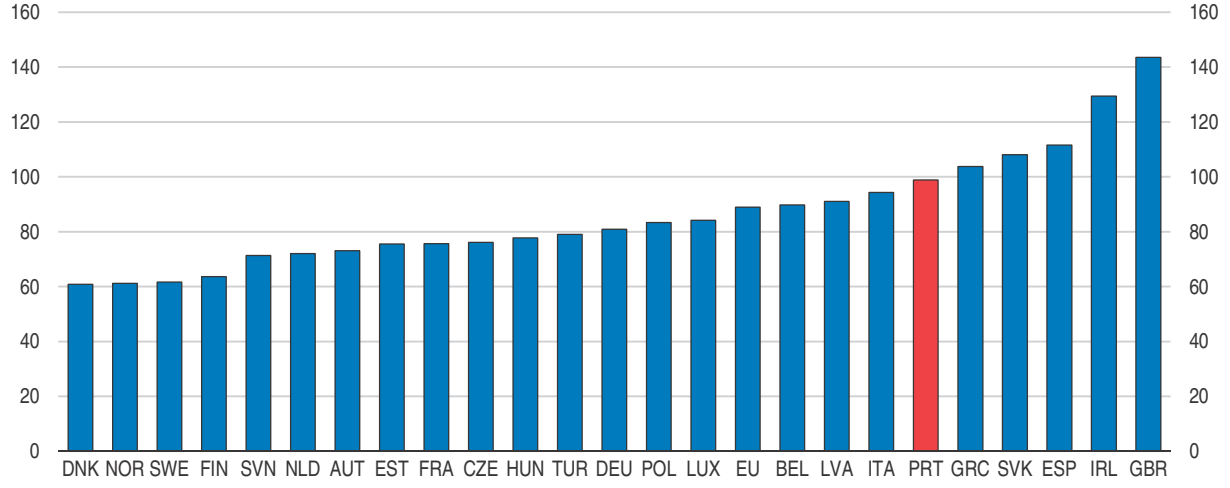
In the energy sector, a series of reforms has improved regulation and eliminated the scope for remuneration above market prices, but only for new entrants. Policy indicators such as the OECD Product Market Indicators reflect these substantial improvements and Portugal's network sector regulation is the second most competition friendly in the OECD

by these indicators. However, these new rules are not necessarily those that govern the bulk of current sales volumes, which is still sold under legacy contracts that were signed when the rules were different. Until legacy contracts expire, the PMR indicators may paint an overly optimistic picture of competition in the energy sector. Despite new entry, the incumbent electricity producer continues to serve 85% of electricity customers and the incumbent gas company serves 50% of gas clients.

Electricity prices for medium-sized companies are among the highest in Europe (Figure 17) and have been on an increasing trend due to legacy contracts. Over a third of Portuguese enterprises consider electricity costs a high or very high obstacle for their operations and 82% have noticed no improvement since 2012 (INE, 2015). Rising prices are also the legacy of poor policy settings in the past, such as a massive tariff debt of over EUR 4 billion that is now being winded down through pricing above average costs. The tariff debt has only started to decline in 2016 and will continue to exert upward pressure on prices for years to come. Stronger action to reduce the scope of application of legacy remuneration schemes, through further renegotiations of legacy contracts and accelerated phase-out schedules for guaranteed price schemes, could lead to more competitive energy prices.

Figure 17. **Electricity prices**

EUR per thousand kilowatt hours, 2015[1]



1. Average national price without taxes applicable for the first semester of each year for medium size industrial consumers (annual consumption between 500 and 2000 megawatt hours [MWh]). For Italy data refer to 2007 instead of 2008 and cover data at 1st January for an annual consumption of 2 000 MWh.

Source: Eurostat (2016), "Electricity prices by type of user", *Tables by Themes*.

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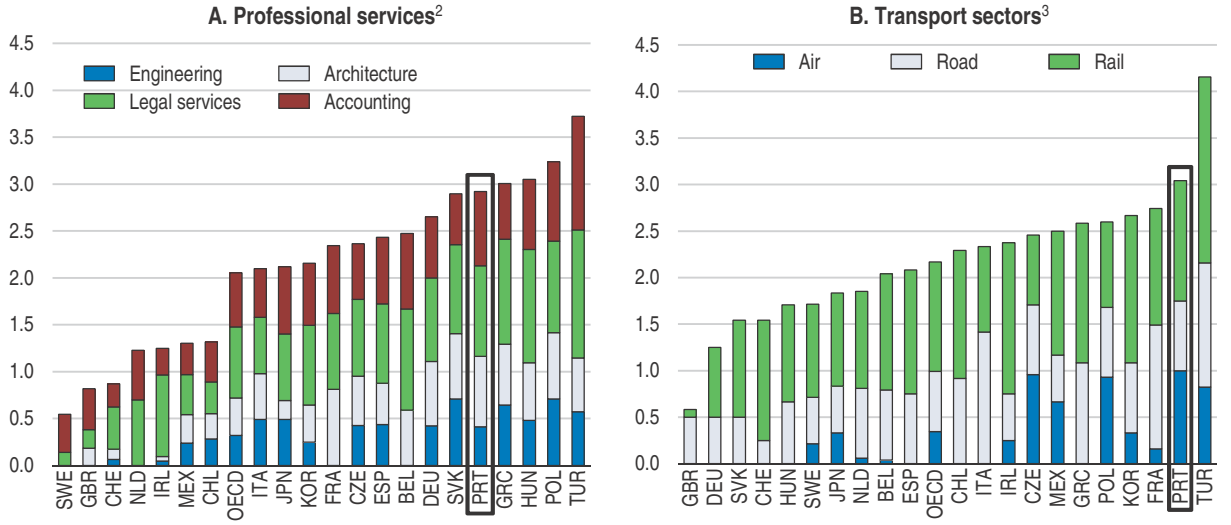
In professional services such as accounting, auditing, legal or architecture services, competition remains weak and regulation is more restrictive than the OECD average, as reflected in the OECD Product Market Regulation (PMR) (Figure 18, Panel A). The OECD Services Trade Restrictiveness Indicator (STRI) points to barriers to competition through international trade in accounting, auditing and legal services. Regulatory provisions that can stifle competition and lead to significant rents include the strong role of professional associations for regulating entry, a setting that typically favours current insiders over potential entrants. Regulation by professional associations should be monitored closely by public authorities to avoid excessive restrictions on entry and safeguard competition. Exclusive rights that reserve certain tasks for members of a particular profession, as well

Figure 18. **Regulation of services sectors**

Index scale of 0-6 from least to most restrictive, 2013[1]



1. Data may no longer fully reflect the current situation in fast reforming countries. The OECD aggregate is an unweighted average of data available (including Latvia).
2. Measures included in the index cover entry restrictions and conduct regulations.
3. Measures included in the index cover entry restrictions, public ownership, vertical integration, market structure and price controls.

Source: OECD (2016), *OECD Product Market Regulation Statistics* (database).

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as regulations of prices and fees or the form of business, further restrict competitive pressures and should be reconsidered. Entry restrictions may be one reason for the substantial misallocations of resources documented in professional services in Portugal (Dias et al., 2015).

A new framework law that reforms regulations in 18 professional services was approved in 2013, and the bylaws of all professional bodies have now been published. Unfortunately, the bylaws are significantly less ambitious than the framework law in terms of opening up these sectors to competition. Service providers still face significant entry barriers and cross-border competition is also reduced by existing regulations. For example, in accounting services, an EU nationality is required to obtain a license to practice and there are restrictions on owning shares in accounting firms, combined with specific nationality and licensing requirements for board members and managers of accounting firms. The investment regime is similarly complex for legal services, although there are no nationality requirements for lawyers.

In the transport sector, competition is weaker than in other OECD countries and anti-competitive regulations are more restrictive (Figure 18, Panel B). However, the sector has been evolving since 2013. The incumbent cargo rail company CP Carga has been privatised successfully, which has been a precondition for competition in cargo rail services. In urban transport, planned sub-concessions in Lisbon have been cancelled and will now be transferred to the municipality while those in Porto have been delayed. In air transportation, the state will retain majority ownership of Portugal's major airline TAP. Further monitoring is needed to understand if these developments can stand in the way of strengthening competition in these sectors. Moreover, frequent policy changes may reduce Portugal's ability to attract foreign direct investment, which is typically associated with productivity benefits (Arnold and Javorcik, 2009; Javorcik, 2004).

In ports, the scope of application of port-specific labour and wage regulations, reminiscent of the days when port labour was physically more demanding than other work, has been narrowed. While these measures have reduced costs for port operators, it has brought only limited benefits to port users. Over 80% of companies that use maritime transport noted no improvement since 2012 (INE, 2015). Renegotiations of port concessions were intended to reduce port user costs by harnessing competition and to strengthen investment incentives, but these renegotiations have recently been suspended. A new framework law for port concessions has yet to be passed. Uncertainty due to policy reversals is holding back urgently needed investments by port concessionaires. Moving forward on the renegotiations of concessions could generate further downstream benefits by enhancing the scope for intra-port competition among terminals and incorporating service level agreements into the concession contracts, which has been omitted in the past.

Foreign direct investment

Foreign direct investment (FDI) inflows account for significant shares of investment in some sectors. During 2012-14, greenfield FDI inflows amounted to around 3.9% of investment. Comparing total FDI inflows to investment, the ratio is about 20%, but this can only be considered an upper bound as these inflows have also financed mere transfers of ownership and not just new investment. Attracting more FDI has significant potential to boost investment. Reforms enacted since the financial crisis have boosted Portugal's attractiveness as a destination for FDI. In the future, a greater emphasis on policy continuity could bolster confidence and reduce uncertainties, which are often an important consideration for foreign investors (see, for example, Ruane and Goerg, 1997, for the Irish case). An earlier bipartisan agreement in favour of a continued decline of the corporate income tax rate was recently dismissed, some privatisation plans have been delayed or modified after they were signed, and there are discussions about restricting access to the so-called individual bank of hours to sectors where it is part of collective agreements. This measure has been an important component of giving more work-time flexibility to firms by allowing a maximum of 150 hours per year to be used in agreement between the employee and the employer. A recent decision to bail in a select number of secured bondholders of the resolved Banco Espírito Santo have also been interpreted as undermining policy certainty.

EU structural funds have become large relative to public investment, which declined from 5% of GDP in 2010 to 2.1% in 2015. At 1.9% of GDP, European funding now amounts to 80% of Portugal's public investment or 12.5% of total investment, although not all of the projects funded by these funds are investments in the sense of national accounts. A new strategy for allocating these funds, called Portugal 2020, has recently been designed and aims to support the structural transformation of the economy towards export sectors. The main spending areas include support for the internationalisation of manufacturing companies, innovation and the strengthening of ties between firms and the scientific community. Portugal's National Reform Programme provides the framework for a more effective use of EU funds (see Box 3).

Labour costs

The outlook for labour costs, which account for 19% of the costs of Portuguese companies, remains challenging. Unit labour costs relative to the euro area have declined by 1.5% between 2012 and 2015, but there has been another 5% increase in the minimum

Box 3. **Portugal's National Reform Programme**

Portugal's National Reforms Programme (NRP) of April 2016 serves as a medium-term development strategy to tackle structural constraints in three main areas: productivity and competitiveness; indebtedness and social cohesion and reducing inequality.

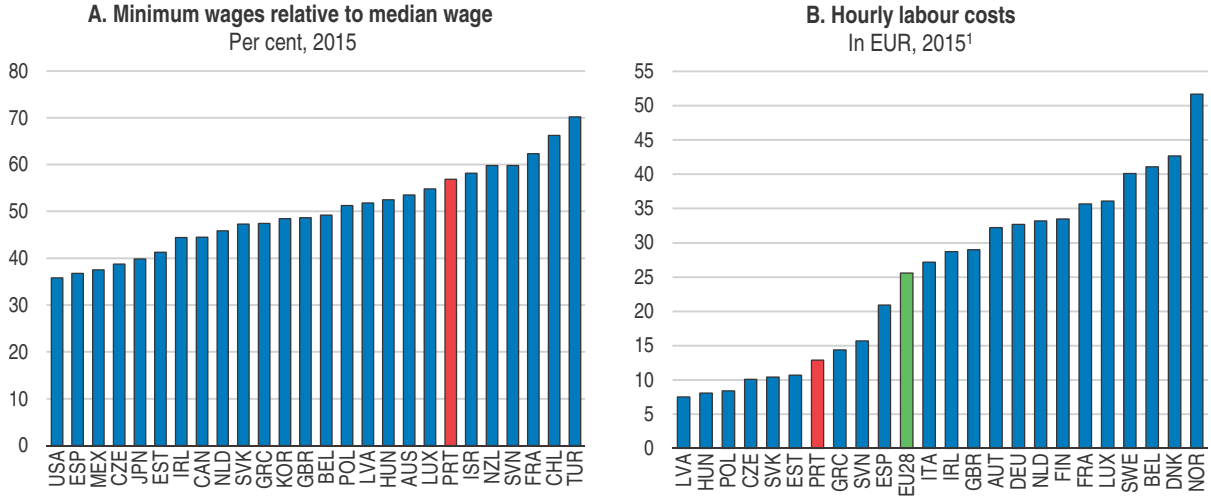
To address these challenges, specific measures have been defined in the areas of qualifications, innovation, territorial enhancement, modernisation of the State, capitalisation of firms and social cohesion and equity. The NRP provides goals and a calendar for the implementation of a total of 140 measures within these areas, with a total budget of EUR 25 billion. The envisaged reforms have been subjected to an ex-ante evaluation in order to predict their long term effects.

Within the NRP, the 'Capitalizar' Programme serves as the umbrella for policies to strengthen and diversify the diversification of the financing sources for companies, in particular young firms. Supporting seed financing through tax reliefs for individual equity investors in start-ups and measures to help SME and mid-caps access the capital market are examples of such policies. Actions in this field are also intended to contribute to tackling the NPL issue by strengthening viable firms. The qualification axis of the NRP contains measures to reduce the number of school dropouts and of NEETs (those not in education, employment or training). In particular, the "Qualifica" Programme focuses on adult education and training, complementing a process of certification with training.

wage in January 2016 and again in January 2017. The minimum wage has become increasingly binding (Bank of Portugal, 2015). The 2016 increase had already brought the minimum wage to or above the salary levels of 20% of employed persons, and it currently exceeds 60% of median wages (Figure 19, Panel A). An increase to 600 EUR, to be decided by social partners as contemplated in the government's programme, would be more than what 30% of Portuguese employees currently earn.

Figure 19. **Minimum wages and labour costs in international comparison**

Total business sector



1. 2014 for Greece.

Source: OECD (2016), "Earnings: Minimum wages relative to median wages", *OECD Employment and Labour Market Statistics* (database); and Eurostat (2016), "Labour costs annual data", *Eurostat Database*.

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Strong wage increases without similar improvements in productivity risk undoing previous improvements in competitiveness and conflict with the objective of strengthening exports, even though they may reduce wage inequality (but not necessarily income inequality). In fact, Portugal's declining export market share during 1996 to 2011 was largely attributable to price factors (Benkovskis, K. and Wörz, J. 2014). Labour costs are now lower than in most of Western Europe, but higher than in most Eastern European countries, some of which compare favourably to Portugal in terms of proximity to major European markets (Figure 19, Panel B).

Additional wage pressures may result from a possible re-emergence of administrative extensions of collective bargaining agreements to firms that were not involved in the bargaining process. As of 2012, the widespread practice of such administrative extensions has come to a halt, in line with an OECD recommendation (Table 5). This was the result of a new requirement that agreements could only be extended if the signatory firms accounted for at least 50% of the industry workforce, which had often not been the case in the past. In 2014, this condition was eased by introducing an alternative sufficient condition that required 30% of signatory firms to be SMEs. Given that 99% of firms in Portugal are SMEs, this new condition will be easy to meet. Extensions have since picked up, although not to the levels of 2011. Between 2014 and 2015, the number of employees covered by collective agreements has doubled (CRL, 2016). Estimates suggest that wage increases resulting from administrative extensions have increased separation rates and reduced hiring rates, suggesting that they can jeopardise the viability of firms' investment projects (Hijzen and Martins, 2016; Bank of Portugal, 2015). More stringent representativeness requirements for administrative extensions and opt-out possibilities for individual firms would promote a better alignment of wage developments to the situation of individual firms. Less use of administrative extensions could also encourage the entry of new firms and competition in product markets, as one way new firms can enter the market is by paying lower wages than incumbents for some time (Chapter 1).

Table 5. **Past OECD recommendations on improving the business climate**

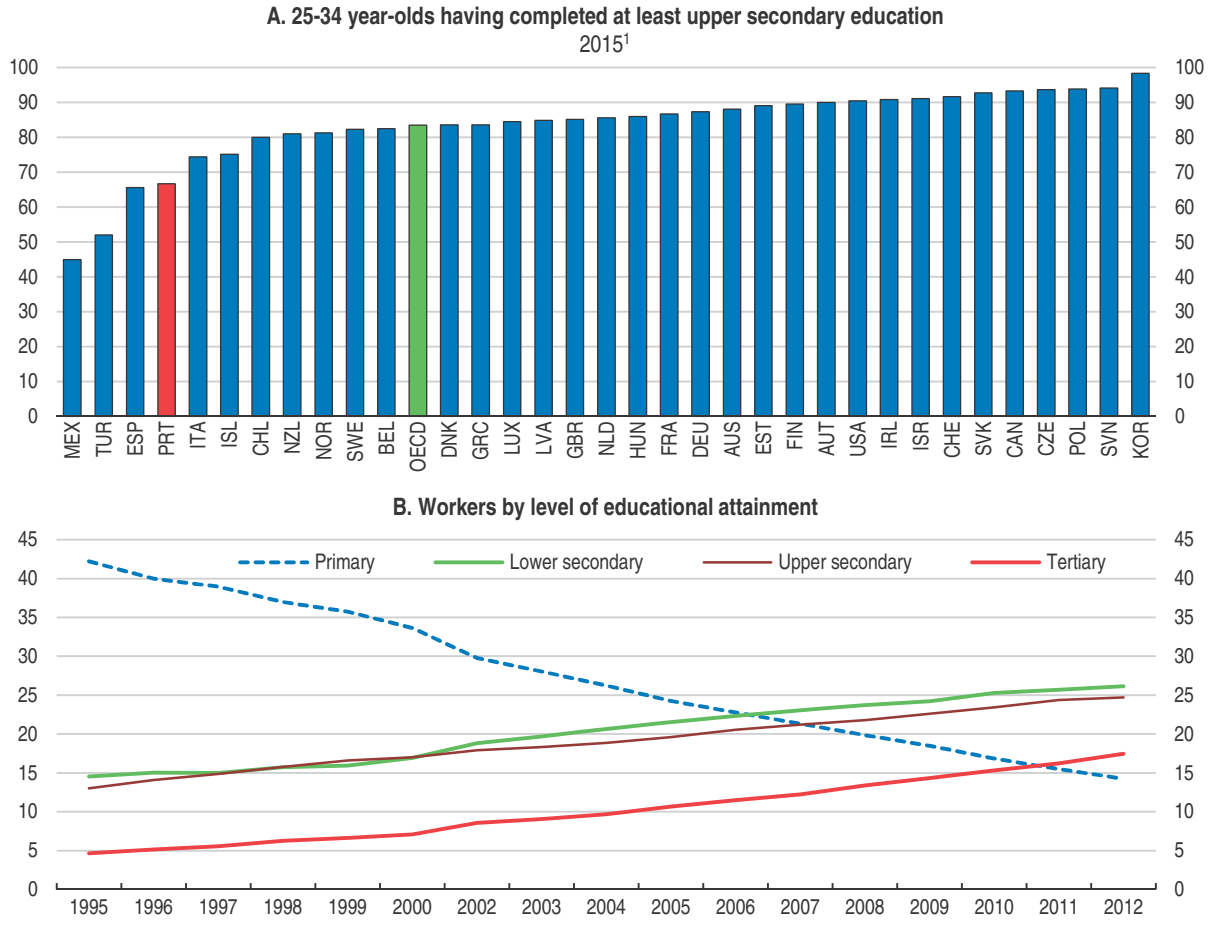
Recommendations in 2014 Economic Survey	Actions taken since 2014
Strengthen competition in non-tradable sectors through further regulatory reform.	No action taken. In key non-tradable sectors, including energy and professional services, evidence of weak competition persists. In the transport sector, plans for urban transport concessions in Lisbon have been cancelled and will now be transferred to the municipality while those in Porto have been delayed. The State will retain the majority of shares in Portugal's major airline TAP.
Phase out electricity generation schemes with guaranteed prices sooner than currently planned.	No action taken since 2014.
Promote wage bargaining at the firm level, including by abolishing administrative extensions of wage agreements.	Conditions for administrative extensions of collective bargaining agreements were eased in 2014, which may lead to a re-emergence of these extensions in the future.
Improve the links between researchers in universities and the private sector. Consider allowing refunds of R&D tax credits for loss-making firms, or extending the carry-forward period.	No action taken since 2014.

Raising skills

In comparison to other European countries, the average skills of Portuguese citizens are low, reflecting decades of poor education performance (OECD, 2006; Guichard and Larre, 2006). Only around 43% of the working age population and 67% of young adults have attained upper secondary education, the fourth lowest rate in the OECD (Figure 20, Panel A). 33% of young adults in Portugal have a tertiary qualification, compared to an OECD average of 42%. Improving these comparatively low education attainments will be critical to improving well-being and incomes (see Figure 4). Better skills will also reduce widening income inequality by providing better earnings opportunities to the low-skilled, which often also have low incomes.

Figure 20. **Raising skill levels remains a priority**

Per cent



1. The OECD aggregate is an unweighted average; Latvia is included and Japan excluded (no data available).

Source: OECD (2016), "Educational attainment and labour-force status", *OECD Education Statistics* (database); and A. Almeida et al. (2016), "Economic and non-economic returns to higher education in Portugal", Research Report commissioned by Fundação Francisco Manuel dos Santos and the Universities of Aveiro, Minho/NIPE and Porto/CIPES.

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Improving skills will also lead to stronger economic growth, by alleviating the skill shortages faced by Portuguese companies. More than two thirds of them consider finding employees with appropriate skills an obstacle to their operations (INE, 2015). At the same time, incentives for investing in skills are weak due to high unemployment and poor job quality. A solution to this vicious circle requires simultaneous action with respect to both education opportunities and labour market performance. While it takes time to address this legacy, Portugal should build on its continuous policy efforts, which have resulted in rapid improvements (Figure 20, Panel B).

More adult education for the employed and for the unemployed is one way to address the low qualifications and skills of those who have already left the education system. However, experience shows that it is difficult to reach those who would need it most, as lifelong learning activities have low take-up rates among older and low-skilled workers (OECD, 2015; EWCS, 2015). Still, Portuguese workers receive less on-the-job training than in other countries. One recent government initiative (*Cheque Formação*) is providing financial support to workers, job seekers and firms for adult training. This scheme appears useful in addressing firms' immediate training needs, but given its novelty, its success should be closely monitored and evaluated.

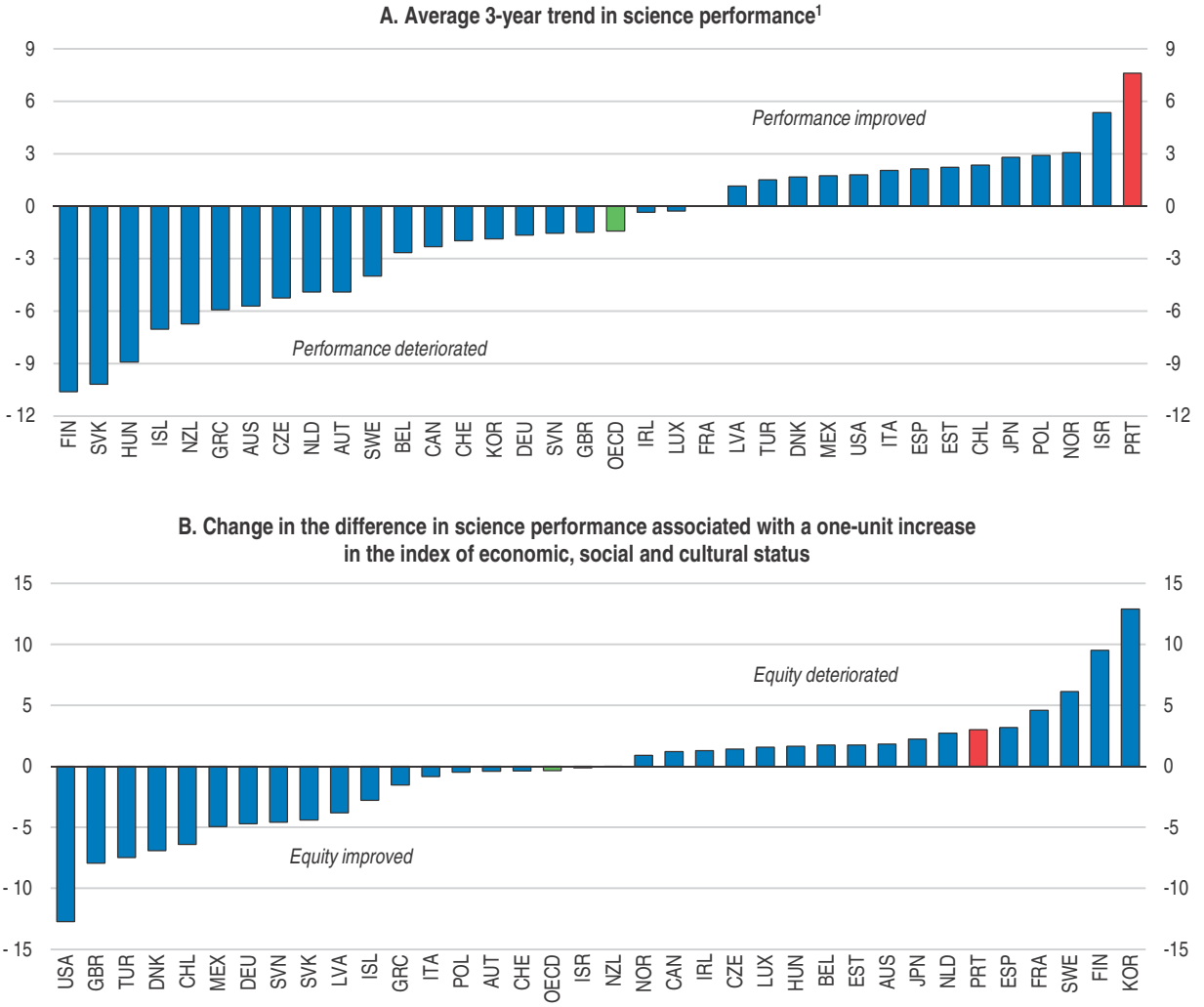
For youths, further improvements in the education system are the crucial factor for raising skills, which could improve the future for many young people with low skills and better integrate them into society. Student performance at age 15 has improved and is now above OECD average (OECD, 2016b). Beyond average performance, learning outcomes are heterogeneous and related to the socio-economic status of students. This link is higher than the OECD average and has become more pronounced over the last decade (Figure 21). Moreover, disadvantaged students are also more likely to repeat a grade and less likely to obtain tertiary education than in the average OECD country, suggesting challenges with respect to equity (see Chapter 2). The experiences of other countries demonstrate that improvements in average performance can go hand in hand with better opportunities for all citizens, including for those from less privileged socio-economic backgrounds. Mexico and Turkey, which are the only two OECD countries with lower upper secondary attainments than Portugal, have made similar progress as Portugal with respect to learning outcomes between 2003 and 2012 while improving equity at the same time (PISA, 2014). A recently launched National Programme for School Success contains measures aimed at students at risk, with a special emphasis on primary education.

Reducing grade repetition and drop-out rates

Portugal's early school leaving rate among youths aged 18-24 has come down substantially from 63% in 1991 to 14% in 2015, but it is still high in comparison to other European countries (Figure 22; CNE, 2015; Conboy, 2015). A high incidence of grade repetition is harming learning outcomes in Portugal. 34% of students have repeated a grade at least once by the age of 15, against an OECD average of 12%, and in the age group below 12, Portugal's grade repetition rate is one of the highest in the OECD. International evidence does not confirm the benefits of grade repetition for learning outcomes, but repetition exacerbates inequalities (Eurydice, 2011; CNE, 2015). More than 50% of socio-economically disadvantaged 15-year olds reported having repeated a grade at least once, compared to an OECD average of 20% (OECD, 2015). Moreover, grade repetition is a strong predictor for early school dropout.

Figure 21. **Learning outcomes can be improved**

Change between 2006 and 2015



1. The average three-year trend is the average rate of change, per three-year period, between the earliest available measurement in PISA and PISA 2015. For countries and economies with more than one available measurement, the average three-year trend is calculated with a linear regression model.

Source: OECD (2016c), *PISA 2015 Results (Volume I): Excellence and Equity in Education.*

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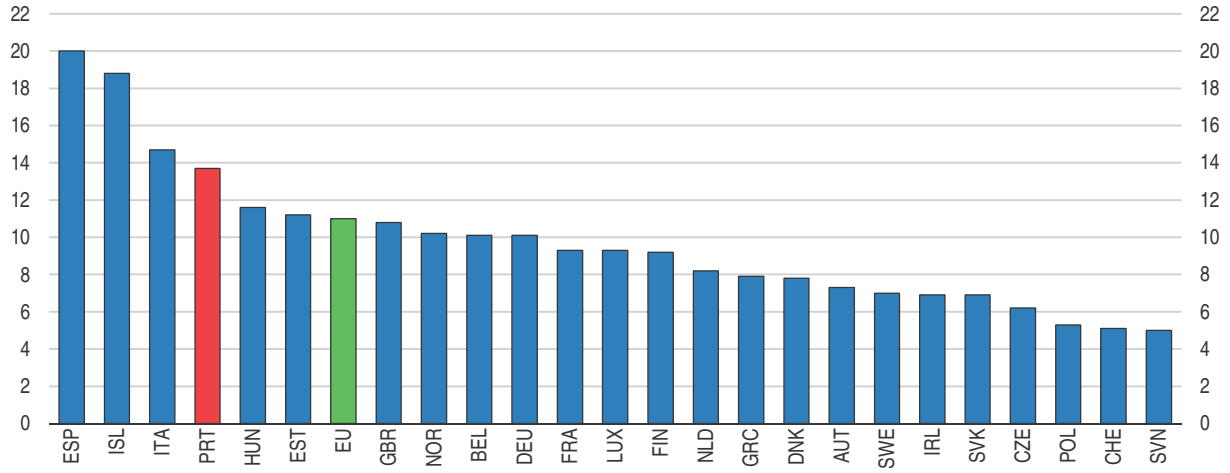
Leaving school before completing secondary education implies that students do not achieve their potential, exacerbates inequalities and narrows the skill base of the labour force. From a budgetary perspective, it also constitutes a poor use of resources. Measures to promote employment opportunities and income support for drop-outs later on in their working lives may turn out more costly and less effective than strengthening efforts in the education system, in addition to the loss of well-being related to higher exclusion, poverty and inequality (European Commission, 2013). Identifying students at risk early on and providing them with individualised support would be one way to reduce dropout rates. The government's plan to introduce mentoring for students who have repeated at least twice is a step in the right direction, but an earlier intervention would be more likely to succeed (Nusche et al., 2015).

Figure 22. **Student early school leaving rate is high**

Percentage of the population aged 18 to 24 having attained at most lower secondary education and not being involved in further education or training[1]



1. The early school leaving rate for Spain covers "school drop outs". The United Kingdom has no national target.

Source: Eurostat (2016), "Youth education and training", *Eurostat Database*; and European Commission (2014), "Overview of Europe 2020 Targets", *http://ec.europa.eu/europe2020/targets/national-targets/index_en.htm*.

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Raising quality and equity in education

Ongoing efforts to expand pre-primary education have made progress and should proceed. Children from disadvantaged socio-economic backgrounds should become the priority target. Ensuring good quality standards in pre-primary education is also crucial in light of evidence that, unlike in other OECD countries, enrolment in pre-primary education *per se* is not a predictor for lower grade repetition later on and that the benefits of early childhood education and care are conditional on quality (Reis and Pereira, 2015; OECD 2012a).

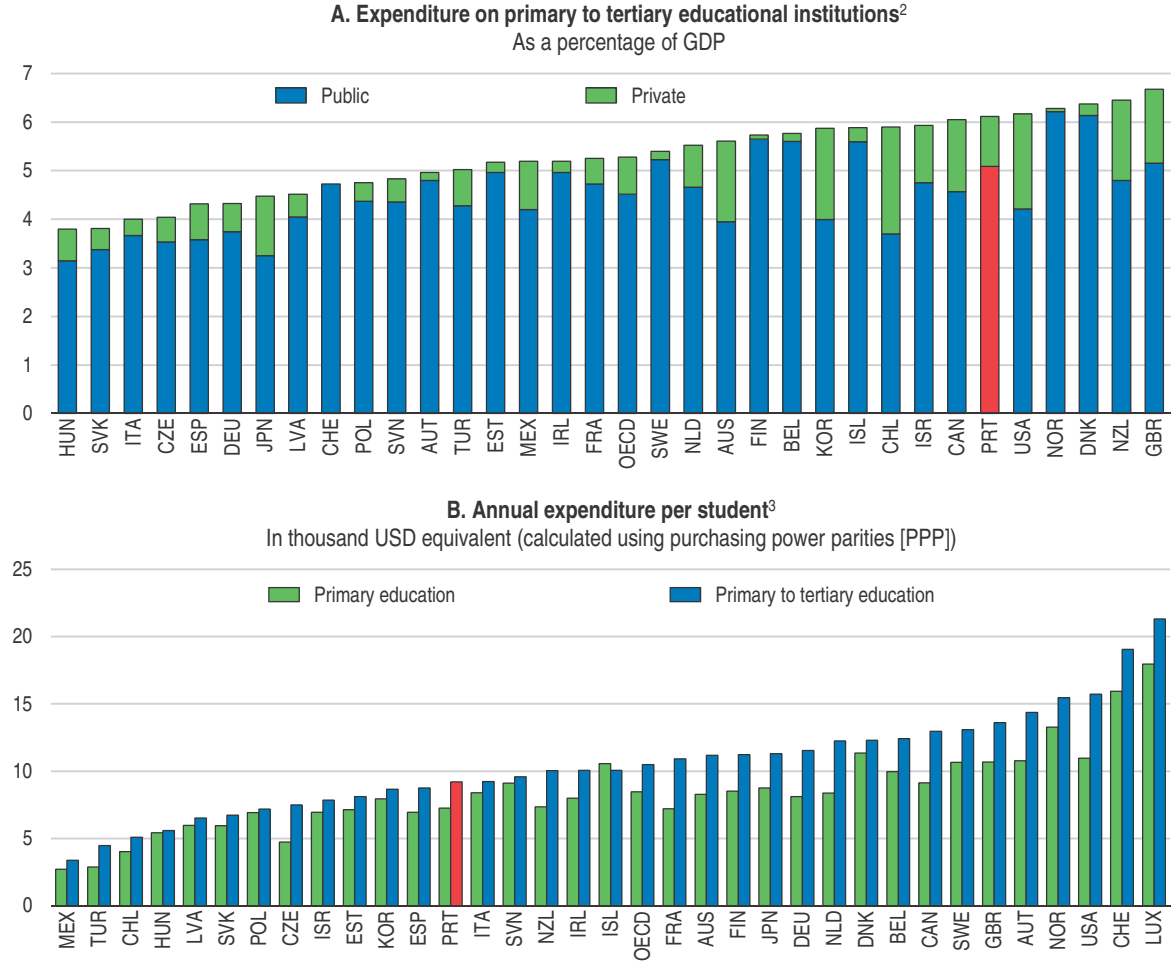
Reducing the high proportion of underperforming students will require some reallocation of resources. Education expenditure is above the OECD average relative to GDP, but annual expenditure per student is among the lowest (Figure 23). Spending could be raised in primary and pre-primary education where it is particularly low, despite evidence suggesting that the rate of return on investment in human capital is greatest in the early years of schooling (OECD, 2016a; Heckman and LaFontaine, 2007; Nusche et al., 2015).

Developing vocational education and training (VET)

Vocationally-oriented upper secondary training often leads to better employment prospects than academically-oriented training, for students who do not pursue further studies (CEDEFOP, 2013). Portugal has traditionally had a bias towards general programmes aimed at preparing for tertiary education, but the on-going development of VET has changed this. 46% of students in upper-secondary education were enrolled in VET courses in 2014, which is close to the OECD average (Figure 24). The offer of VET courses has been expanded and now encompasses a wide range of higher skilled occupations such as electronics and automation, information and communication technologies or renewable energies (OECD, 2015). Further policy efforts to raise the attractiveness of the VET system and strengthen its links to labour market needs are ongoing. Two-year technical courses in post-secondary education (TeSP) have recently been established, and both enrolment and private sector participation in these courses have been strong.

Figure 23. **Allocation of resources in education**

2013[1]



1. Expenditure in 2012 for Canada and 2014 for Chile. The OECD aggregate is an unweighted average of data shown (including Latvia).
2. Public expenditure only for Switzerland.
3. Public institutions only for Chile, Ireland, Italy, and Switzerland. Public institutions only for tertiary level for Canada, Luxembourg and Slovak Republic.

Source: OECD (2016a), *Education at a Glance 2016: OECD Indicators*.

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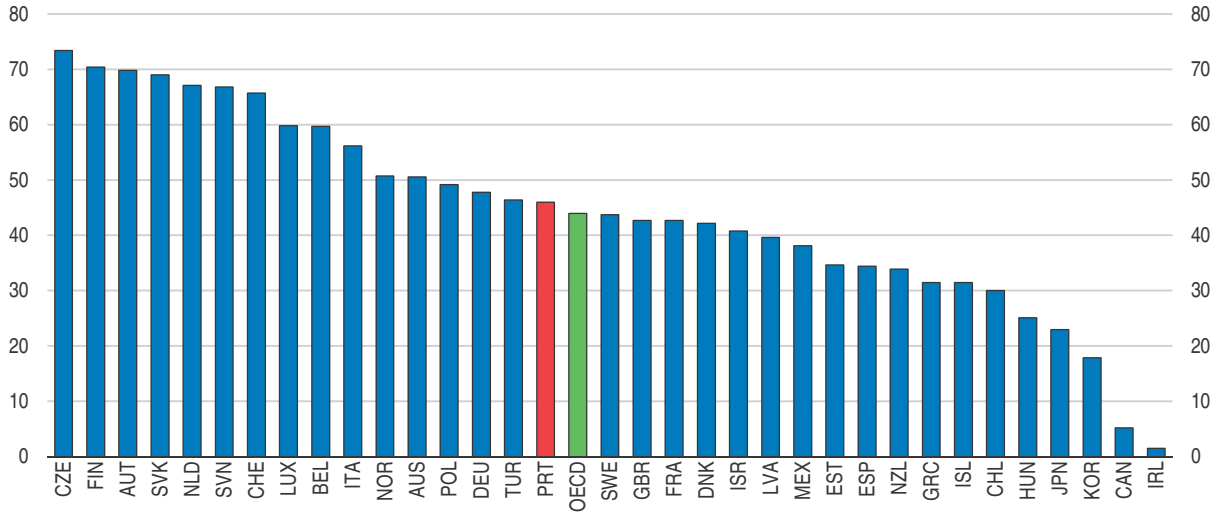
The administration of Portugal's VET system is still fragmented, despite recent policy efforts to put it under a single legal framework. The system could be streamlined, which would probably also result in a reduction of the large number of VET courses on offer. The current situation is conducive to overlaps, inefficiencies and the supply of training options that do not reflect labour market needs (Pedroso, 2011). Two almost parallel public systems are run by the IEFP (the Institute for Employment and Vocational Training) and the Ministry of Education. IEFP courses have a stronger element of dual training, combining class room teaching with practical experience in companies. As a result, these courses have a stronger link to the private sector than the VET courses run by the Ministry of Education, for which no systematic evaluation of participants' labour market performance is undertaken. The Ministry of Education has recently established Vocational Schools of Business Reference to focus on priority sectors, with a strong technical component. In addition, VET courses may

Figure 24. **Upper-secondary vocational education and training enrolment rates**

Percentage of students, 2014[1]



1. 2013 for Canada, Iceland, Ireland and Netherlands; no data available for the United States. The OECD aggregate is an unweighted average including Latvia.

Source: OECD (2016a), *Education at a Glance 2016: OECD Indicators*; and OECD (2015b), *Education at a Glance 2015: OECD Indicators*.

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also be provided by private training providers, including employers and trade unions, partly with public funding. Although a certification process exists, concerns about effective quality control for these courses have been raised (OECD, 2015).

The capacity to monitor VET could be enhanced by developing indicators that monitor the labour market outcomes of VET graduates by VET pathway, course enrolment and VET provider. These indicators should be compiled regularly and be used in policy evaluation with a view towards streamlining the offer and raising the quality of VET. Indicators should also be used to better align student enrolment with the labour market needs in career guidance, starting at the end of lower secondary education. They should also be part of systematic quality appraisals, to which all VET courses should be subjected, including those run by the Ministry of Education.

VET graduates have better employment prospects in countries where these programmes also contain work-based learning in companies, such as Austria, Denmark, Germany, Netherlands, Norway and Switzerland (OECD, 2015). Remunerated training contracts between apprentices and employers rather than schools or training centres encourage learning and raise incentives for employers to provide good quality training. Learning from these experiences could improve VET in Portugal. Portugal's comparatively high minimum wage, currently at 57% of median wages, may require financial incentives for firms to participate in such a scheme. In some Portuguese regions, however, finding businesses that could collaborate may be challenging. Students from these regions could be directed towards well-established large private VET organisers, possibly with the help of some financial assistance for students who have to move to another region.

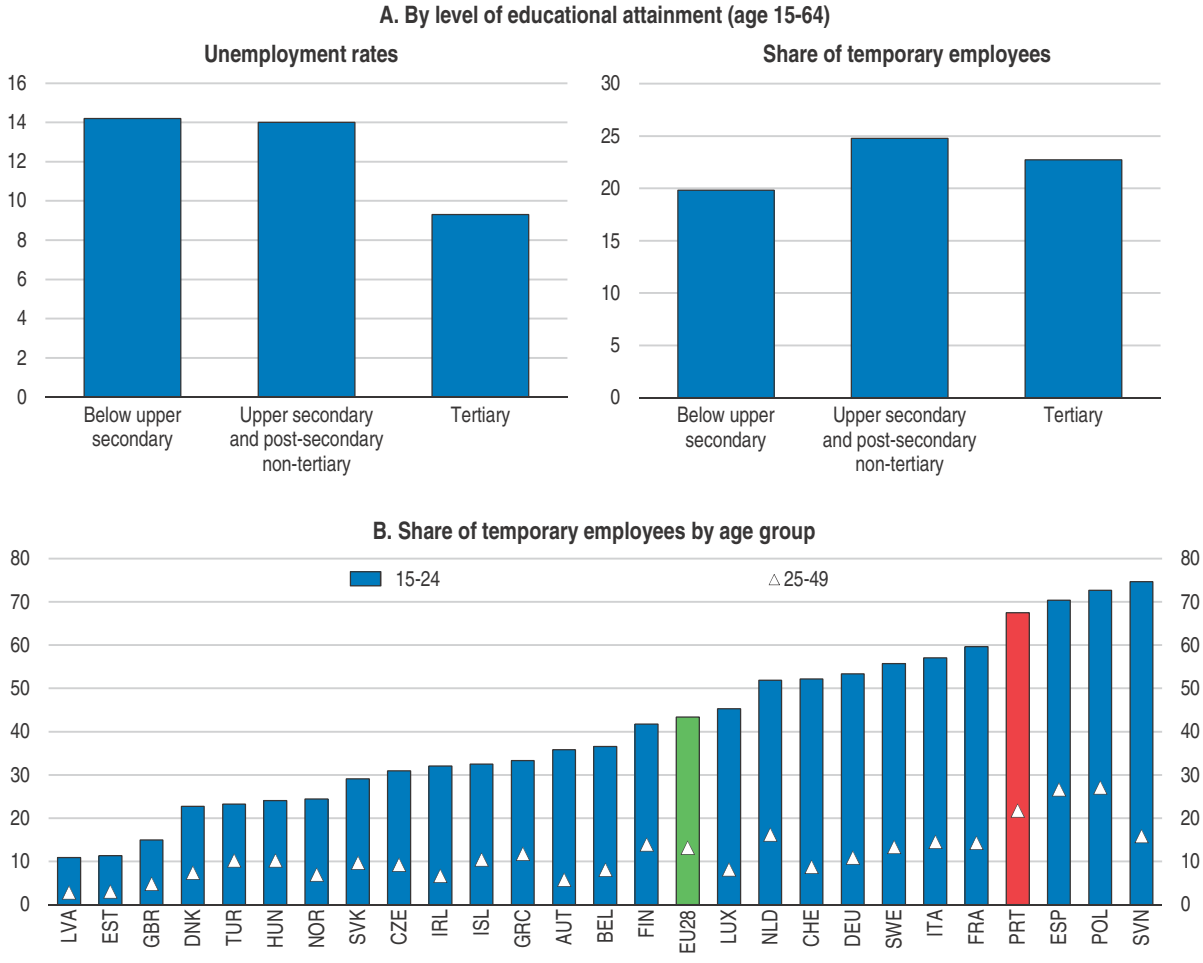
Improve labour market signals and incentives to invest in skills

While the performance of the education system, VET and adult training are important ways to provide options for upskilling, these opportunities will only be useful if individuals take them up. Prospects for employment and job quality, and their link to training, are

therefore crucial for raising skills, as getting a better job is a key motivation for acquiring skills and investing in education. Unfortunately, the labour market prospects are disappointing. Portugal's unemployment rate remains one of the highest in the OECD. Young people, who are more likely to improve their human capital than others, are particularly affected, with one third of those aged below 24 and more than a quarter of those below 30 being unemployed. Incentives for investing in skills are low, as this does not necessarily reduce the prospects of being unemployed, as unemployment rates are not lower for those with upper secondary and post-secondary education (Figure 25, Panel A). Only those with tertiary education have lower unemployment rates.

Figure 25. **The labour market remains segmented**

Per cent, 2015



Source: Eurostat (2016), "LFS series – detailed annual survey results", *Eurostat Database*.

StatLink http://dx.doi.org/10.1787/888933447842

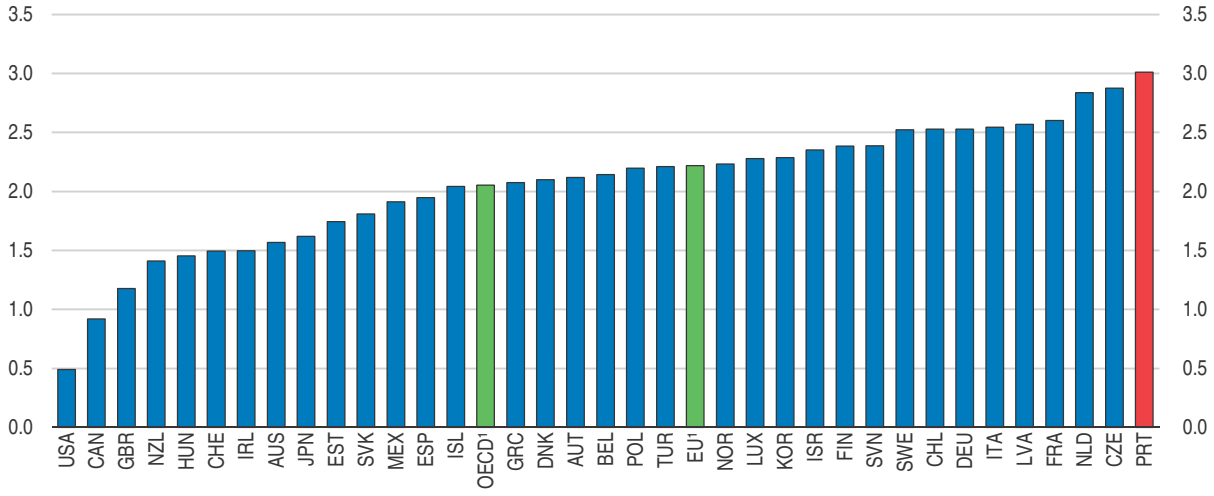
Moreover, the labour market is highly segmented into permanent and temporary contracts. The principal reason for the strong degree of labour market segmentation is the large gap in protection between open ended and temporary contracts (OECD, 2012b; OECD, 2014b; Carneiro, Portugal and Varejão, 2014). For new entrants to the labour market, this segmentation reduces the probability of obtaining a permanent contract. Better qualifications do not reduce the odds of working on temporary contracts (Figure 25,

Panel A). In reality, fixed-term contracts have become a trap rather than a stepping stone to more stable employment, even for the well qualified. Among EU countries, Portugal has one of the highest shares of young workers in temporary contracts, which are frequent even among tertiary graduates (Figure 25, Panel B). The high incidence of temporary contracts diminishes the incentives to invest in human capital and reduces the incentives for on-the-job-training for both employees and employers.

Portugal's constitution sets strict limits on the policy options available to reduce labour market segmentation and most if not all that can be achieved without a constitutional change has already been done. Substantial labour market reforms undertaken since 2011 have reduced the rigidity of labour markets in several respects, for example by reducing severance payments and the procedural complexity for dismissals and by making work time arrangements more flexible through the introduction of a bank of hours. These reforms have had a positive impact, and should be maintained. Still, key aspects of Portugal's labour market rigidity have remained untouched, especially due to these constitutional limitations (Figure 26).

Figure 26. **Employment protection remains high**

Protection of permanent workers against individual dismissal, index scale 0-6 from least to most restrictions, 2013



1. Unweighted averages including Latvia. EU covers those countries that are also members of the OECD.

Source: OECD (2016), "Employment Protection Legislation", *OECD Employment and Labour Market Statistics* (database).

StatLink http://dx.doi.org/10.1787/888933447855

Further reforms of labour market regulations would therefore require a broad consensus and take time. Still, starting a broad discussion about the best labour market policies is useful. In particular, the distributional consequences of the *status quo* are rarely discussed and reducing the gap in protection between the two segments of the labour market is crucial (Saint-Paul, 1997; Bernal-Verdugo et al., 2012; Sestito and Viviano, 2016). For instance, Italy's recent introduction of a new permanent contract with a gradually increasing severance pay led to a 5% increase in new gross hires and made firms less reluctant to offer permanent job positions to yet untested workers (Sestito and Viviano, 2016). Even for those with permanent jobs, the current rigidities provide disincentives for changing jobs, while better matches between skills and jobs could improve employees' career prospects and job satisfaction.

Table 6. **Past OECD recommendations on active labour market policies and education**

Recommendations in 2014 Economic Survey	Actions taken since 2014
Continue to scale up active labour market policies (ALMPs) and closely monitor programme performance.	Greater reliance on digital services has allowed for efficiency improvements and greater capacity to reach out to the NEETs. ALMP spending has increased, although spending per unemployed remains low. A draft evaluation of parts of the ALMP programmes has been prepared, but a more systematic evaluation of programme performance remains a recommendation in this *Survey*.
Scale up adult education and back to school schemes in order to help the unemployed and those in need to gain relevant skills.	The government has launched a new programme called QUALIFICA to expand the network of adult training centres and reach a larger share of the adult population, raise participation in lifelong learning, and ensure that the process of certification of competencies based on work experience includes formal education or training. A "QUALIFICA Passport" will track formal and informal qualifications acquired over time, which provides a basis for modular, flexible training opportunities.

Making growth more sustainable

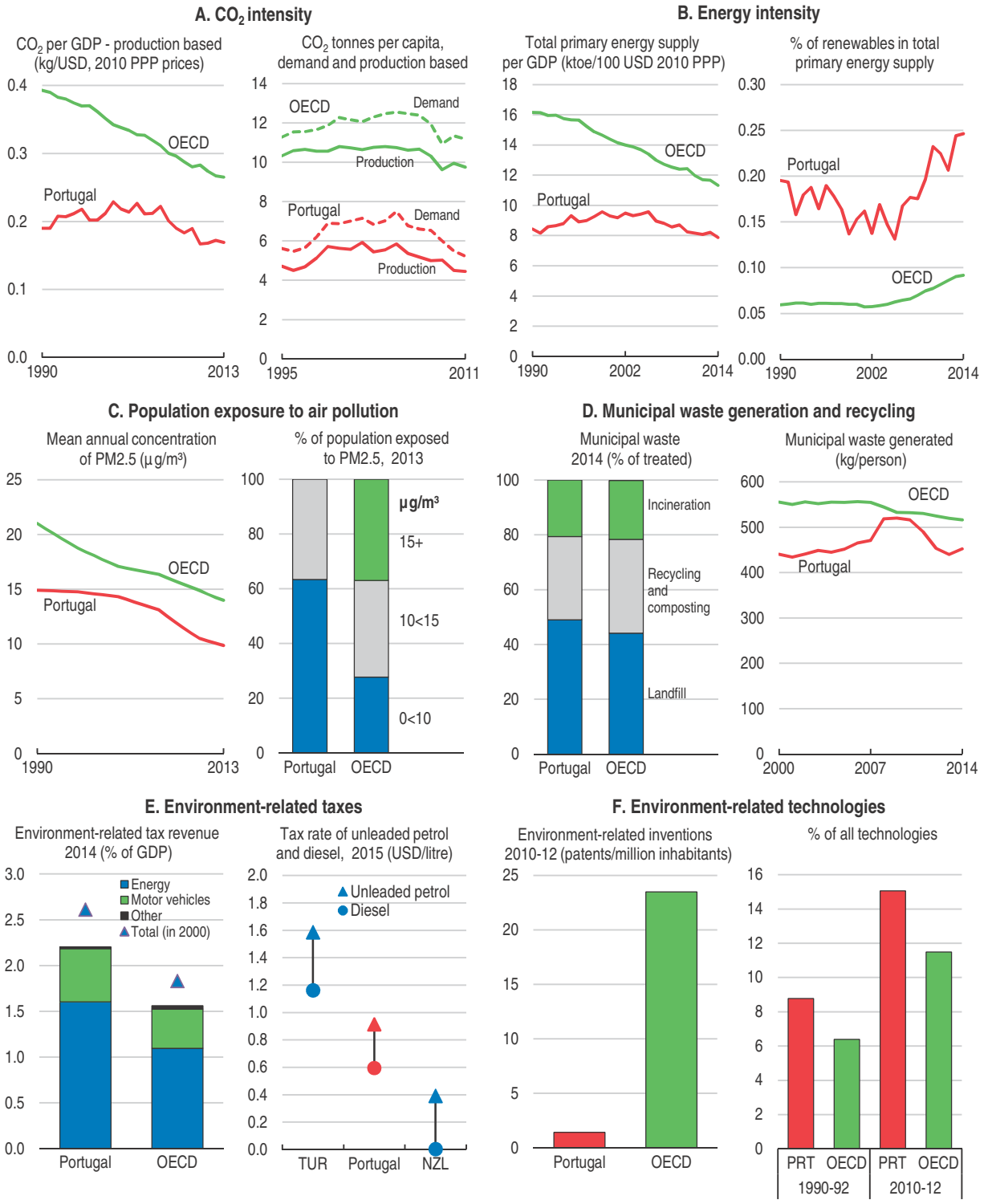
Portugal's emissions of greenhouse gases (GHG) per unit of GDP are well below the OECD average, and during the recent recession emissions fell more than overall output (Figure 27). The carbon intensity of the economy has been declining since 2000 as the contribution of renewables has been rising. The average contribution of renewables to electricity generation was some 60%, about half from hydro, in 2014. Renewables provided about one quarter of total primary energy supply, of which just over half was from use of waste and biofuels in electricity and heat production. A challenge will be to build on this progress and minimise the cost at the same time. Past achievements in the area of electricity generation from renewable sources have gone hand in hand with substantial producer rents due to high guaranteed feed-in tariffs and insufficient competition. These legacy remuneration schemes are no longer available to new entrants, but continue to provide sizeable rents to incumbent operators. In the future, more cost-effective policy measures will need to be found to continue reducing the carbon footprint of the economy.

Portugal has made rapid progress in drinking water quality, but there remain a few districts where less than 95% of the water was considered safe in 2013 (Simas, 2014); most of the country was in this category in 2003. Although Portuguese legislation embodies the cost-recovery principle, water charges to consumers have not covered expenditures, leaving local authorities in debt to water management systems, and about 20% of water consumers are still not covered by water treatment plants (MOATE, 2014).

Air quality in Portugal is better than in most OECD countries, with relatively few people exposed to levels of air pollution from microscopic particles that are likely to damage health. Nevertheless, the Global Burden of Disease study indicates that in 2013 nearly 3300 premature deaths were statistically attributable to outdoor air pollution (World Bank/IHME, 2016).

Portugal generated significantly less household waste than the OECD average until the beginning of the century when rising levels accompanied rapid economic growth at the same time as the OECD average declined. The decline following the sharp recession seems to have halted. Landfill remains the most common form of disposal, despite the introduction of a differentiated waste tax. Waste disposal authorities have often not passed these taxes on to households, limiting their incentive effect.

Figure 27. **Green-growth indicators: Portugal**



Source: OECD (2016), *Green Growth Indicators* (database). For detailed metadata, *http://stats.oecd.org/wbos/fileview2.aspx?IDFile=02a134e1-c3ec-4c5c-9a05-4ebb41a60539*.

StatLink http://dx.doi.org/10.1787/888933447866

Mainly because of higher energy taxation, Portugal generates significantly higher revenues from environmental taxation than the OECD average, and somewhat higher than the European average. Fuel excise taxes have been raised further in 2016, but continue to be lower for diesel fuel than for petrol, despite the absence of an environmental justification for this (Harding, 2014). However, tax credits, allowances and exemptions are widely used and sometimes exempt particular sectors or groups of people from environmental taxation (OECD, 2011). For example, reduced fuel tax rates in agriculture and fishing should be reconsidered. As part of a green tax reform, a carbon tax has been applied on the use of oil products in non-ETS sectors since 2015, with rates indexed to carbon prices under the EU ETS, subject to a floor.

With respect to developing new environmental technologies, Portugal is generally dependent on the results of foreign research work, as its very low rates of environmental patenting illustrate. The share of environmentally related patents in total patents has been relatively high.

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ANNEX

Progress in main structural reforms

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

Recommendations in 2014 Economic Survey	Actions taken since 2014
A. Fiscal policy	
Achieve planned structural fiscal consolidation targets but allow the automatic stabilisers to operate.	Despite some slippage with respect to targets, Portugal has made strong progress in reducing public deficits since 2010.
Continue to improve public sector efficiency by further reducing the number of civil servants.	The decline in public employment has been reversed.
Enhance the efficiency of the tax system including by eliminating tax exemptions and expenditures.	Consumption taxes continue to make wide use of exemptions and reduced rates, including the recently introduced reduced VAT rate applied to restaurant meals.
B. Financial markets	
Ensure a timely and consistent recognition of losses by enforcing precedent guidelines and continue to encourage banks to raise capital, when needed, by issuing equity and retained earnings.	High levels of legacy NPLs continue to be a challenge for banks in Portugal. Bank capitalisation has improved in unweighted terms, but risk-weighted capital ratios have stabilised at levels significantly below the OECD average.
Assess the performance of the recently introduced insolvency procedures and enhance them if necessary.	Recently announced policy plans to improve the flexibility and coordination of public sector creditors in insolvency proceedings can improve their functioning but further improvements are recommended in this *Survey*.
C. Improving the business climate	
Strengthen competition in non-tradable sectors through further regulatory reform.	No action taken. In key non-tradable sectors, including energy and professional services, evidence of weak competition persists. In the transport sector, plans for urban transport concessions in Lisbon have been cancelled and will now be transferred to the municipality while those in Porto have been delayed. The State will retain the majority of shares in Portugal's major airline TAP.
Phase out electricity generation schemes with guaranteed prices sooner than currently planned.	No action taken since 2014.
Promote wage bargaining at the firm level, including by abolishing administrative extensions of wage agreements.	Conditions for administrative extensions of collective bargaining agreements were eased in 2014, which may lead to a re-emergence of these extensions in the future.
Improve the links between researchers in universities and the private sector. Consider allowing refunds of R&D tax credits for loss-making firms, or extending the carry-forward period.	No action taken since 2014.
D. Inequality and social benefits	
Strengthen the social safety net and raise benefit levels of the minimum income support scheme RSI.	Changes to Portugal's guaranteed minimum income scheme, which excluded many children and youths from the programme and reduced transfer payments but had only a small budgetary impact, have recently been undone. This is likely to attenuate poverty among children and youths going forward.
Make unemployment benefits independent of age and reform eligibility requirements to widen their coverage.	No action taken since 2014.
E. Active labour market policies and education	
Continue to scale up active labour market policies (ALMPs) and closely monitor programme performance.	Greater reliance on digital services has allowed for efficiency improvements and greater capacity to reach out to the NEETs. ALMP spending has increased, although spending per unemployed remains low. A draft evaluation of parts of the ALMP programmes has been prepared, but a more systematic evaluation of programme performance remains a recommendation in this *Survey*.
Scale up adult education and back to school schemes in order to help the unemployed and those in need to gain relevant skills.	The government has launched a new programme called QUALIFICA to expand the network of adult training centres and reach a larger share of the adult population, raise participation in lifelong learning, and ensure that the process of certification of competencies based on work experience includes formal education or training. A "QUALIFICA Passport" will track formal and informal qualifications acquired over time, which provides a basis for modular, flexible training opportunities.

Thematic chapters

Chapter 1

Raising business investment

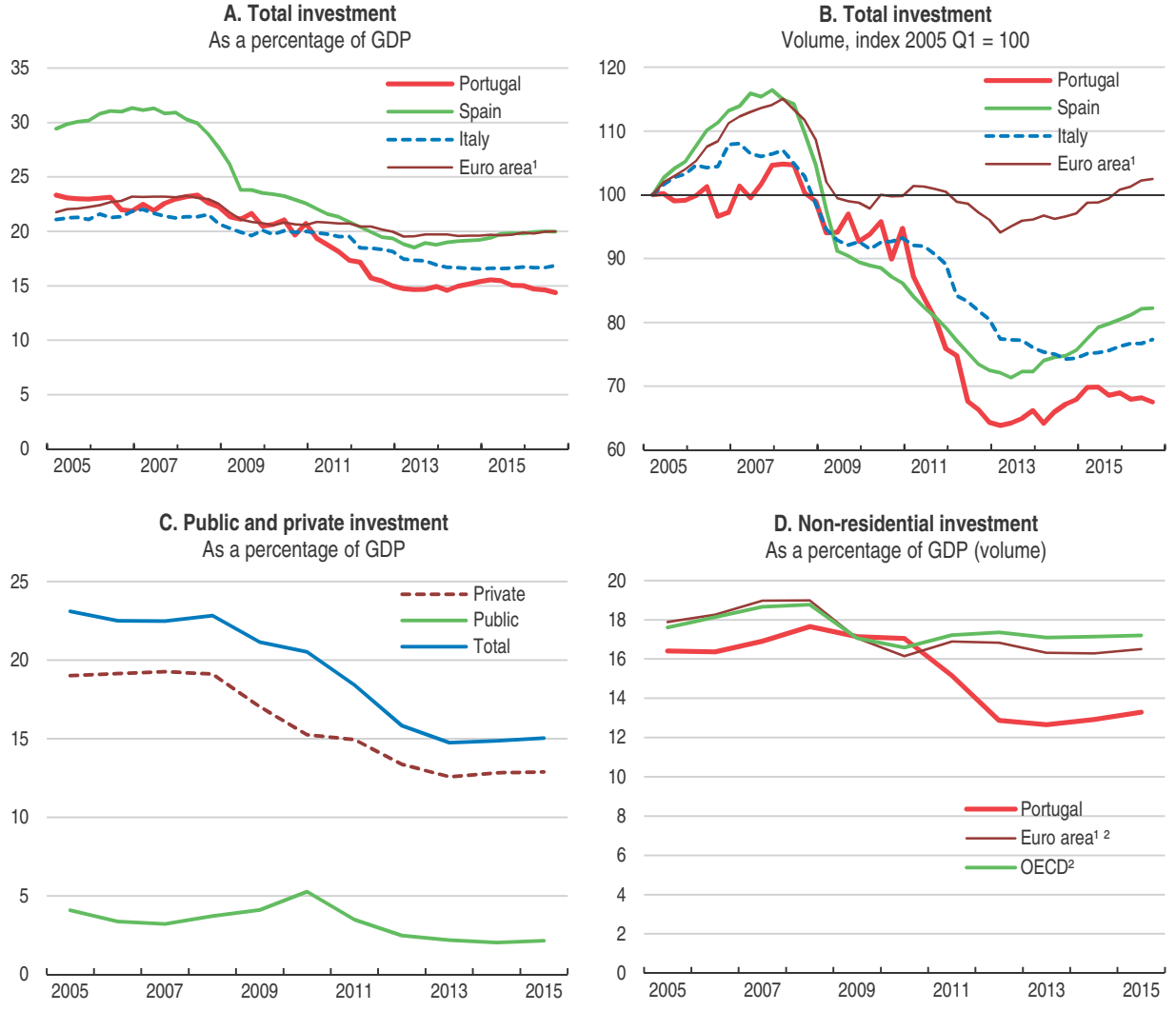
In the context of a strong recession from which the economy only emerged in 2014, total investment in Portugal has been low, reducing the economy's growth potential. Without stronger investment, growth performance is bound to decline over the next years, but raising investment also matters for wage and productivity developments. Low investment is related to both financing constraints and a lack of competitiveness. Many Portuguese corporates are heavily indebted and are facing strong deleveraging needs, which places strong limits on their capacity to invest, while banks' lending capacity may be curtailed by large amounts of non-performing loans. The regulatory stance could be used to strengthen incentives for banks to resolve long-standing NPLs, in combination with public support for banks' efforts to offload legacy loans from their balance sheets. The costs of doing so could be reduced by improvements in insolvency rules which are vital for the recovery values of collateral. Stronger investment incentives could result from a better business climate, possibly as a result of further efforts to simplify dealing with the licenses, the public administration and the judicial system. Reducing entry restrictions in professional services would be one way to improve access to non-tradable inputs, which affect the competitiveness of Portuguese firms, as would be further efforts to reduce rents in the electricity sector or stronger competition in the ports sector. Implicit barriers to the entry of new firms, which often turn out to invest strongly as they grow, could be reduced through reforms in wage bargaining mechanisms and changes in the support measures for research and development.

Investment remains sluggish and concentrated in non-tradable sectors

Investment has come down

In the context of a strong recession from which the economy only emerged in 2014, total investment in Portugal has been low in comparison with other euro area countries (Figure 1.1, Panel A). Starting from a lower middle position among OECD countries in 2008,

Figure 1.1. **Investment**



1. Euro area countries that are also OECD members (including Latvia).
2. Unweighted averages including Latvia; the OECD aggregate excludes Turkey.

Source: OECD (2016), *OECD Economic Outlook: Statistics and Projections* (database) and INE (2016), "Main Economic Indicators", *National Accounts Tables*, Instituto Nacional de Estatística.

StatLink http://dx.doi.org/10.1787/888933447624

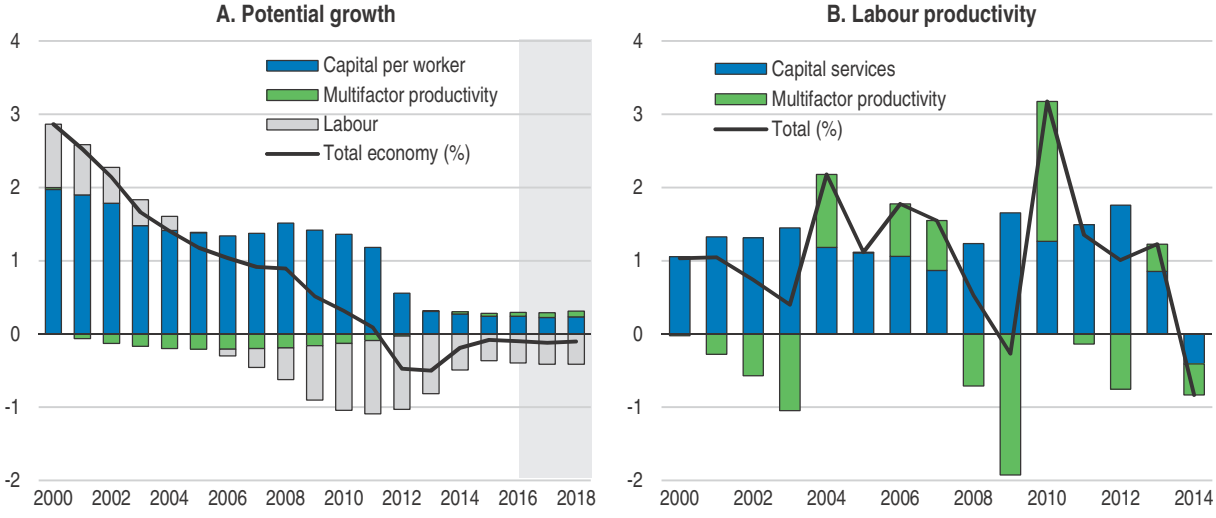
the current low level largely reflects a marked decline starting in 2010, when Portugal's investment rate fell by 5.3 percentage points over the course of five years. This decline was significantly more pronounced than the more moderate decline in investment seen by other euro area or OECD countries. In volume terms, Portugal has had a less pronounced surge in investment since before the crisis than other euro area countries, and following the sharp post-crisis decline, investment is now more than 30% below 2005 (Figure 1.1, Panel B). Private and public investment account for roughly similar shares of this decline, falling from 15.3% and 5.3% of GDP in 2010, respectively, to 13% and 2.3% in 2015 (Figure 1.1, Panel C).

Non-residential investment, which at 13.6% is the fourth-lowest in the OECD, has experienced similar declines as overall investment, with a marked decline starting in 2010. However, non-residential investment has recovered somewhat in 2014 and 2015 (Figure 1.1, Panel D). Turning this around and rebuilding the capital stock is one of the key challenges for the economy.

The recent low investment levels have reduced the economy's growth potential, which measures how fast GDP can grow over a longer horizon, when both labour and capital are fully employed (Figure 1.2, Panel A). Since 2012, investment has hardly exceeded the depreciation of the existing capital stock, meaning that growth of the productive capital stock has almost stalled. This comes in addition to declining labour inputs, which are the result of demographic changes, low labour participation and low employment. These declining factor inputs explain the low potential growth rate of the Portuguese economy, which OECD estimates currently put below 0.5%. Without stronger investment, growth performance is bound to decline to such low levels over the next years.

Figure 1.2. **Low investment has curbed potential growth and labour productivity**

Decomposition of potential growth and labour productivity, percentage points



Source: OECD (2016), "GDP per capita and productivity growth", *OECD Productivity Statistics* (database) and calculations based on *OECD Economic Outlook: Statistics and Projections* (database).

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Raising investment also matters for wage and productivity developments. Low investment limits the growth of labour productivity, which represents the wage increases that Portuguese workers can pocket without deteriorating the competitiveness of Portuguese companies. In fact, the contribution of the capital stock to labour productivity growth has declined over the last few years (Figure 1.2, Panel B). Investment raises productivity directly, by increasing the capital stock that each worker has at her/his disposal, but also indirectly, as technological progress embedded in new capital goods often allows improvements in the use of other resources or a better organisation of production processes, which is often referred to as multi-factor productivity.

Continued progress on the rebalancing of the economy will require an investment boost

Investment is also needed to support the substantial structural change that the Portuguese economy is undergoing. After many years of credit-fuelled expansion of the non-tradable sector that led to a massive misallocation of resources and declining export performance, there have been encouraging signs of a reversal towards tradable sectors in recent years (Reis, 2015).

Since 2011, exports have increased significantly, both in volumes and relative to GDP. Portugal now exports over 40% of GDP, up from 27% in 2005. Improvements in the competitiveness of Portuguese exporters have underpinned this improvement in export performance, but price competitiveness has not been the only driver of export growth. In fact, non-price factors such as innovation and product differentiation have become increasingly important for explaining the success of Portuguese exporters, particularly in high-value added goods (Bank of Portugal, 2016). This may be an indication that the improvement in exports is of a structural nature. Further reasons to assume that strong exports are here to stay include the diversification of exports across sectors observed in recent years (Figure 1.3) and the fact that a larger number of firms now export, a process that has started even before the crisis. A remarkable 16% of goods' exports originated from young exporters in 2014, reflecting a restructuring process of exporting sectors (Bank of Portugal, 2016).

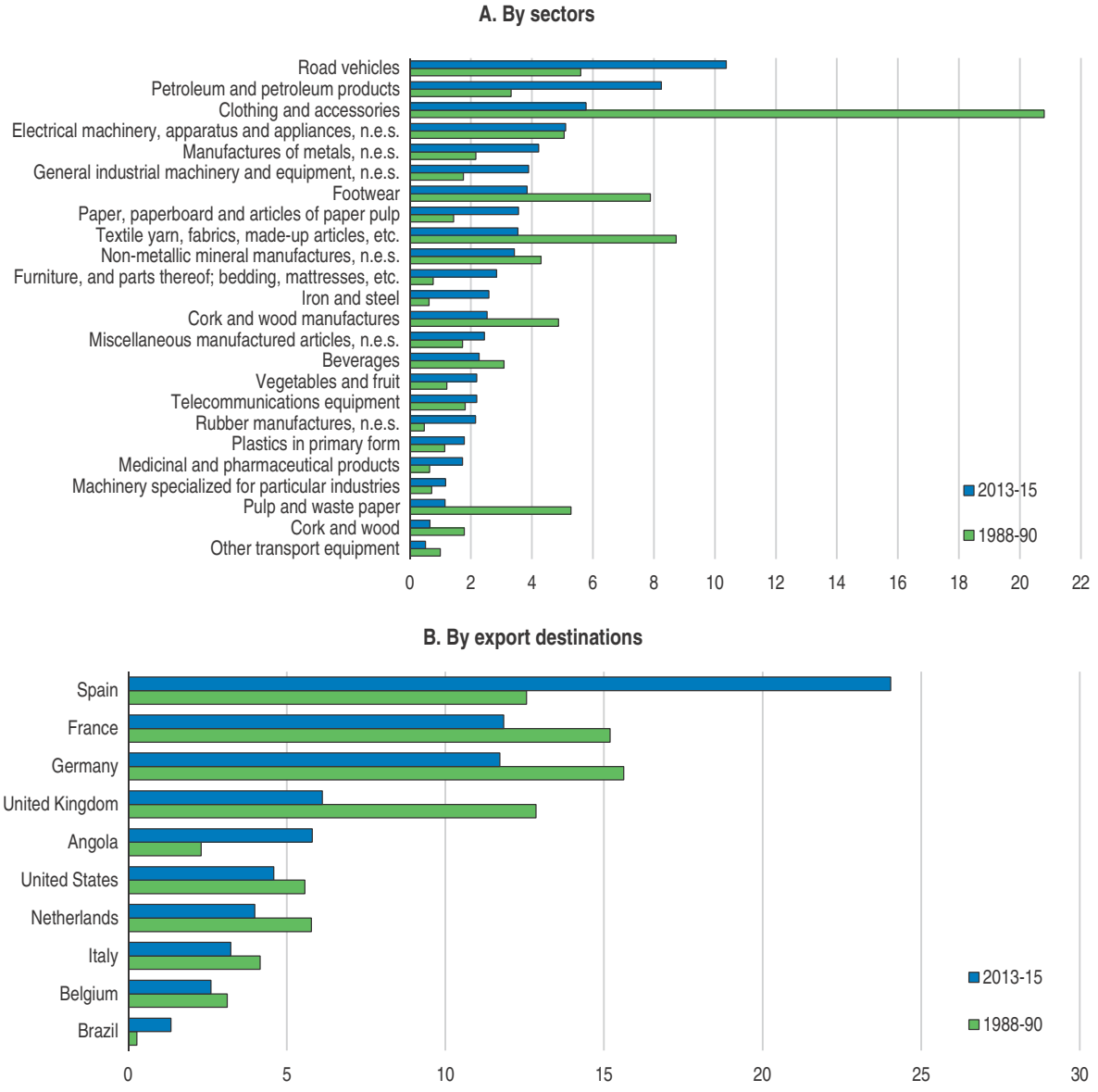
For this process to continue, however, it is important that new firms get access to finance for their investment needs and that the overall framework conditions are conducive to their entry and growth. Indeed, there is some evidence that the rise of new firms among exporters is losing momentum (Bank of Portugal, 2016). This underlines the need for further improvements in policies.

More broadly, investment will be key for building on the recent export success. A more substantial expansion of tradable activities will not be possible without large investment in these sectors, particularly given the depletion of existing capital stocks after years of low investment. Without stronger investment in export sectors, it will be difficult to support further structural rebalancing towards tradable sectors, which is one of the objectives of Portugal's National Reform Programme.

Currently, around 22% of non-residential investment takes place in the manufacturing sector, significantly more than the 16% before the crisis (Figure 1.4). The three service sectors that include significant shares of tradable activities – wholesale and resale trade, information and communications services and accommodation and food services – together account for 30% of total gross fixed capital formation. Still, around half of

Figure 1.3. **Portugal's merchandise exports by sectors and destinations**

Share of total merchandise exports, per cent[1]



n.e.s.: Not elsewhere specified.

1. Average of observation periods (i.e. 1988-90 and 2013-15).

Source: UN Comtrade Database.

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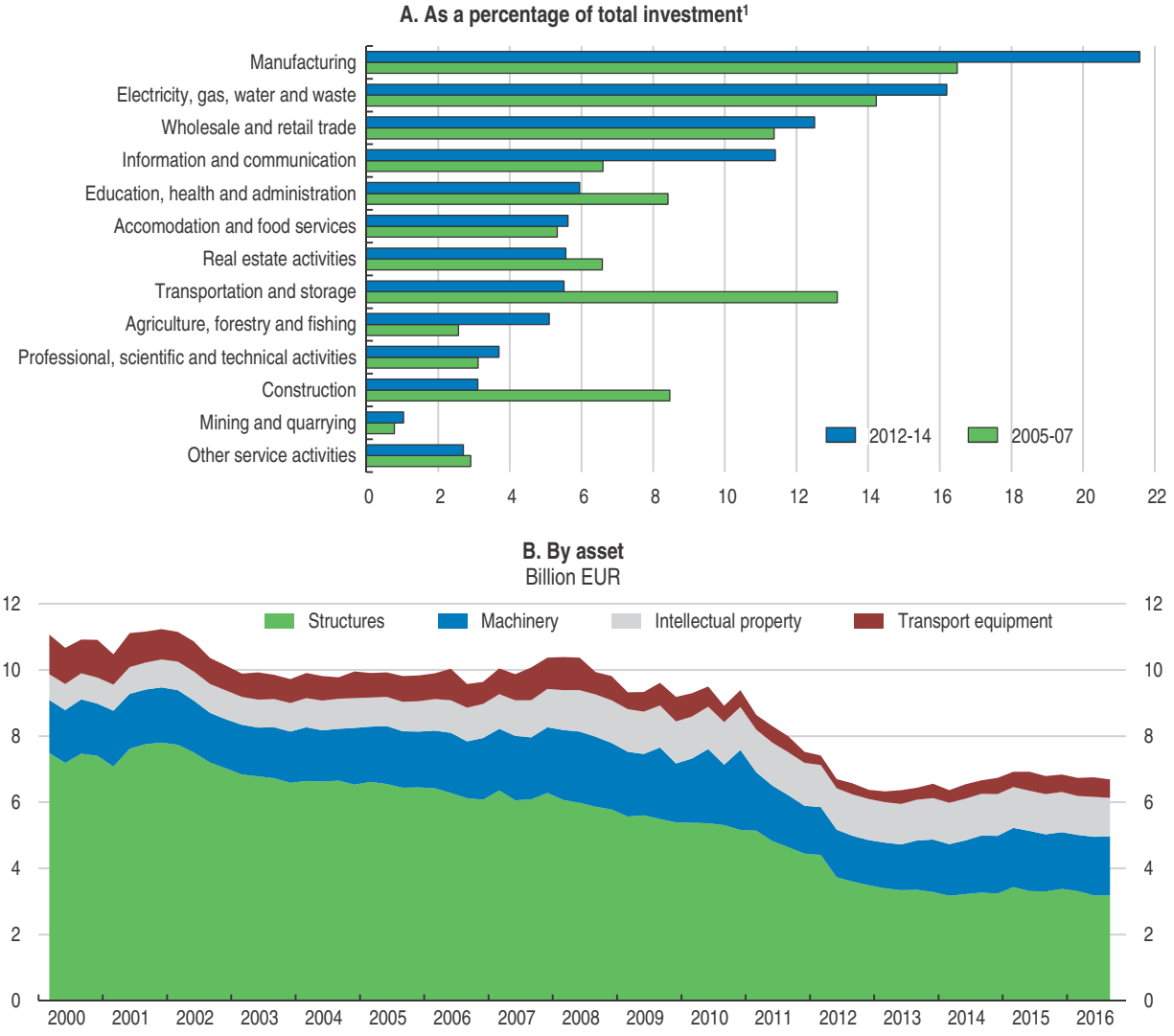
Portugal's gross fixed capital formation is taking place in sectors with largely non-tradable activities, down from 64% before the crisis. Approximately half of gross fixed capital formation is spent on structures and buildings, while machinery and transport equipment, whose share has been rising since 2012, account for slightly less than a third (Figure 1.4, Panel B). Investment in machinery and equipment has fallen short of scrapped capital since mid-2015.

Figure 1.4. **Distribution of investment across selected sectors**

Gross fixed capital formation



1. Average over the period.

Source: INE (2016), "Gross fixed capital formation of enterprises by economic activity and legal form" and "National Accounts" tables, Instituto Nacional de Estatística.

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Investment in knowledge-based capital is crucial for technological upgrading and competitiveness

Investment in knowledge-based capital (KBC, see Box 1.1) has risen more strongly than investment in physical capital in several OECD economies (Andrews and Criscuolo, 2013). In contrast, it is comparatively low in Portugal (Figure 1.5). Spending is low both on the traditional ICT-related assets like software or databases and on other KBC assets such as organisational capital and training. KBC is an important determinant of long-term productivity growth. It has been estimated to account for one-fifth to one-third of labour productivity growth in the market sector of the US and EU economies (Andrews and Criscuolo, 2013; Corrado et al., 2013; Roth and Thum, 2013). Investments in knowledge capital also contribute to better innovation outcomes. For example, manufacturing firms

Box 1.1. **Knowledge-based capital: Definition and measurement**

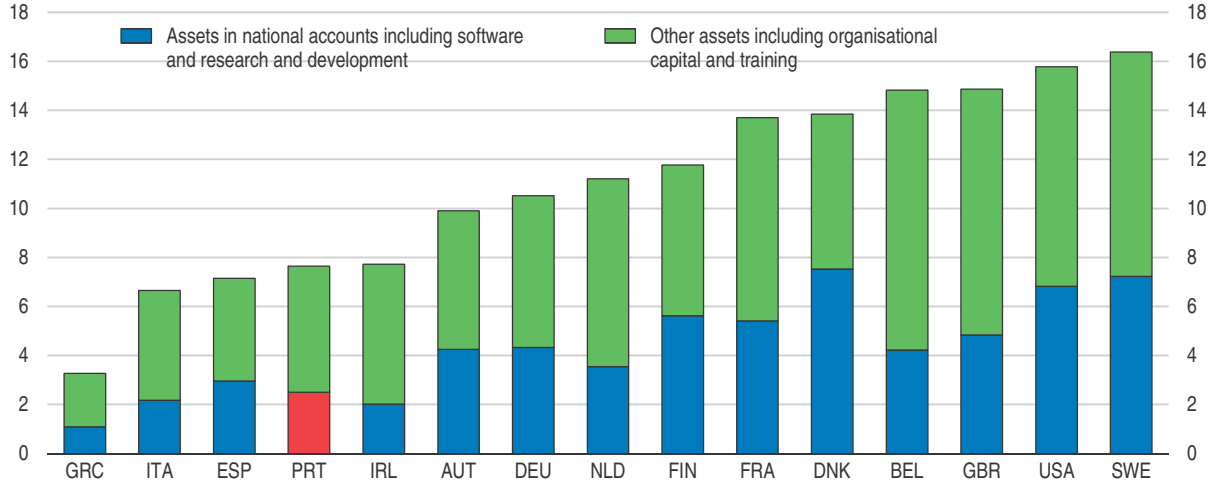
Knowledge-based capital (KBC) encompasses all assets that lack physical substance but, like physical capital, generates economic benefits that can be retained by firms at least to some extent, for a period that exceed one year (OECD, Science, Technology and Industry Scoreboard 2015). KBC is usually understood to contain three main components (Corrado et al., 2009):

- Computerised information including software. This is regularly recorded as part of gross fixed capital formation in national accounts.
- Innovative property comprises research and development (R&D), mineral exploration and artistic originals, new architectural and engineering designs and new product development in financial services.
- Economic competencies, which comprise firms' human and structural resources such as firm-specific training, brand equity, and organisational capital.

While R&D and software are included in the national accounts definition of investment, other components like investment in design, new financial products, advertising, market research, training and organizational capital are not.

Figure 1.5. **Investment in knowledge-based capital**

Knowledge-based capital (KBC) assets as a percentage of business sector gross value added, 2013[1]



1. Investment in KBC can be subdivided into three main groups: computerised information (e.g. software and databases); innovative property (e.g. scientific and non-scientific research and development, copyrights, designs and trademarks); and economic competencies (including brand equity, aspects of advertising and marketing, firm-specific human capital, and organisational know-how and capabilities).

Source: OECD (2015), *OECD Science, Technology and Industry Scoreboard 2015: Innovation for Growth and Society*.

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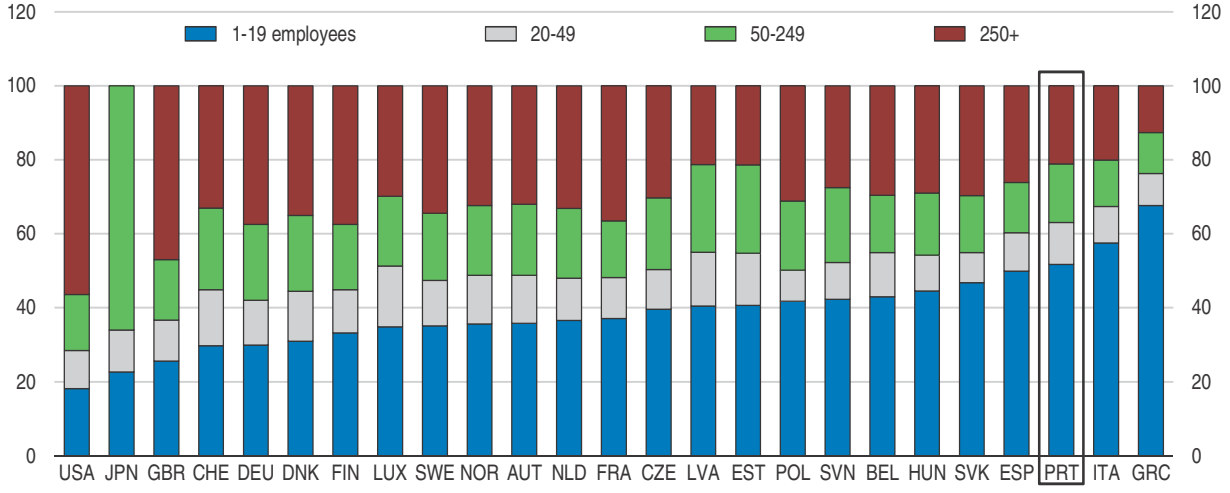
that exhibit a higher level of software investment generate more patents for a given level of R&D expenditure, and their investment in R&D is more highly valued by equity markets (Branstetter et al., 2015). Investment in several KBC components, notably business processes or organizational structure, are particularly important sources of productivity growth in many services (Dabla-Norris et al., 2015; Goodrich et al., 2016).

The firm size distribution is skewed toward small enterprises

A salient feature of Portugal's economy is that industry structures are heavily skewed towards small firms (Figure 1.6). While other countries also have a majority of small firms, the decade-long downward shift in the firm size distribution that Portugal has experienced is unparalleled among other advanced industrial economies for which data is available (Braguinsky et al., 2011). Even after accounting for changes in data coverage and the structural shift towards non-tradable sectors in the run-up to the crisis, much of the "shrinking" of the average Portuguese firm remains unexplained (Braguinsky et al., 2011). This size distribution poses particular challenges for investment, as larger firms often struggle less than small firms with crucial determinants of investment such as access to international markets or to finance.

Figure 1.6. **Employment by enterprise size class**

Total business economy, per cent, 2012[1]



1. Data cover 2011 for Ireland, Israel and Turkey; 2013 for Korea and New Zealand. The size class "50-249" refers to "50+" for Japan. For further details of data coverage see Chapter 2, Figure 2.5 in the source publication.

Source: OECD (2015), *Entrepreneurship at a Glance 2015*.

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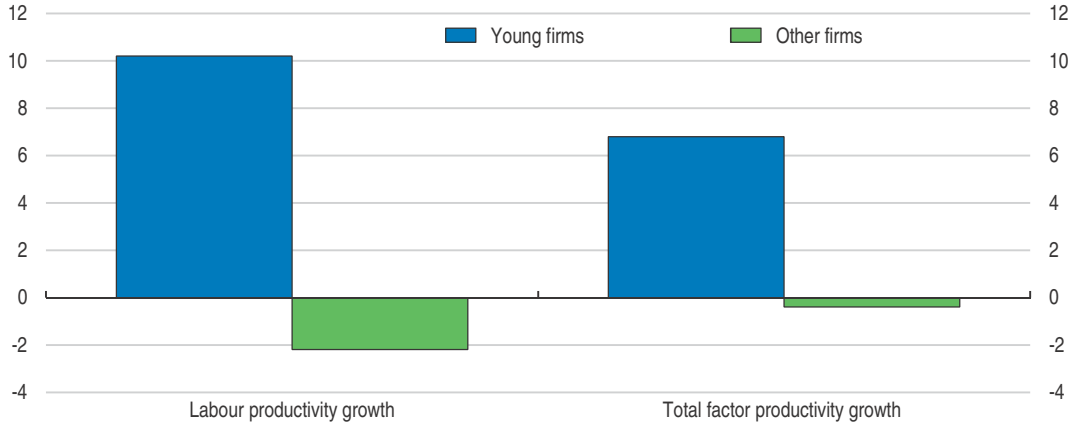
With less scope for exploiting economies of scale, small firms often have lower productivity, with the exception of dynamic startups that begin small, before growing rapidly (Criscuolo et al., 2014; Altomonte et al., 2012). Firm-level analysis from a census of Portuguese firms suggests that new market entrants have stronger productivity growth than more mature firms, both with respect to labour productivity and MFP (Figure 1.7). They also create three times more jobs than other firms and account for almost half the jobs created (Criscuolo et al., 2014). In 2013, firms aged 5 or less accounted for 26% of gross fixed capital formation.

Portugal has fewer young firms (aged 0-2) than other countries, and a large share of Portugal's small firms are mature and not start-ups (Figure 1.8, Panel A). Resources for new entry and growth can only become available if there is firm exit at the same time. Only 30% of small firms are younger than 5 years old, and almost half of Portuguese small firms are more than 10 years old (Figure 1.8, Panel B). In contrast to recent market entrants, these firms are generally net job destroyers and have weak productivity growth (OECD, 2015a; Criscuolo et al., 2014). Larger shares of mature small firms often go along with lower productivity growth (Figure 1.7, OECD, 2015a).

Figure 1.7. **Young firms experience faster productivity growth**

Average annual productivity growth, per cent, 2006-11[1]



1. Young firms are defined as those aged five years-old or less.

Source: OECD calculations based on data from Integrated System of Business Accounts (*Sistema Integrado de Contas*, SCIE).

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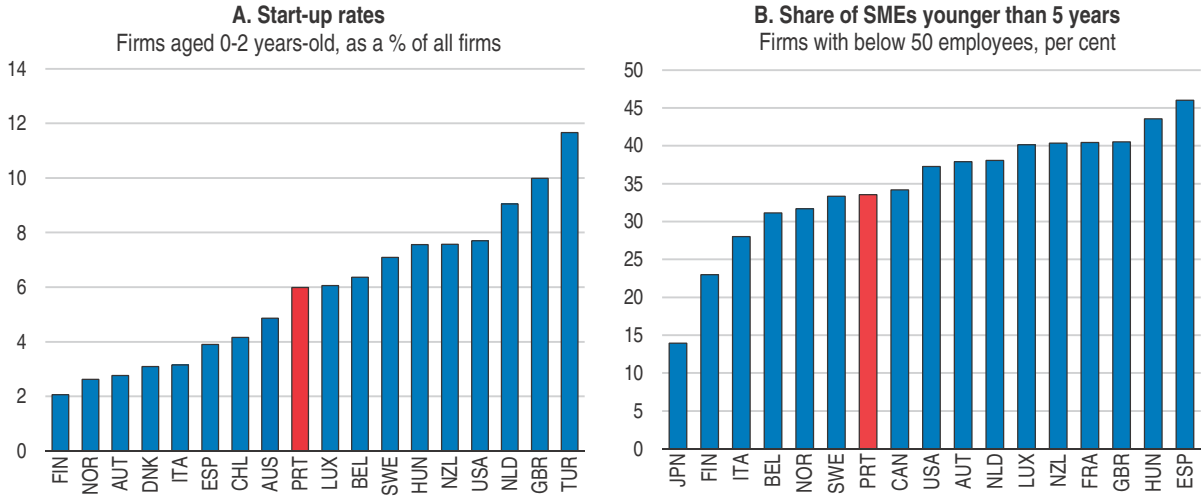
Figure 1.8. **Start-up rates are low and a large share of SMEs are mature**

Average 2009-13[1]



1. Entry rates calculated as number of entrants with positive employment over total number of units with positive employment. Figures report averages for the period 2009-13 conditional on availability. Owing to methodological differences, figures may deviate from officially published national statistics.

Source: OECD DynEmp v.2 Database; C. Criscuolo et al. (2014), "The Dynamics of Employment Growth: New Evidence from 18 Countries", *OECD Science, Technology and Industry Policy Papers*, No. 14.

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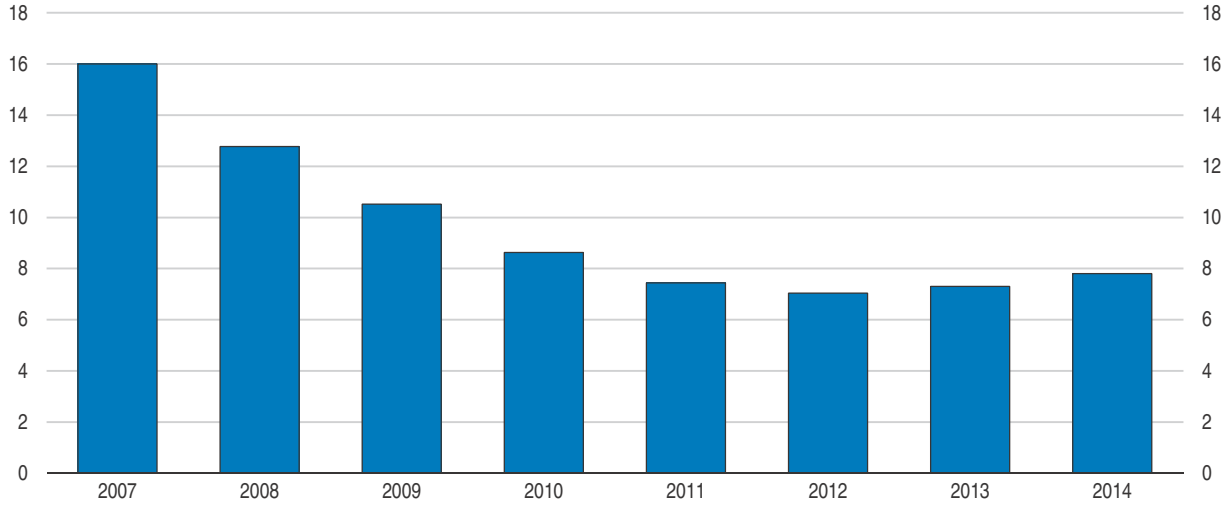
The economic impact of these misallocations may be sizeable. Dias et al. (2016) estimate that misallocated labour and capital shaved off 1.3 percentage points of annual GDP growth during 1996-2011. In other words, if capital misallocation had not worsened over the last two decades, Portugal's productivity growth would have been much closer to the best performers in the OECD. Capital misallocation is reflected in a declining ability of more productive firms to attract capital and grow. From 2007 through to 2014 the positive difference in the amount of capital going to high and low productivity firms halved, correlating with the decline in MFP at an aggregate level. Figure 1.9 shows the extent to

Figure 1.9. **The allocation of capital has deteriorated over time**

Investment differential between high-productivity and low-productivity firms



Note: The chart shows the sensitivity of firm capital growth to the lagged level of MFP, based on an OLS production function estimates. The estimates are based on a firm level regression of the growth in the real capital stock on the lagged deviation of firm MFP from its industry-year average (MFPt-1), interacted with time trends (trend and trend-squared). The regression also controls for firm age, firm size classes, industry and year fixed effects. The analysis is based on a sample of around 85000 continuing firms in the non-farm business sector (i.e. NACE Rev. 2 10-83, excluding 64-66.).

Source: OECD calculations.

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which capital investment is undertaken by high productivity firms relative to low productivity firms. Over time, this differential has fallen, which suggests that capital reallocation has become less productivity-enhancing over time. However, there is a slight rebound in this measure in the last two years.

The remainder of this chapter will discuss possible explanations for Portugal's sluggish investment performance, and possible policy reforms that could address them. The next section will focus on financing constraints, i.e. cases where firms would want to invest but are facing difficulties in financing these projects. The section discusses the corporate indebtedness and banks' asset quality, but also the role of well-functioning insolvency mechanisms and of tax incentives for corporate financing. The following section will discuss ways to increase expected returns on investment through policies that can raise the competitiveness of companies operating in Portugal and avoid creating implicit barriers to entry or post-entry growth.

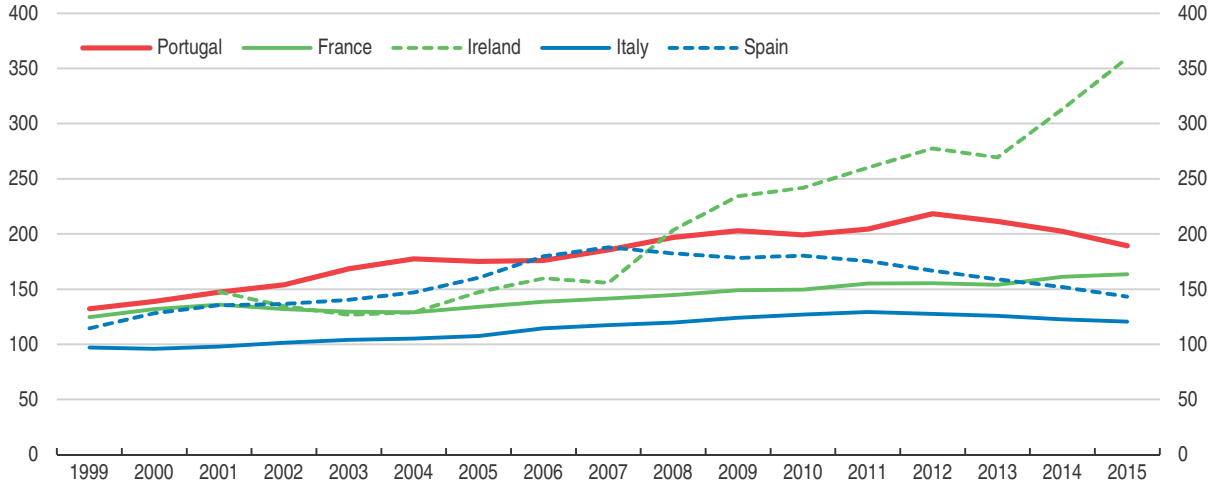
Addressing financing constraints

High corporate debt and weak legacy assets are weighing on financial conditions

Many Portuguese corporates are heavily indebted and are facing strong deleveraging needs, which place strong limits on their capacity to invest. On average, non-financial corporates face a debt load of 145% of GDP using the definition of the Bank of Portugal or 198% using the national accounts definition, which also includes insurance, pension, and standardised guarantees. On the latter definition, the debt load of Portuguese corporates is the fourth highest in the OECD (Figure 1.10). Since a peak in 2012, corporate indebtedness has come down by 17 percentage points of GDP, to a large extent as a result of the exit of highly indebted firms rather than deleveraging of existing firms (Bank of Portugal, 2015).

Figure 1.10. **Corporate non-financial sector debt**[1]

As a percentage of GDP



1. Debt is calculated as the sum of the following liability categories, whenever available/applicable: special drawing rights; currency and deposits; debt securities; loans; insurance, pension, and standardised guarantees; and other accounts payable.

Source: OECD (2016), "Financial Dashboard", *OECD National Accounts Statistics* (database).

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These average numbers mask strong differences across firms. While some firms have manageable debt levels, there are still many firms whose high debt load puts their long-term viability into question and which have no scope for investing at all. In 2014, the last year for which firm-level census data are available, 30% of Portuguese firms spent 100% of their cash flow on servicing their financial obligations while 21% had debt exceeding 100% of their annual gross value added. Many of these firms are in non-tradable sectors such as utilities, construction, transport, financial, real estate and professional services. In some of these, demand has been declining as the economy began to shift towards tradable activities, making it even harder to generate sufficient returns to pay off loans.

For many legacy firms with extremely high debt levels, exit is likely to be inevitable. Delayed recognition of financial distress among legacy firms will only hold back the economy's adjustment process and can curtail the growth prospects for high-potential firms, who need financial resources to invest and human resources to grow. Empirical research shows that excessive frictions on the exit margin can harm the entry of new firms and the growth of viable firms (Adalet McGowan et al., 2017; Andrews and Cingano, 2014). One mechanism through which this collateral damage can occur is that new firm entry without exit will bid up factor (i.e. labour and capital) prices rather than absorbing the resources freed by exiting firms, which raises production costs. Empirical evidence suggests that Portugal had almost 15% of total capital sunk in mature but financially weak firms in 2013 and estimates suggest that reducing this share would be associated with significant improvements in investment and employment in the remaining firms (Adalet McGowan et al., 2017).

For those firms that have scope for investing, financing these investments is or may become a major challenge. Business investment can be financed either from internal sources, i.e. retained cash profits, or through financing that is external to the firm. The scope for internal financing has diminished in recent years, as the average profitability of non-financial companies, measured as EBITDA relative to turnover, has declined from nearly 12% in 2010 to below 9% over the period 2011-14. Again, there are stark differences across firms. Firm-level census data suggest that median profitability is significantly higher for less

indebted firms than for highly indebted firms. Comparing firms with debt of less than 50% of gross value added with those exceeding 100% of gross value added, this difference is almost 5 percentage points on average, or 2 percentage points when comparing medians.

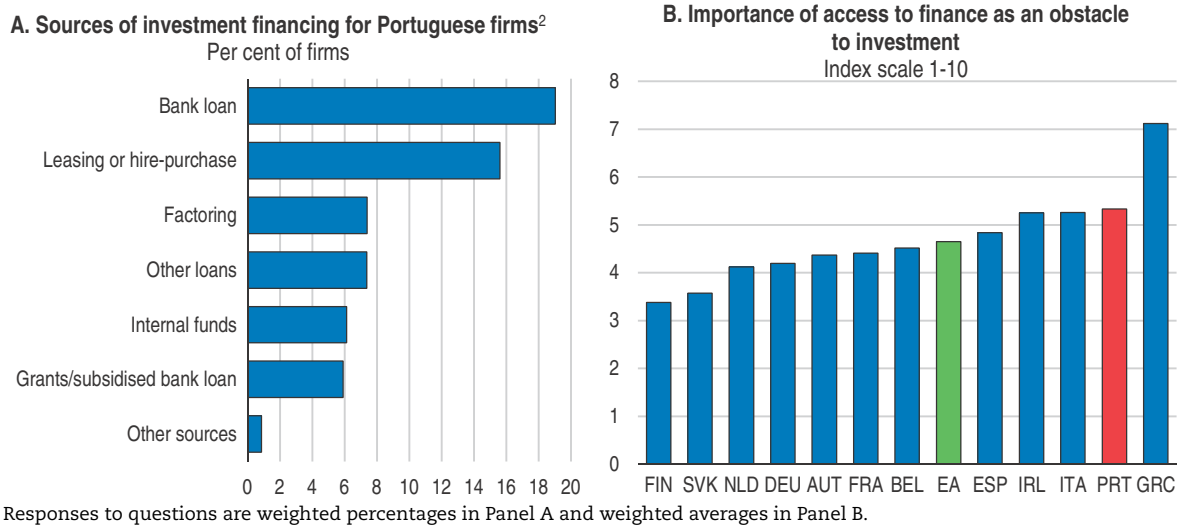
The conditions for firms to obtain financing from external sources have also become more difficult. Bank loans are the principal external source of investment financing for all but the largest Portuguese enterprises (Figure 1.11, Panel A). Credit to non-financial corporations continues to contract, mainly due to the construction sector, although at a decreasing rate (Figure 1.12, Panel A). Loans to exporting firms are growing. To some extent, this is mirroring euro area-wide developments, although in France, Germany and Italy, credit growth has already turned positive. The ongoing credit contraction is also reflected in the perceptions of Portuguese SMEs. In a recent survey by the European Central Bank on SME financing, Portuguese respondents had the second highest incidence of mentioning access to finance as an obstacle, higher than the euro area average (Figure 1.12, Panel B). To some extent, the credit contraction may also reflect subdued credit demand.

Credit is not only scarce but also expensive. When asked about the principal limiting factor to get external financing, the first response by Portuguese SMEs is the high interest rate (ECB, 2015). Portuguese companies are facing the second-highest interest rates in the euro area. Compared to Spanish firms that finance an investment project through a bank loan, for example, Portuguese companies have to achieve more than 100 basis points higher returns on investment to break even, although these spreads have now returned to pre-crisis levels.

The tight credit conditions for those firms that have the potential to invest are closely related to the excess indebtedness of other companies, with the link being the domestic banking sector. Banks' deleveraging needs and the high interest rates they charge on loans reflect their own challenges, principally weak assets and high funding costs, which have led to sharp declines in bank profitability, exacerbated by low economic growth. Non-performing loans (NPLs) make up 12% of the total gross loans of Portuguese banks. This is more than in other euro area countries except Greece, Italy and Ireland (Figure 1.13,

Figure 1.11. **The most pressing issues and the perceived importance of access to finance**

Small and medium-sized enterprises, first semester of 2016[1]



1. Responses to questions are weighted percentages in Panel A and weighted averages in Panel B.
2. "Internal funds" covers retained earnings or sale of assets. "Other sources" covers debt securities issued and equity investment in the firm.

Source: ECB (2016), "Survey on the access to finance of enterprises (SAFE)", *Statistical Data Warehouse*, European Central Bank.

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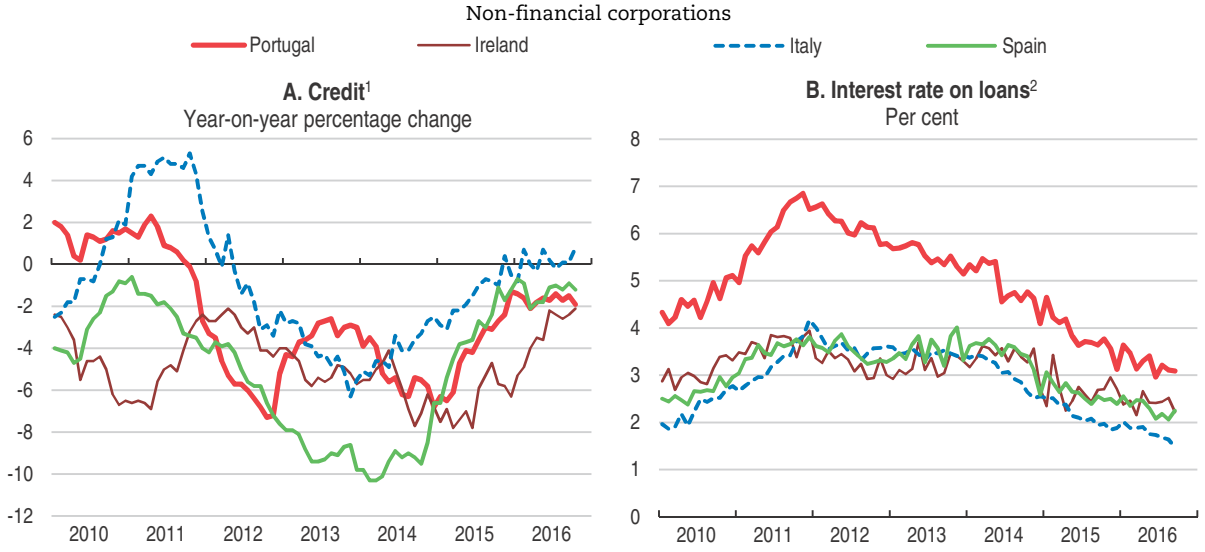
Figure 1.12. **Credit developments and financial fragmentation**



1. Loans adjusted for sales and securitisation.
2. Interest rates on new business loans other than revolving loans and overdrafts, convenience and extended credit card debt.

Source: ECB (2016), "Balance sheet items" and "MFI interest rate statistics", *Statistical Data Warehouse*, European Central Bank.

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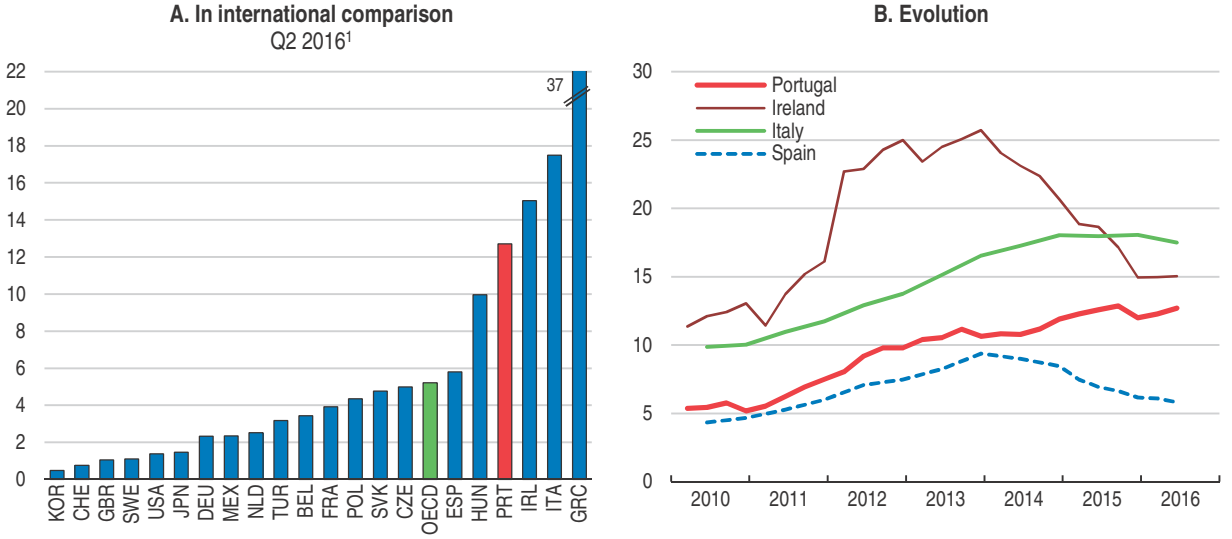
Figure 1.13. **Non-performing loans (NPLs)**

As a percentage of total gross loans



1. Latest data available at end of period: Q1 for Japan, the United Kingdom and Turkey, Q4 2015 for Switzerland; 2014 for Germany and Korea. The OECD aggregate is an unweighted average of the latest data available for OECD countries including Latvia.

Source: IMF (2016), *Financial Soundness Indicators* (FSI Database), International Monetary Fund.

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Panel A). NPL ratios have begun to stabilise as of 2016, similar to developments in other European countries (Figure 1.13, Panel B). Some banks are more affected than others, with one major bank having almost 23% of NPLs while two major banks have less than 5%. Among corporate loans, 19.7% are non-performing, a large part of which for more than 3 years. NPLs amount to over 30% of banks' capital after accounting for provisions, which

implies potentially significant recapitalisation needs in case the value of collateral turns out smaller than expected. Solving the challenges related to NPLs rapidly is a key issue for Portugal and requires a comprehensive approach.

When NPLs are not recognised and kept on balance sheets without provisioning, the income streams they generate typically fall short of other loans, particularly when loan conditions are adapted in order to avoid formal defaults through evergreening. When NPLs are recognised, they are subject to the higher risk weights on impaired assets and therefore crowd out substantial lending volumes for other companies (Aiyar et al., 2015). Doubtful loans also imply significant vulnerabilities for banks, which may make them less willing to lend. If there are many loans more or less close to a threshold where they would become non-performing, trigger events may move significant parts of the loan portfolio above that threshold, so that recognising them as non-performing would become inevitable. This could potentially lead to large provisioning needs or write-offs at the same time. This may be one of the reasons why banks with weak assets often eschew risks and are more reluctant to lend to new firms that are risky but have potentially high returns (Diwan and Rodrik, 1992).

Existing empirical evidence suggests a negative correlation between investment and the stock of non-performing loans (EC, 2015). Bank-level evidence from euro area banks finds that banks with high NPL ratios tend to have lower interest incomes, capital ratios, higher funding costs and lower lending growth (Aiyar et al., 2015). Estimates suggest that the amount of new lending capacity resulting from a reduction of NPL could be in excess of 8% of GDP (Aiyar et al., 2015).

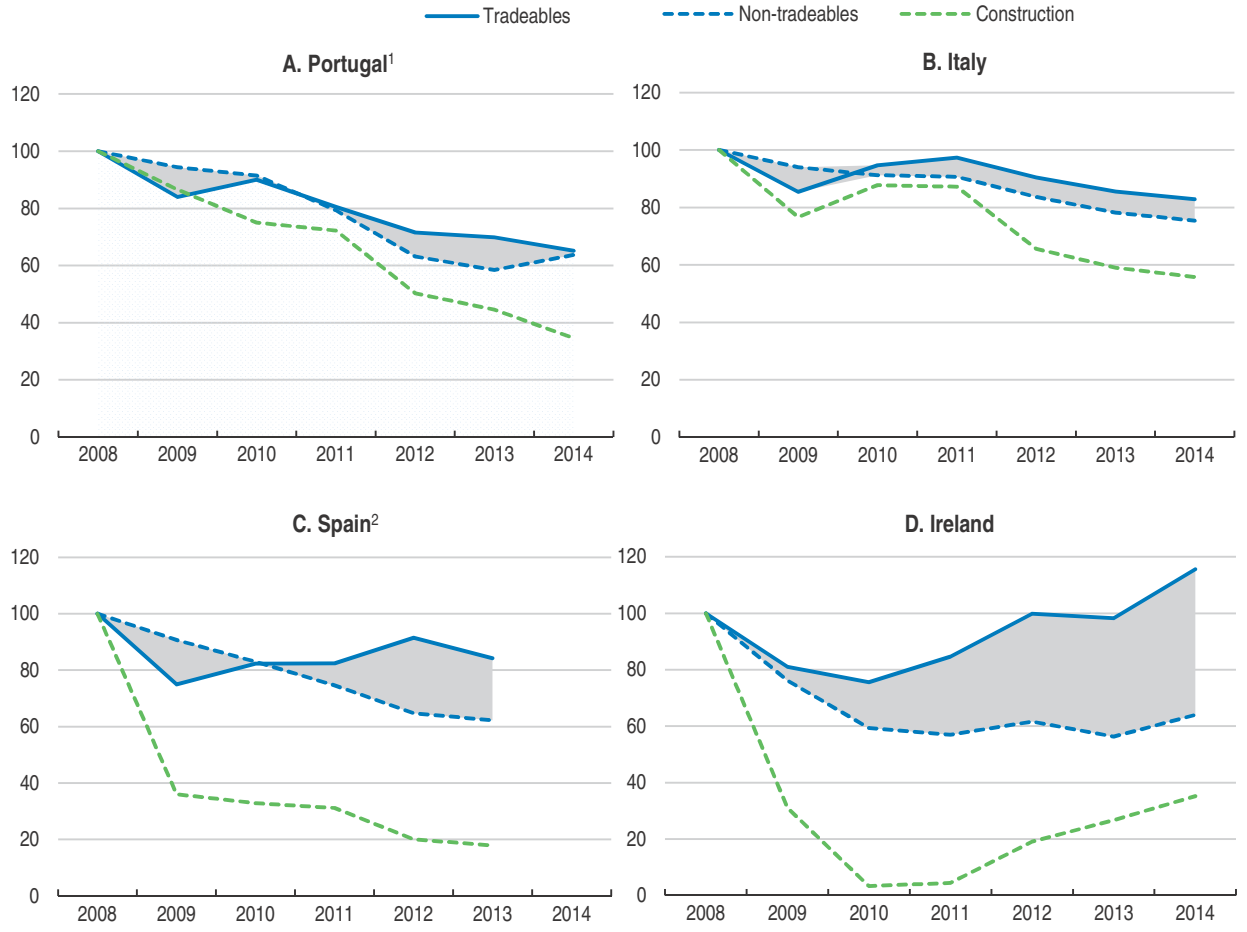
High NPL ratios also act as an obstacle in strongly needed adjustment processes in the economy. When financial resources are tied up with firms in declining sectors, most notably non-tradable sectors, this reduces the credit available that rising firms in tradable activities need to grow. Evidence from four euro area countries that accumulated current account deficits before the crisis – just like Portugal – suggests that countries where NPL ratios have started to decline as of 2014, i.e. Ireland and Spain, both of which had external assistance programmes that financed national strategies to clean up of bank balance sheets, have been more successful in redirecting investment from non-tradable to tradable activities than those, where NPL ratios continue to rise, notably Portugal and Italy (Figure 1.14).

More pro-active policies for dealing with NPLs could boost corporate investment

Portuguese banks have been facing challenging times since the outbreak of the financial crisis. On the other hand, regulatory requirements and stress tests have become more stringent, which resulted in the need for several Portuguese banks to raise more capital. In this context, banks face incentives to delay the recognition of loan losses within the limits set by current regulation. Renewing outstanding legacy loans at favourable terms even if the debtors' payback potential is low is one way to delay loan loss recognition, as opposed to recognising such loans as non-performing. Unlike Ireland and Spain, Portugal has not taken measures for a systematic clean-up of bank balance sheets, like the creation of a special vehicle to absorb legacy assets, preferring instead a more moderate case by case approach. Fiscal space in the context of high public debt levels was deemed insufficient to do what Spain and Ireland did.

Figure 1.14. **Investment by sector in four euro area countries**

Gross fixed capital formation, index 2008 = 100



1. OECD estimate for 2014.
2. Provisional data from 2012.

Source: Eurostat (2016), "Annual National Accounts", *Eurostat Database*; and INE (2016), "National Accounts" tables, Instituto Nacional de Estatística.

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Banks do not only have incentives to delay loan loss recognition, they also face a clear informational advantage. For outsiders, including policy makers and supervisors, it can be hard to get a reliable gauge of how widespread the renewal of loans to firms with low profit and investment potential is. Portugal's banking supervision is in line with international standards, in some areas even more demanding, and the recent practice of regular on-site inspections by the regulator is reassuring. Still, there are limits to how much supervisors can detect. Weaknesses and fraud in two banks could not be spotted early enough to prevent their failure and several billions of Euros in losses for taxpayers. Banco Espirito Santo (BES), the largest private lender at the time, had to be rescued in 2014, and Banco Internacional do Funchal (BANIF) required a central bank intervention in 2015, in the course of which its assets were sold to another bank. In addition, past asset reviews have not considered EUR 3 billion of NPLs that banks had parked at above-market prices in so-called restructuring funds (Nogueira Leite, 2016).

The necessary improvement in asset quality and resulting boost in investment finance are unlikely to materialise without decisive policy action. Such policy action entails risks and has to be balanced against the limited available fiscal space and against the possible effect on banks and their ability to raise new capital, but betting on time to solve the issue entails risks as well. This is not only because it affects the health of bank balance sheets over many years, but also because of the significant external effects in terms of locking up sizeable fractions of credit with firms that are unlikely to invest, which are not accounted for by banks. Relying on a mix of policy strategies is often the most effective way to achieve this, including tightened regulatory policies, developing markets for distressed debt and improving insolvency frameworks.

The regulatory stance could be used to strengthen incentives for banks to resolve long-standing NPLs. Differentiated capital requirements could provide stronger rewards to banks that implement a credible and sufficiently ambitious plan for off-loading non-performing loans, which could make it easier for them to raise capital. This could also include strong penalties for banks that are not taking strong action or fail to comply with the plan approved by the supervisor. In addition, European regulations leave the details on write-off modalities, the accrual of interest income for NPLs and the rules for the valuation of remaining collateral to national supervisors, and this could be used to strengthen the incentives for reducing NPLs. Risk weights for NPLs could differentiate between new NPLs and those that have been kept on balance sheets for longer than a certain threshold, thus creating stronger incentives to write-off or sell long-standing NPLs (OECD, 2016b). Spain imposed a progressive reduction of the value of loan collateral after two years, for example. Such measures could be part of a strategy of defining clear operational targets for NPL reductions over time, as practiced in a few Eastern-European countries (Albania, Montenegro, Slovenia and Romania, see Aiyar et al., 2015).

Parallel to strengthening regulatory incentives for NPL recognition, policy makers could support bank efforts to offload legacy loans from their balance sheets and get higher recovery values by developing distressed debt markets. Despite higher NPL stocks than in the United States, European markets for distressed debt are currently less than a quarter of those in the US. Specialised asset management companies (AMCs) for distressed assets provide a liquid market for NPLs and are often better at dealing with impaired assets than banks, in particular small banks, for which managing distressed asset portfolios can be resource-intensive. AMCs bring scale economies, better technologies and experience to the fore, which banks' comparative advantage is probably stronger in arranging new lending and separating the loan administration from the credit officers that originated the loan may also foster a more objective asset evaluation. Specialised AMCs may also have better expertise in securitising bundles of distressed loans, which has helped banks to fetch higher prices for NPL portfolios in some countries. Securitisation allows the bundling of bad loans in a way that the resulting security can still be attractive for a wide range of investors.

A number of countries have made positive experiences with AMCs, including in Europe (Sweden, Ireland, Latvia, Slovenia and Spain) and in Asia (Indonesia Malaysia, Korea, Thailand and Japan). AMCs can be either private or public, and either centralised or bank-specific. In Japan in the late 1990s, a centralised public AMC was able to take on difficult assets eschewed by other investors and was instrumental in resolving disputes among creditors, and it also improved the transparency of the NPL market by setting

standards of disclosure and publishing information on collateral (Jassaud and Kang, 2015). In Spain, a centralised AMC of mixed public and private ownership, SAREB, acted as a catalyst for the take-off of distressed debt purchases.

Private debt management companies exist in Portugal and have seen substantial business growth. Relative to the stock of recognised outstanding NPLs, however, their portfolios are small. This market currently lacks transparency as the vast majority of completed loan sale transactions do not disclose the parties involved. The principal challenge for stronger AMC engagement, however, is the remaining pricing gap between what investors are willing to pay for what banks expect to recover. Banks are unwilling to sell large portfolios at the prices currently offered by potential buyers as this would lead to significant losses and recapitalisation needs.

While some degree of additional loss recognition for banks is probably inevitable and would be part of any effort to move distressed assets from bank balance sheets to specialised AMCs, it is important to note that developing distressed debt markets is not a zero-sum game. Put differently, the question is not about forcing losses on banks for the benefit of the wider economy. There is substantial scope for the public sector to get involved into the development of such markets in various forms. This could raise their efficiency and attract new buyers that are currently not investing in these kinds of assets. An outward shift of the demand curve would then result in higher prices, all else equal, and hence help to close the pricing gap.

The scope for public intervention in this area has recently been limited by new EU rules on state aid and the new bank recovery and resolution directive (BRRD). Under these rules, selling assets to AMCs above market price may trigger a bail-in of junior and even some senior debtholders, and the implementation of a restructuring plan for the bank. Spain's successful AMC, for example, was set up before these new rules came into play. While it is clear that replicating what Spain did is no longer an option now, a better definition of what exactly is compatible with the BRRD would be helpful. In particular, Portugal should seek clarification on the boundaries of public support for AMCs without triggering a bank restructuring. Determining market prices for bundles of assets for which liquid markets are currently lacking will inevitably involve some judgement.

It would also help to clarify the exact circumstances under which the need to correct a market failure or a serious economic disturbance can be invoked as an exception clause. Considering the systemic dimension of the problem in Portugal, the notion of a serious economic disturbance does not seem far-fetched, and the inexistence of a market is usually taken as an indication of market failure in other contexts. The remaining scope for using AMCs should be exploited to the fullest extent possible.

One example for greater AMC involvement that appears to be compatible with state aid rules is the model recently pursued by Italy and a similar approach could be viable in Portugal. In Italy, a special purpose vehicle has been created for the securitisation of banks' distressed loan portfolios. State guarantees will be available for senior tranches of these securities provided they obtain ratings similar to Italian government bonds. The guarantees will be offered at prices that reflect credit default swaps of Italian borrowers with similar credit rating as the senior tranches and hence satisfy the EU requirement to apply market prices for guarantees. While the guarantees would be priced to reflect risks, their mere existence could encourage a wider range of investors to venture into this new kind of assets in Portugal as well, despite the lower sovereign rating.

Under the arrangement negotiated between the European Commission and Italy, providing guarantees for senior tranches of NPL securities requires the successful sale of at least half of the junior tranche. Joint efforts by private banks, co-ordinated by the public sector, have led to the creation of two private funds (called *Atlante I and II*) meant to buy junior tranches of NPL securities with lower return expectations than private equity bidders. Such a concerted effort by banks can act as a catalyst, but it can also create moral hazard by penalising banks with stronger loan portfolios that have pursued a more prudent business model of lower risks and lower returns in the past.

Improving insolvency rules

Given that a large share of Portugal's distressed assets are loans to corporate borrowers, well-working insolvency frameworks are crucial to restructure companies that are still viable and to allow a speedy recovery of non-viable companies' assets before they lose value. Portugal has taken important steps to overhaul its corporate insolvency and restructuring framework, giving it a stronger focus on the recovery of firms rather than their liquidation. However, differences between the rules and their actual implementation persist and the reforms have not led to a significant decline in NPL ratios as in Spain and Ireland (EC, 2016).

The bankruptcy code was amended by a new debt restructuring mechanism inspired by US Chapter 11 provisions in April 2012, which was meant to allow fast-track out-of-court restructuring. The new out-of-court procedure, called *Processo Especial de Revitalização* (PER), makes negotiations between the debtor and a majority of creditors more attractive by granting court approval and enforcement to such out-of-court agreements. However, PER has had an approval rate of only 50% so far, and the share of settlements actually implemented and adhered to is even lower. These out-of-court settlements take significantly longer than the 4 months allowed for out-of-court negotiations under US law, even though evidence on the exact average length of out-of-court settlements in inconclusive. Official statistics put their average duration at close to 5 months, while private analysts put the average duration at 7 months (APAJ, 2015).

Gatekeeping could be improved as there is evidence that owner/managers have used the PER procedure for the mere purpose of buying time and/or removing assets from the firm. In around 8% of the approved cases that went through the PER, the debtor company failed to comply with the terms of the negotiated agreements, which triggered either a standard insolvency procedure or a new negotiation under the PER framework. An embargo period for the same firm to apply for another PER exists only in certain cases but should be extended to all firms, including those that breach the conditions of an existing out-of-court settlement only to apply for a new one. Shortening the procedure, and with that the stay on assets, to the 3 months mentioned in the law would also reduce incentives for abuse. That said, the existence of a stay on assets is important to give the firm time for a restructuring, and the absence of such a stay period in another out-of-court procedure created in 2012 (SIREVE) may explain why that procedure is not being used widely.

Failure of PER negotiations is often due to tax authorities and other public creditors, who are generally unable to accept any cuts on their claims and often even fail to define their position in time (APAJ, 2016). Although PER rules require only a simple majority for agreeing on a restructuring plan (the so-called "cram-down") and provide for equal treatment of all creditors, tax authorities regularly claim *de facto* veto rights on the basis of General Tax Law. In practice, tax authorities and other public sector creditors often end up

blocking restructuring plans under PER. Brazil's experience shows that reducing the privileges of tax authorities can speed up insolvency procedures and improve recovery rates (Araújo et al., 2012; Arnold and Flach, 2017). Recently announced policy plans in the context of the Capitalizar programme to improve the flexibility and co-ordination of public sector creditors in insolvency proceedings should be carried through. Recently announced policy plans to improve the flexibility and co-ordination of public sector creditors in insolvency proceedings go into the right direction but should be implemented earlier than the third quarter of 2017 as currently envisaged.

Another frequent reason for failed PER procedures is that insolvency administrators and creditors lack information to evaluate the economic potential of a firm or the value of their assets. For example, on-site inspections by insolvency administrators are currently not possible.

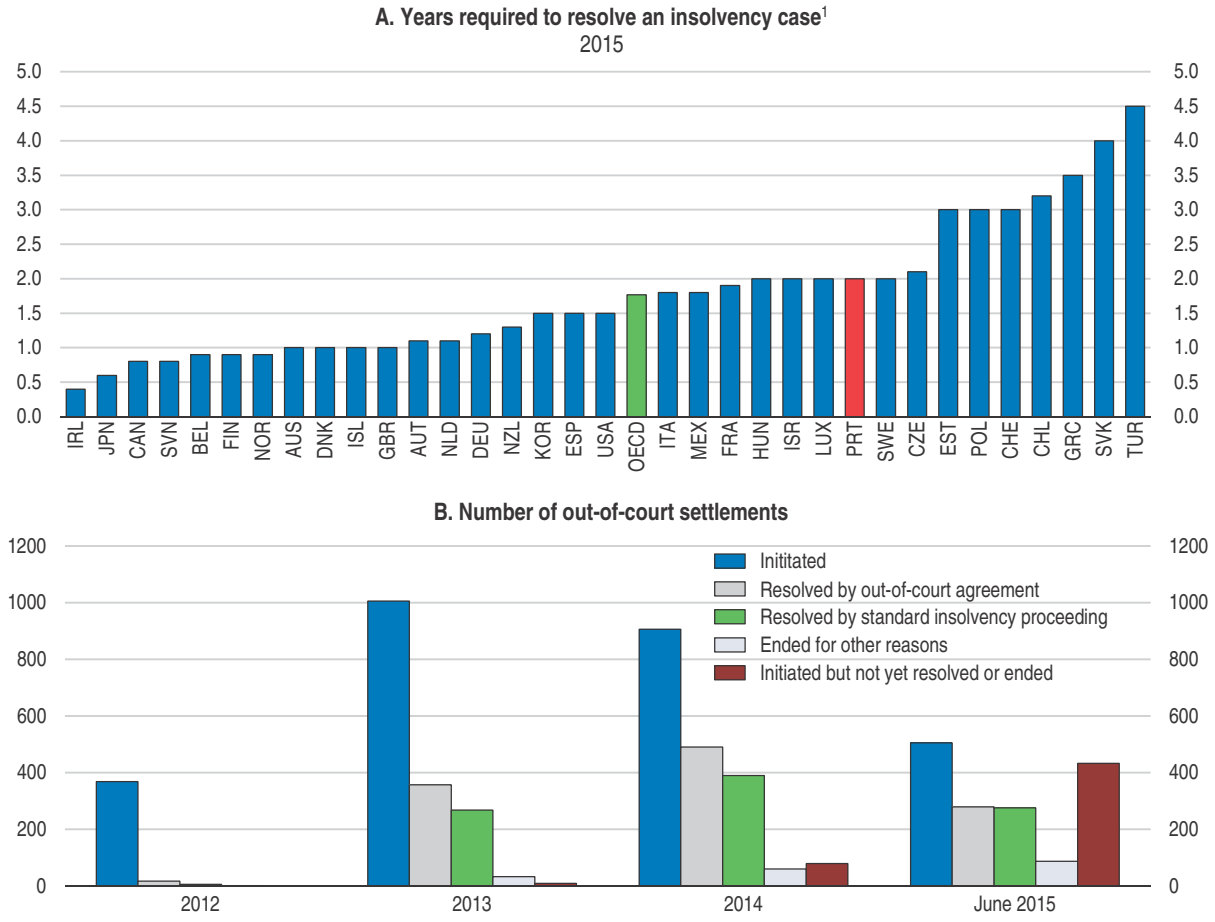
Four years after their inception, the out-of-court insolvency frameworks PER and SIREVE should now be subjected to an in-depth evaluation, which could help to identify remaining bottlenecks and refine the framework as needed. The preliminary evidence available so far suggests that the time savings fall short of the benchmark duration mentioned in the law. Privileges and veto rights for tax and social security administrations could be reconsidered and the access to information could be improved. More rapid insolvency procedures are particularly helpful for new market entrants, as firm-level research based on data from 21 OECD economies suggests (OECD, 2016).

Beyond out-of-court settlements, the regular in-court procedure for insolvency cases has not changed much over the years. The number of insolvency cases has been on an increasing trend since 2010, with 41% more cases recorded in 2015 than in 2010. According to the World Bank's Doing Business database, insolvency cases going through courts take 2 years for a benchmark case in Portugal, which is slightly more than the OECD average of 1.7 years. At the same time, countries like Ireland, Japan, Belgium or the United Kingdom take less than a year to process insolvency cases through the court system (Figure 1.15). It may be worth to improve the functioning of the insolvency framework, which is vital for separating viable firms from non-viable ones and which has a direct bearing on recovery values and the prices that investors will be willing to pay for NPL-backed securities.

Investing more resources into insolvency courts and improving their efficiency would be one possible way forward. Even more judges could be transferred to commercial courts, which appear to be the most overburdened part of the court system. Offering more specialised training to judges may lead to faster procedures and better recovery rates, as suggested by international evidence (OECD, 2013, World Bank, 2004). Another way to speed up insolvency cases would be to extend the scope for simple majority decisions. The special veto right for tax and social security authorities should also be reconsidered in the case of insolvency cases that go through courts.

For many micro companies, personal insolvency also plays an important role, in particular with respect to the limit entrepreneurs' ability to start new businesses after an insolvency case. The availability of a "fresh start" can reduce the costs and the stigma of failure associated with insolvency, which is one of the commonly cited barriers to entrepreneurship. In Portugal, the discharge periods for entrepreneurs after an insolvency case are typically longer than the 3-5 years applied in many European countries (Carcea et al., 2015). Micro companies are also affected by the widespread practice of pledging

Figure 1.15. **Insolvency framework**



1. Time from the company's default until the payment of some or all of the money owed to the bank taking into consideration eventual delay tactics. The OECD aggregate is an unweighted average including Latvia.

Source: World Bank (2015), *Doing Business 2016: Measuring Regulatory Quality and Efficiency* (database); and APAJ (2015), "Processo Especial de Revitalização", *Turn Analysis*, No. 7, 2nd quarter, Associação Portuguesa dos Administradores Judiciais.

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personal assets for corporate loans. While this practice is used by banks as a commitment and disciplining device, it also blurs the borders between the company and the individual, and can act as an impediment to growth or to hiring a professional manager.

Reducing the corporate debt tax bias for a more balanced financing mix

The differential corporate tax treatment of debt and equity has created incentives for businesses to accumulate excessive amounts of debt in the corporate sector in the past. Reducing the differences in corporate tax treatment is essential to reduce the reliance on debt financing in the future. Until end-2016, interest expenses can currently be deducted from taxable corporate income, but the remuneration of equity financing could not. Tax neutrality with respect to debt and equity financing is not only relevant for firms that are large enough to receive external equity financing. In fact, it even matters for the majority of Portuguese firms that are very small, as it is widespread practice for owner/managers to extend loans to their own companies rather than providing equity, and distributing a large part of profits.

Legislative changes that came into effect in January 2017 have sought to address these tax distortions in two ways. Firstly, stricter limits are now being imposed on the tax deductibility of interest expenses. As of 2017, deductible interest expenses are capped at EUR 1 million or 30% of EBITDA (cash flow income), whichever is higher. This is in line with Action 4 of the BEPS Action Plan.

Secondly, these legislative changes have also included the establishment of a tax allowance for corporate equity (ACE). Several countries, including Italy, Belgium and Brazil, have introduced such measures and evidence suggests that it can be effective in reducing corporate leverage (De Mooij, 2011). However, the exact design of such a scheme matters, particularly to avoid windfall gains for investment undertaken before the introduction of an ACE and strategic tax planning. In order to stimulate new investment, an ACE should only apply to new equity investment, as is the case for Portugal's new ACE. In the past, Portugal has had an ACE that was restricted to SMEs and equity provided by venture capitalists. These restrictions, which had rendered the ACE largely ineffective, have now been lifted. The new ACE seems well-designed, but its performance should be monitored carefully to see if further refinements are needed.

The removal of previous tax distortions will have a stronger impact when combined with a strategy to lead more medium-sized firms into stock market listings, as an alternative to debt financing. This would be a realistic option for around 50-80 Portuguese companies, but high listing fees on Portugal's only stock exchange are currently a major deterrent for these companies. A co-ordinated government programme to bring more firms to the stock market, called ELITE, has been successful in Italy. Measures that could be part of such a strategy in Portugal include regulating fee schedules for the listing of mid-caps by the monopoly stock exchange operator. The economic rationale for this could be similar to universal service provisions in telecommunications, where public intervention has for years reduced the cost of network access for clients for whom these would have otherwise been prohibitively high. Just like a fixed-line network, a stock market exchange has characteristics of a natural monopoly, which may well justify regulatory interventions. Measures included in the Capitalizar programme may contribute to reducing listing costs.

Providing advisory services, as done under Italy's ELITE programme, would also be useful. Currently, Portugal has no independent investment banking company that could advise firms in going public or attracting equity investment and the prospectus directive requires the backing of a financial institution in this process. Commercial banks have only weak incentives to assist companies in finding alternatives to the bank financing they provide.

Many firms without sufficient credit history find it hard to access bank credit lines, particularly when their principal assets are their human capital and a few innovative ideas. Recent government initiatives have aimed to open up additional channels of finance for companies in the context of the new Capitalizar programme, including business angels, venture capital and other instruments. Entities with public participation, including a venture capital firm and business angel-type financing, are meant to co-finance start-ups in an early stage with a particular focus on innovative, scientific and technology-based companies, as well as on export-oriented companies. Broadening financing options, as intended by the recent programme Startup Portugal, is a welcome initiative as developing market-based finance for SME could help to alleviate credit constraints of SMEs (OECD, 2015b, c). However, it will be important to monitor and evaluate the progress of these initiatives to ensure their cost-effectiveness.

A key challenge for public participation in venture capital activities, for example, will be to find instruments that increase the quantity of venture capital without diminishing its quality. Private investors will generally have stronger incentives to maximise returns than public entities, and may hence invest more into identifying the most promising investment projects and providing quality mentoring to these firms. The track record of Canadian government-sponsored venture capital, for example, points to the importance of these two issues, with private venture capital typically outperforming public venture capital on both counts (Brander et al., 2008). By contrast, funds that operate like independent, limited partnership venture capital funds and where the selection and mentoring of investment projects is done by private partners have been successful in the United States (Lerner, 1999) and Australia (Cumming, 2007). Passive public participation in such funds could even raise the returns for private investors by capping its own returns while leaving its entire investment at risk.

Making best use of external funding sources

Foreign direct investment (FDI) inflows and EU structural transfers account for significant shares of investment in some sectors, although for FDI, a direct comparison with investment financing from domestic savings is hard to establish. During 2012-14, greenfield FDI inflows amounted to around 3.9% of gross fixed capital formation. Comparing total FDI inflows to total gross fixed capital formation (GFCF), the ratio is about 20%, but this can only be considered an upper bound as it also includes brownfield investments, which do not add to capital formation as they are merely transfers of ownership.

Attracting more FDI is another important way for Portugal to raise investment. Besides opening up new sources of investment financing beyond domestic savings, FDI is typically associated with productivity benefits as multinational enterprises are typically among the most productive firms (Arnold and Javorcik, 2009; Arnold and Hussinger, 2010; Girma et al., 2005; Helpman et al., 2004). This productivity advantage can generate significant spillovers and strengthen the productivity of domestic firms through sourcing relationships or the transfer of know-how (Blalock and Gertler, 2008; Javorcik, 2004; Keller and Yeaple, 2009).

The structural reforms enacted have boosted Portugal's attractiveness as a destination for FDI, but in the future, a greater emphasis on policy continuity could bolster confidence and reduce uncertainties, which are often an important consideration for foreign investors (see, for example, Ruane and Goerg, 1997, for the Irish case). An earlier bipartisan agreement in favour of a continued decline of the corporate income tax rate was recently dismissed, some privatisation plans have been delayed or modified after they were signed, and there are discussions about restricting access to the so-called individual bank of hours to sectors where it is part of collective agreements. This measure has been an important component of giving more work-time flexibility to firms by allowing a maximum of 150 hours per year to be used in agreement between the employee and the employer. A recent decision to bail in a select number of secured bondholders of the resolved Banco Espírito Santo have also been interpreted as undermining policy certainty.

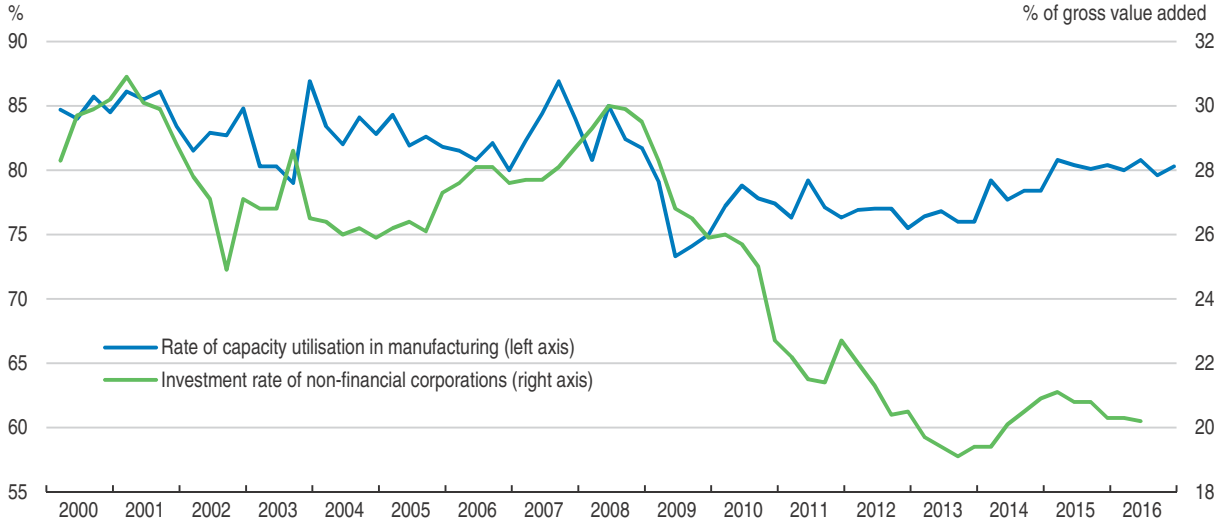
EU structural funds have become large relative to public investment, which declined from 5% of GDP in 2010 to 2.1% in 2015. At 1.9% of GDP, European funding now amounts to 80% of Portugal's public investment or 12.5% of total investment, although not all of the projects funded by these funds are investments in the sense of national accounts. Therefore, it is only possible to make approximations for certain sectors. In the transport sector, for example, EU transfers amount to 16% of the sector's investment. A new strategy

for allocating these funds, called Portugal 2020, has recently been designed and aims to support the structural transformation of the economy towards export sectors. Main spending areas include support for manufacturing companies' internationalisation and innovation efforts and to strengthen the ties between firms and the scientific community. Portugal's National Reform Programme provides the framework for a more effective use of EU funds.

Improving the business climate to raise the returns on investment

Access to finance is not the only obstacle to higher investment. There may also be cases where firms could finance an investment project but prefer to hold off because the expected returns on the project may not be sufficiently attractive. Structural policy reforms that reduce the cost of doing business in Portugal and/or allow firms to become more productive could make more potential investment projects worthwhile. There are reasons to believe that demand is not the only limiting factor for Portuguese companies, and that structural reforms on the supply side of the economy could have significant effects on investment. In manufacturing, for example, after years of low investment, capacity utilisation has edged up again since 2014 and has now almost returned to pre-crisis levels (Figure 1.16).

Figure 1.16. **Rate of capacity utilisation in manufacturing and investment rate of non-financial corporations**



Source: OECD (2016), *Main Economic Indicators* (database); and INE (2016), "Quarterly economic accounts for non-financial corporations", *National Accounts Tables*, Instituto Nacional de Estatística.

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Policy reforms in areas such as regulation, the judicial system, services sectors including utilities and the labour market have led to impressive improvements in historical comparison. These reforms have in all likelihood had a significant impact on cost competitiveness and on productivity. OECD estimates suggest that product market reforms undertaken since end 2008 will raise the level of GDP by 3% by the year 2020. However, the reform momentum has slowed down visibly since the end of the external assistance programme, and reform implementation has fallen short of initial ambitions in several key

areas. In some areas, much has changed, for example in labour markets. In other areas, such as product market reforms and the regulation of non-tradable sectors, there is scope for further progress, particularly with respect to implementation.

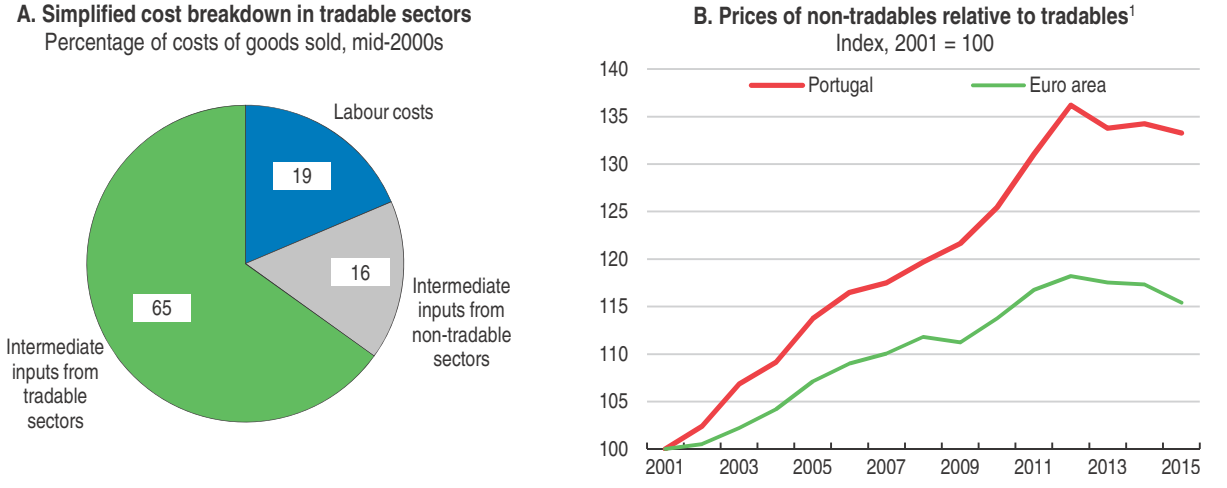
An assessment of where the greatest bottlenecks remain is hard to make and will likely differ across firms, particularly as the same reform may affect firms' investment incentives through more than one channel. The costs of intermediate inputs from non-tradable sectors and labour costs affect firms' input costs and hence their competitiveness. But at the same time, access to higher quality services or better matches between employees and employers also affect the productivity with which Portuguese companies operate. Better regulation or a better judicial system can reduce transaction costs and thereby also raise productivity. Finally, many rules and institutional features discussed in this section can also act as implicit barriers to firm entry and post-entry growth, and should be subjected to a critical review in light of Portugal's skewed firm size distribution.

Regulation in services and utility sectors

Services sectors, including utilities, provide essential inputs into tradable activities, accounting for 16% of the direct costs of Portuguese companies, i.e. without accounting for the share of services in the value added of tradable inputs (Figure 1.17, Panel A). Since services inputs often have to be sourced domestically, their prices are an integral ingredient of competitiveness in the tradable sector and hence a driver of the returns on investment in these sectors. In the past, product markets in services sectors have traditionally been characterised by low levels of competition and significant rents, an outcome that was intimately linked to weak regulatory policies. As a result, the price increases in non-tradable sectors have far outpaced tradable goods inflation (Figure 1.17, Panel B).

An ambitious reform agenda has led to improvements in some areas and the shift in relative prices has reverted slightly since 2012. However, firms' views on the progress achieved in this area are rather sobering, and survey results suggest that product market

Figure 1.17. **Determinants of cost-competitiveness in tradable sectors**



1. Ratio of harmonised index of consumer prices of non-tradable to tradable sectors (2015 = 100).
Source: OECD (2012), "STAN Input-Output", *STAN: OECD Structural Analysis Statistics* (database); and Eurostat (2016), "Harmonised Index of Consumer Prices", *Eurostat Database*.

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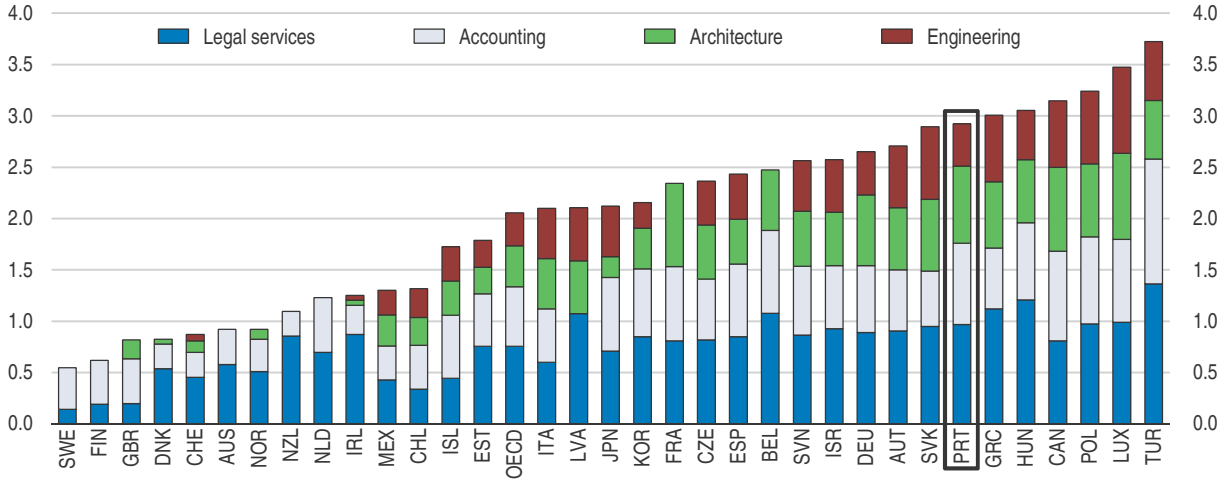
reforms are the reform area where least noticeable progress for downstream users has been achieved (Gershenson et al., 2016, Chapter 7). The scope for further progress in product market reforms is also highlighted by the fact that the strong price increases in non-tradable sectors have not been made up and compared to the situation in 2001, non-tradable prices remain high relative to tradable prices.

Professional services

In professional services such as accounting, legal, architecture or engineering services, competition remains weak and regulation is more restrictive than the OECD average, as reflected in the OECD Product Market Regulation (PMR) (Figure 1.18, Panel A). The OECD Services Trade Restrictiveness Indicator (STRI) points to barriers to competition through international trade in accounting, auditing and legal services. Regulatory provisions that can stifle competition include the strong role of professional associations for regulating entry, a setting that typically favours current insiders over potential entrants. Regulation by professional associations should be monitored closely by public authorities to avoid excessive restrictions on entry and safeguard competition. Exclusive rights that reserve certain tasks for members of a particular profession, as well as regulations of prices and fees or the form of business, further restrict competitive pressures and should be reconsidered. Entry restrictions may be one reason for the substantial misallocations of resources documented in professional services in Portugal (Dias et al., 2016).

Figure 1.18. **Regulation of professional services**

Index scale of 0-6 from least to most restrictive, 2013[1]



1. Data may no longer fully reflect the current situation in fast reforming countries. The OECD aggregate is an unweighted average of data available (including Latvia). Measures included in the index cover entry restrictions (education requirements, shared/exclusive rights, compulsory chamber membership and quotas) and conduct regulations (prices and fees, marketing/advertising, form of business and inter-professional co-operation).

Source: OECD (2016), *OECD Product Market Regulation Statistics* (database).

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A new framework law that reforms regulations in 18 professional services was approved in 2013, and the bylaws of all professional bodies have now been published. But service providers still face significant entry barriers and cross-border competition is also reduced by existing regulations. For example, in accounting services, an EU nationality is required to obtain a license to practice and there are restrictions on owning shares in

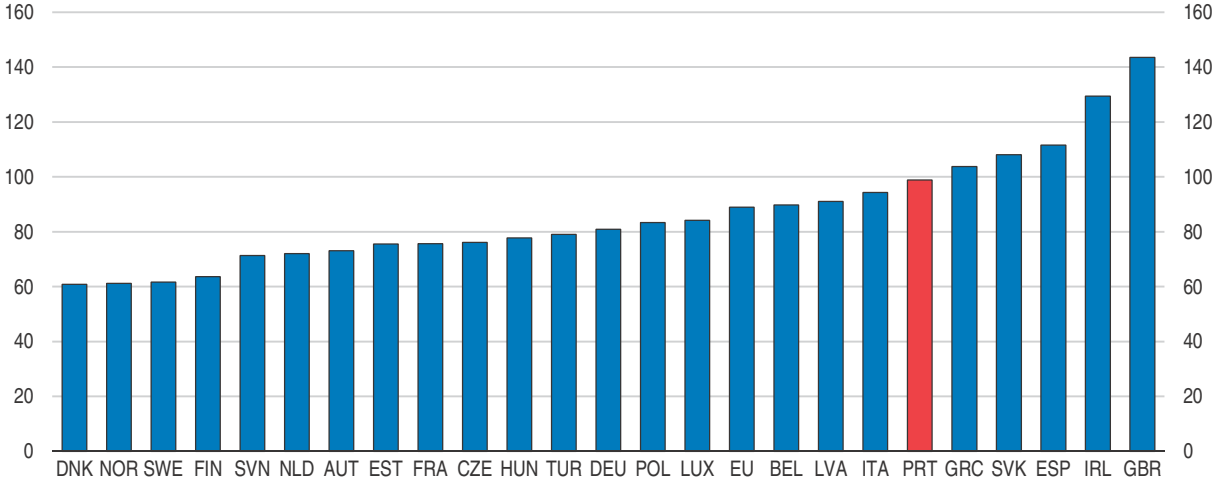
accounting firms, combined with specific nationality and licensing requirements for board members and managers of accounting firms. The investment regime is similarly complex for legal services, although there are no nationality requirements for lawyers. Current rules also contain provisions that impede companies from being active in several regulated professions at the same time. This rule implies unused economies of scale and scope and can act as an impediment to firm growth, while the consumer benefits of such restrictions are unclear.

Energy

Electricity prices for medium-sized companies are among the highest in Europe (Figure 1.19). Over a third of Portuguese enterprises consider electricity costs a high or very high obstacle for their operations and 82% have noticed no improvement since 2012 (INE, 2015). A series of reforms has improved regulation and eliminated the scope for remuneration above market prices, for new entrants. Generation of electricity is formally open to competition, but unlike potential new entrants, incumbent operators benefit from legacy remuneration schemes that continue to provide sizeable rents to incumbent electricity generators. These arrangements cover the overwhelming majority of all electricity sold in Portugal, leave little room for the fluctuating "market price" at which the remainder of the electricity is sold and reduce the scope for effective competition. Legacy contracts can also help to explain the upwards trend in electricity prices.

Figure 1.19. **Electricity prices**

EUR per thousand kilowatt hours, 2015[1]



1. Average national price without taxes applicable for the first semester of each year for medium size industrial consumers (annual consumption between 500 and 2000 megawatt hours [MWh]). For Italy data refer to 2007 instead of 2008 and cover data at 1st January for an annual consumption of 2 000 MWh.

Source: Eurostat (2016), "Electricity prices by type of user", *Tables by Themes*.

StatLink http://dx.doi.org/10.1787/888933447766

Policy indicators such as the OECD Product Market Indicators reflect the substantial regulatory improvements for new entrants and Portugal's network sector regulation is the second most competition friendly in the OECD by these indicators. However, these new rules are not necessarily those that govern the bulk of current energy transactions which is sold under legacy contracts that were signed under different rules. Until legacy contracts expire, the PMR indicators may paint an overly optimistic picture for competition in energy

sectors. Despite new entry, the incumbent electricity producer continues to serve 85% of electricity customers. In natural gas, the share of consumers served by the incumbent gas company has declined to 27%, accounting for 55% of consumption.

Going forward, the current schedule for phasing out legacy agreements in electricity should be accelerated, including by exploring the scope for further renegotiations with incumbent companies. Without renegotiations, future price pressures will be strong. Further increases of the already high electricity prices are projected as a legacy of poor policy settings in the past, such as a massive tariff debt of over EUR 4 billion that has been accumulated over many years in which Portugal was unwilling to pass on cost increases from the surge in renewable energy sources to retail customers. Supposedly, all electricity customers are "liable" for this tariff debt, which is now being winded down through pricing above average costs. The tariff debt has only started to decline in 2016 and will continue to exert upward pressure on prices for years to come.

In the retail market for natural gas, the incumbent operator also retains a strong position, although the market is formally open to competition. The incumbent also owns exclusive contract rights to the supply of wholesale pipeline gas from Algeria, which are likely acting as a barrier to competition. Efficiency gains in energy sectors could also help to reduce prices, and could be achieved by improving international interconnection capacity. While the markets of Portugal and Spain are increasingly well connected in a common Iberian electricity market (MIBEL), better connections from Spain to France, and onward to other European countries, could allow more competition. The same holds for the common Iberian gas market (MIBGAS), which unlike electricity markets is still hampered by lack of interconnection capacity between Portugal and Spain and by cross-border transfer charges imposed by Spain. As a result, trading volumes at the spot exchange MIBGAS platform are very low.

Transport services and ports

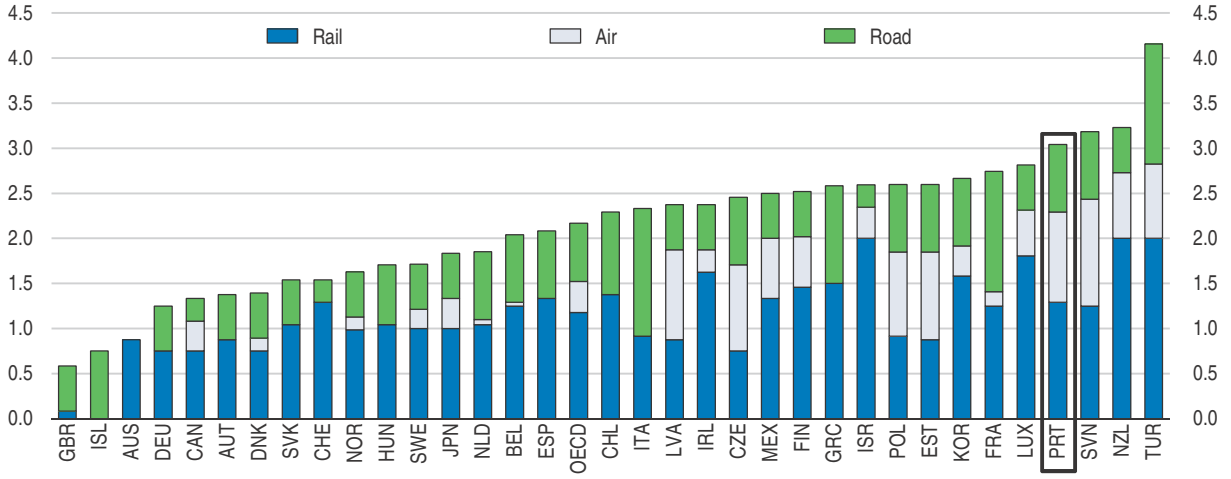
Weak competitive pressures relative to other OECD countries and more widespread anti-competitive regulations also affect the transportation sector, which is likely to expand as the structural shift towards tradable sectors is gaining ground (Figure 1.20). However, the situation is very different across segments of the transportation sector and the sector has been evolving since 2013. In long-distance rail services, network and train operations have been formally separated and ownership of merchandise terminals has been handed over from the recently privatised cargo rail company CP Carga to the network operating company Refer. This step was a precondition for competition in cargo rail services, as competitors will be granted access to these terminals.

Plans for urban transport concessions in Lisbon have been cancelled and will now be transferred to the municipality while those in Porto have been delayed. Further monitoring is needed to understand if these developments will lead to lower benefits for users, but the frequent policy changes, which also affected the air transportation segment, may reduce Portugal's ability to attract foreign direct investment (Arnold and Javorcik, 2009; Javorcik, 2004).

A transport sector of particular importance for Portugal's competitiveness is ports. The country relies heavily on seaborne trade, with about two thirds of the imported and half of the exported goods being transported by sea (EC, 2014). Reflecting recent improvements in export performance, some Portuguese ports have seen substantial growth in cargo

Figure 1.20. **Regulation of the transport sector**

Index scale of 0-6 from least to most restrictive, 2013[1]



1. Data may no longer fully reflect the current situation in fast reforming countries. The OECD aggregate is an unweighted average of data available (including Latvia). Measures included in the index cover entry restrictions, public ownership, vertical integration, market structure and price controls.

Source: OECD (2016), *OECD Product Market Regulation Statistics* (database).

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volumes. The functioning and cost-effectiveness of ports is an important element of competitiveness, as port-related costs can amount to as much as 30% of total good transport costs or 10% of total production costs (EC, 2013; Gershenson et al., 2016).

The authorities have undertaken a series of reforms to reduce port user costs. A particularly rigid Port Works Law, reminiscent of the days when port labour was physically more demanding than other work, has been made more flexible, and the scope of its application has been limited to core port tasks such as cargo handling, while related activities are now governed by the regular labour code. This has reduced port labour costs and enhanced the flexibility of port labour supply. However, while these measures have reduced costs for port operators, it is less clear to what extent these improvements have been passed on to port users. While an official estimate points to a 16% reduction in port costs, a private sector study contested this finding and found cost reductions of only 2% (IMF, 2015). Over 80% of companies that use maritime transport noted no improvement since 2012 (INE, 2015).

Strengthening competition in the ports sector could be a powerful tool to ensure that cost savings for terminal operators, such as those resulting from the new Port Works Law, are passed on to downstream users. More competition would likely lead to further reductions in costs and rents, resulting in lower user charges, and there is evidence of substantial scope for this. Ports services providers have in the past been found to increase their prices to 21 times fold, and have been convicted twice by the Portuguese Competition Agency for cartel formation (OECD, 2011).

There are a number of ways to enhance the scope for competition in the ports sector (Box 1.2). Appropriate pro-competitive regulation is key to success. A strong and impartial regulator is important for establishing flourishing competition in the ports sector, which is more difficult than in other sectors but far from impossible to achieve. Competition is possible both between and within ports, either through competition between independent

Box 1.2. **Competition in ports**

A port's efficiency is associated with its ownership structure, which determines the balance between private sector efficiency and public control. Although some ports are entirely owned and operated by public port authorities (the "service port model"), most major ports have adopted a mixture of public and private ownership, under which, frequently, public port authorities provide the infrastructure and private firms provide the superstructure and employ labour (ICA, 2013). This structure, known as the "landlord model" and adopted in Portugal, allows substantial private participation to enhance efficiency and reduces public investment needs. Nonetheless, maximising the potential efficiency gains from private participation depends on careful policy design.

The efficiency gains from private participation will be greater where elements of competition can be introduced so as to provide the right incentives for keeping costs and rents low. However, the sector is characterised by significant economies of scale and the high entry costs of investing into the terminal superstructure, which have in the past supported the notion of ports being basically natural monopolies. Even though in some cases of smaller ports, this may be true and a regulated monopoly may turn out to be the most efficient operating model, in most cases there will be some scope for reaping the benefits of competition.

Concession contracts for terminal operation allocated through regular auctions can create competition for the market rather than competition in the market, and the challenge for the concession design is to strike the right balance between shorter concessions, which imply more regular competition, and longer concessions, which provide a higher return on and hence stronger incentives for investment. Concession contracts should clearly specify all relevant parameters, including the trajectory of regulated user charges, the investment requirements, the maintenance of assets, the allocation of different risks and the level of service quality to be provided.

Competition in the market is also possible in the ports sector, either between different ports or between different terminals in the same port. Intra-port competition has proven to be a particularly promising model for improving market structures, especially in cargo handling services, which account for 70 to 90% of port charges (ICA, 2013). However, even in settings with more than one market player, the long time-horizon of the infrastructure investment, the small number of competitors and the repeated market interaction between players create favourable conditions for collusion, and requires strong vigilance from competition authorities. In 2007, for example, the Portuguese competition authority fined three tug services suppliers for price-fixing and allocating customers among them (OECD, 2011).

Inter-port competition is often limited by geography. Since on-land transport is more expensive than sea-freight (ICA, 2013), ports with better connections to the final on-land destination enjoy significant competitive advantages. Contractual clauses that grant exclusivity rights to certain providers of downstream services, which may be vertically integrated with port operators, can also act as an impediment to competition. For example, the German port of Puttgarden denied access to Norwegian ferry companies to reduce competition for the port's downstream shipping business until competition authorities put an end to this practice (Bundeskartellamt, 2010).

terminals or between different services providers. Besides competition in the market, concession contracts, which are used for awarding port terminals in Portugal, allow creating competition for the market through regular renewal.

Plans to renegotiate existing port concession contracts were meant to achieve lower user costs by harnessing competition and strengthening investment incentives, but these renegotiations have recently been suspended. A new framework law for port concessions has yet to be passed and policy uncertainty is affecting investments by port concessionaires. Moving forward on the renegotiations of concessions could generate further downstream benefits by enhancing the scope for intra-port competition among terminals and incorporating service level agreements into the concession contracts, which has been omitted in the past. A lack of hinterland railroad connections is being addressed by dedicating a larger share of infrastructure investment to that latter issue, which will improve Portugal's connections with Spain and other European markets (SSPM, 2014).

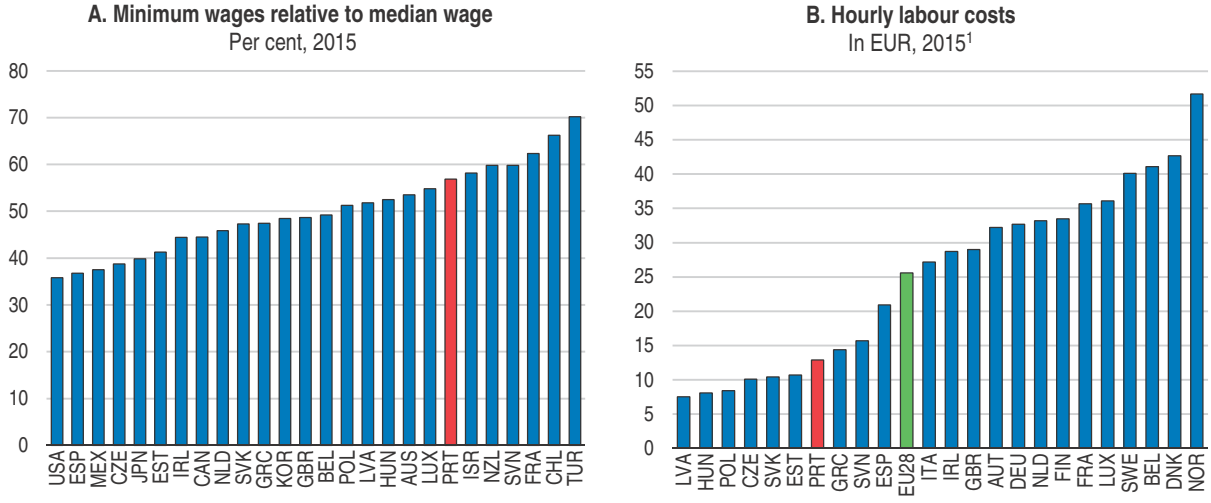
Labour market reform

The outlook for labour costs, which account for 19% of the direct costs of an average Portuguese company, remains challenging. Unit labour costs relative to the euro area have declined by 1.5% between 2012 and 2015, but there has been another 5% increase in the minimum wage effective in January 2016. This recent increase brought the minimum wage to or above the salary levels of 30% of employed persons and the minimum wage has now reached almost 60% of median wages (Figure 1.21, Panel A). Further progressive minimum wage increases are under discussion. An increase to EUR 600 paid 14 times a year, for example, to be decided by social partners as contemplated in the government's programme, would be more than what 30% of employees currently earn. While these minimum wage increases can have positive effects on wage equality, there is a risk that they may exacerbate income inequalities to the extent that they reduce the prospects of finding a job for low-skilled individuals.

Current wage prospects risk undoing previous improvements in competitiveness that are vital for the exporters (Figure 1.21). In fact, they could price many low-skilled workers out of the labour market and conflict with the objective of strengthening exports as

Figure 1.21. **Minimum wages and labour costs in international comparison**

Total business sector



1. 2014 for Greece.

Source: OECD (2016), "Earnings: Minimum wages relative to median wages", *OECD Employment and Labour Market Statistics* (database); and Eurostat (2016), "Labour costs annual data", *Eurostat Database*.

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Portugal's declining export market share during 1996 to 2011 was largely attributable to price factors (Benkovskis, K. and Wörz, J. 2014). Labour costs are now lower than in most of Western Europe, but higher than in most Eastern European countries, some of which compare favourably to Portugal in terms of proximity to major European markets (Figure 1.20, Panel B).

Additional wage pressures may result from a possible re-emergence of administrative extensions of collective bargaining agreements, including for firms that were not involved in the bargaining process. As of 2012, the widespread practice of such administrative extensions has come to a halt. This was the result of a new requirement that agreements could only be extended if the signatory firms accounted for at least 50% of the industry workforce, which had often not been the case in the past. In 2014, this condition was eased by introducing an alternative sufficient condition that required 30% of signatory firms to be SMEs. Given that 99% of firms in Portugal are SMEs, this new condition will be easy to meet. Extensions have since picked up, although not to the levels of 2011. Between 2014 and 2015, the number of employees covered by new or renewed collective agreements has doubled (CRL, 2016). Estimates suggest that wage increases resulting from administrative extensions have increased separation rates and reduce hiring rates, suggesting that they can jeopardise the viability of firms' investment projects (Hijzen and Martins, 2016).

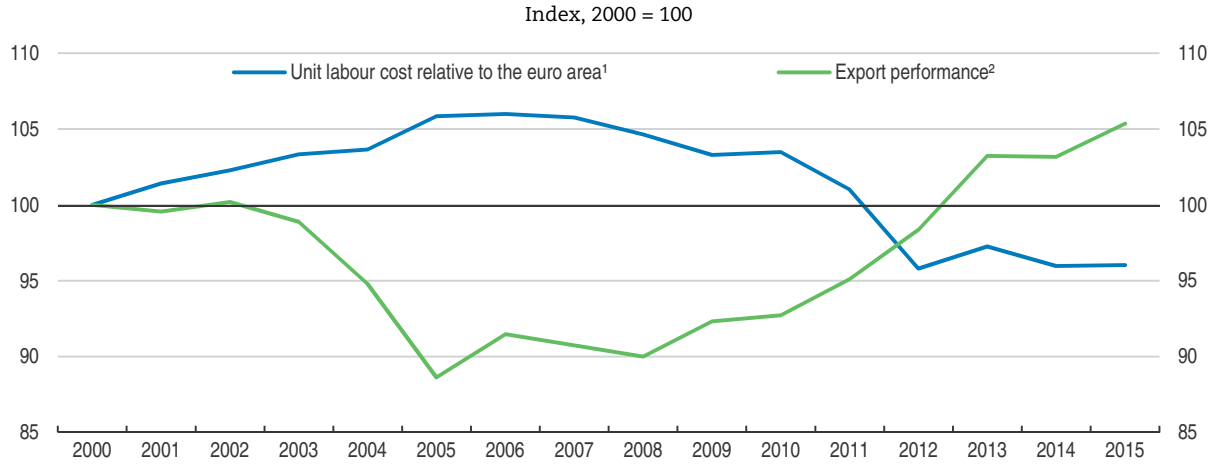
Promoting firm-level wage bargaining through more stringent representativeness requirements for administrative extensions and opt-out possibilities for individual firms would result in a better alignment of wage developments and the economic health and productivity of individual firms. This in turn can strengthen the competitiveness of Portuguese firms and by doing so, raise investment incentives. Promoting firm-level wage bargaining could be accompanied with measures to strengthen worker representation at the firm-level.

The administrative extension of collective bargaining agreements to entire sectors can also act as an implicit entry barrier for new firms and competition in product markets, as one way new firms can enter the market is by paying lower wages than incumbents for some time. Current wage prospects risk undoing previous improvements in competitiveness that are vital for the exporters (Figure 1.22). Firm-level evidence suggests that a more extensive coverage of collective wage bargaining agreements reduces firm productivity significantly (Arnold and Barbosa, 2016), especially among dynamic start-ups that generate much of aggregate productivity gains. By curbing entry, administrative extensions also reduce the competitive pressures on incumbent firms and hence their incentives to improve production efficiency. Administrative extensions have also been found to reduce employment, particularly among non-signatory firms, which is consistent with extensions acting as sand in the wheels of the reallocation process of resources across firms (Hijzen and Martins, 2016).

Judicial system

A recent survey of 5 000 Portuguese companies identified difficulties with the judicial system as a major factor driving up costs, which became increasingly challenging over the last 3 years (INE, 2015). Long and costly judicial procedures drive up the costs of resolving commercial disputes, labour disputes and litigations with tax authorities. Significant court backlogs of 1.35 million cases persist despite progress made, particularly in first instance courts which deal with contract enforcement. Despite progress made, civil cases still take more than 500 days to be resolved, which is long in international comparison (Figure 1.23). Compared with other countries, Portugal spends a comparatively large share of GDP on its court system, but seems to be getting a poor return on these resources.

Figure 1.22. **Developments in cost competitiveness and export performance**



1. Euro area member countries that are also members of the OECD (15 countries).
2. Ratio between export volumes and export markets for total goods and services.

Source: OECD (2016), *OECD Economic Outlook: Statistics and Projections* (database).

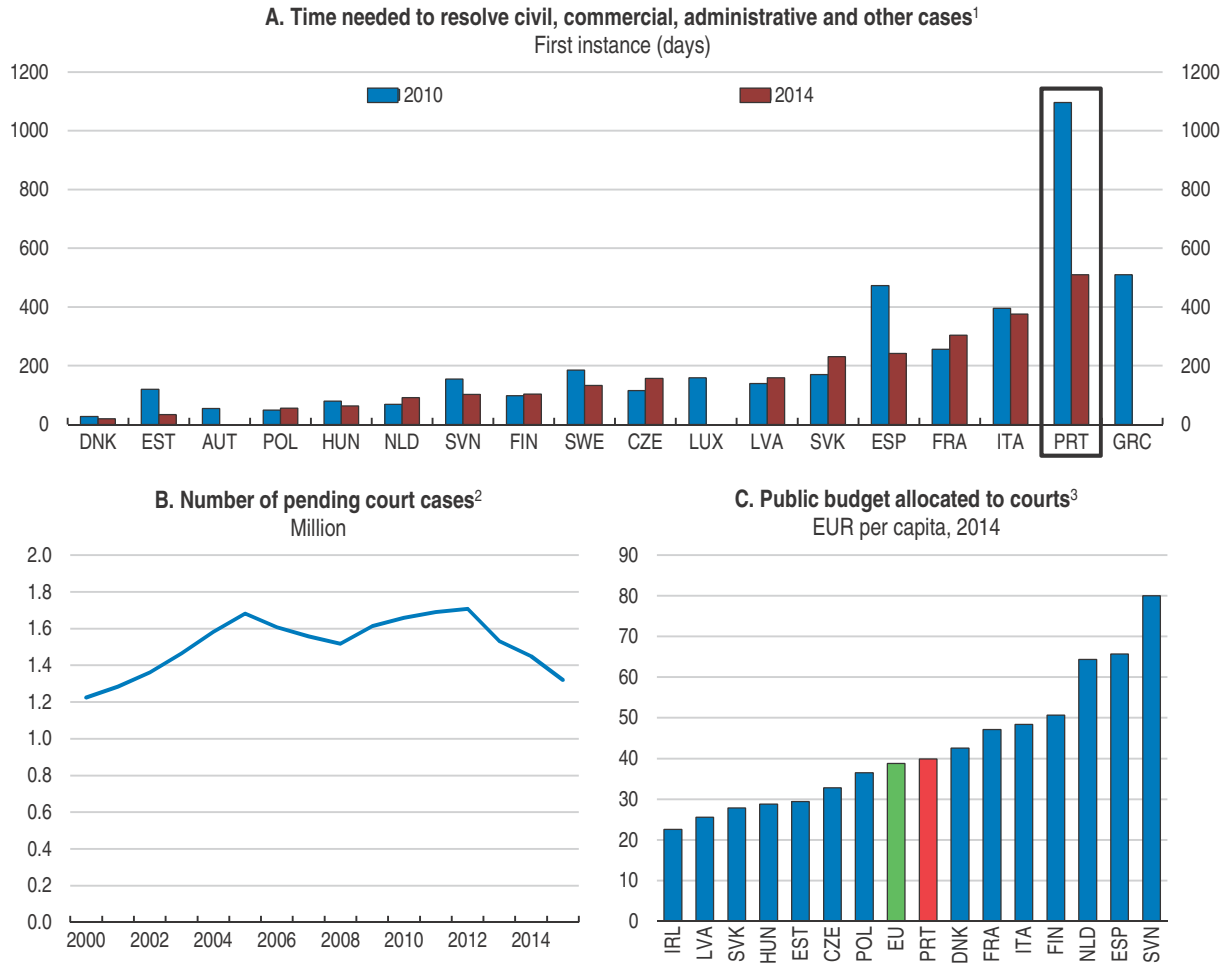
StatLink http://dx.doi.org/10.1787/888933448030

Excessively complicated and stringent procedures seem to play a key role. A new civil procedure code has been able to address some of these shortcomings by giving greater process independence to judges, reducing the number of appeals and allowing for mediation and out-of-court settlements at different stages of a civil process. Even though Portugal ranks fairly well with respect to its legal framework, the implementation of some judicial reforms seems to be lagging. International evidence suggests that the use of specialised courts can reduce trial lengths (Palumbo et al., 2013), but the benefits of specialisation are particularly strong if these courts are staffed with specialised judges. Portugal has specialised courts without specialised judges. In particular, it appears that there is scope to reduce trial lengths by increasing the number of commercial courts and staffing them with specialised judges. Empirical evidence based on firm-level data from 21 OECD countries suggests that more specialised courts and more rapid contract enforcement are of particular benefit for the post-entry growth of start-ups and new market entrants (OECD, 2016). Recent efforts for training judges should be continued. Finally, judges continue to be bound by overly detailed procedural codes, but giving them more discretion in case management should go along with better incentive mechanisms so that judges move up the court hierarchy based on performance rather than seniority.

Licensing requirements and red tape

Portugal has made strong progress in reducing administrative burdens for businesses. Less "red tape" reduces costs and raises the returns on investment. Recent measures plan to build on these improvements, including a new programme to simplify administrative procedures called Simplex+2016 and a single environmental licence that consolidates 11 current procedures. This useful programme includes an expansion of one-stop-shops, electronic applications and silence-is-consent rules. Future efforts should be focused on better integrating all licenses and permits needed to start a business, but co-operation among all public entities involved is crucial for that. At the local level, the pace of progress in easing procedures is heterogeneous, with some municipalities offering single windows and speedy service in almost all areas, while others are struggling to keep pace. Requiring all authorities involved in licenses or permits to publish their effective decision-making

Figure 1.23. **Performance of the judicial system**



1. Comparisons should be drawn with care as some countries reported changes in the methodology for data collection or categorisation.
2. Provisional data for 2014-15.
3. Total annual approved budget of courts which excludes legal aid and public prosecution services. The EU aggregate is an unweighted average of data for 20 countries.

Source: EC (2016), *The 2016 EU Justice Scoreboard*; Direcção-Geral da Política de Justiça; Francisco Manuel dos Santos Foundation (2016), *PORDATA* (database); and CEPEJ (2015), "Study on the functioning of judicial systems in the EU Member States", Part 1, European Commission for the Efficiency of Justice.

StatLink http://dx.doi.org/10.1787/888933447754

time would improve transparency in this area. A study of municipal best practices is currently underway, and the results should be used to encourage and assist less advanced municipalities to catch up. Going forward, new laws can only be approved once the corresponding implementing regulation is drafted and regulatory changes take effect only on two specific dates in the year, which makes it easier for firms to keep up to date with current rules. Economic impact evaluations of new regulations have also become the norm and firms may net out simultaneous claims and liabilities with tax and social security authorities in the future. A decade ago, procedures, costs and delays for opening a business were 4, 6 and 19 times higher than now, respectively (World Bank, 2005 and 2015).

Despite these promising initiatives and plans, the implementation of administrative reforms seems to lag behind ambitions and needs to gain track. Despite the introduction of "Silence is consent" rules in wide areas, more than half of firms who had to deal with licenses

for starting a business considered this process a high or very high obstacle and failed to see any improvement in the process (INE, 2015). Large and industrial firms appear to struggle the most with tedious licensing requirements. Despite single windows to receive applications, behind-the-scenes consultations between different authorities can be lengthy. Overlapping competencies and a patchwork of rules defined across different laws and precedence rulings by courts create ambiguities and contradictions, leaving room for discretionary decisions, including by local authorities. A concerted effort to clean up and consolidate the fragmented set of rules would reduce complexity and the scope for corruption.

Policies governing land use can also constitute an obstacle to investment as they give strong discretionary powers to municipal governments which can block licenses for investment projects. The efficiency of municipal governments and the delays involved in obtaining licenses varies widely across municipalities. While considerations of protecting the landscape or quality of life of citizens may be legitimate objectives, they can also be abused to deny or condition the start of an economic activity. Reforms of the discretionary powers of municipal authorities had been envisaged under the external assistance programme, but were never implemented. The net benefit of investment projects for local development should be analysed on the basis of transparent and objective criteria, limiting the discretion of local authorities, which will also help to prevent corruption. In other cases, land use conversions have been granted too easily and owners of farmland have regularly lodged requests for conversion with the sole purpose of increasing the resale value of their property. This has favoured new construction projects in non-urban areas over the use of existing dwellings, leading to excessive urban sprawl which then required additional infrastructure investment, while large urban areas were often poorly maintained. The authorities should limit discretionary powers of municipalities to speed up licencing procedures further and introduce stricter deadlines for municipalities.

Avoiding implicit barriers to entry and post-entry growth from R&D policies

Given that dynamic young firms can make strong contributions to productivity growth and investment, it is important to avoid creating implicit barriers to entry or post-entry growth as collateral damage from other policies. One such example is policies to foster business R&D and innovation. In Portugal, these policies consist almost exclusively of tax credits in Portugal, but they do not allow refunds of these tax credits and R&D expenditures can be carried forward for only 8 years. Given that young firms typically lack taxable profits for the first years of operation, Portugal's R&D tax credits risk becoming an implicit entry barrier by favouring incumbents, particularly in a context of scarce and expensive credit. In cross-country comparison, more generous R&D tax credits are associated with a higher share of stagnant firms and a lower share of shrinking firms (Bravo-Biosca et al., 2013; OECD, 2015a; Appelt et al., 2016). The reason for this is that tax credits are usually counted against taxable profits, and new entrants typically lack taxable profits for a significant number of years. Portugal should consider allowing refunds of R&D tax credits or alternatively extend the carry-forward period further. This has become increasingly common in other OECD countries. For example, Australia, Canada, Denmark, Norway and the United Kingdom allow tax credits to be converted into cash refunds while Australia, Belgium, Ireland and the United Kingdom have extended loss-carry forward provisions indefinitely (Andrews and Criscuolo, 2013). Given that refunds can be costly, this may need to be coupled with specific safeguards to prevent abuse.

Recommendations for raising investment

Key recommendations

- Strengthen current regulatory incentives for reducing non-performing loans (NPLs), including through write-offs and sales.
- Support the development of a market for distressed debt, notably through the creation of asset management companies.
- Revise land use regulations and limit discretionary powers of municipalities in licensing procedures.
- Improve the workings of insolvency rules by
  - reconsidering the privileged treatment of public creditors
  - enlarging the scope for simple-majority decisions among creditors
  - shortening out-of-court settlement procedures.
- Further reduce trial length and the backlog of pending court cases by expanding court capacity and assigning specialised judges to specialised courts.
- Ease entry requirements in professional services.

Other recommendations

- Phase out electricity generation schemes with guaranteed prices sooner than currently planned.
- Improve the efficiency of ports by renegotiating concession contracts, attaching service level agreements to any new concessions and promoting intra-port competition between terminals.
- Promote wage bargaining at the firm level, including by placing more binding limits on administrative extensions of wage agreements.
- Consider allowing refunds of research and development (R&D) tax credits for loss-making firms or extending the carry-forward period significantly.

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Chapter 2

Raising skills

Despite significant progress made, improving skills remains one of Portugal's key challenges for raising growth, living standards and well-being. Upskilling the adult population remains a priority and lifelong learning activities should focus more on the low skilled. While active labour market policies have increased their training content in recent years, spending per unemployed is still low. A systematic monitoring of the different programmes would allow concentrating resources on the policies that are more effective in raising skills and employment prospects. In the education system, successive increases in compulsory education have not eliminated early school leaving, and a significant share of youth is left without completed secondary education, thus facing poor labour market prospects and a risk of falling into poverty. Another challenge for the education system is to reduce the link between learning outcomes and socio-economic backgrounds. This could be achieved by providing earlier and individualised support to students at risk of falling behind, strengthening teachers and principals training and exposure to best practices, and creating incentives to attract the more experienced teachers to disadvantaged schools. Vocational education and training (VET) has received less attention than general education until recent years and has suffered from fragmented management. This has curtailed the employment prospects of youth not wishing to pursue tertiary education. Establishing a single VET system and reinforcing work-based learning in companies would address this issue. Tertiary education has expanded considerably over recent years but could have a stronger focus on labour market needs, including by developing tertiary technical education. Enhanced support for business research activities could be coupled with strengthening management skills and the ties between businesses and researchers, for example by creating incentives for academics to co-operate with the private sector.

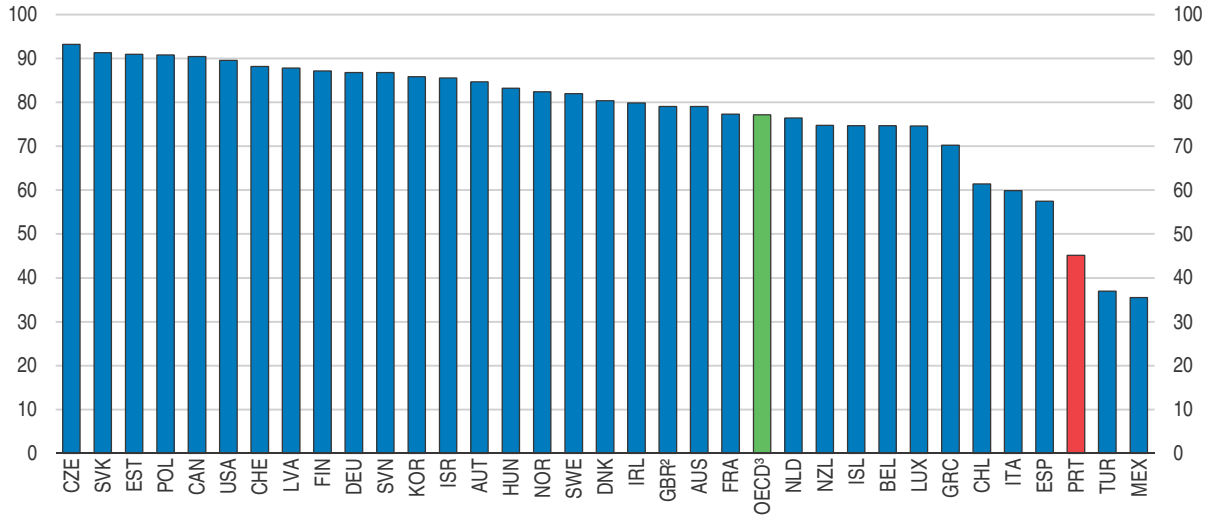
Low skills are obstacles to improvements in growth and well-being

Despite remarkable progress, education attainment remains low

Educational attainments and skills of Portugal's population are low in international comparison. Only 43% of the working age population (25-64 years old) has completed secondary education, in sharp contrast with the OECD average of 76% (Figure 2.1). Even lower secondary education, which corresponds to nine years of schooling in Portugal, has been completed by only 64% of the working age population, less than in any OECD country except for Mexico and Turkey (Box 2.1; OECD, 2016a).

Figure 2.1. **Portugal needs to continue to improve skills**

Percentage of working age population having attained at least upper secondary education, 2015[1]



1. Working age population: 25-64 year- olds. 2013 for Chile and 2014 for France.
2. Includes completion of a sufficient volume and standard of programmes that would be classified individually as completion of intermediate upper secondary programmes (18% of the adults are under this group).
3. Unweighted average of data shown including Latvia

Source: OECD (2016a), *Education at a Glance 2016: OECD Indicators*.

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A major handicap for Portugal has been the very low starting point in terms of educational attainment and literacy of its population. In the mid-1970s a fifth of all 15- to 64- year olds were illiterate and less than 5% had completed upper secondary education (OECD, 2006; Guichard and Larre, 2006). Continued efforts to ensure access to education for nearly four decades have led to a rapid expansion of attainment. Among OECD countries, Portugal has achieved the second highest increase in education attainment between generations, after Korea: while only 23% of those aged 55 to 64 attained at least upper secondary education, this rate jumps to 65% among 25-34 years old (Figure 2.2, Panel A; OECD, 2015a). Over time, the youngest generation enters the labour market with more qualifications than their predecessors (Figure 2.2, Panel C).

Box 2.1. **The Portuguese Education System: Main characteristics**

The Portuguese Education System is articulated between the Ministry of Education and the Ministry of Science, Technology and Higher Education, who have the responsibility of defining, co-ordinating, implementing and evaluating education policies. The school system is organised in three sequential levels: pre-primary education (ages 3 to 5), basic education (ages 6 to 14) and secondary education (typical ages 15 to 18). Compulsory education begins at age 6 and ends at age 18 or upon completion of secondary education.

There is a public and a private network of pre-primary education institutions. The public network comprises education institutions under the Ministry of Education and the Ministry of Labour, Solidarity and Social Security. The private network included for-profit and non-profit education institutions but the Ministry of Education is responsible for ensuring the pedagogical quality of teaching in pre-primary education institutions network. Secondary education is organised according to strands, with courses that are geared to working life or the continuation of studies in tertiary education. It currently includes: science-humanities courses, geared towards further study at higher education level, covering four areas (science and technology, social and economic sciences, languages and humanities and visual arts); technological courses, geared towards either entry the labour market or further study, especially via post-secondary technological specialisation courses and higher education courses specialised artistic courses; and vocational courses, geared towards an initial qualification of pupils, giving priority to their entering in the job market.

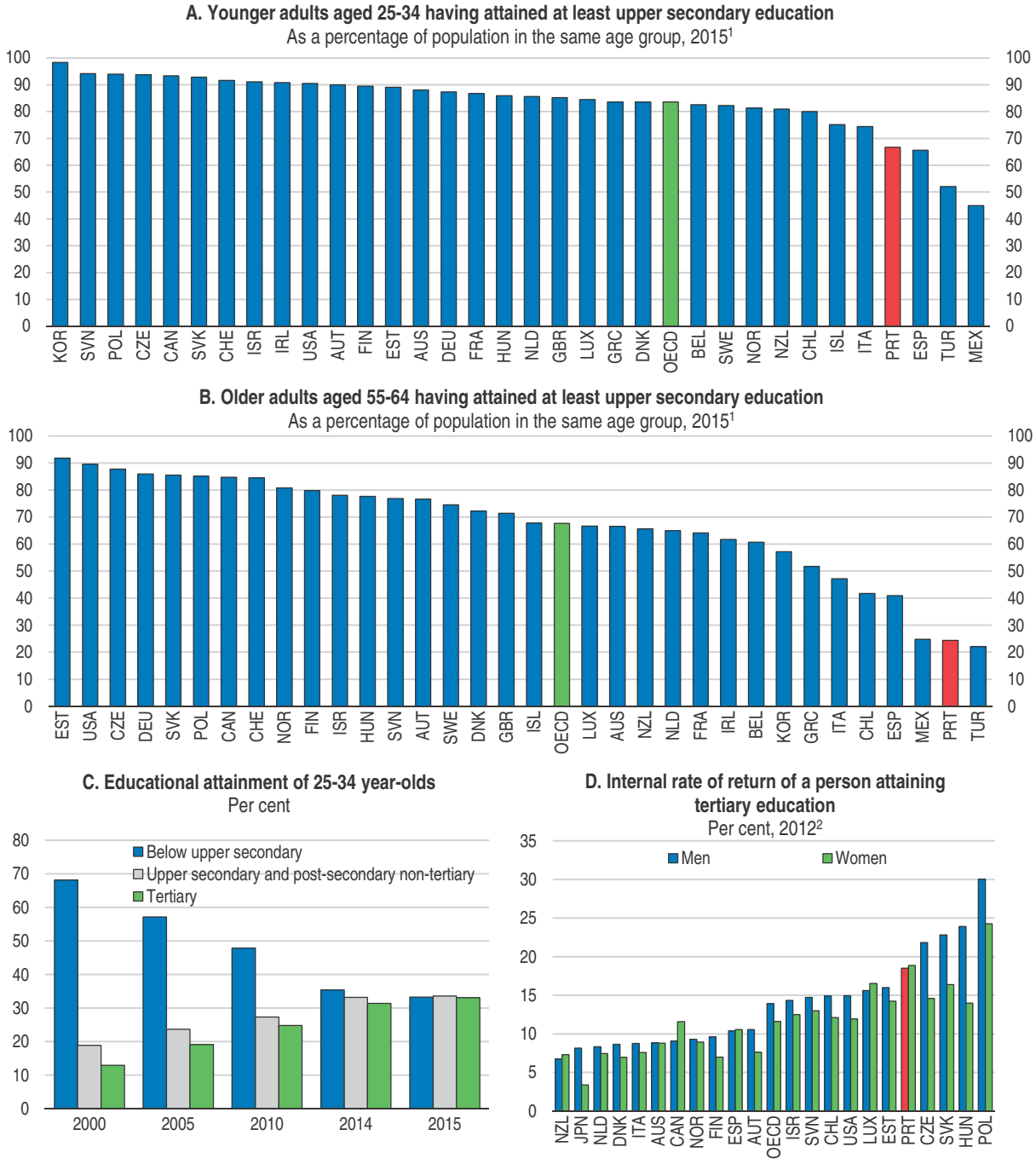
Public school is dominant, with 80% of the student population attending public schools. Public schools receive funding for the majority of their expenses directly from the State budget, raising complimentary revenues by providing services to the community and through donations. The Ministry of Science, Technology and Higher Education is responsible for the funding of Higher Education.

School governance is fairly centralised. The main decisions about the curriculum, the educational programmes, national examinations, teacher recruitment and deployment and the budget distribution are defined centrally by the Ministry of Education (Santiago et al., 2012). Five regional education authorities are responsible for co-ordinating policy implementation within their respective territories. Over time there has been some decentralisation as municipalities have been granted some responsibilities, although mainly in basic education. Other relevant stakeholders include the National Agency for Qualification (ANQ), which co-ordinates the implementation of vocational education and training and manages the National System of Qualifications; the National Education Council (CNE), an independent body which forms views across the whole range of educational issues by its own initiative or following a request from the government or the Parliament; the Schools Council, representing the viewpoint of schools; parents' organisations and the National Association of Portuguese Municipalities whose views are typically heard. The rate of teacher unionisation is quite high (around two-thirds of teachers), and there is a legal obligation to consult teachers' unions on matters that relate to teachers' working conditions.

Although the budget of the Ministry of Education was the one most severely hit by the adjustment process – having shrunk from 5.6% of GDP in 2009 to 4.9% of GDP in 2012 – this contraction was mostly due to fiscal consolidation measures that reduced public sector wages, as expenditures with staff represent about 80% of the Ministry of Education budget (CNE, 2015).

Sources: Santiago et al. (2012), Eurydice (2016), CNE (2015) and CNE (2016).

Figure 2.2. **Education attainment has improved but private returns remain high**



1. The OECD aggregate is an unweighted average of the data shown including Latvia.
2. As compared with a person attaining upper secondary or post-secondary non-tertiary education, in equivalent US dollars converted using purchasing power parities for GDP. The internal rate of return indicates at what real interest rate the investment breaks even. 2010 for Austria, the Netherlands, Norway and Portugal. 2011 for Chile, the Czech Republic and Italy.

Source: OECD (2016a), *Education at a Glance 2016: OECD Indicators*.

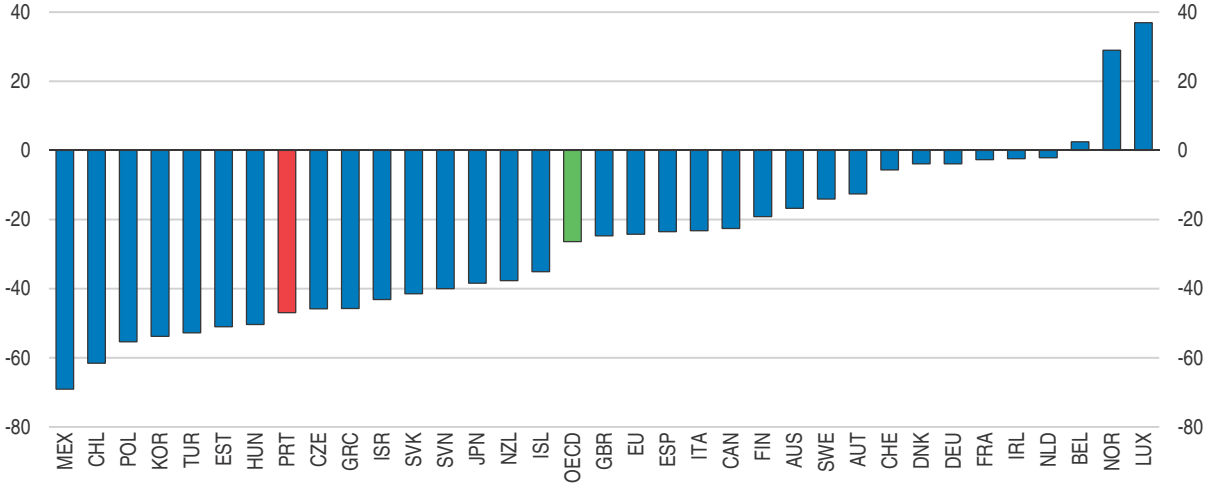
StatLink http://dx.doi.org/10.1787/888933448057

Despite this progress, attainment remains a challenge and low qualifications are not restricted to those who left the education system long ago. Looking only at young adults, the share of those who have completed upper secondary education (65%) is the third lowest in the OECD and significantly below the OECD average of 83% (Figure 2.2, Panel A). Only 31% of young adults hold a tertiary degree, contrasting with an OECD average of 41% (Figure 2.2, Panel B), even though the private returns of tertiary education are comparatively high (Figure 2.2, Panel D).

Low levels of skills are an obstacle to higher productivity and material living standards, which are low relative to OECD or EU averages. Much of this can be traced back to Portugal's low labour productivity (Figure 2.3). This reflects large gaps in human capital, but also in multi-factor productivity. But low skills also affect the well-being of Portuguese citizens and stand in the way of reducing income inequality, as education is often a prerequisite for higher job quality and earnings opportunities. Going forward, increasing digitalisation and a higher importance of knowledge are expected to raise returns to skills further (Braconier et al., 2014). This is an important concern for Portugal, which has one of the most unequal income distributions in Europe (Arnold and Farinha Rodrigues, 2015; OECD, 2014a).

Figure 2.3. **Labour productivity is low**

Gap with respect to the United States, per cent, 2014[1]



1. Labour productivity is measured by GDP per hour worked.

Source: OECD (2016b), "GDP per capita and productivity levels", *OECD Productivity Statistics* (database).

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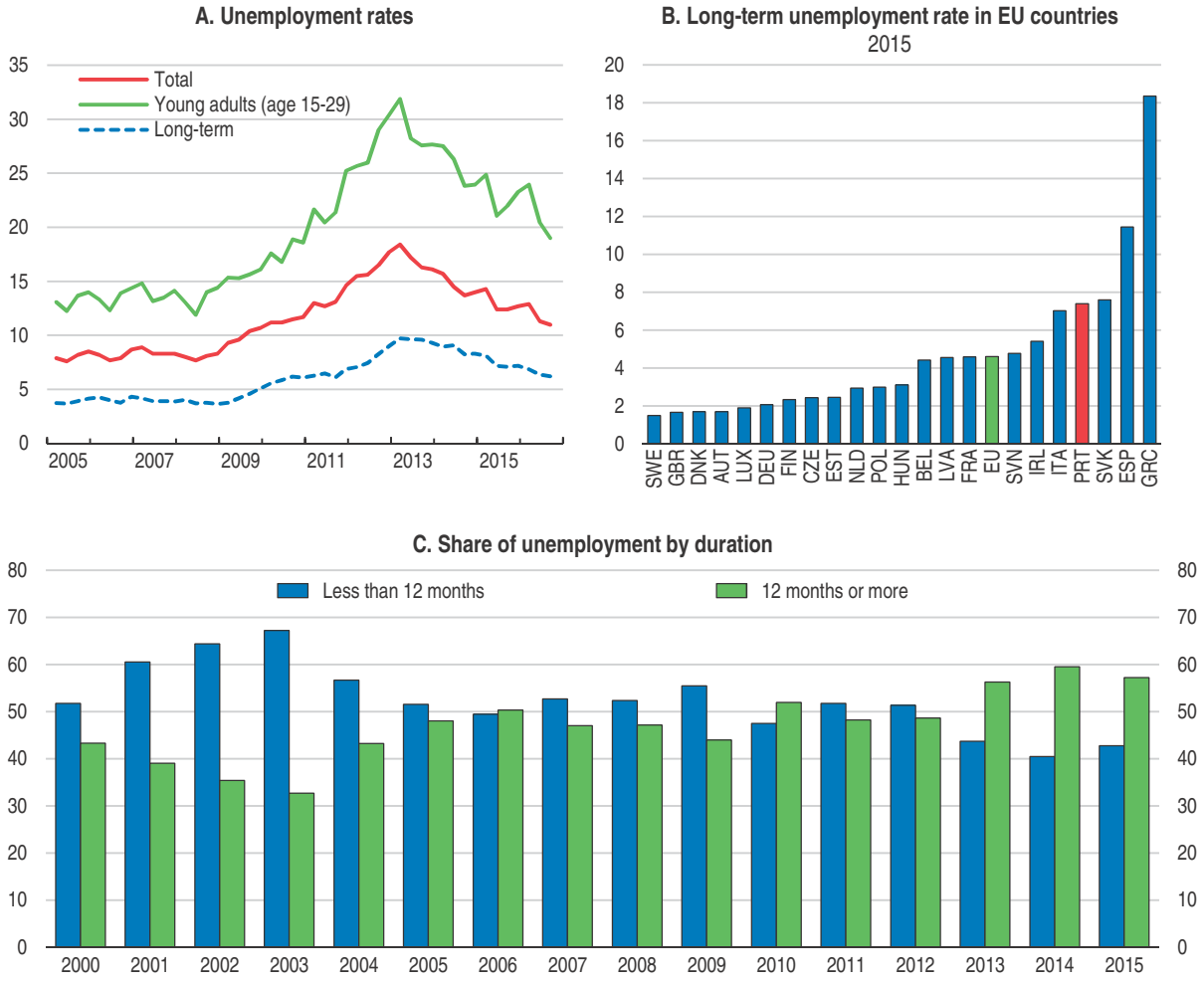
Labour market incentives for upskilling could be stronger

The relationship between skills and the performance of labour markets has elements of a vicious circle. On one hand, low levels of skills reduce the employment prospects for many of Portugal's low skilled workers and improving skills is a key element of policy efforts to reduce unemployment, both present and future. On the other hand, the labour market could offer more in terms of rewards for better skills, which curtails the incentives for individuals to acquire more skills.

At 10.5%, Portugal's unemployment rate is one of highest in the OECD (Figure 2.4, Panel A). Around one-fifth of the economically active young population is unemployed and long-term unemployment is the fourth highest in the EU, with about 60% of job-seekers being unemployed for more than a year (Figure 2.4, Panels B and C). Given that the share of

Figure 2.4. **Unemployment statistics**

Per cent, age 15-64[1]



1. For Portuguese data there are breaks in series in 2002, 2005 and 2011. Long-term unemployment is defined as unemployment lasting 12 months or more.

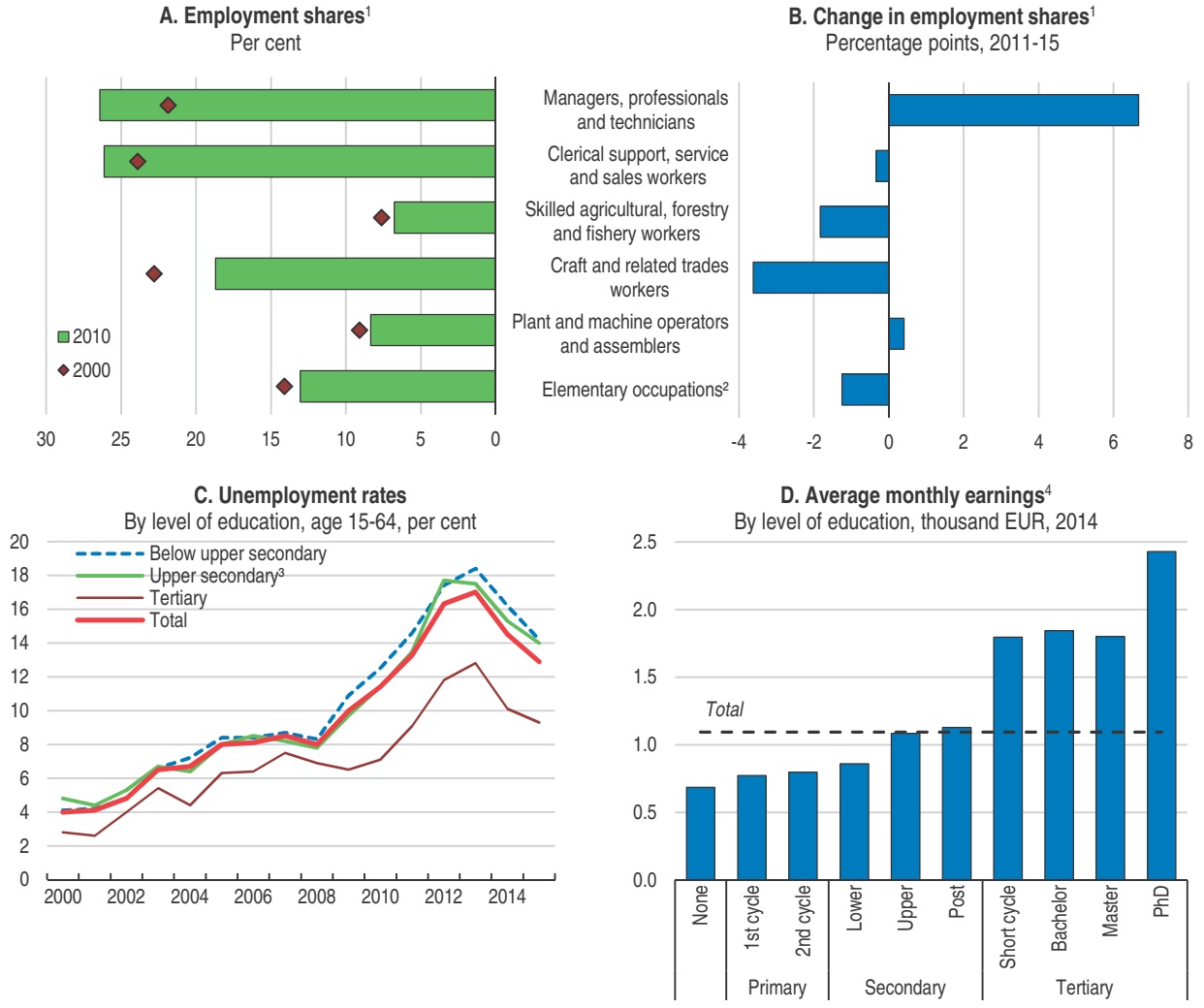
Source: Eurostat (2016), "LFS series – detailed quarterly/annual survey results", *Eurostat Database*.

StatLink http://dx.doi.org/10.1787/888933448076

those unemployed for longer than a year has stayed above 40% for more than a decade now, it appears that a high share of Portugal's unemployment is structural. Long unemployment spells are particularly harmful for youths, as they increase the probability of unemployment throughout most of the working age and increase the chance of dropping out of the labour market altogether (Schmillen and Umkehrer, 2013).

Ongoing shifts in the occupation structure of the labour force signal an increasing demand for individuals with a higher education degree (Figure 2.5, Panel A). In 2010, managers, professional and technicians were the largest job category and their share has increased over recent years, although the rebalancing of the economy towards tradable sectors has also raised demand for plant and machine operators and assemblers (Figure 2.5, Panel B). Against the backdrop of these developments, those with low qualifications face poor labour market prospects. Indeed, unemployment is lower among tertiary graduates and wage premiums for tertiary education are sizeable (Figure 2.5, Panels C and D).

Figure 2.5. **Skills are facing rising demand and improve workers' labour market prospects**



1. Refers to population aged between 15 and 64.
2. "Elementary occupations" is the title of major group 9 in ISCO. It comprises occupations such as: street vendors, shoe cleaners, domestic helpers, building caretakers, messengers, doorkeepers, garbage collectors, hand labourers, etc.
3. Includes post-secondary non-tertiary education.
4. Regular net amounts in cash or in kind paid to full-time employees for work during normal working hours and overtime, including payment of hours paid but not worked (e.g. holidays).

Source: Eurostat (2016), "LFS series – detailed annual survey results", *Eurostat Database*.

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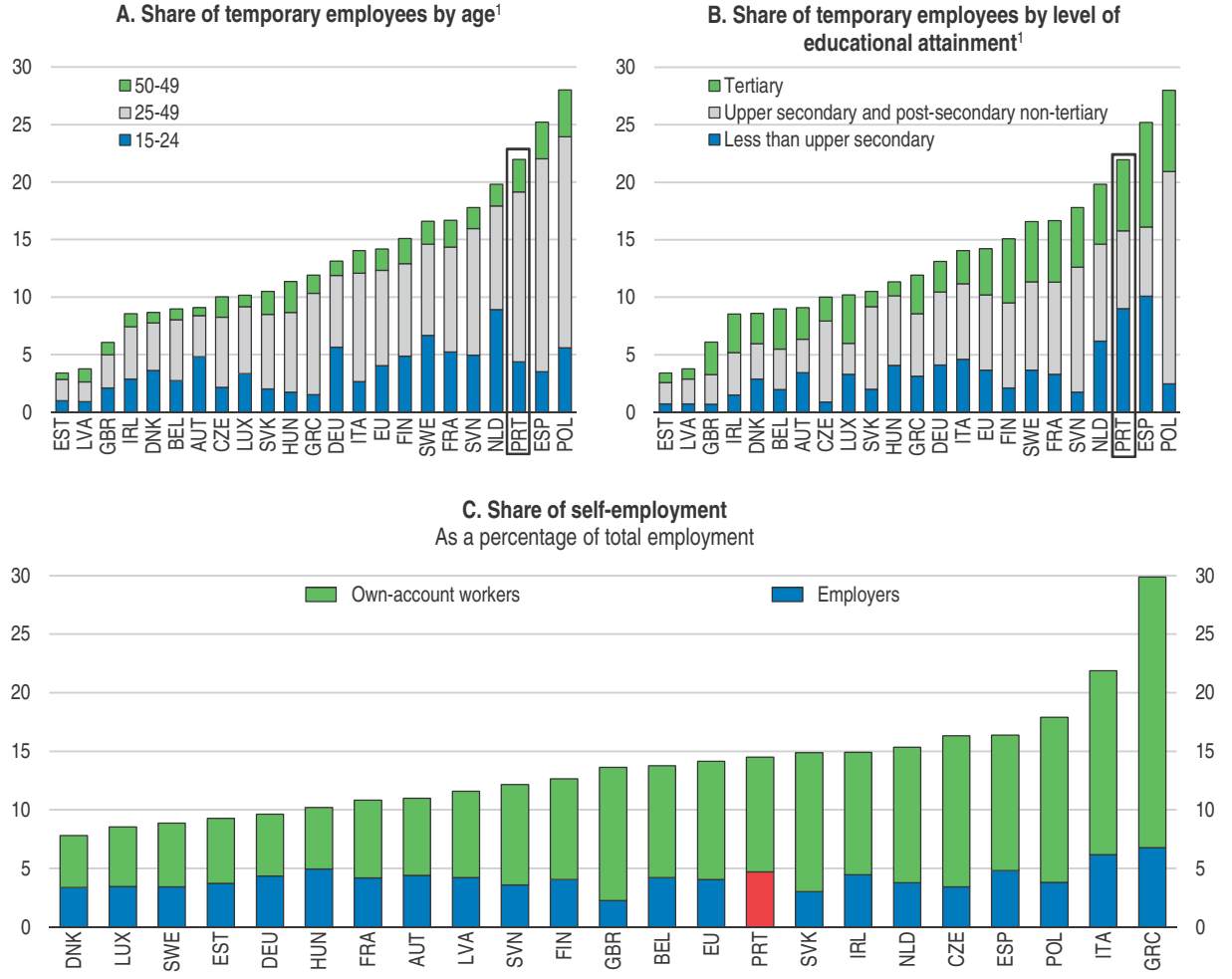
Still, it is unclear to what extent the observed differences in unemployment and wages provide sufficiently powerful incentives for investing in skills. Given the high unemployment, labour market prospects for young people are dire and job quality is low with respect to all three dimensions assessed by the OECD: earnings quality, job security and quality of the working environment (OECD, 2016c). The crisis is only partly to blame as job quality was already relatively poor before the crisis. Average hourly earnings remain among the lowest in the OECD. While quality of the working environment improved slightly for those people still employed, labour market security fell sharply due to high unemployment (OECD, 2016c).

Moreover, a highly segmented labour market, including for those aged 25-49, significantly curtails the prospects for young graduates to obtain a stable employment, and higher education attainment also does not increase the likelihood of having a permanent contract relative to secondary education (Figure 2.6, Panels A and B). Besides excessive use of temporary contracts, disguising dependent employment as self-employment is another facet of labour market segmentation that puts many workers in a very vulnerable position *vis-à-vis* their employer. The official share of self-employment is surprisingly high in Portugal (Figure 2.6, Panel C), which has triggered recent measures to increase the effectiveness of labour inspections. Improving the functioning of the labour market through institutional reforms can improve the incentives for investing into skills and although Portugal has embarked on important labour market reforms in recent years, there are important rigidities that still need to be addressed.

Figure 2.6. **Labour market segmentation is high**

Per cent, age 15-64, 2015



1. Data is calculated as a percentage of employees in each category weighted by the share of that category in total employees.

Source: Eurostat (2016a), "LFS series – detailed annual survey results", *Eurostat Database* and OECD (2016d), *OECD Employment and Labour Market Statistics* (database).

StatLink http://dx.doi.org/10.1787/888933448092

Against this background, this chapter will discuss policy options to foster skill acquisition among the adult population. This includes young adults, who will be in the workforce for many years to come, but also the long-term unemployed and those that are neither in employment, education or training (NEETs). Active labour market policies are a key policy instrument to support these groups, as they can provide training and support for finding a job. The chapter will also discuss how future education policies should be designed to deliver strong skills and reduce inequities, including by limiting the number of those that leave the education system without at least completing secondary education. Vocational training can play a key role in this respect, smoothing the transition to the labour market for those that do not pursue tertiary education studies. Finally, this chapter will also discuss demand side policies that can foster the creation of high quality jobs for well-skilled Portuguese citizens. The skill challenges highlighted in this chapter are similar to those identified in the 2015 OECD Skill Strategy Diagnostic Report of Portugal (OECD, 2015a).

Upskilling the adult population

Target adult education and lifelong learning towards the low skilled

Owing to the legacy of Portugal's low educational attainments and given that most of the population has already left the formal education system, improving the skills of the current adults is the most effective way to improve skills without waiting for a generational shift. Adult education has been a policy priority for a number of years and is provided through three main schemes. The Adult Education and Training Courses (*Cursos de Educação e Formação de Adultos*, EFA) target people over the age of 18 who have not attained the level of upper secondary education, including those with no working experience. All EFA courses involve general and technological education. Certified Modular Training Courses (*Formações Modulares Certificadas*, FMC) are available to adults who are not interested in taking a full qualification programme. FMC allow flexible, gradual training and are often the opportunity for individuals to increase their knowledge in a field that they are already familiar with. Portugal has also introduced a "Basic Skills Programme" targeted towards the acquisition of basic skills (literacy, numeracy and ICT) in order to enter an EFA course or a process of recognition, validation and certification of competences acquired through labour market experience (*Reconhecimento, Validação e Certificação de Competências*, RVCC).

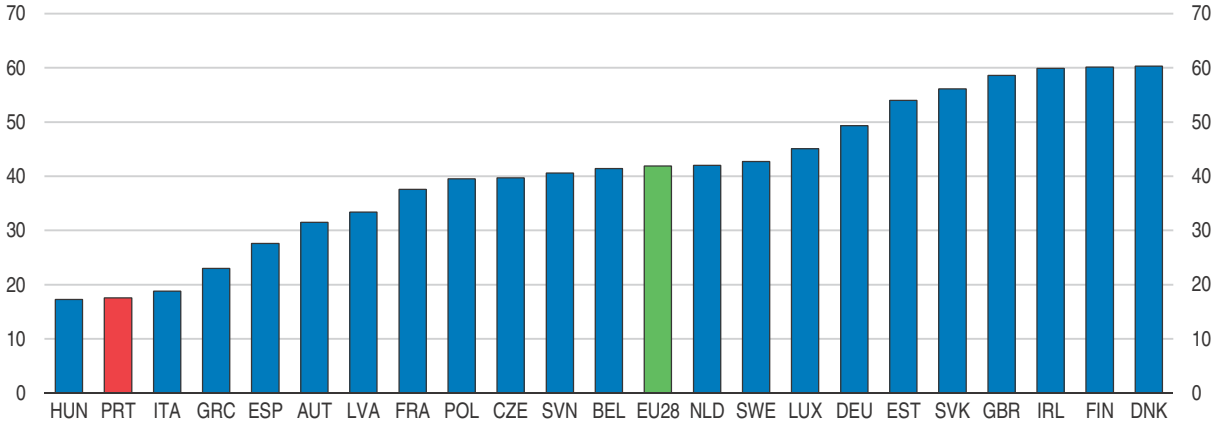
The New Opportunities Initiative, launched in December 2005, was a large governmental programme aiming at massively upgrading and upskilling the qualifications of the Portuguese population. It provided low-qualified workers a formal recognition of formal and non-formal qualifications acquired through the working life (RVCC). This process was complemented by formal learning of 4th, 9th and 12th grades education or/and vocational certification. The program was very ambitious, and by 2010, over half a million adults had obtained a certification. This number amounts to one sixth of the 3 million Portuguese adults who had still not attained secondary education. The New Opportunities Initiative was discontinued in 2013 and the financial resources devoted to adult education were reduced, which contributed to a sharp decline in enrolments in the RVCC scheme, but also in EFA and FMC training courses (OECD, 2015a). There is little evaluation of the impact of adult education programmes on labour market outcomes. Earlier studies suggest that RVCC and EFA courses have a positive impact on employability and wages, especially among some vulnerable groups in the labour market, such as women and those living in low-income households (CIDEC, 2004, 2007; Carneiro, 2011). More recent evaluation seems to indicate

that, with the exception of FMC courses, adult education training courses have positive employment effects only several years after participation, while there is no evidence of an impact on participants' wages (Costa Dias and Varejão, 2012; Lima, 2012). The RVCC processes have improved employability prospects but only when workplace competencies were validated or the process of validation was linked to training through FMC courses (Lima, 2012). A positive impact of RVCC processes on wages was found to be limited to participants who not only obtained recognition for basic qualifications but also participated in FMC courses and to participants who obtained certifications equivalent to upper secondary education (Lima, 2012).

Today, Portuguese workers receive significantly less on-the-job training than in other countries (Figure 2.7; EWCS, 2015). In August 2015, Portugal introduced a training subsidy for both employees and job seekers (*Cheque Formação*). For employees wishing to invest in training, this subsidises up to 50 hours training with an amount of EUR 175 and up to 150 hours of training for a maximum of EUR 500 for each unemployed person. Training subsidies recognise the fact that the cost of training is one of the major obstacles to participation in lifelong learning (OECD, 2015a). Although available to both individuals and firms, the subsidy is being taken up mainly by firms, whose training requests account for 95% of the over EUR 3 million requested thus far. While it is too early to evaluate the success of this measure, its potential is significant, particularly with respect to addressing firms' more immediate training needs. At the same time, the caps on the number of training hours limit its impact, and it is unlikely that this programme alone will lead to a significant upskilling or reskilling of the labour force.

Figure 2.7. **More effort needs to be put in upskilling the labour force**

Per cent of persons who have received on-the-job training in the past year[1]



1. Share of persons responding positively to the question "Have you had on-the-job training in the past year?".

Source: Eurofound (2015), "Sixth European Working Conditions Survey: 2015", European Foundation for the Improvement of Living and Working Conditions.

StatLink http://dx.doi.org/10.1787/888933448102

Another challenge is that it is particularly difficult to reach low-skilled individuals, which represent a large share of the labour force, with such programmes, while take-up is generally better among younger and more educated workers (OECD, 2015a). These trends are consistent with the findings of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), which documents a generally weak participation of low-skilled adults in adult education and training across countries (OECD, 2013a). Across

the OECD area, principal challenges for engaging low skilled workers in participating in lifelong learning activities include the cost of training, difficulties in balancing training with work and family responsibilities, and distance to home or workplace (OECD, 2015a).

Many countries have been able to attract more low-skilled workers into training by raising their awareness about existing training opportunities, but also about the opportunities to validate existing skills (OECD, 2015a). The prospects of formal recognition of existing and newly acquired skills were one factor behind the success of the New Opportunities Initiative, which instilled in participants a drive for further education and training as well as a desire to improve their work prospects (Carneiro et al., 2011).

Given the low education levels of a significant share of the population, further efforts will be required for adult training to make a real difference. A new skills strategy called "Qualifica programme" aims to increase the number of specialised centres for adult education and training (*Centros Qualifica*) and increase the proximity to target populations. One objective of the programme is to cut the number of adults who have not attained secondary education by half until 2020. "Qualifica programme" puts a strong emphasis on upgrading skills as it complements the process of certification with training, focusing on matching the labour market needs. The authorities need to ensure that the large scale of the programme does not weaken the quality of the training provided nor its ability to provide skills demanded by the labour market.

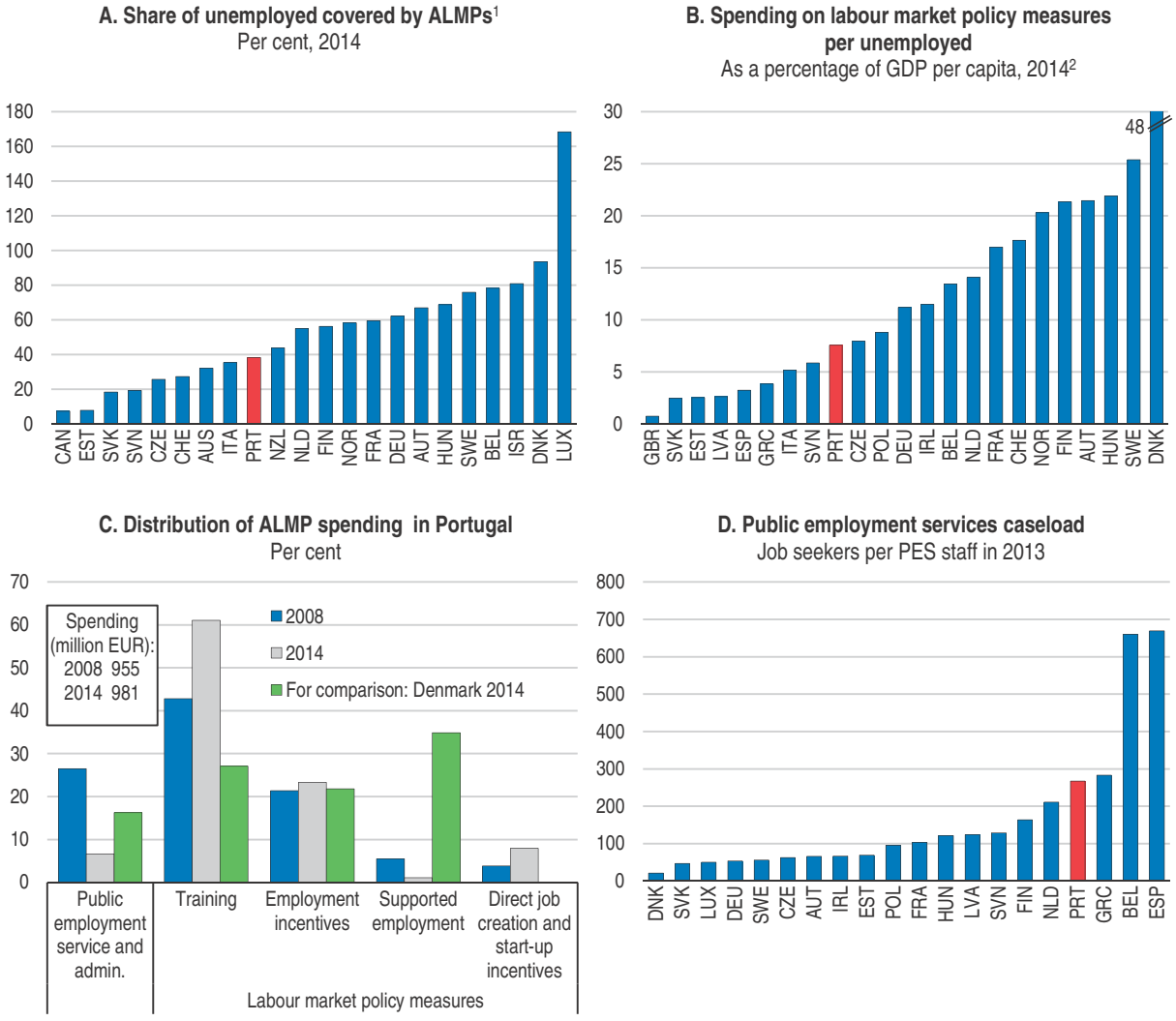
The successful design and development of training programmes also require systematic evaluation of the effectiveness for labour market outcomes, e.g. employability and unemployment spells, wage evolution and job quality indicators. Portugal does not have a strong tradition in policy evaluation and learning from past programmes is made difficult by the absence of ex-ante definition of monitoring and policy evaluation mechanisms. Strengthening monitoring and policy evaluation would help concentrating resources on those programmes that really make a difference for the labour market outcomes of low skilled adults.

Strengthen active labour market policies

Activation policies, if properly designed, increase the employability of jobseekers in a cost-effective manner, making labour markets more inclusive and resilient. In Portugal, the constraints on this kind of policies have been twofold. For one, spending per unemployed relative to GDP is low in international comparison and relatively few job seekers participate in ALMP programmes (Figure 2.8, Panels A and B). In part, this reflects limited fiscal space. A second challenge has been to raise the effectiveness of spending on ALMPs. While fiscal space may remain limited for some time to come, past evidence suggests that improving the spending efficiency can significantly improve outcomes.

Portugal has stepped efforts to raise the effectiveness of activation policies. The composition of ALMP spending has shifted towards training, employment and incentives for job creation (Figure 2.8, Panel C). Long-term unemployed and youth not in employment, education, or training (NEETs) have been identified as target groups, both of which comprise a very high share of individuals without completed secondary education. Outreach towards the latter has improved by mobilising a large network of local partners, launching a national awareness campaign and by creating an online platform where individuals can register. The authorities have set up a Youth Guarantee scheme for those between 18 and 30 years old, which has reached more than 300.000 registered young NEET.

Figure 2.8. **Structure of public spending on active labour market programmes (ALMP)**



1. ALMP cover services and activities of the public employment services (PES) and labour market policy (LMP) measures that provide temporary support for groups that are disadvantaged in the labour market. The data shown should not be treated as strictly comparable across countries or through time, since data at the level of individual countries in some cases deviate from standard definitions and methods; see notes to Annex Table Q of the *OECD Employment Outlook 2016* available at *www.oecd.org/els/emp/employment-outlook-statistical-annex.htm*.
2. 2013 for Ireland, Poland and Spain; 2011 for the United Kingdom and 2010 for Greece.

Source: OECD (2016d), *OECD Employment and Labour Market Statistics* and *OECD Economic Outlook: Statistics and Projections* (databases). For Job seekers, "Persons registered with Public Employment Services – PES (source: DG EMPL)", *Eurostat Database*, *http://ec.europa.eu/eurostat/web/products-datasets/-/lmp_rjru*, accessed September 2016. For PES staff, "PES Business Models Study – Country Fiche", European Commission, June 2014.

StatLink http://dx.doi.org/10.1787/888933448118

The programme includes paid internships, which is one of the most effective ways of raising participants' employability (Martin and Grubb, 2001). Eligibility for the internship programme has later been expanded to all long-term unemployed. In spite of these efforts, the share of NEETs, like in the majority of OECD countries, is still higher than before the financial crisis (OECD, 2016a).

Lower spending on public employment services has been accompanied by efficiency improvements through an increased use of digital services, but staff in public employment services (PES) are overloaded with a high number of caseloads (Figure 2.8, Panel D). Moreover, the workload of career managers within the services of the PES is unevenly distributed (Table 2.1). Raising the number of career managers would improve the effectiveness of the personal employment plans, particularly in regions with higher unemployment but also higher demand for labour. In the absence of additional resources to hire career managers, a more balanced distribution of the caseload should be achieved.

Table 2.1. **Distribution of caseloads in Public Employment Services**[1]

Region	Number of career managers	Average number of caseloads per career manager
Norte	345	683
Centro	180	437
Lisboa e Vale do Tejo	338	513
Alentejo	87	314
Algarve	53	510
Total (on the mainland)	**1 003**	**540**

1. April 2016.
Source: Ministry of Labour, Solidarity and Social Security (MTSSS).

Further efforts to reach out for the NEETs will require better co-ordination between the Public Employment Service (PES) and local partners. One way forward is to continue to expand the use of digitalisation services, including e-services aimed at employers and services aimed at matching job seekers to potential employers. This would contain costs and allow PES workers to focus more on harder-to-place job seekers or first-time job seekers. These groups typically need more face-to-face interactions and specialised counselling, as evidence from other OECD countries has suggested (OECD, 2016c; Martin, 2014). The project "One stop shop for employment" (*Balcão Único do Emprego*), currently under development within the SIMPLEX+ programme, may be a step forward towards greater digitalisation and co-ordination of public services.

Similar to adult education, Portugal's ALMP programmes could benefit from more systematic impact assessments. Multiple programs and a lack of appropriate data currently reduce the scope for systematic evaluations. Establishing a system to monitor regularly and accurately the effectiveness of the different programs would allow a better focus of future efforts on the most effective programmes. The sparse existing evidence points to positive results of activation measures producing effects only several years after participation (Costa Dias and Varejão, 2012).

Activation measures could be complemented with other measures to support employment, particularly for low-skilled workers. The tax burden on labour is high in Portugal and social security contributions paid by employers are flat across earnings levels (Figure 2.9). One option could be to lower employer social security contributions for lower incomes levels, which are likely correlated with skills. Another option could combine a more paced increase in the minimum wage with the introduction of refundable earned income tax credits, directly targeted at identified groups at greater risk of poverty.

Figure 2.9. **Employers' social security contributions are high**

As a % of labour costs for selected earnings levels, expressed as a % of earnings of an average worker, 2015

Source: OECD (2016e), "Taxing Wages: Tax wedge decomposition", *OECD Tax Statistics* (database).

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Strengthening primary and general secondary education

Learning outcomes are improving

Besides adult education and measures to promote labour market insertion, the education system is the obvious tool for improving the skills of Portuguese citizens. The effectiveness of Portugal's education system has improved substantially over time. Performance in successive rounds of the PISA tests shows an improvement over time in students' learning outcomes (Figure 2.10, Panel A). In the 2015 PISA evaluation, performance was above the OECD average in science and reading and around the OECD average in mathematics. Disaggregated PISA results suggest noticeable improvements across different types of schools and programmes, including both public and private schools (Ferro et al., 2015a). PISA results for Portugal are consistent with enhanced performance in other standardised international tests such as the TIMSS (Trends in International Mathematics and Science Study, 2015) and PIRLS (International Results in Reading, 2012).

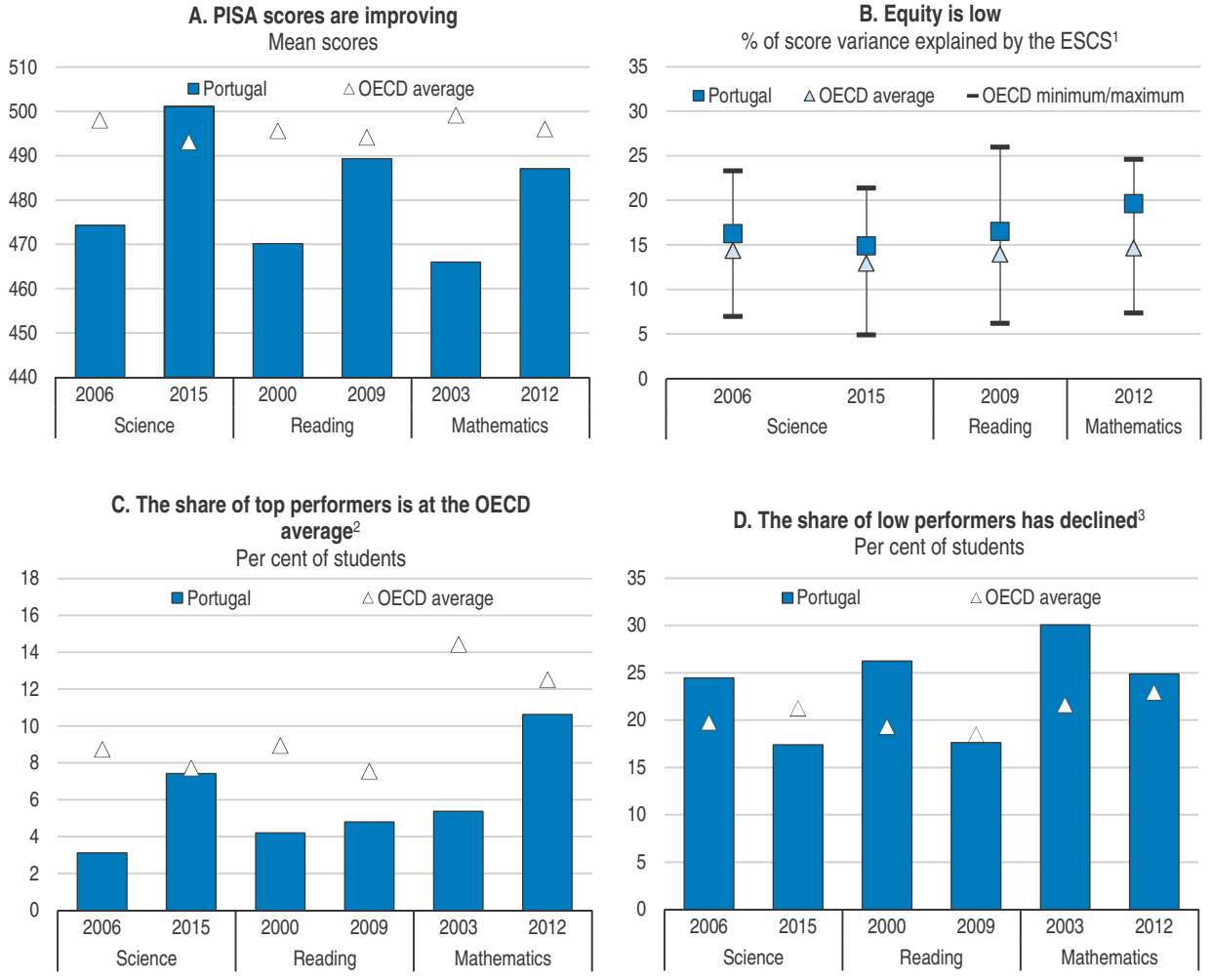
Portugal's improvements over time are visible both at the top and the bottom of the score distribution. Between 2006 and 2015, the share of top performers in science increased (i.e. those students that reached Level 5 or 6 in PISA tests) while the share of low performers decreased (i.e. those students performing below Level 2) (Figure 2.10, Panels C and D). However, the share of top performers has declined between 2012 and 2015 and almost one in five students is below proficiency Level 2, which is considered by the OECD as the baseline level of mathematical proficiency that is required to participate fully in modern society (OECD, 2014c).

The education system needs to do more to reach to disadvantaged children

Education outcomes seem more adversely affected by the student socio-economic background than elsewhere (OECD, 2016f). The share of variation in students' scores that can be explained by their socio-economic status is around 15%, which is higher than the average of 13% across the OECD (Figure 2.10, Panel B). Moreover, the strength of the relationship between performance in PISA tests and the socio-economic background has increased, suggesting a deterioration in equity (Figure 21, OECD, 2016f). Improvements in

Figure 2.10. **Selected indicators of education performance**

Programme for International Student Assessment (PISA)



1. ESCS is the PISA index of economic, social and cultural status.
2. Proficiency level 5 or above on a scale of 1 to 6.
3. Proficiency below level 2 on a scale of 1 to 6.

Source: OECD (2016f), *PISA 2015 Results (Volume I): Excellence and Equity in Education*; OECD (2014b), *PISA 2012 Results: What Students Know and Can Do (Volume I)*; OECD (2013b), *PISA 2012 Results: Excellence Through Equity (Volume II)*; OECD (2010a), *PISA 2009 Results: Overcoming Social Background (Volume II)*; and OECD (2008), *PISA 2006 – Volume 2: Data*.

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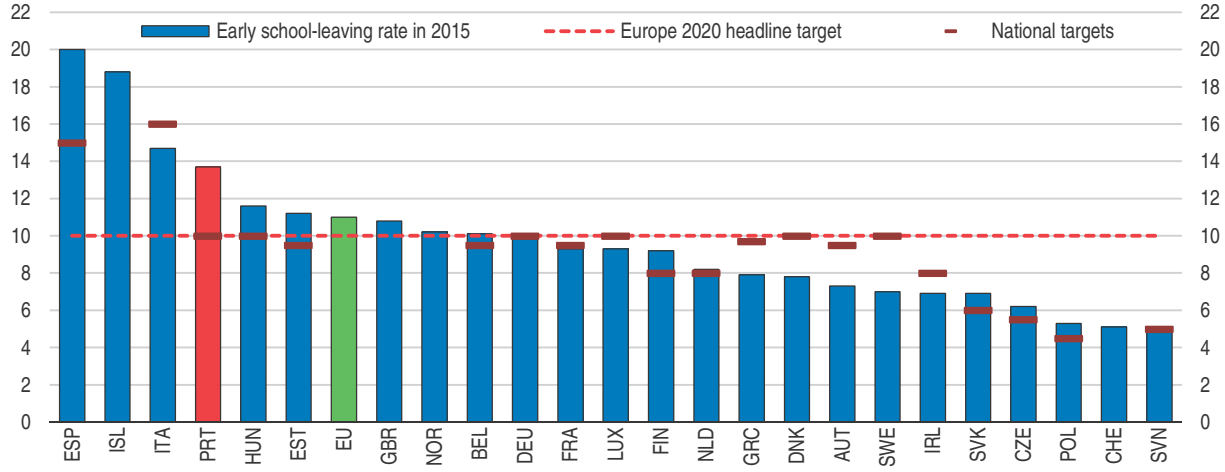
average scores do not need to come at the cost of deteriorating equity, as the example of Italy illustrates. In 2003, Italy had a similar performance level as Portugal and its average PISA scores have seen similar improvements between 2003 and 2012, but equity has improved in Italy during this period, while it has deteriorated in Portugal (OECD, 2015a). While Italy managed to keep raising both performance and equity in PISA tests in the 2015 PISA tests, Portugal's significant improvement in performance was not accompanied by a similar improvement in equity. PISA results also illustrate that high average performance and equity are not mutually exclusive: several OECD countries, including Australia, Canada, Estonia, Finland, Japan, Korea, the Netherlands, and the United Kingdom combine an average performance above the OECD average with a weak relationship between socio-economic status and student performance (OECD, 2016f).

Early school leaving prevents strong skill acquisition

Inequities in the education system are related to Portugal's high school drop-out rate. Around 14% of youth between 18 and 24 years old have left school without completing secondary education (Figure 2.11). Early school leaving, defined as the proportion of youth between 18 and 24 years of age who has attained at most lower secondary education, has been successfully brought down from 63% in 1991 to about 14% in 2015 but attaining the 2020 target of 10% will be very hard to achieve (CNE, 2015). The high share of students leaving the education system too early with low skills does not allow society to capitalise on resources invested in education. Compulsory education has been progressively extended and since 2009 covers 12 years, from age 6 to 18, but this has done little to keep students in school.

Figure 2.11. **Early school leaving rate and targets**

Percentage of the population aged 18 to 24 having attained at most lower secondary education and not being involved in further education or training[1]



1. The early school leaving rate for Spain covers "school drop outs". The United Kingdom has no national target.

Source: Eurostat (2016b), "Youth education and training", *Eurostat Database*; and European Commission (2014), "Overview of Europe 2020 Targets", *http://ec.europa.eu/europe2020/targets/national-targets/index_en.htm*.

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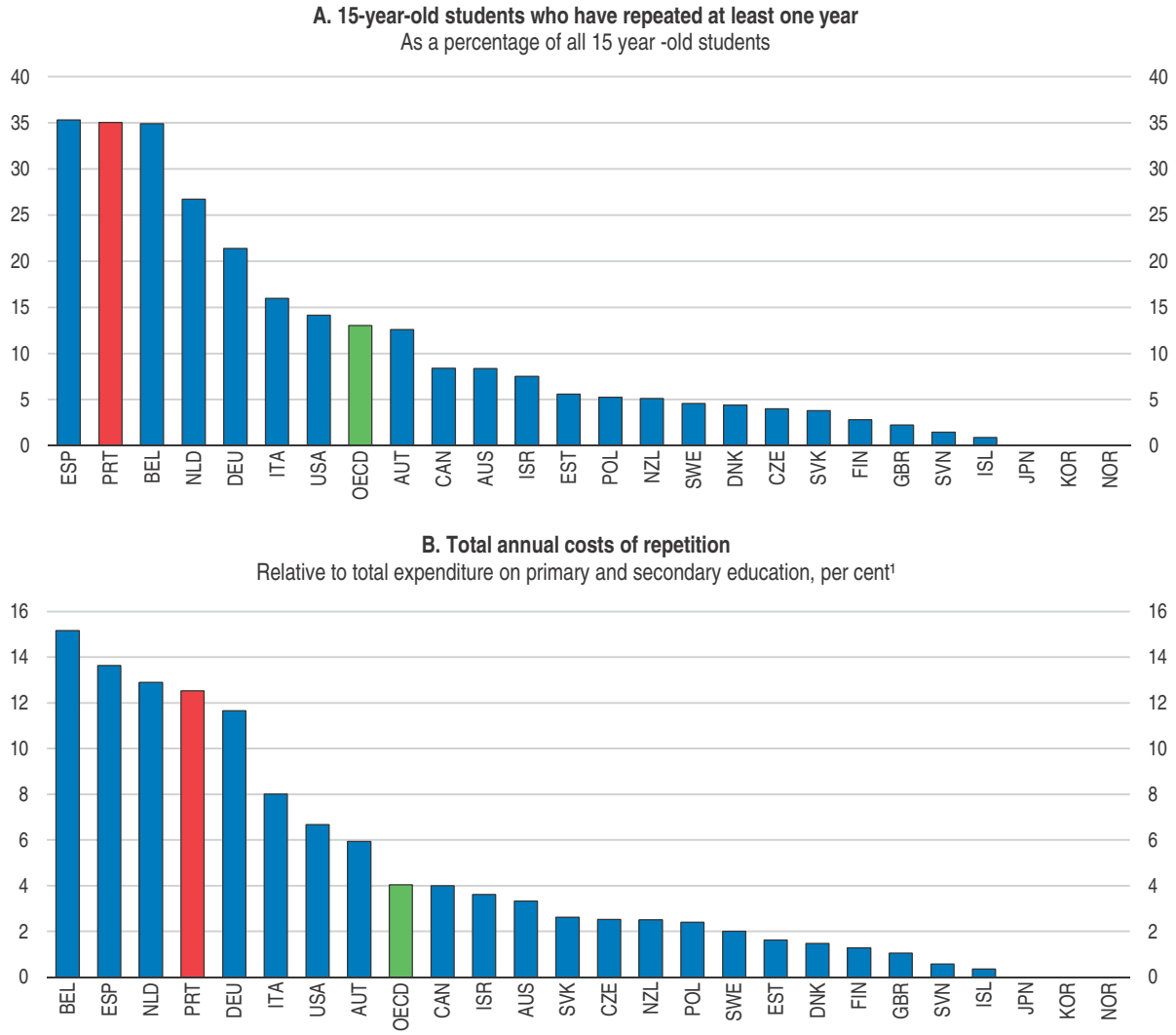
Evidence suggests that one strong predictor of dropping out of school is grade repetition (Roderick, M., 1994; Ferrão, Beltrão and Santos, 2002, 2007; Ferrão and Fernandes, 2003; Lyche, 2010; Manacorda, 2012). The Portuguese education system uses grade repetition more frequently than other countries. In 2012, 34% of students in Portugal reported having repeated at least once in primary or secondary education. This proportion is the fourth highest among OECD countries and well above the OECD average of 12% (Figure 2.12). More than 10% of Portuguese students repeat already at grade two. While there has been a decreasing trend in the use of grade repetition between 1996 and 2009, it is not clear from more recent data whether this decline is put on a firm steady path (Ferrão, 2015).

Grade repetition is generally considered an ineffective way of supporting underperforming students and it often has negative effects on students' learning outcomes over the long term (Baenen, 1988; Pagani et al., 2001; Roderick and Nagaoka, 2005). In Portugal, early grade repetition (ISCED 1 level) is a strong predictor of grade repetition later in the education path (Reis and Pereira, 2015), which is consistent with an absence of beneficial effects on learning outcomes. As disadvantaged students are more

Figure 2.12. **Grade repetition is too commonly used and entails high costs**



1. Relative to total expenditure on primary and secondary education. Cost estimations refer to 2007 or the latest available year and represent the total costs of grade repetition for one age cohort, including the opportunity cost of one year of the student's time.

Source: OECD (2012), *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*.

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likely to repeat grades, it reinforces inequalities (OECD, 2014d; Ferrão, 2015). While across the OECD 20% of socio-economically disadvantaged students reported having repeated a grade at least once, this figure jumps to more than 50% in Portugal (OECD, 2015a). Students with immigration backgrounds have particularly high repetition rates. Grade repetition is not only ineffective, it is also costly, comprising both the extra expenditure incurred in the repeated year and the opportunity costs of one year of the student's time.

Finding alternatives to grade repetition is likely to lead to better outcomes. More could be done to identify students at risk early on and individualised support should be granted to them. The government's project of offering mentoring to students that have repeated at least twice is very welcome but there is a risk that this support comes too late, and late interventions are less likely to succeed (Nusche et al., 2015). The government intends to attribute mentoring roles to teachers, but this should be combined with specific training for

teachers on how to perform this role. Another policy option is to step up the programme Mediators for School Success, established by an association called "Entrepreneurs for Social Inclusion" (Associação de Empresários pela Inclusão Social, EPIS), which has been active since 2006. The programme managed to reach to 1 700 students. Its trained mediators have a strong track record of raising students' educational performance (OECD, 2015a).

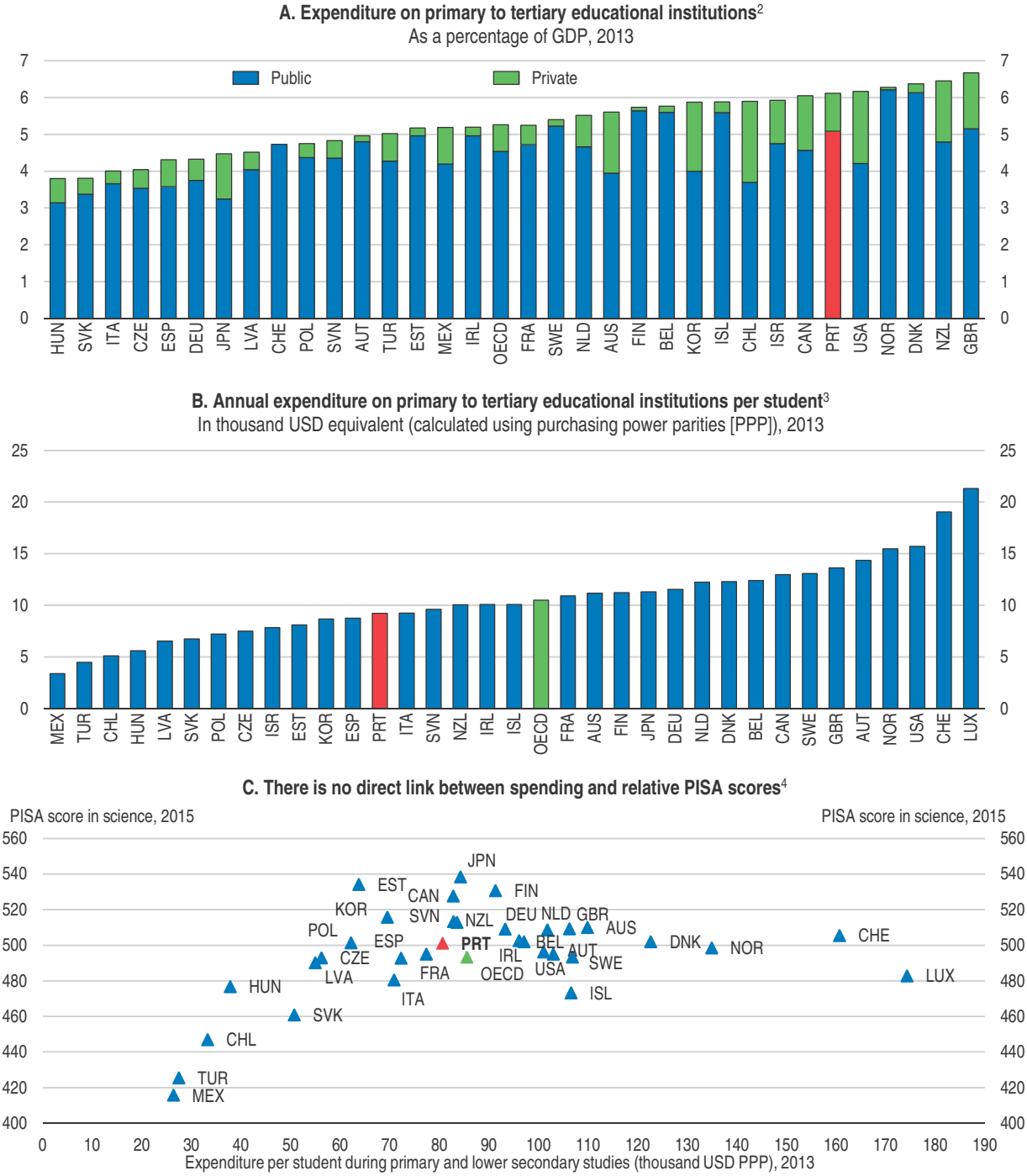
Students' evaluation relies strongly on assessing student performance against pre-defined standards and benchmarks (summative assessment). More emphasis should be given to providing regular feedback to students and to developing opportunities for strengthening teacher-student discussions about the student's learning progress (Santiago et al., 2012). These elements of formative assessment are key to provide students falling behind with individualised teaching strategies and should integrate the overall strategy to identify learning difficulties early on. The current government is determined in striking a better balance between formative and summative assessment by incentivising the diversification of assessment practices and abolishing national standards and exams in primary education in the academic year 2015/6 (Implementing Order 1F/2016).

The most effective way to ensure equitable access to learning opportunities comes at a very early age. International experience shows that high quality early-childhood education and care (ECEC) reduces the impact of socio-economic background and improves skill accumulation, employment prospects and earnings later in life (Cunha et al., 2005; Almond and Currie, 2011; Doyle et al., 2013). In Portugal, the coverage of pre-primary education has increased rapidly and in 2013 reached a participation rate of 78%, 90% and 98% for children aged 3, 4 and 5 years-old, respectively, all of which are above the corresponding OECD averages (OECD, 2015b). In 2016 the universalisation or pre-schooling was achieved for children aged 4 to 6 years old and the government plans to reach the same target for 3 year olds in 2019. However, the average number of pupils to teaching staff in early-childhood education (17) is the third highest among European OECD countries (13, on average) and well above that of countries such as Australia, Finland, Denmark, New Zealand and Sweden, all of with a ratio of 10 of below. Also, participation rates declined in the aftermath of the economic crisis as unemployment soared and there are concerns of whether ECEC education is accessible to low-income families. PISA data shows that low-performing students participated much less in early-childhood education than in other OECD countries (OECD, 2016a). As a consequence, children from disadvantaged socio-economic backgrounds should become the primary target group for continued efforts to expand early childhood education. Besides expanding the system, a stronger focus on quality is also crucial, particularly as – in stark contrast to international evidence – there is so far no firm evidence of lower grade repetition among students who were enrolled in pre-primary education (Reis and Pereira, 2015, OECD 2012).

The structure of spending will require further adjustments

Despite high education expenditures relative to GDP, Portugal's annual expenditure per student is low in comparison with other OECD economies, but there is no direct link between education expenditure and outcomes (Figure 2.13). Indeed, some countries achieve similar or higher PISA results with similar or lower spending. This may point to scope for improving the efficiency of education expenditure, including through further changes in the structure of spending. Such changes have already been successful in the past. Smaller student cohorts resulting from demographic changes have led to a re-organisation of the public school network that allowed significant improvements in

Figure 2.13. **Allocation of resources in education**[1]



1. Expenditure in 2012 for Canada and 2014 for Chile. The OECD aggregate is an unweighted average of data shown (including Latvia).
2. Public expenditure only for Switzerland.
3. Public institutions only for Ireland and Switzerland. Public institutions only for tertiary level for Canada, Luxembourg and the Slovak Republic.
4. Cumulative expenditure per student over the theoretical duration of primary and lower secondary studies relative to Programme for International Student Assessment (PISA) scores in mathematics. Public institutions only for expenditure for Ireland, Italy, Poland and Switzerland.

Source: OECD (2016a), *Education at a Glance 2016: OECD Indicators*; and OECD (2016f), *PISA 2015 Results (Volume I): Excellence and Equity in Education*.

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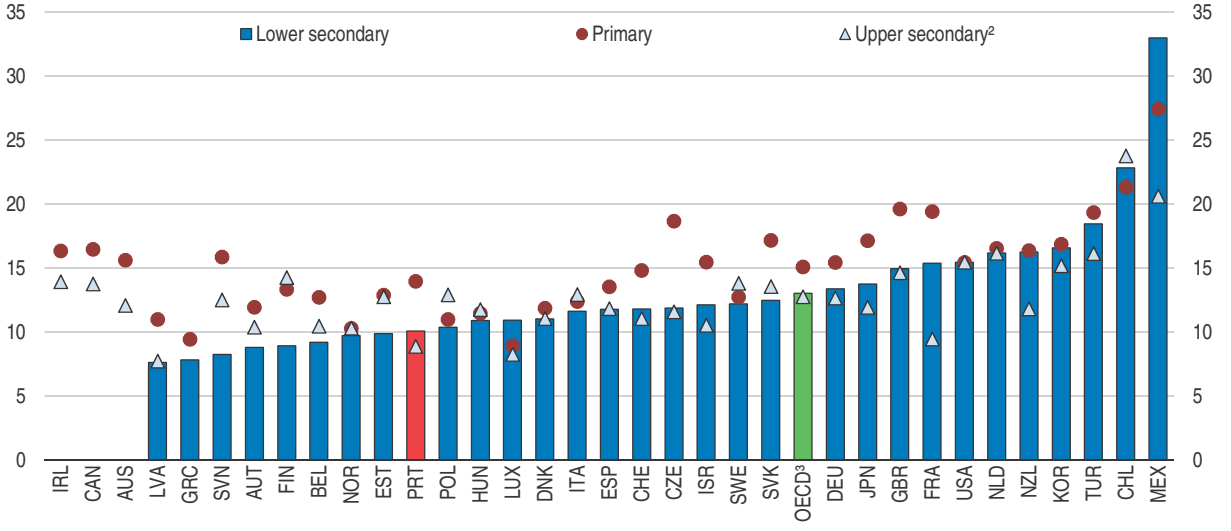
spending efficiency. Salary cuts and the freezing of career progression for civil servants, including those working in public education, as well as reductions in the number of staff have also reduced the public education expenditures.

Portugal spends nearly 80% of education resources on staff compensation, which is more than other OECD countries, reflecting the rather low student-teacher ratio, particularly in secondary education (Figure 2.14). Although the evidence on the optimal class size is not conclusive, smaller class sizes in Portugal have not been successful in reducing grade repetition, although they should allow devoting more attention towards low achievers without penalising other students. Looking ahead, maintaining a small student-to-teacher ratio could be one possible strategy, given the authorities' commitment to reduce repetition rates. However, given that the returns on investment in human capital are greatest in the early years of schooling, focusing such a strategy on primary and pre-primary education rather than secondary education may be the most promising way forward (Odden, 1999; Carneiro and Heckman, 2003; Heckman and La Fontaine, 2007; Nusche et al., 2015). Another option is to rethink the use of teachers' time to offer more individualised support to students at risk of falling behind, including through mentoring schemes.

Figure 2.14. **The student-teacher ratio is low**

Number of students per teaching staff in educational institutions, 2014[1]



1. Public institutions only for Ireland, Israel (upper secondary), Netherlands and Switzerland. 2012 for Canada where primary includes pre-primary and lower secondary.
2. General upper secondary programmes. Includes lower secondary for Australia and Ireland. Refer to all upper secondary programmes for Canada, Israel, Japan, Greece, Norway, Portugal, Sweden and the United States.
3. Unweighted average of data shown including Latvia.

Source: OECD (2016a), *Education at a Glance 2016: OECD Indicators*.

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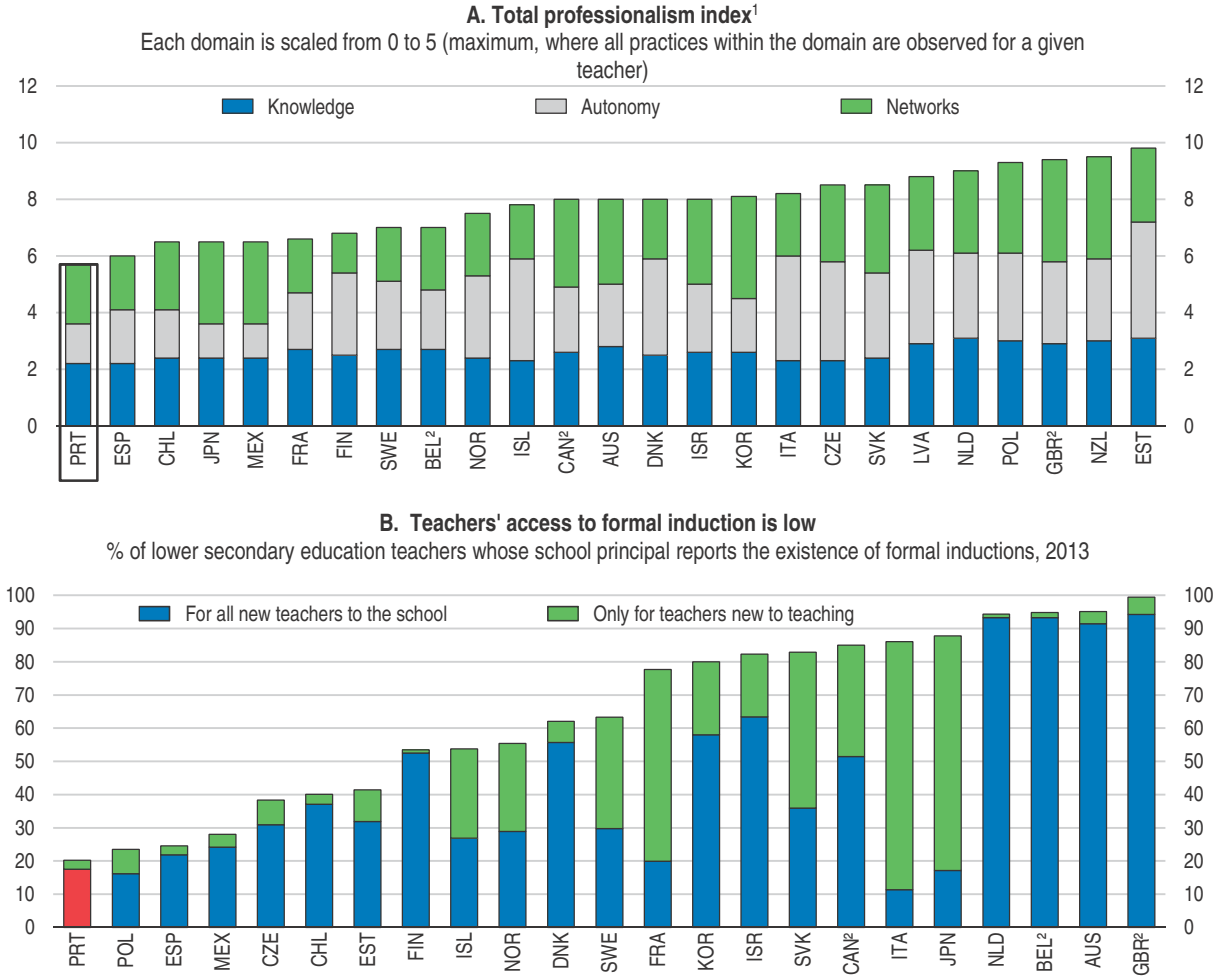
Teachers' skills could be improved further

The quality of teachers and their teaching are the most important factors in student outcomes that can be influenced by policies and good teachers can make a real difference in schools with a disproportionate share of students from low socio-economic backgrounds (OECD, 2005; OECD, 2012). In the past when the education system was expanding rapidly, the quality of teachers was a challenge, but recent initiatives have strengthened teacher qualifications. These initiatives include more stringent admission

conditions, reinforced scientific curricula in teacher education programmes and a new training framework for teachers that links continuing professional development to career progression (OECD, 2006; OECD, 2014e). The legally required qualifications to access the teaching profession consist of a 5- year training programme and a probationary period of one year.

Still, there is evidence that the exposure of Portuguese teachers to international best practices could be improved, in particular with regard to collaboration among teachers, which is rare in Portugal (Figure 2.15, Panel A; OECD, 2016f). New teachers could also receive stronger support from their schools as Portugal has the lowest rate of access to formal induction, both for all new teachers to the school and for teachers new to teaching (Figure 2.15, Panel B; OECD, 2016f).While a large majority of teachers engage in professional development (85%), only a small share of teachers participate in training sessions involving

Figure 2.15. **Teachers' skills need to be improved**



1. Knowledge: presence of teaching credentials and support for continued professional development. Autonomy: amount of decision-making power teachers have over aspects of their teaching, as reported by principals. Peer networks: role that teachers play in regulating their own peer networks of practice.
2. Sub-national entities: Flanders for Belgium, Alberta for Canada and England for the United Kingdom.

Source: OECD (2016g), *Supporting Teacher Professionalism: Insights from TALIS 2013*; and OECD (2014f), *TALIS 2013 Results: An International Perspective on Teaching and Learning*.

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teaching to students with special needs, even though this is the area where most teachers report greater need for professional development (OECD, 2014e). Another weakness of the education system is that teachers receive little evaluation and feedback on their work. Improving peer-learning by moving away from a "closed doors" culture and building professional networks to share teaching experiences could provide the basis for a stronger contribution of teachers to raising skill levels in Portugal. The National Programme for School Success, in order to provide additional resources (more human resources, as well as teachers' and principals' on-job training) to local projects developed by schools, in collaboration with municipalities.

Improving governance

The education system remains fairly centralised, providing schools with little autonomy (OECD, 2006; Santiago et al., 2012). Funding is per class and schools have no say on the number of classes or their size (CNE, 2015). Giving schools more autonomy in adapting size classes to students' needs would enable them to concentrate more resources where they are most needed. Teacher allocation across schools is also centralised and the governing principle is a teachers' ranking system based on the classification of entry into the profession and years of experience, with no role for performance evaluation. This system does not reflect the special needs of schools in remote areas or with a high share of students from disadvantaged backgrounds, which are often staffed with early-career teachers on temporary contracts and have a high turnover of their teaching staff. Giving schools the autonomy to decide whether to retain non-permanent teachers could lead to some improvements, but in the longer run, there may be scope for providing stronger incentives for more experienced teachers and school principals to work in disadvantaged schools.

Progressive autonomy for schools should be accompanied by a well-designed evaluation and assessment framework, as recommended in the *2006 OECD Economic Survey* (OECD, 2006) and in a 2012 OECD review of evaluation practices in the Portuguese education system (Santiago et al., 2012). Evaluations of students and schools should be based on the learning progress made by their students, as opposed to their level of performance, which is strongly influenced by socio-economic factors. Students' learning progress should be measured by a combination of standardised test results and teachers' qualitative evaluations of students' progress (Santiago et al., 2012).

More systematic evaluations should also be applied to the many programmes implemented by schools to reduce grade repetition and early school dropout (OECD, 2015a). This would allow identifying successful strategies to address these issues across schools. Schools play a critical role in student performance and students of similar socio-economic backgrounds can have very distinct performance paths according to the school they attend (DGEEC, 2016). At present, the education system is not making best use of the learning opportunities that its own experiences provide.

Ensuring equal access to tertiary education

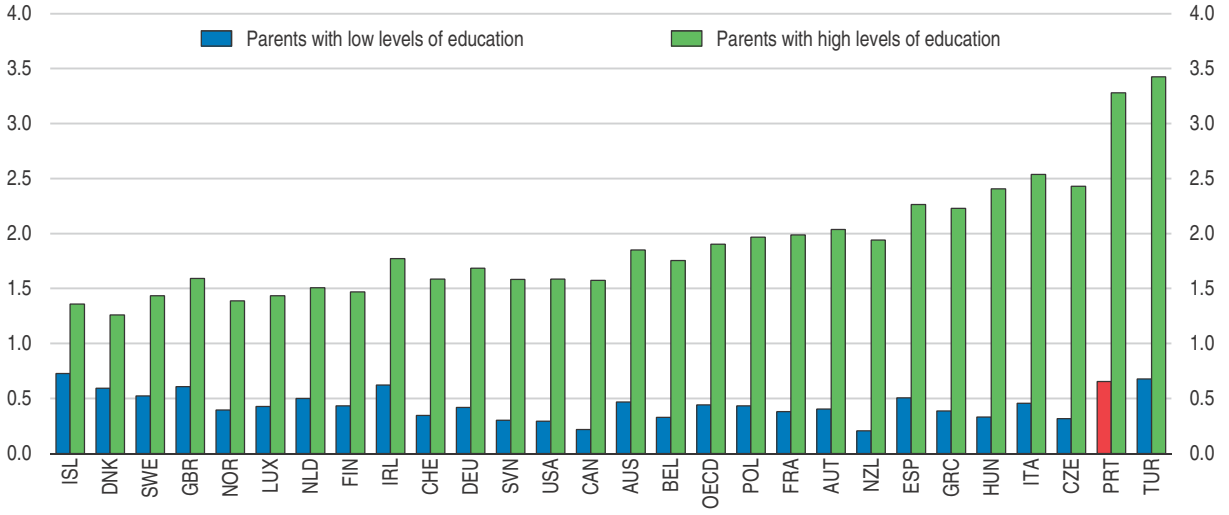
After years of stellar progress in expanding tertiary education, completion rates have fallen by almost 20 percentage points since 2008 and tertiary enrolment among those younger than 23 has decreased sharply (EC, 2016; CNE, 2015). A nationwide study is currently being undertaken to understand the reasons behind these developments in tertiary education and preliminary results point to the role of insufficient academic

preparation as well as financial difficulties (Ferreira and Fernandes, 2015; Baptista, 2015). A specific programme call "Retomar" has been launched in order to provide financial support to those who have abandoned their studies and wish to re-enrol in tertiary education.

The strong marks of students' socio-economic backgrounds are also visible in access to tertiary education, which is particularly unequal in Portugal. Youths from families with high levels of education have a much higher probability of reaching a higher level of education than others (Figure 2.16). Financing tertiary education may be one of the issues. All tertiary education students in Portugal pay tuition fees, ranging from EUR 656 to 1 063 per annum for undergraduate degrees. Fees are fixed within the same range for those advanced degrees that are legal requirements for the practice of a certain professions, while they are not regulated for all other advanced degrees.

Figure 2.16. **Relationship between students' participation in higher education and socio-economic status**

Odds ratio of being a student in higher education by parents' educational level, 2009[1]



1. This figure shows the odds of someone from a low (or high) educational background attending higher education. The odds ratio is calculated by comparing the proportion of parents with low (or high) levels of education in the total parent population to the proportion of students in higher education whose parents have low (or high) levels of education. If young people from a low (or high) educational background were as likely to attend higher education as those from more (or less) educated families it would result an odds ratio equal to 1. Countries are ranked in increasing order of difference between the odds ratios of being a student in higher education with low and high educational backgrounds.

Source: Table A6.1 in OECD (2012), *Education at a Glance 2012: OECD Indicators*.

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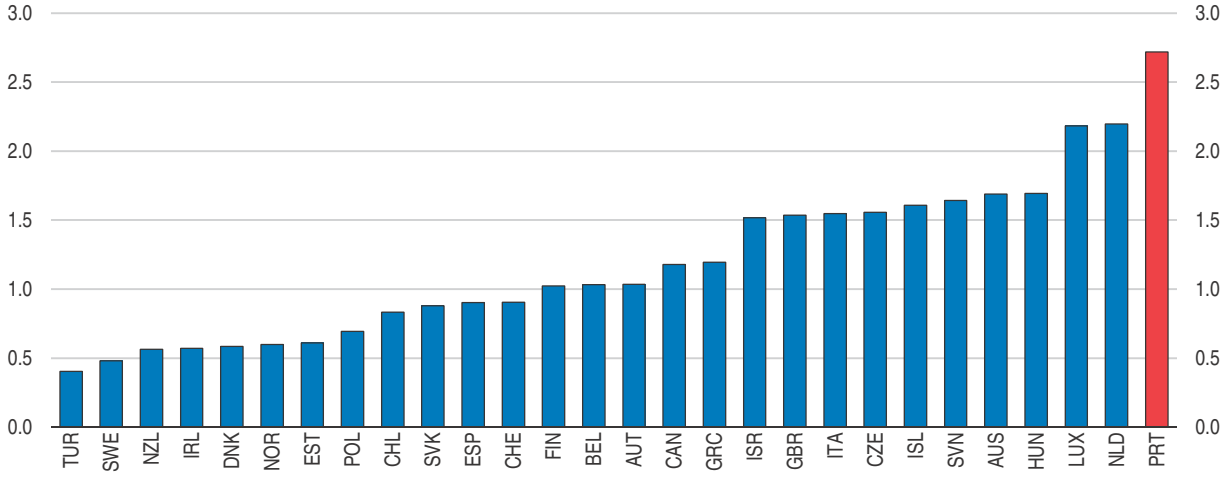
Public support for tertiary students, consisting of both merit-based and needs-based grants, reaches almost half of tertiary students, but may not be generous enough for students from disadvantaged backgrounds. Need-based grants awarded on the basis of family incomes vary between EUR 1 063 and EUR 5 675. These are topped up by merit-based grants of EUR 2525 for students who obtained high grades in the previous academic year. Additional grants of EUR 1 500 were awarded for the first time in 2014/15 to a maximum of 1 000 students who moved to study in regions where tertiary education institutions currently have excess capacity.

Even from a purely fiscal perspective, the current grant system is a good investment, provided that it really induces more youths to take up tertiary studies. OECD calculations suggest that the returns in terms of extra tax revenue collected are more than the twice the

costs incurred by the government in financing tertiary education (Figure 2.17). These high returns result from a combination of comparatively low spending on tertiary education and student support on the one hand and comparatively high labour market premiums for college education on the other (OECD, 2016h). This strengthens the case for giving more generous student support to tertiary students from disadvantaged backgrounds, which would likely prove a powerful tool to reduce inequalities.

Figure 2.17. **Average returns to costs ratio of government investment in tertiary education**[1]

2011



1. The average returns to costs ratio (ARCR) measures the ratio of government returns to education (extra tax revenue) to the cost of education (lost tax revenue, direct costs, scholarship or grant income given to a student and the value of skills tax expenditures). Data are for a 17 year-old single taxpayer with no children, who undertakes a four-year course of non-job-related education, earning 25% of the average wage during schooling.

Source: OECD (2017), "Taxation and skills", *OECD Tax Policy Studies*, No. 24.

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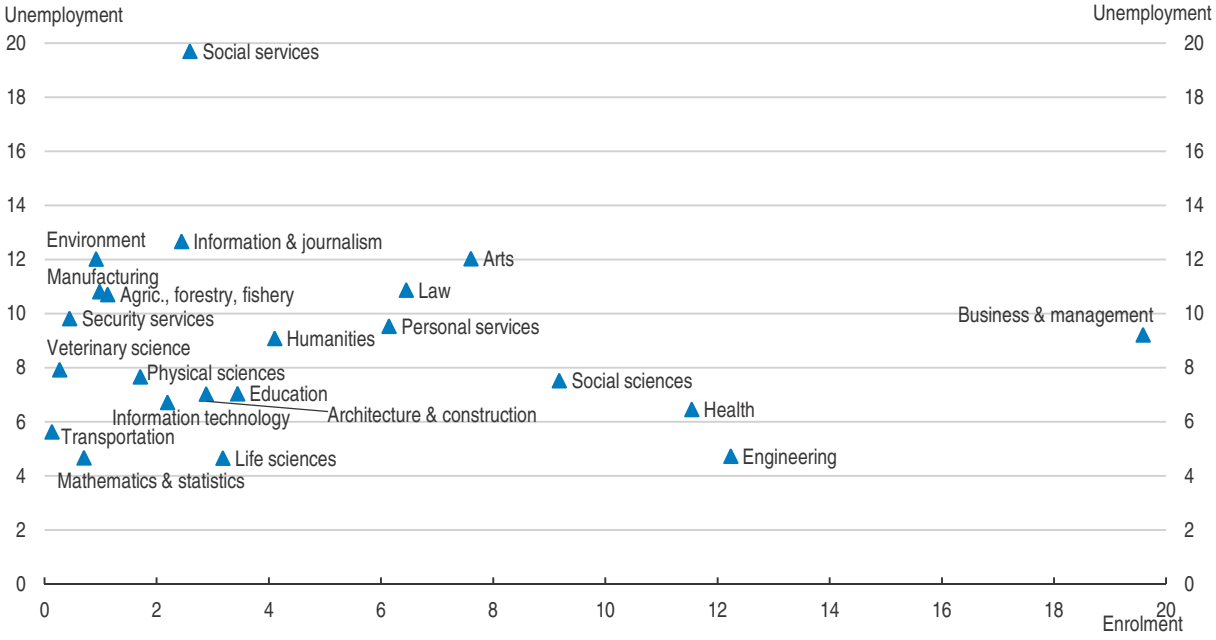
Matching qualifications to the labour market needs

Effective and well-informed career guidance at the end of lower secondary education plays an important role in achieving a good match between students' preferences and the labour market needs (OECD, 2014g). A number of study areas that lead into career paths with low unemployment are facing low demand from students (Figure 2.18). A lack of information about labour market prospects may be one reason behind this and this could be addressed by better career guidance. Recently established "Qualifica Centres" provide guidance and counselling to adults and NEETs on education and training opportunities and were meant to increase the collaboration between employers and educational institutions at the local level. The extent to which they are delivering the intended results has not yet been evaluated.

The supply of tertiary education could also benefit from a stronger focus on labour market needs. Currently, there are vacancies in courses with unemployment rates above 20%, compared to the average unemployment rate of 8% among tertiary graduates. There are currently about 711 different college degrees, 506 of which being offered in a single institution (CNE, 2015). Streamlining the supply of courses would make it easier for students to take informed decisions that correspond to labour market needs.

Figure 2.18. **Enrolment is low in areas of reduced unemployment**

Percentage share by field of study, average 2010-15



Source: Calculations based on data from Direção-Geral de Estatísticas da Educação e Ciência (DGEEC).

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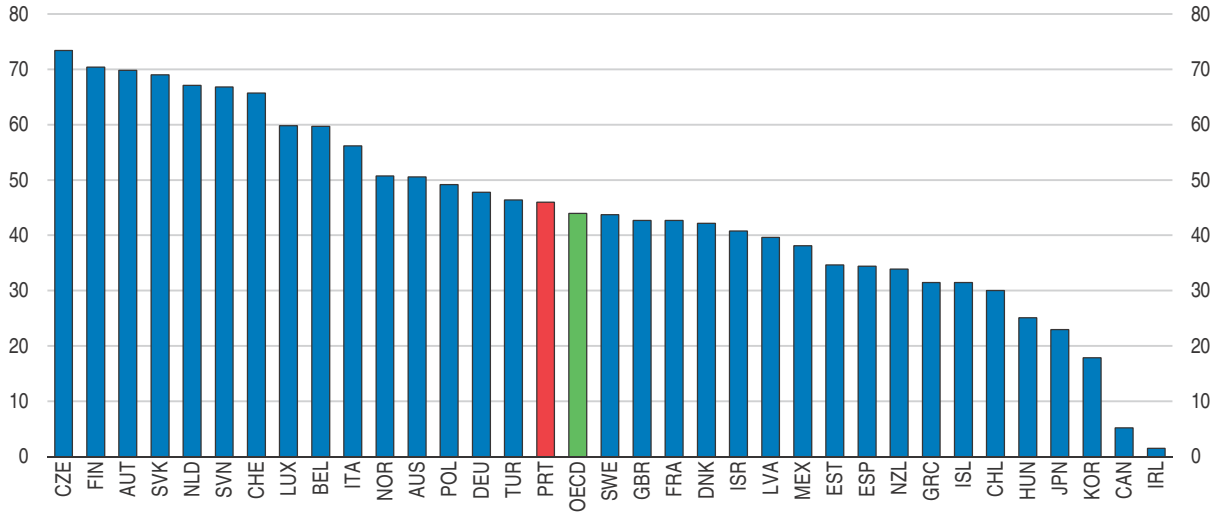
Strengthening vocational education and training (VET)

Vocationally-oriented upper secondary education often leads to better employment prospects than academic-oriented courses for those students that do not pursue tertiary education studies (CEDEFOP, 2013). Portugal's education system has traditionally had a strong bias towards general and academically-oriented programmes, but the development of VET has caught up very rapidly with the OECD average in the past decade, raising doubts about the quality of the offer. In 2014, 46% of students in upper-secondary education were enrolled in VET courses, the same as the OECD average (Figure 2.19).

The offer of VET courses has been expanded to encompass a wide range of higher skilled occupations such as renewable energies, electronics and automation, ICT among others (OECD, 2015a). Services, sciences, engineering and manufacturing represent 60% of VET graduates, above the OECD and the EU22 average (OECD, 2016a). The authorities are keen to keep developing the VET system, raise its attractiveness and ensure that it is linked to the labour market needs. These efforts could benefit from better co-ordination and a merger of two almost parallel systems. This issue was acknowledged by the authorities during the last decade, leading to many governmental actions, including the creation of a national agency to supervise all adult education and VET programmes (Agência Nacional para a Qualificação e o Ensino Profissional), the National System of Qualifications and the Anticipation System of Qualification Needs. These efforts have been reinforced in 2016, by establishing a national system of credits in all VET courses (aligned with European Credit on VET framework), the *Qualifica Passport* and the reactivation of the National Council for VET (Conselho Nacional para a Formação Profissional). Nonetheless, both the governance of the VET system and VET provision is still divided across two Ministries, which creates a

Figure 2.19. **Upper-secondary vocational education and training enrolment rates**

Percentage of students, 2014[1]



1. 2013 for Canada, Iceland, Ireland and Netherlands; no data available for the United States. The OECD aggregate is an unweighted average including Latvia.

Source: OECD (2016a), *Education at a Glance 2016: OECD Indicators*; and OECD (2015b), *Education at a Glance 2015: OECD Indicators*.

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risk of overlaps and inefficiencies in the use of resources and reduces the effectiveness of quality control. Rationalising the offer and building on strengths of each VET provider will be a more cost effective way of expanding VET while guaranteeing the quality of training.

The Ministry of Education has the main responsibility for vocational training courses designed for youth at secondary education level. These VET programmes have academic and technical components and often include some kind of practical training, organised within the schools, with little or no work-based learning. At present, it is hard to evaluate to what extent the VET offer under the responsibility of the Ministry of Education is meeting labour market needs, particularly as there is no systematic evaluation of participants' labour market performance (Pedroso, 2011). Post-secondary VET is under the tutelage of the Ministry of Science, Technology and Higher Education. Recent policy initiatives aimed at strengthening post-secondary VET by establishing two-year technical courses with a strong workplace learning content (Cursos Técnicos Superiores Profissionais, TeSP) in 2014/15. Enrolment and private sector participation in these courses have exceeded expectations. Currently, more than 500 courses have been approved, although not all of them are operational yet. More than 18 000 internship placements have been announced, involving almost 6 000 private employers.

The Ministry of Labour also co-ordinates and delivers VET courses through the Institute for Employment and Vocational Training (*Instituto de Emprego e Formação Profissional*, IEFP). These are either taught by employment and training centres (*Centros de Emprego e Formação Profissional*, CEFP), by 23 sector-oriented training centres operated in collaboration with social partners (*Centros de Formação Profissional de Gestão Participada*), and by around 170 external accredited entities. In these centres, labour market outcomes are tracked over time, although not always in a consistent way. The majority of these centres survey the employment rate of graduates 6 or 12 months after completion through

questionnaires. A more systematic and detailed evaluation of participants' labour market outcomes would allow aligning course offer and the quality of training to the labour market needs.

Besides the Ministry and Education and IEFP, VET is also provided by private training providers, including employers and trade unions. Although these entities need to be certified if seeking public funding, there are concerns about the quality of training being provided (OECD, 2015b). The capacity to monitor the quality of training and the labour market outcomes of VET needs to be strengthened. This includes developing indicators by VET pathway, course enrolment and VET provider. These indicators should be compiled regularly and be used in policy evaluation with a view of streamlining the VET offer, training quality and to align student enrolment with the labour market needs through reinforced career guidance, starting at the end of lower secondary education.

In addition to existing VET courses, the Ministry of Education is currently planning to establish a network of Vocational Schools of Business Reference (*Escolas Profissionais de Referência Empresarial*) with a focus on economic priority sectors and a strong technical component. While close links to the private sector are generally a desirable feature of any VET, in this case there is a strong risk of duplicating the already existing structure, as the CEFP managed by the Ministry of Labour have this sector expertise and enjoy a close relationship with businesses.

Merging the fragmented VET system will bring clear benefits in terms of better co-ordination and efficiency and should go along with a thorough evaluation of all existing VET education programmes. A consolidated VET system should try to preserve the best features of the current parallel systems. Providing solid general skills in VET programmes is important as a solid basis for further learning and allows making effective use of the existing bridges between all VET pathways and other parts of the education system.

In addition to general skills, a strong component of work-based learning, generally referred to as a dual system, should become a crucial feature of all VET programmes. At present, IEFP courses are more dual in nature and ensure a stronger link to the private sector than the VET courses run by the Ministry of Education. International evidence suggests that dual training, in school and at the workplace, enhances the employment prospects of participants substantially (OECD, 2015a). Austria, Germany and Switzerland have successfully implemented dual VET systems (Box 2.2).

Dual systems require tight collaboration between businesses and schools. In some of the economically less dynamic regions, finding businesses that can provide work-based training is likely to be challenging and alternative solutions may have to be explored. One option would be to build on the wide network of well-equipped IEFP vocational training centres. Another is to channel these students into well-established private VET organisers. As some students may have to move to receive training, providing financial assistance for this should also be considered.

Countries with dual VET systems typically formalise training contracts between the apprentices and the employer rather than schools or training centres (Austria, Denmark, Germany, Netherlands, Norway and Switzerland). Trainees should receive compensation for their work to encourage learning and incentivise employers to provide good quality training, but at about 60% of median wages, Portugal's minimum wage may turn out to be an obstacle in this respect. Possible remedies for this could include introducing a tax-free minimum wage for apprenticeships or financial incentives for firms that provide training.

Box 2.2. **Dual VET Systems**

Countries have different approaches to the preparation of young people for the labour market ranging from the dual system, with apprenticeship training built into formal schooling, to the US model, where young people may gain work experience informally outside the school system in part-time jobs and through job rotation. In countries with a strong dual system, vocational training is widely respected and integrates work-based and school-based learning to prepare apprentices for a successful transition to full-time employment. A major strength of the dual system is the high degree of engagement and ownership on the part of employers and other social partners. Strong dual systems also ensure that the short-term needs of employers do not distort broader educational and economic goals.

Workplace training

- In Germany, a training directive specifies the professional competences in the occupation that should be acquired by students during in-company training. These requirements guarantee uniform national standards irrespective of current enterprise needs. The training enterprise draws up an in-company training plan for trainees. This plan must correspond to the training directive broadly but may deviate from it if particular features of company practice require this (Hippach-Scheider, Krausse, Woll, 2007).
- In Switzerland, ordinances (*Verordnung über die Berufsbildung*) specify how instruction time should be divided between schools and companies. They also require the establishment of a training plan for each occupational field that defines the curriculum and organisation of in-company training. Training plans are set up by organisations including social partners and accepted by the Federal Office for Professional Education and Technology. Cantons license companies to take apprentices and periodically evaluate provided training against national standards. Cantonal inspectors enter companies to ensure that training received by students is up to the standards. If a problem is detected, the cantonal staff intervene through coaching to assist the company. The companies see that this is to their advantage, in that if they train the apprentice better, the apprentices do better work for them. Self-evaluation of companies is also encouraged. A list of 28 criteria of good training, prepared in co-operation with social partners, guides companies in their work with students (for more information see *www.qualicarte.ch/*).
- In Denmark, trade committees in which employees and employers are equally represented approve and inspect enterprises that want to take in trainees on the basis of defined criteria. To be approved, an enterprise must have a certain level of technology, and a variety of tasks to be performed to ensure the trainee carries out a full range of occupation related activities (Danish Ministry of Education, 2005).
- In Austria, the apprenticeship offices (*Lehrlingsstellen*) that are attached to the chambers of commerce and industry (employer organisations), examine if enterprises are able to offer apprenticeship training with regard to corporate and legal conditions and human resources requirements. They examine and record apprenticeship contracts, and are competent in principle for all issues that are in the interest of the apprentice and training providers. The apprenticeship offices are supported in their work by the apprenticeship and youth welfare units of the chambers of labour (employees' organisations). Employee bodies are mandated to defend the interests of apprentices, their main task is to monitor the training provided by employers and to appoint delegates to bodies responsible for apprenticeship. In the exercise of their activities apprenticeship offices are subject to State instruction (ILO, Vocational Education and Training in Austria, *www.ilo.org/public/english/employment/skills/hrdr/publ/009.htm*).

Source: Kuczera, M. (2010), *OECD Reviews of Vocational Education and Training: A Learning for Jobs Review of the Czech Republic 2010*, OECD Publishing, Paris.

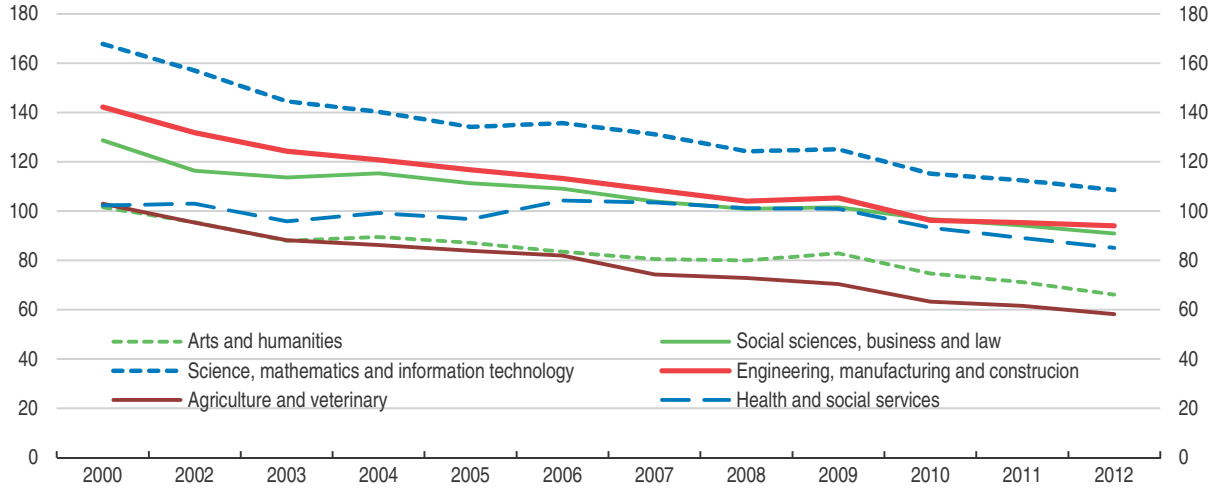
Finally, continuous evaluation and assessment, based on systematically collected, detailed information on the labour market performance of graduates from each VET course, should provide the basis for learning from past experiences and for constant improvements of the existing VET offer.

Maximising incentives for individuals to invest in skills

One of the main motivations for individuals to acquire skills, besides personal enrichment, is the prospect of accessing more stable and better paid employment, including opportunities for further career development in the future. While tertiary education graduates currently earn between 60% and 110% more than those with secondary education (Figure 2.20), the incentives for acquiring skills could be much stronger. A series of structural bottlenecks are currently limiting the rewards for better skills in Portugal. These include labour markets, whose dual nature implies that even those with stronger skills face severe challenges in securing stable and attractive jobs. In addition, the demand for high-skilled labour and hence the incentives for upskilling could be significantly stronger if Portuguese firms were managed more professionally. Low management skills are currently holding back the professionalisation of Portuguese firms, which limits not only the growth potential of firms themselves, but also the employment opportunities for the high-skilled, particularly in cases where managers with low skills fail to appreciate the potential contributions of high-skilled professionals. Finally, scarce links between research and business tend to limit the employment opportunities for the very high skilled to academic institutions, which deprives them of significant earnings opportunities in the private sector, including through the pursuit of dual careers.

Figure 2.20. **Returns to skills by occupational group**

Wage premiums for those with completed tertiary education, relative to secondary education earnings



Source: Almeida, A. et al. (2016), "Economic and non-economic returns to higher education in Portugal", Research Report commissioned by Fundação Francisco Manuel dos Santos and the universities of Aveiro, Minho/NIPE and Porto/CIPES.

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Labour market segmentation reduces incentives for individuals to invest in skills

The dual nature of Portugal's labour market, with a heavily protected segment of workers on permanent contracts coexisting with a sizeable share of workers on temporary contracts, leads to strong job turnover among those on temporary contracts. High job turnover reduces the incentives for employers and employees to invest in their relationship and thus hampers productivity growth (Boeri, 2011; OECD, 2010b). Firms are more likely to provide training to regular workers rather than to temporary workers (Booth et al., 2002; OECD, 2002; Dolado et al., 2002; Bentolila et al., 2008). For workers in the temporary segment, frequent job changes come at significant costs, both with respect to

earnings and the rapid obsolescence of their job-specific skills and experience. Higher education attainment does not improve the odds of entering the permanent segment of the labour market, which significantly reduces the incentives for individuals, particularly young people, to acquire skills.

Strong employment protection in the permanent segment is probably one of the factors behind the size of the temporary segment. Portugal still has one of the largest regulatory gap between temporary and permanent contracts. Since 2012, significant labour market reforms have been undertaken to reduce this segmentation, including significant reductions in severance pay for new hires. As the accumulated rights of existing workers have been largely preserved, the effects of this reform on labour market duality will only be felt in the future and recent data suggest only a small reduction in the share of temporary contracts. More time is required to evaluate the effects of recent labour market reforms (OECD, 2016e).

One way to reduce employers' reluctance to hire on permanent contracts would be to clarify the circumstances under which a dismissal can be categorised as a dismissal for economic reasons. Although this may require a constitutional change, other countries such as Italy and Spain have recently enacted such reforms. Dismissals for economic reasons are one category of dismissals with a "just cause", while those "without a just cause" are still prohibited and have not been affected by recent reforms at all. Another way forward would be to introduce a new open ended labour contract with initially low levels of employment protection that increase gradually with tenure (Carneiro et al., 2014; Boeri et al., 2013; Bentolila et al., 2012; Centeno and Novo, 2012).

Low managerial skills are holding back the potential contributions of high-skilled professionals

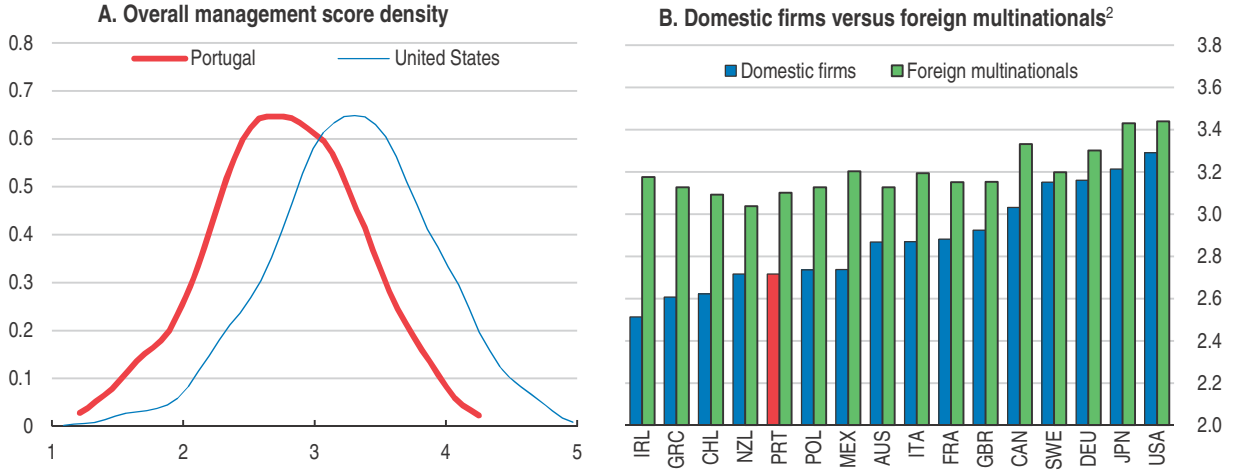
Many of the tasks that highly skilled professionals can perform are only used in firms with state-of-the-art management practices, which are generally associated with improved performance in terms of profitability, growth and survival (Bloom et al., 2012; 2016; Adalet McGowan et al., 2015). At the aggregate level, differences in management practices account for a sizeable share of cross-country productivity differentials (Andrews and Westmore, 2014).

Managerial skills are quite poor in Portugal, particularly among domestically-owned firms (Figure 2.21). Estimates suggest that they account for around 30% of the productivity gap of Portugal relative to the US (Bloom et al., 2016). But low managerial skills do not only hold back the growth of firms, they also have direct implications for high-skilled labour demand.

The overwhelming majority of firms in Portugal are small and managed by individuals with low educational attainment, which are often the owners and founders of the firm (Table 2.2). The use of professional management is underdeveloped in these firms (Figure 2.22). One of the reasons for this could be the failure of low-skilled company owners to appreciate the potential value that a highly trained professional, e.g. a university-trained marketing manager, could bring to their company. Alternatively, owners may simply be suspicious of hiring people with significantly higher skills than their own.

Figure 2.21. **Management skills are low**

Management score, scale 1-5 (from worst to best practice)[1]



1. Average score across 18 key management practices evaluating responses to questions on monitoring, targets and incentives. The methodology defines a badly managed organisation as one that fails to track performance, has no effective targets, and bases promotions on tenure with no system to address persistent employee underperformance. In contrast, a well-managed organisation is defined as one that continuously monitors and tries to improve its processes, sets comprehensive and stretching targets, and promotes high-performing employees and fixes (by training or exit) underperforming employees.
2. Multinationals in manufacturing and retail sectors.

Source: Bloom, N. et al. (2012), "Management practices across firms and countries", *NBER Working Paper Series*, No. 17850, National Bureau of Economic Research and World Management Survey, *www.worldmanagementsurvey.org*.

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Table 2.2. **The qualification of managers is low**

Educational attainment	ISCED level[1]	Per cent of managers
Lower secondary	2	53.9
Upper secondary	3	24.9
Post-secondary non-tertiary	4	1.0
Short-cycle tertiary	5	2.4
Bachelor or equivalent degree	6	16.1
Master	7	1.2
Doctorate (PhD)	8	0.4

1. ISCED: international standard classification of education.

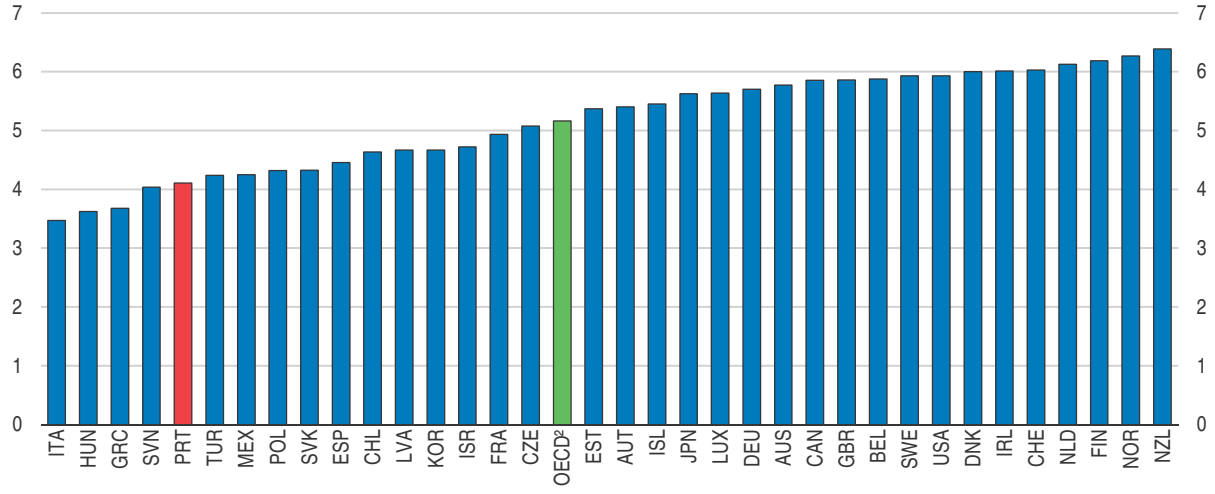
Source: Almeida, A. et al. (2016), "Economic and non-economic returns to higher education in Portugal", Research Report commissioned by Fundação Francisco Manuel dos Santos and the universities of Aveiro, Minho/NIPE and Porto/CIPES.

Low-skilled managers are likely to reduce returns to investing in ICT as there are important complementarities between managerial capital and ICT capital investment (Brynjolfsson et al., 2000; Bloom et al., 2012). This may also be part of the explanation behind the fact that Portuguese enterprises lag behind international best practice with respect to the use of ICT infrastructures, which also reduces the demand for specialised professionals (Figure 2.23; OECD, 2014g).

Providing opportunities for management training for those with management responsibilities but without specific prior training in management is one way forward. Several institutions have developed entrepreneurship training programmes in Portugal but these have often had a strong focus on the initial start-up phase and lacked solid training in business management. Developing management skills, especially in SMEs, should be

Figure 2.22. **Professional management is scarcely used**

Global competitiveness index ranging from 0 (non-professional) to 7 (professional management), 2014-15[1]



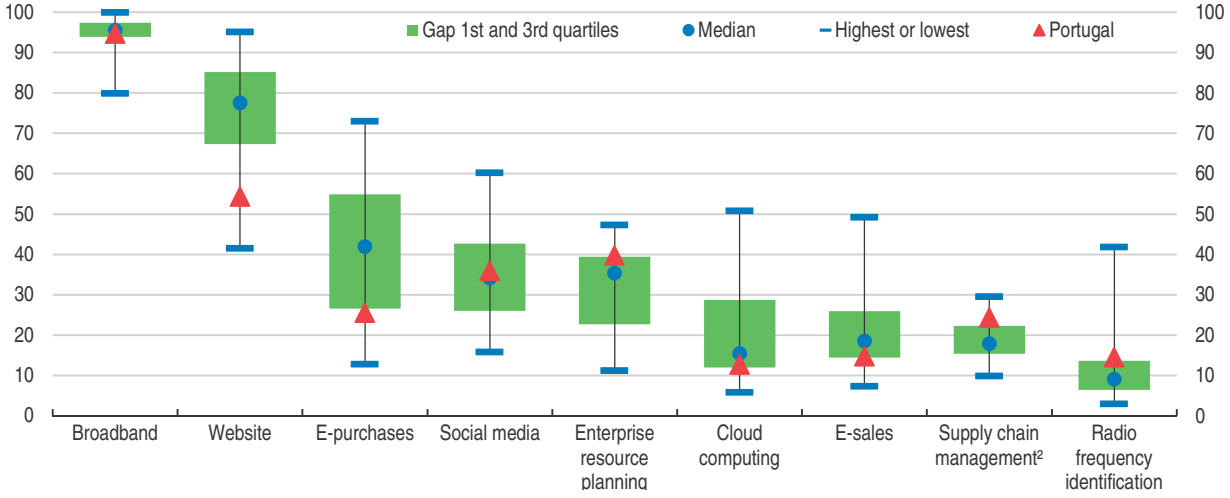
1. Score based on responses to the question: "In your country, who holds senior management positions? [1 = usually relatives or friends without regard to merit; 7 = mostly professional managers chosen for merit and qualifications]".
2. Unweighted average including Latvia.

Source: World Economic Forum (2015), *The Global Competitiveness Index Historical Dataset 2006-2015*.

StatLink http://dx.doi.org/10.1787/888933448233

Figure 2.23. **Diffusion of selected ICT tools and activities in enterprises**

OECD countries, as a percentage of enterprises with ten or more persons employed, 2014[1]



1. Or latest year available. See Indicator 5.2 in the source publication for details of methodology and international comparability. ICT: information and communication technology.
2. Automated data exchange (ADE) applications.

Source: OECD (2015c), *OECD Science, Technology and Industry Scoreboard 2015: Innovation for growth and society*.

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seen as a priority, as in a number of OECD countries (Box 2.3). The financial support for training introduced in late 2015 ("Cheque Formação") could also be used to support management training, but given that support is capped at EUR 175 per worker, they are unlikely to make a big difference for managers of SMEs or start-ups wishing to train their staff. A more thorough assessment of the suitability of this scheme for raising managerial skills should be made once more evidence on its uptake becomes available. Complementary to a management skill development programme, Portugal could emulate more specific policies to stimulate the use of high performance workplace practices such as attributing (competitive) grants to assist (targeted) firms with their implementation as in New Zealand and the Netherlands, developing business coaching programmes for SMEs (New Zealand), or supporting the establishment of management and entrepreneurs' networks to disseminate the adoption of good practices as in the Netherlands and Finland (OECD, 2016c, p. 96).

Box 2.3. **Programmes to Enhance Management Skills**

ManagmentWorks was established in 2012 under the Irish government Action Plan for Jobs. It is a management development initiative to help business owners and managers in Ireland to improve business performance through the adoption of higher quality management practices. ManagmentWorks intends to develop expertise in four key areas: business growth, leadership, team management and creating a problem-solving culture. Postgraduate education is also offered in the fields of management, leadership and strategy and innovation, through collaboration with IMI and other, the Irish Management Institute. Individualized business coaching is also provided through a partnership with Action Coach Ireland. ManagmentWorks was developed by Skillnets, a state-funded, enterprise-led body established in 1999 and today's largest provider of workplace training in Ireland through a network of sectoral or regional organized SMEs. The programme is heavily subsidized by the National Training Fund through the Department of Education and Skills.

In 2015 the Chartered Management Institute (CMI) created a degree apprenticeship in management in the UK. The Chartered Manager Degree Apprenticeship was developed jointly by the CMI, a group of large firms and higher-education institutions. The degree will take around four years to complete, during which the apprentice will remain in full-time employment, earning a full time salary throughout the course of their training and studies. Once qualified, workers are expected to be ready to take managerial roles with operational responsibilities. The apprenticeship will be provided by the employer in partnership with a university or business school. It is mostly delivered in the workplace through workplace projects but will also include university study time. Workers who complete the apprenticeship will earn a degree in management and business and become a chartered Manager and member of the Chartered Management Institute, incorporating vocational and academic elements. The program involves government funding of up to two-thirds of the costs.

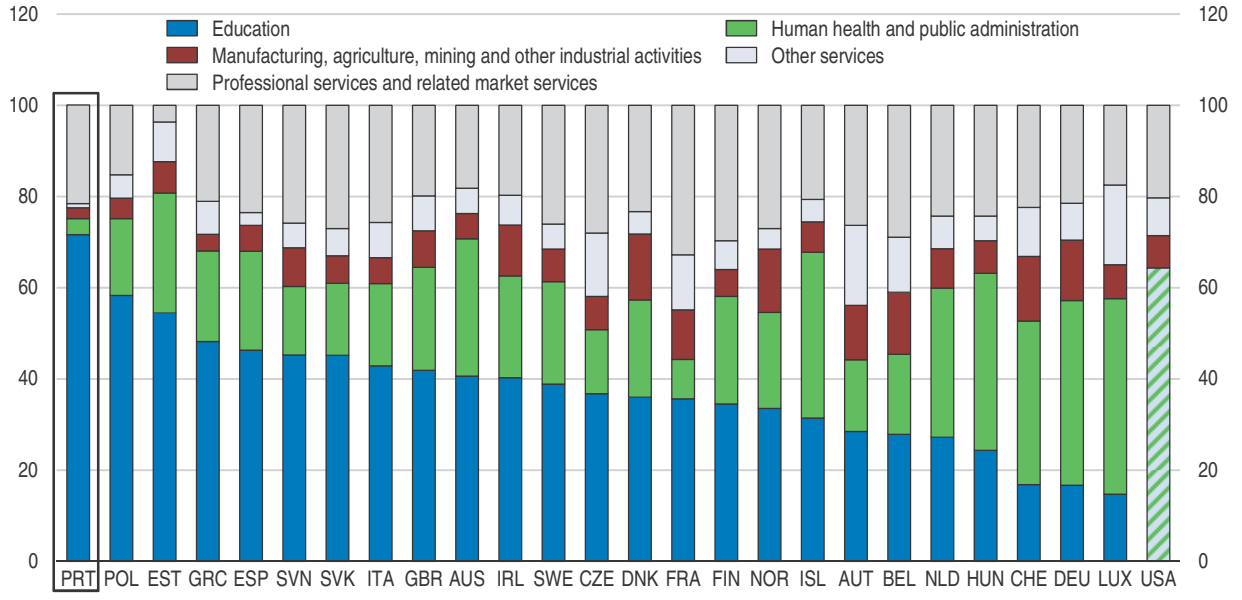
Sources: ManagementWorks: *www.managementworks.ie/programmes*, accessed on 21 June 2016. The Chartered Manager Degree Apprenticeship, *www.managers.org.uk/about-us/media-centre/cmi-press-releases/new-degree-apprenticeship-in-professional-management-given-green-light-by-the-uk-government*, accessed on 21 June 2016; *www.gov.uk/government/publications/apprenticeship-standard-chartered-manager-degree-apprenticeship*, accessed on 21 June 2016.

Improve the connectivity between research and business

Portugal's expenditures on research and development (R&D) and its performance on various innovation indicators are below the OECD median (see Chapter 1 of OECD, 2014a). Moreover, R&D is mostly concentrated in universities, while business R&D is particularly low. The low share of business R&D reflects the fact that a large share of R&D expenditures occurs in universities, with often weak linkages to industry. The weakness of these links is reflected, for example, in the low number of new high-tech firms originating from academia but also in the large number of PhDs that remain in universities rather than joining the private sector (Figure 2.24).

Figure 2.24. **Doctorate holders work primarily in the education sector**

As a percentage of all employed doctorate holders, 2012[1]



1. 2011 for Australia, 2013 for Germany, Greece, Netherlands and Switzerland. For the United States education is combined with human health and public administration. See Indicator 2.4 in the source publication for further details.

Source: OECD (2015c), *OECD Science, Technology and Industry Scoreboard 2015: Innovation for growth and society*.

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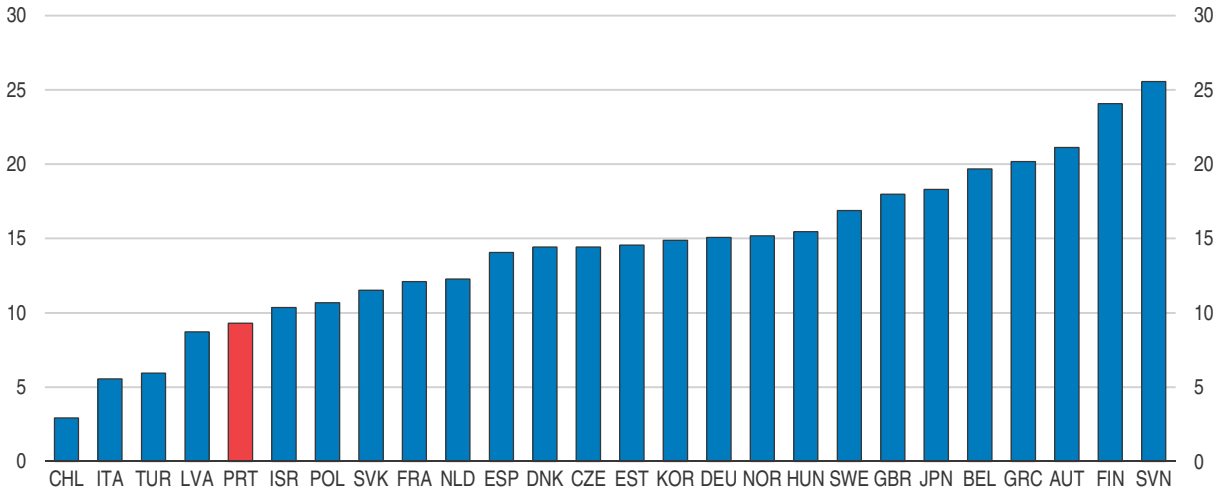
Commercial spin-offs from what were originally academic projects have played an important role for the development of industrial clusters in some countries, notably in the United States where several high-tech clusters have emerged around universities and researchers have created important start-up ventures (Capart and Sandelin, 2004; Sandelin 2003; Harayama, 1998). However, only a small share of business in Portugal collaborates with universities or research centres to develop innovation, which limits the commercialisation of knowledge (Figure 2.25) and the diffusion of technologies, including foreign. Accordingly, the productivity gap between national and global frontier firms tends to be lower in countries where there is more intensive R&D collaboration between private firms and public research entities (OECD, 2015d).

Portuguese academics' assessment of the barriers to co-operation between tertiary education institutions and businesses is among the highest in Europe, identifying the low level of funding, excessive red-tape and inadequate university governance as the main culprits (EC, 2016). Co-operation could be facilitated by clarifying and simplifying the rules

Figure 2.25. **Only a small share of SMEs collaborates on innovation with higher education or research institutions**[1]

As a percentage of product and/or process-innovating small and medium sized enterprises (SMEs), 2010-12[2]



1. International comparability may be limited due to differences in innovation survey methodologies and country-specific response patterns. European countries follow harmonised survey guidelines with the Community Innovation Survey. Please see *www.oecd.org/sti/inno-stats.htm* and Indicator 3.10 of the source publication for more details.
2. 2011-12 for Chile, 2011-13 for Korea and 2009-12 for Japan.

Source: OECD (2015c), *OECD Science, Technology and Industry Scoreboard 2015: Innovation for growth and society*.

StatLink http://dx.doi.org/10.1787/888933448263

and procedures governing the co-operation between universities and businesses within the governance structure of tertiary education institutions. Possible avenues to enhance co-operation between academia and the business sector include the creation of a private sector liaison officer with working experience in the private sector and the development of dual careers in tertiary education institutions. Less formal mechanisms could also help building bridges between research and business. These can include running regular seminars with participants from both sectors around specific challenges.

One further area for policy action includes measures to improve the ability of university tech transfer offices (TTOs) to link with industry, *inter alia* through support for academic patenting. OECD evidence on university technology transfer suggests that the effectiveness of TTOs in linking with business depends on critical mass and expertise, and appropriate organisational structures and incentive schemes. In Portugal, the authorities plan to reinforce the role of innovation centres (*Centros de Interface Tecnológico*, CIT) which can play such a role. There are about 30 CITs in Portugal; some focus on sector-specific activities of research and innovation, while others have a multi-sector approach. CITs employ about 2740 staff, but less than a fifth are actually PhDs. The recently launched programme capaCITar will raise support for CITs financing, including of high skilled jobs (PhDs). Achieving a critical mass of activities obtaining scale effects in R&D activities may require merging the activities of some of the CITs, which could also lead to efficiency gains.

Main recommendations for raising skills

Key recommendations

- Target life-long learning programmes towards the low-skilled.
- Systematically monitor the outcomes of the different active labour market programmes with a view to concentrating resources on the more effective programmes.
- Progressively reduce grade repetition in primary and secondary education by identifying students at risk early on and developing early individualised support.
- Consolidate the two VET systems into a single dual VET with strong workplace training and perform a thorough audit of all vocational training programmes.
- Strengthen the links between research and the business sector through better incentives for academics to co-operate with industry.

Other recommendations

- Collect and publish indicators of labour market outcomes (employment, unemployment rates, wage premiums) by level of education and area of study and at the regional level to allow for better-guided education and career choices.
- Ensure adequate coverage of early childhood care across the country, including for children younger than 4 years of age and with a particular focus on those from disadvantaged socio-economic backgrounds.
- Strengthen teacher training and exposure to best practices and enlarge the probationary induction period for beginning teachers.
- Create incentives to attract the most experienced teachers and principals to disadvantaged schools.
- Take better account of students' profiles and specific needs when allocating resources across schools and provide more autonomy to schools to adjust class size accordingly.
- Reduce labour market duality to improve the job quality and strengthen learning incentives.
- Raise managerial skills by developing specific training courses for managers.

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