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BASIC STATISTICS OF PORTUGAL, 2013

(Numbers in parentheses refer to the OECD average)*

LAND, PEOPLE AND ELECTORAL CYCLE

Population (million)	10.7		Population density per km²	116.4	(34.8)
Under 15 (%)	14.9	(18.2)	Life expectancy (years, 2012)	80.5	(80.2)
Over 65 (%)	18.7	(15.6)	Men	77.3	(77.5)
Foreign-born (%, 2011)	8.3		Women	83.6	(82.9)
Latest 5-year average growth (%)	0.3	(0.6)	Latest general election		June 2011

ECONOMY

Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	228		Primary sector	2.4	(2.5)
In current prices (billion EUR)	171		Industry including construction	23.2	(27.8)
Latest 5-year average real growth (%)	-1.5	(0.8)	Services	74.4	(69.5)
Per capita (000 USD PPP)	25.7	(39.3)			

GENERAL GOVERNMENT
Per cent of GDP

Expenditure	50.1	(42.4)	Gross financial debt	129.7	(109.5)
Revenue	45.2	(36.7)	Net financial debt	83.7	(69.6)

EXTERNAL ACCOUNTS

Exchange rate (EUR per USD)	0.753		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	0.612		Machinery and transport equipment	25.1	
In per cent of GDP			Manufactured goods	22.5	
Exports of goods and services	39.2	(52.6)	Miscellaneous manufactured articles	16.2	
Imports of goods and services	38.2	(48.6)	Main imports (% of total merchandise imports)		
Current account balance	0.5	(-0.1)	Machinery and transport equipment	23.1	
Net international investment position	-119.7		Mineral fuels, lubricants and related materials	19.6	
			Manufactured goods	14.7	

LABOUR MARKET, SKILLS AND INNOVATION

Employment rate for 15-64 year-olds (%)	61.1	(65.2)	Unemployment rate, Labour Force Survey (age 15 and over) (%)	16.3	(7.9)
Men	64.0	(73.1)	Youth (age 15-24, %)	37.7	(16.1)
Women	58.2	(57.4)	Long-term unemployed (1 year and over, %)	9.1	(2.7)
Participation rate for 15-64 year-olds (%)	73.0	(71.1)	Tertiary educational attainment 25-64 year-olds (%, 2012)	18.5	(32.2)
Average hours worked per year	1 712	(1 771)	Gross domestic expenditure on R&D (% of GDP, 2012)	1.5	(2.4)

ENVIRONMENT

Total primary energy supply per capita (toe)	2.1	(4.2)	CO_2 emissions from fuel combustion per capita (tonnes, 2011)	4.6	(11)
Renewables (%)	23.7	(8.8)	Water abstractions per capita (1 000 m³, 2007)	0.9	
Fine particulate matter concentration (urban, PM_{10}, µg/m³, 2011)	27.8	(28.0)	Municipal waste per capita (tonnes, 2012)	0.5	(0.5)

SOCIETY

Income inequality (Gini coefficient, 2011)	0.341	(0.308)	Education outcomes (PISA score, 2012)		
Relative poverty rate (%, 2011)	11.9	(11.1)	Reading	488	(497)
Median equivalised household income (000 USD PPP, 2010)	13.1	(20.4)	Mathematics	487	(494)
Public and private spending (% of GDP)			Science	489	(501)
Health care (2011)	10.2	(9.2)	Share of women in parliament (%, September 2014)	31.3	(26.7)
Pensions (2009)	12.4	(8.7)	Net official development assistance (% of GNI)	0.23	(0.37)
Education (primary, secondary, post sec. non-tertiary, 2011)	3.7	(3.9)			

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

- *Main findings*
- *Key recommendations*

Main findings

Following many years of a credit-fuelled expansion of the non-tradable sector and declining export performance, the financial crisis triggered a severe recession, leading to high unemployment and public debt. The authorities have been implementing a wide-ranging structural reform agenda, which is helping to rebalance the economy towards the export sector. This is still work in progress, however. Public and private debt is high, translating into high external debt. Low expected inflation will create further challenges for debt reduction. Unemployment is falling, but it is still too high, and is a factor creating inequality and poverty. Against the background of a need to increase investment and also to reduce external debt, a sustained increase in exports will be key for creating jobs, and enhancing social inclusion.

Fiscal policy and financial stability. Significant budget consolidation over the last years has strengthened the fiscal position and enhanced Portugal's access to market financing. Fiscal consolidation became more tilted towards the revenue side in 2013, following several rulings from the Constitutional Court that voided spending reductions. The banking sector has suffered from more difficult access to funding in the aftermath of the financial crisis. Prudential ratios have improved but banks' balance sheets remain under pressure due to still high ratios of non-performing loans, and corporate debt remains very high.

Boosting export performance. A successful rebalancing of the economy is underway as competitiveness has improved and export performance has risen. Further progress is needed, but is held back by weak competition in services sectors including electricity and wage bargaining mechanisms that hamper the market entry of firms. An overburdened judicial system and a high tax burden, in particular for large firms, curb the productivity in exporting sectors. Innovation performance suffers from the lack of an effective connection between research in universities and the private sector, while the structure of tax credits for research and development can be a barrier to market entry.

Reducing inequality and poverty. Portugal has one of the most unequal income distributions in Europe and poverty levels are high. The economic crisis has halted a gradual long-term decline in both inequality and poverty and the number of poor households is rising, with children and youths being particularly affected. Recent tax reforms have probably increased the progressivity of taxes, but transfer payments are biased towards older workers, which is not the most efficient tool to reduce inequality and poverty. Conversely, benefit levels in the minimum income support scheme are low and the coverage of unemployment benefits is narrow. Overall, transfer programmes suffer from overlaps and insufficient targeting. In the education system, high drop-out rates are associated with frequent grade-repetition, increasing also inequality as children of disadvantaged families are more likely to drop out. Vocational courses and adult education are being developed but do not play a major role in Portugal yet, although they could lead to a more equitable distribution of income.

Key recommendations

Fiscal policy and financial stability

- Achieve planned structural fiscal consolidation targets but allow the automatic stabilisers to operate.
- Continue to improve public sector efficiency by further reducing the number of civil servants; enhance the efficiency of the tax system including by eliminating tax exemptions and expenditures.
- Ensure a timely and consistent recognition of losses by enforcing recent guidelines and continue to encourage banks to raise capital, when needed, by issuing equity and retaining earnings.
- Continue to develop the central bank's stress testing framework consistent with the Single Supervisory Mechanism, and continue to request banks to hold capital for unexpected losses.
- Assess the performance of the recently introduced insolvency procedures and enhance them if necessary.

Boosting export performance

- Strengthen competition in non-tradable sectors through further regulatory reform. Phase out electricity generation schemes with guaranteed prices sooner than currently planned.
- Promote wage bargaining at the firm level, including by abolishing administrative extensions of wage agreements.
- Improve the links between researchers in universities and the private sector. Consider allowing refunds of research and development (R&D) tax credits for loss-making firms, or extending the carry-forward period.

Reducing inequality and poverty

- Strengthen the social safety net by reducing overlaps between programmes and ensuring better targeting, which could generate resources to eventually raise benefit levels of the minimum income support scheme RSI in a fiscally-neutral way.
- Make unemployment benefits independent of age and reform eligibility requirements to widen their coverage.
- Continue to scale up active labour market policies and closely monitor programme performance.
- Scale up adult education and back to school schemes in order to help the unemployed and those in need to gain relevant skills.

Assessment and recommendations

- *Macroeconomic outlook*
- *Strengthening financial stability*
- *Improving fiscal sustainability*
- *Further raising competiveness and export performance*
- *Making future growth more inclusive*

Portugal has made significant reform progress in the context of a deep economic crisis, which has paved the way towards exiting the Economic and Financial Assistance Programme in June 2014. A wide-ranging structural reform agenda is underway and numerous reforms have already been implemented. The rebalancing of the economy towards more international trade is on the right path, but it is still work in progress. The first chapter of this survey has recommendations on how to achieve greater competitiveness and export performance. This is key for creating jobs and reducing unemployment. Unemployment has been one of the main reasons why the incomes of many households have declined during the recent crisis years, which has led to an increase in inequality and poverty. The second chapter assesses possible strategies for ensuring that the weakest among Portuguese citizen are sufficiently protected.

The decade preceding the economic crisis was characterised by a decline in export performance and a credit-fuelled expansion of the non-tradable sector, while both productivity and GDP growth were dismal (Figure 1). These trends appear to be reversing. Following a three-year recession, growth turned positive in early 2013, buoyed by an improvement in competitiveness and export performance (Figure 2, Panel C). Strengthening export performance in both goods and services has also helped to turn the deficit in both the trade balance and the current account into a surplus (Figure 2, Panel A).

Nevertheless, as the Portuguese economic recovery continues, domestic demand, especially investment (see the next paragraph) will expand, and the current account position will tend to deteriorate. In any event, further structural improvement in the current account balance will be needed to durably reduce Portugal's external debt and international investment position, which stand at 221% and -124% of GDP, respectively (Figure 2, Panel B).

Figure 1. **Average annual total factor productivity growth in 2000-09 and 2010-15**
Per cent[1]
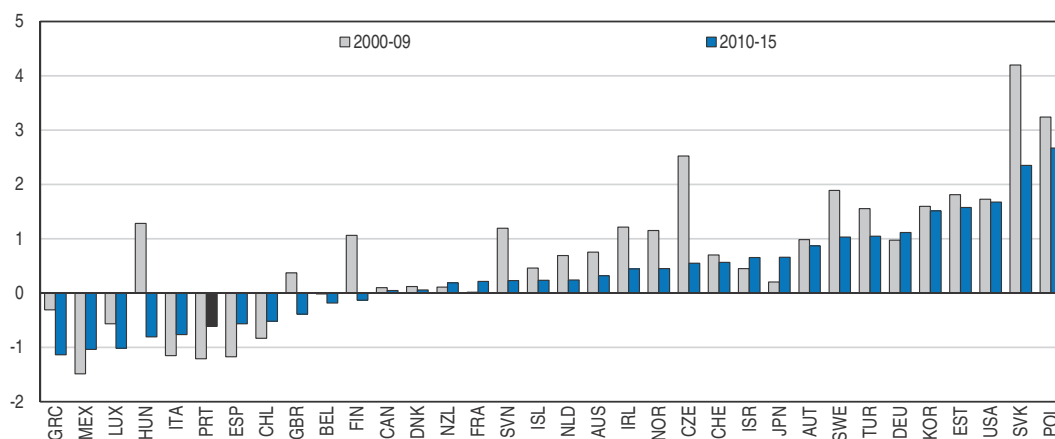
1. 2001-09 instead of 2000-09 for Estonia. Data for 2014 and 2015 are projections.
Source: OECD (2014), *OECD Economic Outlook: Statistics and Projections* (database), June.

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Figure 2. **Macroeconomic indicators**

A. Balance of payments
Per cent of GDP[1]

B. External debt
Per cent of GDP

C. Export performance
Index 2004=100[2]

D. Unemployment
Per cent[3]
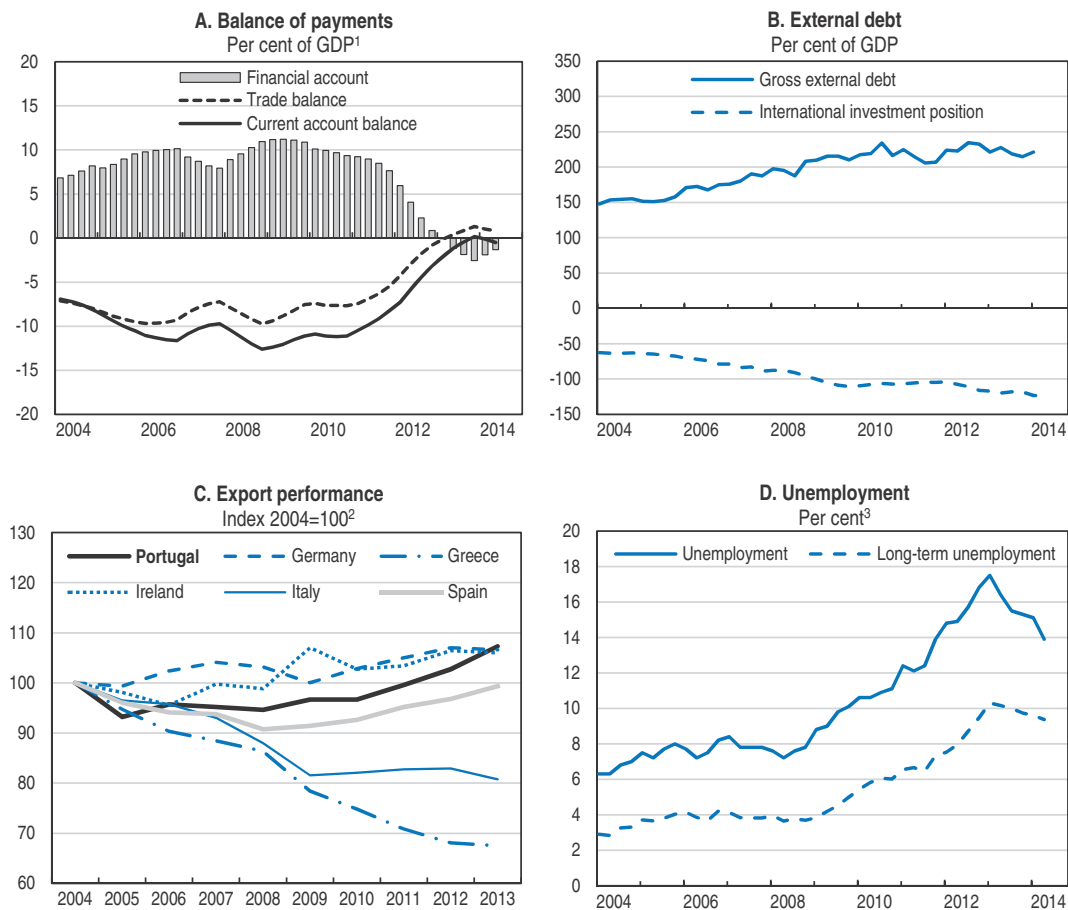
1. Balance of payments basis, four-quarter moving average.
2. Export performance is the ratio between export volumes and export markets for total goods and services.
3. Long-term unemployment refers to the share of unemployed persons who have been looking for jobs for 12 months or more to total labour force.
Source: Banco de Portugal (2014), "Main Indicators" and "General Statistics", *BP stat*, September; World Bank (2014), "Quarterly External Debt Statistics/SDDS", *World DataBank*, September and OECD (2014), *OECD Economic Outlook: Statistics and Projections* (database), September.

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Investment has been declining in recent years, although it appears to have reached its trough in most sectors and is growing again (Figure 3). Nevertheless, even though the allocation of investment has improved, current investment levels are not sufficient to maintain the current capital stock, much less to meet the requirements of an expanding export sector. Positive announcements in some specific sectors such as the development of a new product line in motor vehicles and recent policy reforms suggest that investment will indeed rise. But more investment means more imports, and to make this possible while still improving the current account, public and private consumption will have to be a smaller fraction of GDP than in the past. Fiscal consolidation will do some part of that, but household savings will also need to go up.

The crisis raised unemployment to historically high levels. Overall unemployment peaked at 17.5% early 2013, while youth unemployment went up as high as 42.5%. However, in 2013 employment began to rise and the unemployment rate has fallen to 13.9% since, although long-term unemployment has declined at a slower pace (Figure 2, Panel D).

Figure 3. **Sources of growth in gross fixed capital formation (GFCF)**
Percentage points
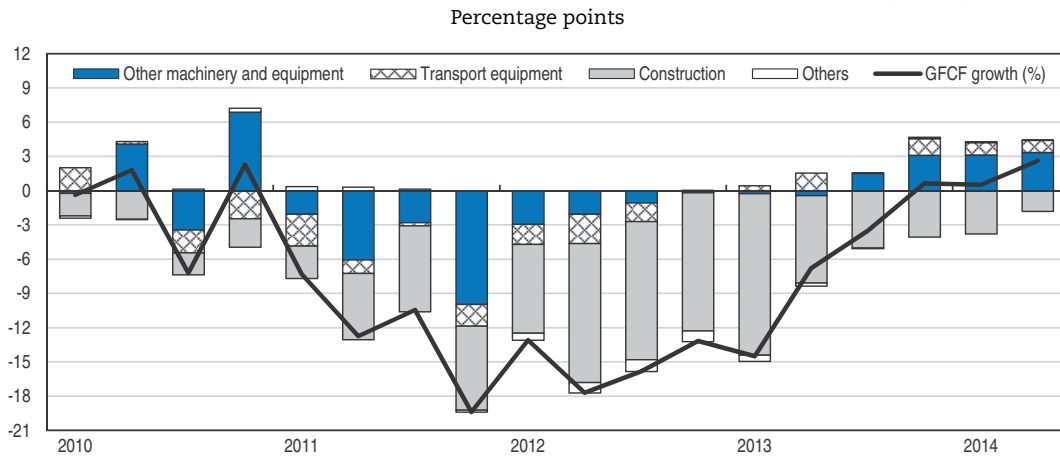
Source: INE (2014), "National Accounts Statistics", Instituto Nacional de Estatística, October.

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Exports have risen from 27% of GDP in 2009 to 39% of GDP in 2013, and export performance has improved (Figure 2, Panel C). This rebalancing of the economy is a positive development. It will allow the economy to import more in the future, particularly investment goods that are needed for growth and that strengthen the efficiency of domestic production. However, although exports have increased significantly (Figure 4, Panel B), they will need to increase further. Considering the small size of its economy, which is typically related to a stronger weight of international trade in GDP, Portugal exports less than other similar countries, several of which export a significantly larger share of GDP than Portugal (Figure 4, Panel A). Therefore, Portugal's transition towards a stronger export sector and insertion into global value chains has still some way to go.

Figure 4. **Exports and economic size in international comparison**
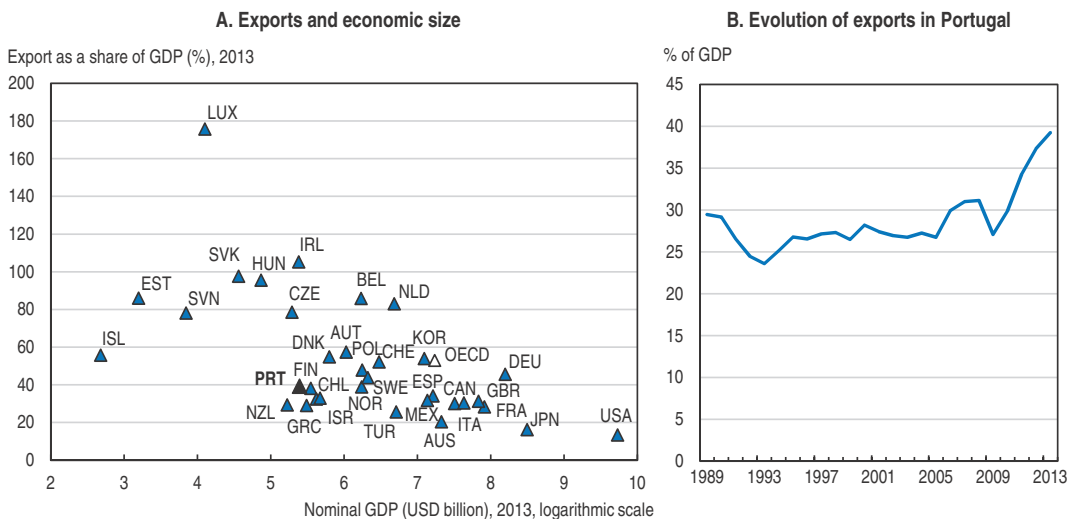
A. Exports and economic size

B. Evolution of exports in Portugal

Source: OECD (2014), *OECD Economic Outlook: Statistics and Projections* and *OECD National Accounts* (databases), September.

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Figure 5. **Lending to the private sector**

| A. Lending to the private sector | B. Loans to exporting firms |
| Annual growth rate, per cent[1] | Index January 2010 = 100[2] |
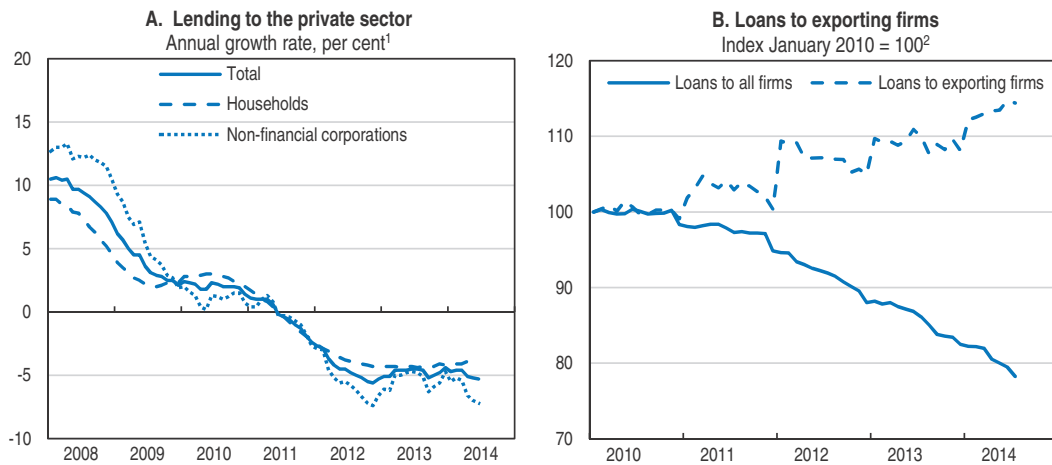
1. Loans of other monetary financial institutions (excluding securities and including credit to emigrants) to households and non-financial corporations. Adjusted for securitisation.
2. Private-owned exporting companies, defined as follows: a) companies that export more than 50% of the turnover; or b) companies that export more than 10% of the turnover and the total amount exceeds 150 thousand euro. In order to capture the dynamics of the exporting sector while avoiding large fluctuations in the yearly samples, only companies that comply with these criteria in the last 3 years are considered.
Source: Banco de Portugal (2014), "Main Indicators", *BP stat*, September.

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Reflecting the improvement in export performance, credit to export companies has started to rise. Given the rise in the number of exporting firms, however, credit constraints are likely to play a role even among exporters. At the same time, for all other companies and for households, credit is still contracting (Figure 5, Panels A and B). For firms, this is largely driven by declining stocks of loans to small and medium enterprises. Although loans to large companies from domestic banks have also declined since mid-2013, financing from foreign sources has increased. Credit in the construction and real estate sector has fallen the most.

The cost of credit remains high (Figure 6, Panels A and B), which may – among other factors such as banks' credit risk assessment – reflect the fact that banks still face financing

Figure 6. **Credit conditions**
Interest rates on loans to non-financial corporations, per cent
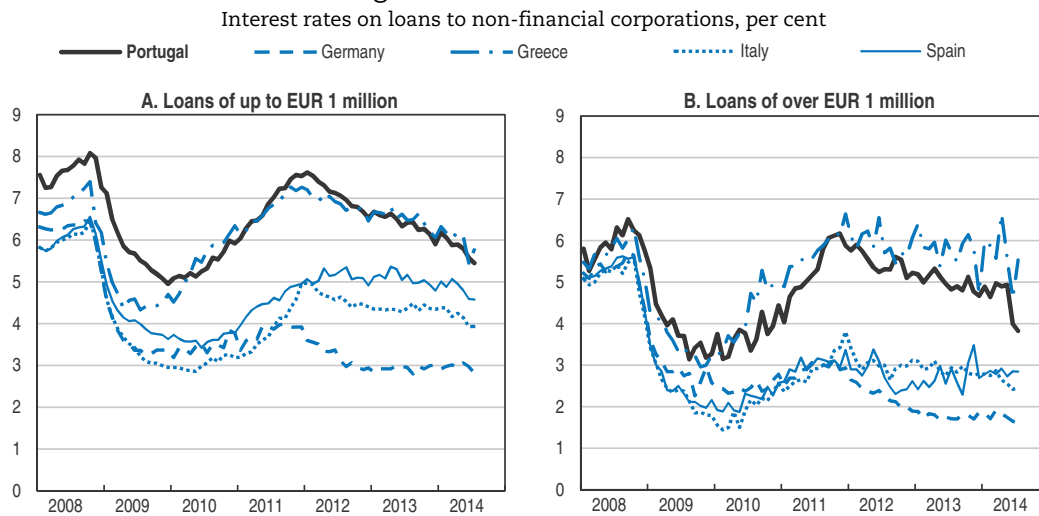
— Portugal — — Germany —·— Greece ········· Italy — Spain

| A. Loans of up to EUR 1 million | B. Loans of over EUR 1 million |

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

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constraints and high funding costs which are being passed on to companies. A recent positive development is the narrowing of the gap in lending costs between large firms and small and medium-sized enterprises (SMEs). The authorities are also setting up a Development Financial Institution to provide financing to SMEs, which will be operational before the end of the year.

Macroeconomic outlook

The economy is projected to grow by around 0.8% in 2014, with growth gradually rising thereafter. Exports will continue to lead the strengthening recovery as growth in Portugal's export markets, especially the euro area, picks up. All else equal, this will also lead to further improvements in the current account balance. Continuing needed fiscal consolidation, high private-sector debt levels and high unemployment will hold back domestic demand. However, the unemployment rate will continue to fall gradually and employment will rise. As economic slack is and will remain sizeable, inflation is set to remain very low.

Risks are tilted to the downside, and if negative risks materialised they would entail significant costs. With inflation having turned negative in early 2014, there is a risk that deflation might become more persistent, in the context of low inflation in the euro area. This could possibly derail the recovery and making debt reduction more difficult. This risk is particularly relevant for loans to the highly-indebted corporate sector, where over 40% of firms with bank loans are unable to cover their debt service expenses from operating income. The end of the external assistance programme has gone smoothly, but a rise in tensions could raise financing costs somewhat, as illustrated by the brief spike in spreads in July 2014 following concerns about the solvency position of Banco Espírito Santo (BES), the second-largest private Portuguese bank, which entered into a resolution procedure early August 2014. There are upside risks linked to the continuation of export growth. Any successful policy reform that enhances competitiveness, including by reducing the cost of non-tradable inputs, would strengthen export performance more than assumed in the projection. This would boost growth, narrow the cyclically-adjusted current account deficit and further bolster international confidence in the Portuguese economy.

Table 1. **Macroeconomic indicators and projections**

Annual percentage change, volume (2011 prices)

	2011 Current prices (million EUR)	2012	2013	2014	2015	2016
GDP	**176 167**	**-3.3**	**-1.4**	**0.8**	**1.3**	**1.5**
Private consumption	115 961	-5.2	-1.4	1.5	0.5	0.8
Government consumption	34 983	-4.3	-1.9	-0.4	-1.0	-0.5
Gross fixed capital formation	32 452	-15.0	-6.3	1.1	2.9	3.4
Housing	5 750	-20.5	-15.6	-3.9	1.0	1.1
Final domestic demand	183 396	-6.8	-2.3	1.0	0.6	1.0
Stockbuilding[1]	312	0.1	0.0	0.7	-0.2	0.0
Total domestic demand	183 709	-6.6	-2.4	1.8	0.4	1.0
Exports of goods and services	60 410	3.1	6.4	3.2	5.4	5.8
Imports of goods and services	67 952	-6.6	3.6	5.6	3.0	4.6
Net exports[1]	-7 542	3.6	1.0	-0.9	1.0	0.6

Table 1. **Macroeconomic indicators and projections** *(cont.)*

Annual percentage change, volume (2011 prices)

	2011 Current prices (million EUR)	2012	2013	2014	2015	2016
Other indicators (growth rates, unless specified)						
Potential GDP	..	-0.2	-0.1	0.2	0.4	0.6
Output gap[2]	..	-5.4	-6.6	-6.0	-5.2	-4.3
Employment	..	-4.2	-2.8	1.4	0.5	0.6
Unemployment rate	..	15.5	16.2	14.1	13.3	13.0
GDP deflator	..	-0.4	2.3	0.9	0.7	0.9
Harmonised consumer price index	..	2.8	0.4	-0.2	0.2	0.4
Harmonised core consumer prices[3]	..	1.2	0.1	0.2	0.5	0.5
Household saving ratio, net[4]	..	1.0	1.4	0.1	0.4	0.4
Current account balance[5]	..	-2.0	0.5	-0.4	0.5	1.0
General government fiscal balance[5]	..	-5.5	-4.9	-4.9	-2.9	-2.3
Underlying general government fiscal balance[2]	..	-4.5	-2.2	-1.6	-0.9	-0.8
Underlying government primary fiscal balance[2]	..	-0.2	2.0	2.7	3.3	3.3
General government gross debt (Maastricht)[5]	..	120.7	124.8	127.3	128.3	127.9
General government net debt[5]	..	82.1	88.8	92.2	93.3	93.4
Three-month money market rate, average	..	0.6	0.2	0.2	0.1	0.1
Ten-year government bond yield, average	..	10.5	6.3	3.8	3.2	3.2

1. Contribution to changes in real GDP.
2. As a percentage of potential GDP.
3. Excluding energy, food, alcohol and tobacco.
4. As a percentage of household disposable income.
5. As a percentage of GDP.
Source: OECD (2014), *OECD Economic Outlook: Statistics and Projections* (database), October.

Strengthening financial stability

The banking sector remains fragile

The banking sector has suffered from difficult access to wholesale funding in the aftermath of the financial crisis and has since relied more strongly on deposits, which have been resilient, and on access to liquidity support from the Eurosystem. To reinforce market confidence and comply with capital ratio requirements, banks have increased their capital, notwithstanding low profitability; they have significantly strengthened their capital ratio (Figure 7, Panel C). Some banks, including most recently Novo Banco, the bridge bank created out of BES's healthy assets, have also benefitted from EUR 9.5 billion provided under the Bank Solvency Support Facility, part of which has been reimbursed. Although banks' weighted capital ratios are still below OECD average, their un-weighted capital ratios are higher (Figure 7, Panels A, B and C). This improved situation of banks has led to a decrease in credit default swap (CDS) spreads, despite the recent brief spike related to the resolution procedure of BES (Figure 7, Panel D).

Despite supervisory action (see below, next section), banks remain fragile on the asset side. The amount of non-performing loans is still high, although it has recently stabilised (Figure 8, Panels A and B). Thirty-one per cent of Portuguese firms have overdue loans, up from less than 20% in 2009 (Banco de Portugal, 2014). Non-financial companies still bear a debt burden of 156% of GDP (based on the OECD debt definition), which is the fourth highest corporate debt level among the 25 OECD countries for which consolidated data are available, after Ireland, Iceland and Luxembourg. In 2012, 40% of Portuguese firms with bank loans did not generate sufficient operating income to service their obligations with

Figure 7. **Capital ratios and credit default swap (CDS) spreads**[1]

A. Weighted capital ratios
Per cent, first quarter of 2014[2]

- Regulatory Tier 1 capital
- Total regulatory capital

B. Unweighted capital ratios
Per cent, first quarter of 2014[3]

- Regulatory Tier 1 capital
- Capital

C. Evolution of capital ratios

- Regulatory Tier 1 capital (weighted)
- Total regulatory capital (weighted)
- Regulatory Tier 1 capital (unweighted)
- Capital (unweighted)

D. CDS spreads of banking sectors
Basis points[4]

- Portugal
- France
- Germany
- Ireland
- Italy
- Spain

1. Regulatory capital compiled in accordance with the guidelines of Basel II (except for the United States where Basel I is applied). For France there is no information available on Basel standards. The banking sector covers banks and other deposit takers (units engaging in financial intermediation as a principal activity).
2. Or latest quarter available. Second quarter of 2012 for the United Kingdom. Capital to risk-weighted assets. The OECD aggregate covers 30 countries.
3. Or latest quarter available. Second quarter of 2012 for the United Kingdom. Capital to total assets that are not risk weighted. Capital is measured as total capital and reserves as reported in the sectoral balance sheet. The OECD aggregate covers 25 countries for regulatory Tier 1 capital and 26 for capital.
4. Five-year senior debt, mid-rate spreads between the entity and the relevant benchmark curve. Quarterly data calculated as the unweighted average of end-of-month figures. Figures for Portugal are calculated as the unweighted average of CDS spreads of two banks: Banco Comercial Português and Banco Espirito Santo.

Source: IMF (2014), *Financial Soundness Indicators* (database), International Monetary Fund, September and Datastream.

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banks, highlighting the risk around firms' ability to service their debt in the future (IMF, 2014c). While coverage ratios (loan loss provisions as a percentage of NPLs) are over 50% (Figure 8, Panel C), the capacity of banks to withstand losses from non-performing loans (NPLs) without additional capital needs appears limited: in a worst-case scenario in which all NPLs were fully written off and without taking into account collateral, banks' capital would be cut by about a third, which is close to the OECD average (Figure 8, Panel D). NPLs could be underestimated as banks could restructure loans and, by "evergreening" them, avoid having to increase their provisioning needs. Supervisory action taken since 2011 required banks to increase significantly the level of provisions, attenuating risks related to evergreening.

Figure 8. **Non-performing loans (NPLs) and coverage ratios**
Per cent

A. NPLs in international comparison
First quarter of 2014[1]

B. Evolution of NPLs

Total
Non-financial corporations
Housing
Consumption and other purposes

C. Coverage ratios in international comparison
Second semester of 2013[2]

D. NPLs net of provisions to capital
First quarter of 2014[3]
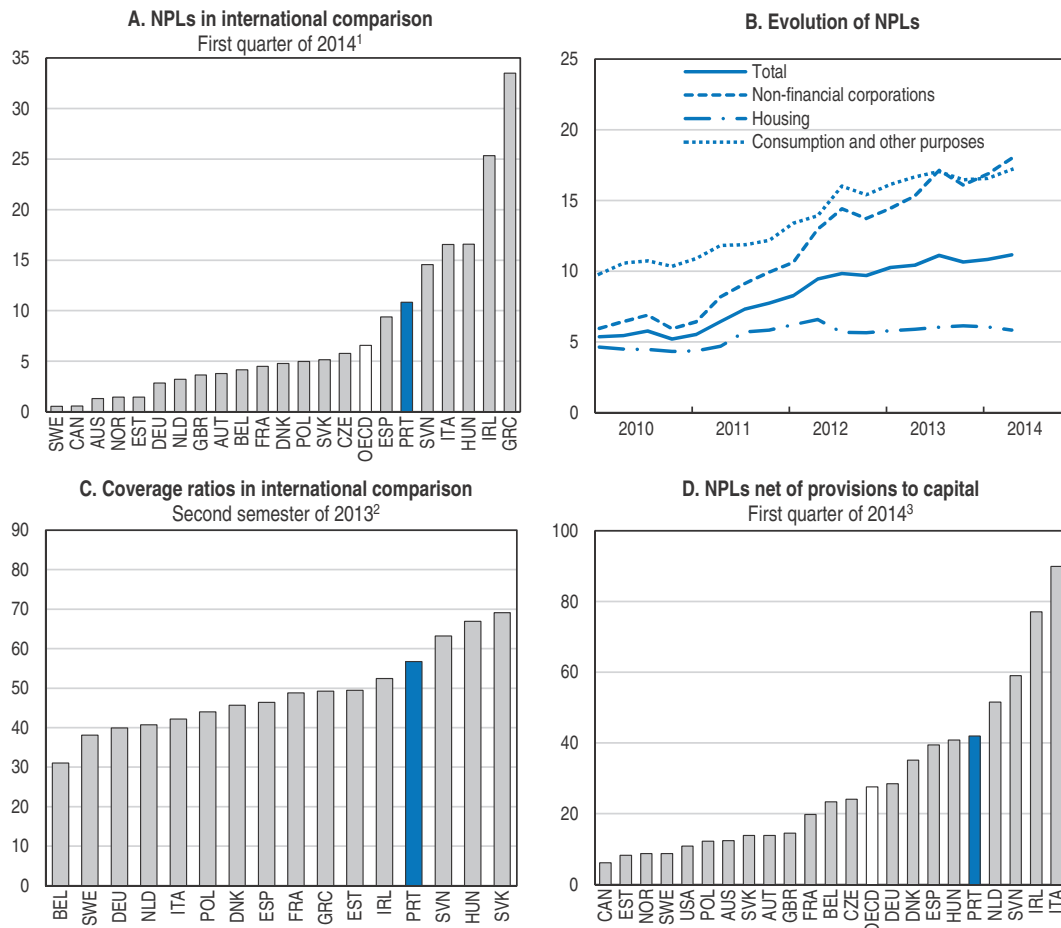
1. Or latest quarter available. 2012 for Germany. Second quarter of 2012 for the United Kingdom. The OECD aggregate covers 28 countries. Non-performing loans to total gross loans.
2. Coverage ratio of domestic banking groups and stand-alone banks refers to the ratio of total loss provisions to total gross doubtful and non-performing loans.
3. Or latest quarter available. 2012 for Germany. Second quarter of 2012 for the United Kingdom. The OECD aggregate covers 30 countries. Non-performing loans to total gross loans.

Source: IMF (2014), *Financial Soundness Indicators* (database), International Monetary Fund, September; Banco de Portugal (2014), "Portuguese Banking System – Latest Developments", *Data Package*, September and ECB (2014), "Consolidated Banking Data", *Statistical Data Warehouse*, European Central Bank, September.

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Further capital needs may arise due to a revised treatment of deferred tax assets (DTA) under the new EU directive (CRD IV), which requires deducting DTAs from core capital as of January 2014 over a period of 10 years. A new Law entered into force in August 2014 allowing the conversion of DTAs into government-backed tax credits, which would count as core capital. While the regime is similar in nature to what has been introduced in Spain and Italy, it also includes rules to mitigate the contingent liability risk for the State.

On the liability side, the increased reliance of Portuguese banks on deposits to fund their activity has resulted in a steep decrease of the loan-to-deposit ratio (Figure 9). A high ratio had been a significant weakness before the crisis. However, the reduction has partly been achieved by cutting lending, and the competition for deposits has resulted in higher funding costs for banks, although supervisory action enacted in 2012 has created

Figure 9. **Loan-to-deposit (LTD) ratio**

Per cent

A. Portugal[1]

B. International comparison
2013[2]
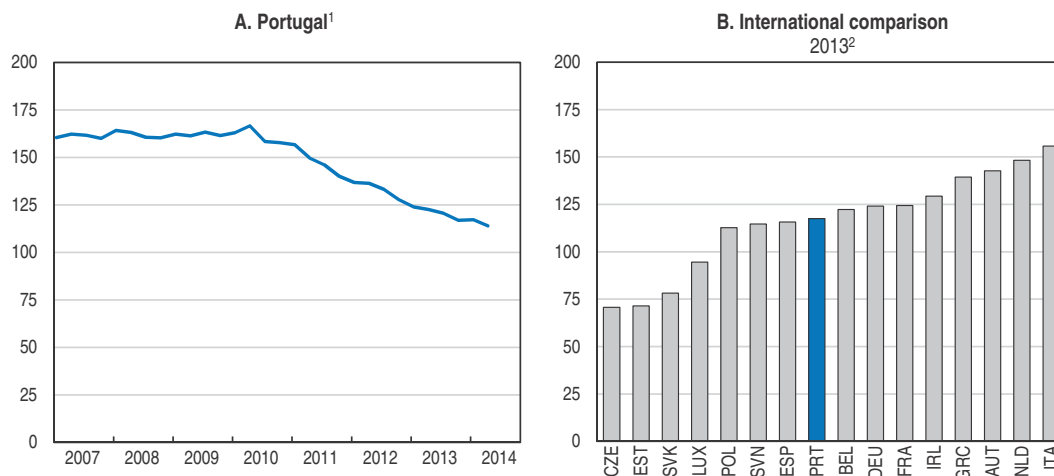
1. Ratio of the sum of net loans and receivables to customers and securitised non-derecognised loans to customers to resources from customers and other loans.
2. Ratio of loans and receivables including finance leases to total deposits other than from credit institutions. Data refer to domestic banking groups and stand-alone banks.
Source: Banco de Portugal (2014), "Banking System Statistics", *BP stat*, September, Banco de Portugal (2014), "Portuguese Banking System – Latest Developments", *Data Package*, September and ECB (2014), "Consolidated Banking Data", *Statistical Data Warehouse*, European Central Bank, July.

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disincentives for banks to raise deposit rates and reversed some of their increase. While the high though decreasing reliance on European Central Bank (ECB) funding has supported the banking system, since Portugal exited from the Economic and Financial Assistance Programme the ECB accepts government debt instruments as bank collateral only if those instruments are rated "investment grade" by at least one of the four main rating agencies. As only one of these agencies currently rates Portuguese debt at this level, any negative change of the rating or outlook by an agency could have a strong negative impact on banks' financing options. At the same time, ratings by other agencies have recently improved.

Safeguarding financial stability

As Portugal has left the international Economic and Financial Assistance Programme, financial stability is critical to avoid the risk of reigniting a negative loop between the banking and the government sectors. Maintaining a forward-looking approach in capital needs is necessary to bolster the banks against negative shocks. In this context, the decision to request all systemically important banks to maintain a common equity Tier1 (CET1) capital ratio of at least 8% from January 2014 in anticipation of the ECB comprehensive assessment is welcome. Ahead of the introduction of dynamic provisioning by Basel III, the regulator should continue to request banks to hold sufficient capital for expected losses through credible stress-tests encompassing all likely risks. While the rigor of stress tests has improved considerably, further developments should be considered, taking into account other factors such as market liquidity risk and the Single Supervisory Mechanism (SSM) framework (IMF 2014a). To better assess future risks, the regulator should urge banks with no internal model to develop one. To limit the risk of

credit rationing, the regulator should keep encouraging banks to improve their capital ratio by issuing equity and retaining earnings.

Financial stability could also be strengthened by adopting a more pro-active approach to cleaning up the large corporate loan portfolios on the asset side of banks' balance sheets. The corporate sector is highly indebted in Portugal (see above) and orderly debt restructuring in the non-financial corporate sector could be needed to reduce private sector indebtedness, and it could allow banks to repossess collateral before it loses value, if needed. There is also a need to strengthen firms' capital base.

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. A new debt restructuring mechanism inspired by US Chapter 11 provisions has been added to the bankruptcy code to allow fast-track restructuring before an insolvency proceeding begins. One of its features is the possibility for courts to enforce out-of-court agreements between the debtor and a majority of creditors. In the past, tax authorities enjoyed a seniority status that could be detrimental to the recovery of the firms, and this has now been removed. For micro and small firms, a specific out-of-court mechanism introduced more rapid mediation by a new public mediator agency with electronic platforms to reduce paperwork bureaucracy, and guarantees to the companies and creditors during the negotiation phase. Its uptake, however, has been limited by capacity constraints of the agency (IMF, 2014b). The limitations of these new procedures should be swiftly addressed to build on their success, as they have had a success rate of over 50% by business volume. The authorities have recently intensified efforts in this area, including through a Strategic Plan for Corporate Debt Restructuring.

Even if insolvency procedures work well, creditor banks have incentives not to recognise weak assets. Incentives could be strengthened by adopting a conservative approach in assessing impaired assets and the recent guidelines on measuring credit portfolio impairment are welcome. Also, the recent requirement to disclose more information on asset quality and credit risk management practices will support more conservative impairment standard across the banking sector (IMF, 2014b). The strict implementation of these guidelines, and the more conservative criteria requested by the Bank of Portugal before a restructured loan cease to be registered as such are welcome.

Key recommendations to strengthen financial stability

- Continue to further develop the central bank's stress testing framework, consistent with the Single Supervisory Mechanism, and continue to request banks to hold capital for unexpected losses.
- Ensure a timely and consistent recognition of losses by enforcing recent guidelines and continue to encourage banks to raise capital, when needed, by issuing equity and retaining earnings.
- Assess the performance of the recently introduced insolvency procedures and enhance them if necessary.

Improving fiscal sustainability

A successful exit from international financial assistance but the public debt outlook remains difficult

The government achieved a headline deficit of 4.9% in 2013, which was significantly below target, owing to stronger revenue than expected. The underlying deficit improved more rapidly than in 2012, and the underlying primary balance posted a significant surplus (Table 2). The fiscal framework has been enhanced over the past few years with the introduction of new budget rules and the establishment of an independent fiscal council.

Table 2. **General government revenue and expenditure**

Per cent of GDP

	2009	2010	2011	2012	2013	2014[1]	2015[1]	2016[1]
Total revenue	40.4	40.6	42.6	43.0	45.2	45.2	45.2	44.9
Total expenditure	50.2	51.8	50.0	48.5	50.1	50.1	48.1	47.2
Net lending	-9.8	-11.2	-7.4	-5.5	-4.9	-4.9	-2.9	-2.3
Memorandum items								
Underlying fiscal balance[2]	-7.8	-7.6	-5.3	-4.5	-2.2	-1.6	-0.9	-0.8
Underlying primary balance[2]	-5.0	-4.8	-1.3	-0.2	2.0	2.7	3.3	3.3
Total (nominal) expenditure growth	8.7	5.8	-5.6	-6.6	4.3	1.8	-2.0	0.5
Total (nominal) revenue growth	-4.6	3.1	2.7	-2.9	6.2	1.6	2.1	1.8
Potential (nominal) growth	1.5	0.8	-0.3	-0.6	2.2	1.1	1.1	1.5
Gross debt (Maastricht definition)	80.4	90.3	105.2	120.7	124.8	127.3	128.3	127.9

1. Projections. From 2014 onwards, the projections assume that announced government consolidation plans are implemented even if some measures have not been identified yet.
2. Per cent of potential GDP. The underlying balances are adjusted for the cycle and for one-offs. For more details, see *OECD Economic Outlook* Sources and Methods.
Source: OECD (2014), *OECD Economic Outlook: Statistics and Projections* (database), October.

Expenditure growth was lower than (potential) GDP growth in 2011 and 2012 as a result of a significant consolidation effort on the spending side. In 2013, consolidation efforts have been achieved on the revenue side (Table 2). While tax-driven consolidations have the advantage of being rapid to implement and have potentially a lower immediate impact on activity owing to relatively low fiscal multipliers, in the longer run, from a perspective of growth and equity, fiscal consolidation should rely more on expenditure reductions, which also tend to be more sustainable than revenue driven consolidations (Cournède et al., 2013; Guichard et al., 2007). At 50% of GDP, public expenditure in Portugal is already fairly high in OECD comparison, particularly when considering the country's income levels relative to other OECD countries, as countries with higher per capita incomes tend to have higher public expenditures (Figure 10).

The better fiscal situation and a strong compliance with the Economic and Financial Assistance Programme, together with renewed market confidence, particularly following the announcement of the OMT by the ECB, has resulted in spreads on ten-year bonds falling to a level not seen since Spring 2010 (Figure 11). Better market access has paved the way for an exit from the Economic and Financial Assistance Programme in June 2014. The exit from the programme has not been without costs and entails some risks as market conditions can change rapidly. Indeed, in 2014 the government was able to return to the long-term bond market with a successful issuance of 5, 10 and 15-year bonds, at rates slightly above the average rate offered by official institutional lenders. The government has built a safety buffer by borrowing one year of financing and refinancing needs in advance

Figure 10. **Public expenditure**

Public expenditure as a share of GDP (%), 2013[1]

GDP per capita in USD at purchasing power parities, in thousands, 2013[1]

1. 2012 for Australia, Canada, Greece, Ireland, Israel, Japan, Korea, Mexico, New Zealand, OECD aggregate and Switzerland.
Source: OECD (2014), *OECD Economic Outlook: Statistics and Projections* and *OECD National Accounts* (databases), October.

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Figure 11. **Long-term interest rate spreads**
Percentage points[1]

1. Ten-year national currency-denominated government bond spreads relative to the German rate.
Source: OECD (2014), *Main Economic Indicators* (database), September.

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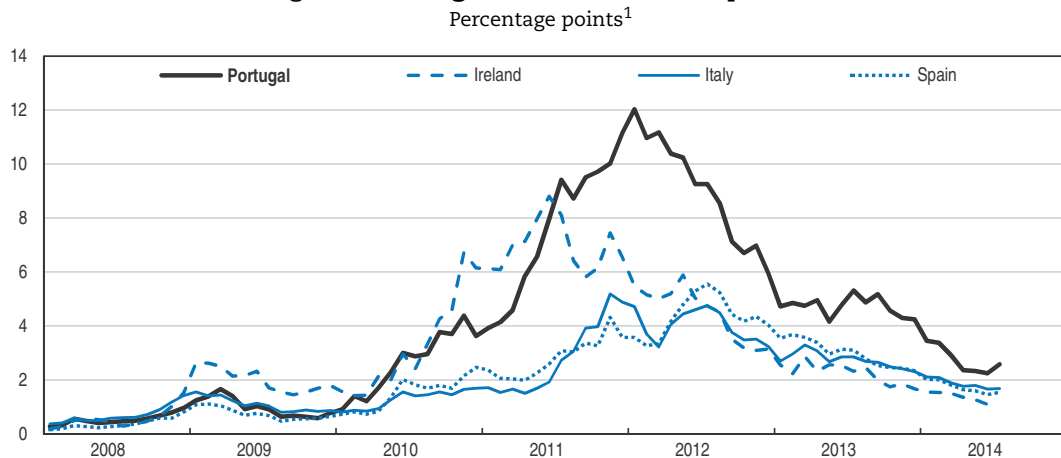
(about 5% of GDP), and 30% of it has been deposited in commercial banks rather than the central bank, notably to provide better remuneration to cover costs.

Gross public debt is at 129.4% of GDP (June 2014), but owing to the improved fiscal balance and growth prospects, on current projections and assuming that no fiscal contingency risk materialises (see below), it should decline from 2015 onwards (Figure 12). Alternative scenarios with weaker growth and less fiscal consolidation would still result in a falling debt-to-GDP ratio. In this context, the consolidation path seems appropriate and reasonably robust. In case of significant downward growth surprise the fiscal deficit should be allowed to deviate temporarily from the fiscal path, by letting the automatic stabilisers play. Long-term fiscal challenges arising from population ageing are likely to be

Figure 12. **Illustrative public debt paths**

General government debt, Maastricht definition, per cent of GDP[1]
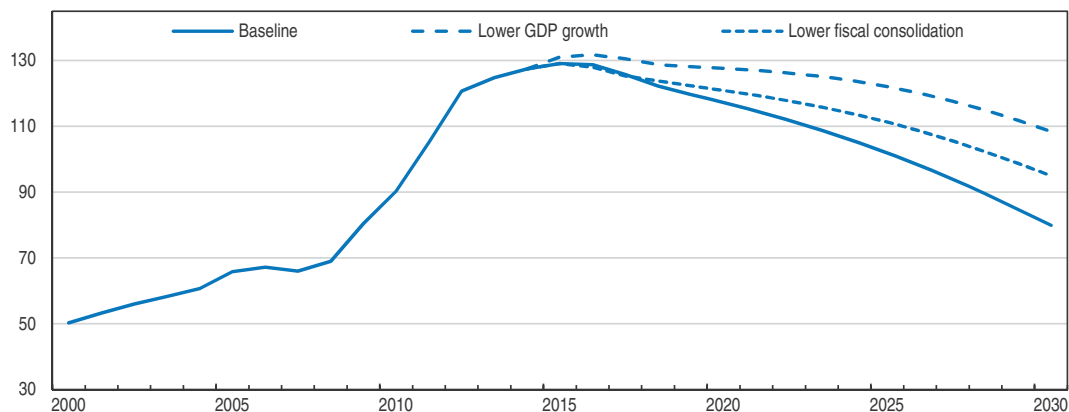
1. The baseline assumes average real GDP growth of 1.5% over 2014-2030, with a frontloaded recovery, average inflation of 1.5% and a neutral fiscal stance (constant structural primary budget balance) from 2016 onwards. The "lower GDP growth" scenario assumes lower nominal GDP growth by 1.5 percentage points per year over the period. The "lower fiscal consolidation" scenario is identical to the baseline and assumes that additional fiscal consolidation is 1% of GDP lower spread over 2015-17.

Source: Calculations based on OECD (2014), *OECD Economic Outlook: Statistics and Projections* (database), October.

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manageable, based on simulations of tax gaps by the European Commission (EC, 2014a). Recent emigration, however, and lower growth may exacerbate the challenges associated with population ageing.

Improving expenditure management and tax collection

Adhering to the fiscal consolidation path will require further improvement in the control of expenditure management. Despite significant improvement, arrears are currently slightly below EUR 2 billion, and have accumulated notably in the hospital sector, which may imply that the sector will either need more funds or must be made more efficient. The government has created a unit in the Ministry of Finance dedicated to reining in arrears.

A further reduction of the number of civil servants could reduce the public wage bill going forward. Overall public sector employment has fallen by 8% since the beginning of 2012, and at 12.4% of the employed workforce, excluding hospitals and state-owned enterprises, it is now below the OECD average. Nonetheless, evidence of over-employment remains in specific areas, such as the security forces and education. With more than 450 police personnel per 100 000 inhabitants, Portugal's police are the second best-staffed in Europe. In education, average class sizes are small, even though OECD evidence suggests that class size is a far less important factor than teacher performance for student's learning progress. Public sector wage costs have been reduced on several occasions through a mixture of abolishing public holidays, an extension of the work week from 35 to 40 hours without adjusting pay, wage cuts and taxes. A progressive reduction of public sector salaries was implemented in 2011, but a further reduction in 2014 had to be undone after the Constitutional Court rejected its application beyond 31 May. The previous wage reduction was re-instated in September 2014 and will be partially reversed in 2015.

Taxation

Efficiency gains can not only be identified for public expenditure, but also for taxes. Both in value-added taxes (VAT) and in personal income taxes, exemptions could be reduced further. Since 2012, Portugal has significantly reduced the formerly widespread use of reduced VAT rates and VAT exemptions. This has improved the efficiency of the VAT system, which nonetheless remains below the OECD average (Figure 13). The authorities should build on recent progress and further extend the scope of the standard VAT rate. One way of doing so would be to abolish the current intermediate rate of 13% and to narrow the scope of application of the reduced rate of 6%. In personal income taxes, the taxation of income in kind has been revised, including by limiting the favourable taxation of company vehicles to smaller cars, but this special treatment should be abolished altogether.

Figure 13. **Value-added tax (VAT) revenue ratio**
Per cent, 2012[1]
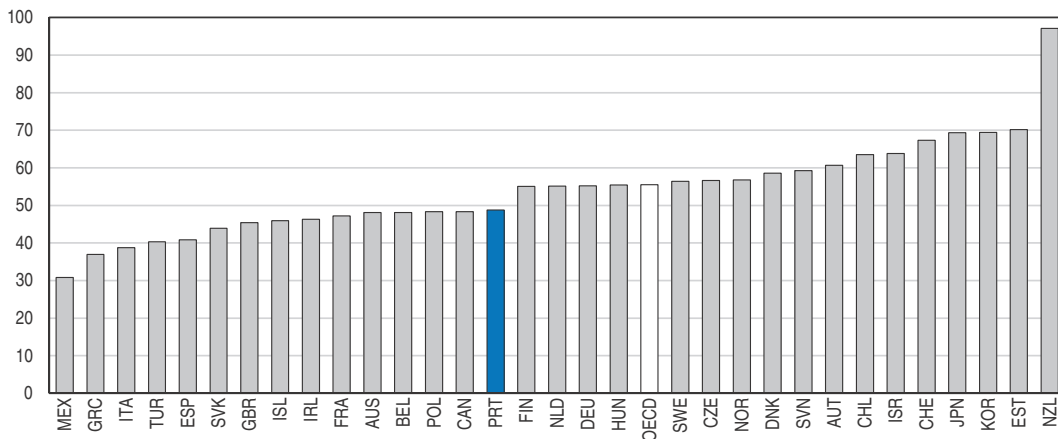
1. 2011 for Australia, Greece, Ireland, Korea, Netherlands, Poland and OECD average. The VAT revenue ratio (VRR) is defined as the ratio between the actual value-added tax (VAT) revenue collected and the revenue that would theoretically be raised if VAT was applied at the standard rate to all final consumption. This ratio gives an indication of the efficiency of the VAT regime in a country compared to a standard norm. It is estimated by the following formula: VRR = VAT revenue/([consumption - VAT revenue] × standard VAT rate). VAT rates used are standard rates applicable as at 1 January of each year. The OECD aggregate is an unweighted average and data for Canada cover federal VAT only.

Source: Calculations based on OECD (2014), *OECD Tax Database, OECD Revenue Statistics* and *OECD National Accounts Statistics* (databases), October using the methodology described in OECD (2014), *Consumption Tax Trends*, forthcoming.

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A tax expert commission was established in February to make a series of proposals to promote natural resource efficiency and remove harmful tax subsidies. There is clearly scope to strengthen the environmental benefits of taxes, for example by equalising the tax burden on diesel fuel and petrol which could reduce emissions of greenhouse gases and other pollutants (OECD estimates based on OECD, 2013a). There is no environmental justification for lower tax rates on diesel due to their greater air pollution and carbon impacts (Harding, 2014). In addition, the authorities should consider reducing fuel tax expenditures, for example preferential fuel tax rates for agriculture and fishing. These preferential rates reduce the incentives for fuel efficiency (OECD, 2013b). Fiscal incentives for an efficient use of environmental resources could also be enhanced by raising the tax rate on pesticides, which are intensively used in some agricultural activities and raise concerns for both the environment and public health. Some of the expert commission's

proposals include a possible carbon tax on sectors not subject to the Emission Trading System (ETS).

Reducing contingent fiscal risks

Public private partnerships (PPPs)

Portugal has made extensive use of PPPs over the last decades, especially for building roads. However, PPPs have sometimes been attractive for policy makers because the associated payments are off-budget and paid in the far future. This created sizeable public-sector liabilities and reduced incentives for ensuring value for money. Demand for new motorways was sometimes significantly overestimated. Government payments under PPPs amount to EUR 1.6 billion (1% of GDP) but are scheduled to fall gradually over the coming decade (Figure 14).

Figure 14. **Net public-private partnership payments by the government**

EUR million[1]
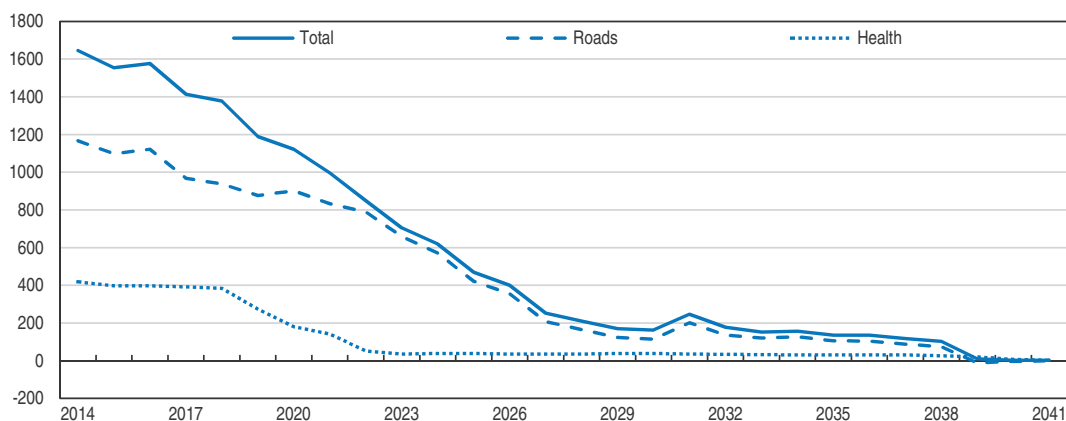
1. In 2014 prices and including value-added tax (VAT).
Source: Ministry of Finance (2013), "Orçamento do Estado para 2014, Relatório".

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At the same time, there has been evidence of excessive private rents as a result of the absence of a well-defined legal framework and systematic cost-benefit analyses (Sarmento, 2013). In particular, economic and financial rebalance clauses in PPP contracts often implied that the government ended up bearing risks that should have been assigned to the private side. From 2011, new PPP projects were temporarily frozen and a new legal framework was put into place in 2012, including a new technical unit in the Ministry of Finance, UTAP, to handle the PPP renegotiations in 2013.

Significant progress in the renegotiations with private partners will probably allow a reduction in the net present value of government financial commitments in the road sector on the order EUR 6.6 billion. For dealing with liabilities from legacy PPPs, the new approach seems adequate, and the renegotiation achievements are sizeable. With respect to future projects, PPPs should continue to be one of the financing options on the table, but only when they represent better value for money than alternatives. Most importantly, PPPs should never again be used to avoid transparency and to circumvent public sector constraints. In particular, future PPPs should be explicitly costed and accounted for in budget documentation when they are proposed and implemented.

State-owned enterprises

State-owned enterprises (SOEs) have been successfully brought to operational balance when taken as a whole, for the first time in 40 years. This was achieved through tariff increases and reductions in the number of staff through voluntary separation programmes. The governance of the sector was improved by a new framework law in December 2013. Operating expenses of SOEs are expected to remain flat in 2014 following a substantial reduction of the past years, and further savings from SOEs are planned for 2015, including in the transport sector, where several public services are to be transformed into concessions. Further progress can be made on plans to close a number of loss-making rail lines operated by the public passenger rail company CP. A significant problem for the SOEs, particularly in the transport sector, is the cost of servicing accumulated debt. These obligations, some of which have recently been re-classified to the general government, will eventually fall back on the state in one way or another.

Privatisations have taken place in the areas of electricity, airport services, postal services, and insurance services, raising more than EUR 9 billion since November 2012, which was above the initial objective of EUR 5 billion. Several privatisations have attracted foreign direct investment. Large privatisations planned – but not yet implemented – include the national airline *TAP*, for which an earlier privatisation attempt failed in 2012, and the cargo rail company *CP Carga*. Concession tenders for local public transport in Lisbon and Porto are now underway and prospective concessionaires are expected to begin operations in early 2015. In the water sector, the activities of *Aguas de Portugal*, which include water, sewage and waste management services, are to be separated in 2015 before some of them will be privatised.

Recommendations for fiscal policy

Key recommendations

● Achieve planned structural fiscal consolidation targets but allow the automatic stabilisers to operate.

● Continue to improve public sector efficiency by further reducing the number of civil servants; enhance the efficiency of the tax system including by eliminating tax exemptions and expenditures.

Other recommendations

● Finalise renegotiations of current public private partnerships (PPPs) contracts, and ensure the transparency of future PPP contracts by fully reflecting them in the budget process.

● Continue privatisations and concessions in the transport sector. Rationalise loss-making lines operated by the public passenger rail company CP.

Further raising competiveness and export performance

Before the crisis, resources had been drawn excessively into sheltered non-tradable sectors, often characterised by weak competition. This encouraged economic rents and wage pressures far in excess of productivity developments, which eroded international competitiveness and export performance. Exports have strengthened since 2010. Further rebalancing the economy towards the tradable sector and strengthening export

performance will be necessary to sustain growth and create more jobs. The scope for competitiveness gains will depend on the economy's ability to restrain input prices, and to enhance productivity. Enhancing innovation, the quality and the branding of exports will allow Portugal to further increase the value-added content of its exports. Portugal's value added content of its exports was 68%, slightly below the OECD average of 71% and the EU average of 87%, but higher than in a number of Central European countries. Foreign value added content is particularly high in transport equipment and electrical equipment, reflecting Portugal's strong integration into global value chains in these sectors (OECD, 2013f).

Strengthening competition in energy and continuing progress on greener growth

Inputs from non-tradable sectors are an important determinant of cost competitiveness for companies in tradable sectors, accounting for 16% of average input costs (Figure 15, Panel A). Prices in non-tradable sectors have risen significantly faster than tradable prices, even compared to other countries in the euro area (Figure 15, Panel B). In addition, improved access to non-tradable inputs can also foster productivity growth of firms in tradable sectors (Arnold et al., 2011). Thus, further action to reduce excessive rents and high prices in non-tradable sectors could spur the rebalancing process. OECD estimates suggest that the product market reforms undertaken since end 2008 – including improvements in the electricity, gas and retail trade sectors – will raise the level of GDP by 3% the year 2020. Aligning its regulation to best practice among all OECD countries would raise GDP by another 5.5% by 2020 (Chapter 1).

Figure 15. **Determinants of cost-competitiveness in tradable sectors**
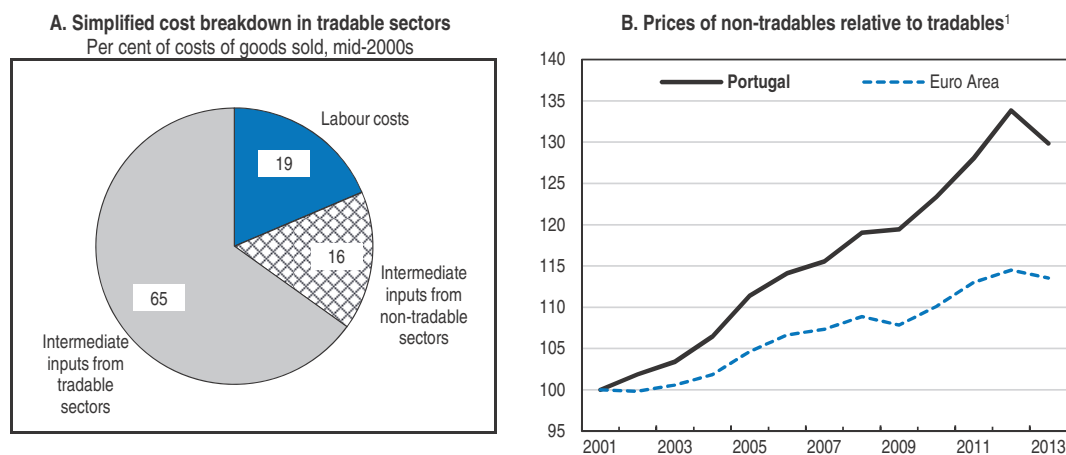
1. Ratio of harmonised index of consumer prices (HICP) (2001=100) of non-tradable sectors to HICP (2001 = 100) of tradable sectors.
Source: OECD (2012), "STAN Input-Output: Input Output Database", *STAN: OECD Structural Analysis Statistics* (database), June and Eurostat (2014), *Harmonised Indices of Consumer Prices (HICP)* (database), July.

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Generation of electricity is formally open to competition, but incumbent operators benefit from legacy remuneration schemes that continue to provide sizeable rents to incumbent electricity generators and are not available to potential new entrants. The surge in renewable energy sources has increased electricity costs through price guarantees for electricity from both renewable and non-renewable sources. Some non-renewable

electricity generation capacity is rewarded by these price guarantees to stand ready when the more intermittent renewable energy is insufficient to meet demand. In fact, over 90% of electricity production is sold at guaranteed or subsidised prices, reducing the scope for effective competition. These electricity generation schemes are to be phased out over a 13-year horizon, but this schedule should be accelerated, including by exploring the scope for further renegotiations with incumbent companies. Such renegotiations have led to savings of EUR 3.4 billion so far.

Renewable energies have advanced at an impressive pace since 1990, and Portugal has become Europe's leader with respect to the use of renewable energy sources, hydro-energy excluded. Wind energy, which has been the driver behind these developments, has been growing at a pace of 52% per annum since 1990 in Portugal, versus 28% in OECD Europe. Similarly, geothermal electricity generation increased by almost 18% per annum. As a result, CO_2 emissions, in particular those resulting from electricity generation, have decreased since 2005 and are relatively low in Portugal (Figure 16, OECD, 2011).

Figure 16. **CO_2 emissions from electricity generation**

Grammes of carbon dioxide (CO_2) per kilowatt hour (kWh) of electricity, 2011
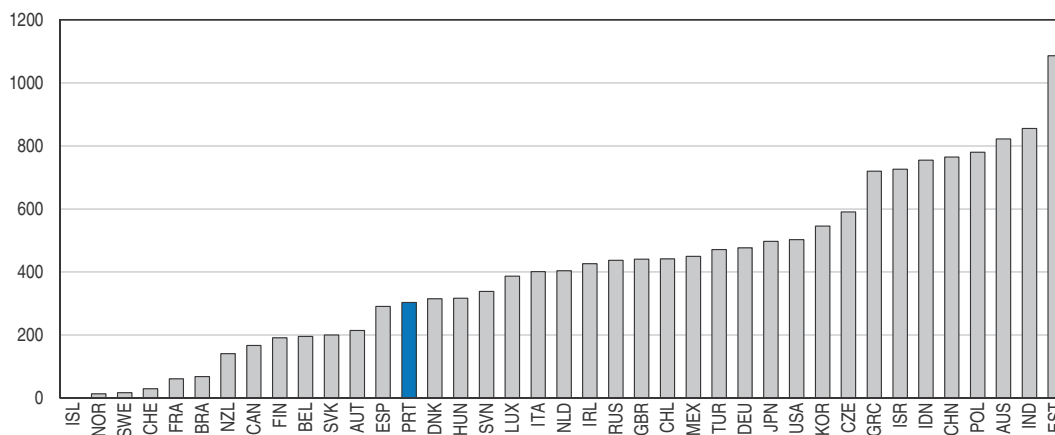
Source: IEA (2013), "Emissions per kWh of electricity and heat output", *IEA CO_2 Emissions from Fuel Combustion Statistics* (database), May.

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The progress in renewable energies holds a promise for Portugal, in that it could become a leader in the application of renewable energies and export its expertise. This is particularly true for wind energy, where Portugal has taken a pioneer role. Building on this success has the potential to create jobs, but success will depend on good and cost-effective policies.

A challenge will be to establish a green industrial base in a way that minimises costs, rents, or unnecessary distortions on users, and that does not put an extra burden on fiscal accounts. At present, the price that Portugal is paying for its pioneer role in renewable energy is high, as environmental objectives in energy policy have been largely pursued through generous support to producers. Public support amounts to EUR 14 per MWh, which is third-highest in the EU, after Spain (EUR 18) and Germany (EUR 15) (EC, 2014).

Despite these high levels of public support, electricity prices are high as a result of the high tariffs still being paid to producers according to legacy agreements (see Chapter 1). Over the next 8 years, electricity prices are set to rise by an additional 1.5% to 2% in real

terms as electricity prices have been kept below production costs for many years, which has led to the accumulation of a debt of some EUR 4 billion (2.5% of GDP). It is to be gradually wound down by 2020. With electricity prices already high, particularly for electricity-intensive industrial consumers, this will have significant costs in terms of competitiveness. Efficiency gains in the electricity sector could also help to reduce prices, and could be achieved by improving international interconnection capacity, in particular onwards from Spain to France and other European countries where electricity prices are lower.

Enhancing the performance of labour markets

Comprehensive reforms have improved the performance of labour markets in recent years and reduced labour costs, which are an important element of competitiveness as the wage bill accounts for 19% of direct costs in the tradable sector. Severance pay has been reduced from 30 to 12 days per year of tenure, with a 12-month ceiling instead of a 3-month floor, although existing contracts preserve entitlements accrued under the old rules through a transitory regime. Overtime pay was cut in half and working time was increased through a reduction of annual leave entitlements from 25 days to 22 days and the abolition of four national public holidays. Firms have gained more flexibility in work time arrangements, following the introduction of a bank of hours that allow a maximum of 150 hours per year to be used in agreement between the employee and the employer. Individual dismissals for economic reasons no longer need to adhere to a pre-defined order of seniority, while those based on worker capability have become possible in a wider range of circumstances. In both cases, the obligation to transfer the employee to another suitable position was replaced by a requirement on the employer to assess whether, in the case of suppression of a post, the employee could be transferred to a position compatible with his professional qualifications.

Collective wage bargaining has typically been at the sector level between the trade unions and employers' associations. The resulting collective agreements are used to determine wage floors that became binding for the entire industry through administrative extension. This mechanism limits the scope for wage agreements to adapt to the situation of specific firms and gives extra clout to those sitting at the negotiating table. By effectively stifling firm-level bargaining, this mechanism also discourages 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.

New cases of administrative extensions were effectively suspended in May 2011 and a condition that negotiating employers' associations represent at least 50% of the workers in the relevant economic sector has prevented their re-emergence since. The re-emergence of administrative extensions is planned, including by introducing alternative criteria that would allow extensions when the employer side includes 30% of small and medium enterprises; this would be an easy target to meet. However, such a change would clearly be a step backwards. Instead, more should be done to promote collective bargaining at the firm level, including by abolishing administrative extension altogether. Recent plans to shorten the survival of any expired collective bargaining agreement in the absence of a new agreement from 5 to 2 years would be a step in the right direction.

Innovation, knowledge-based capital and industry dynamics

The innovation performance of Portuguese industry has been weak, as evidenced by a low number of patents and trademarks, as has investment in knowledge capital more generally, including software and databases, innovative property and economic competencies (Figure 17).

Figure 17. **Patents and trademarks**
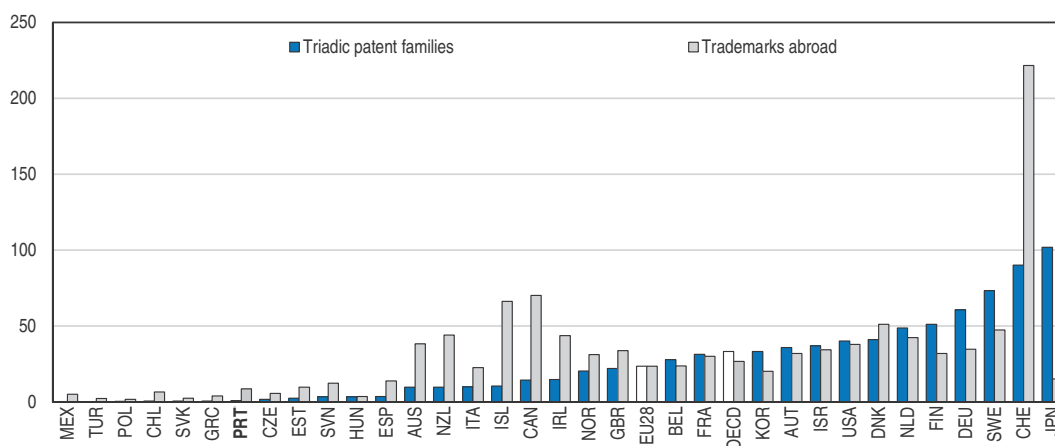
Average number per million population, 2009-11[1]

1. Triadic patent families are defined as patents applied for at the European Patent Office (EPO), the Japan Patent Office (JPO) and the United States Patent and Trademark Office (USPTO) to protect a same invention. Trademarks abroad correspond to the number of applications filed at in the United States, European Union and Japan, corrected the relative average propensity of other countries to file in those three offices.

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

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Research and development (R&D) spending is significantly below the OECD average. Expenditures by business enterprises, which are arguably closer to market demands and more likely to feed in to commercial results, are less than half the OECD average relative to GDP. A large share of R&D expenditures occurs in universities and very few new high-tech firms originate from academia. 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). By contrast, in Portugal only few PhDs join the private sector, remaining in universities instead (OECD, 2014). More broadly, the lack of an effective connection between research made at universities and their commercialisation in the private sector, for example through university technology transfer offices, remains a serious issue.

Public support for business R&D and innovation consists almost exclusively of tax credits (OECD, 2013c). Going forward, finding a better balance between direct support for business R&D and R&D tax credits may be useful, as direct support can help address specific market failures such as the lack of cooperation. Since new entrants typically lack taxable profits for a significant number of years, R&D tax credits risk becoming an implicit entry barrier by favouring incumbents. Some OECD countries allow tax credits to be converted into cash refunds (Australia, Canada, Denmark, Norway, or the United Kingdom) or have extended loss-carry forward provisions indefinitely (Australia, Belgium, Ireland,

United Kingdom). Portugal, in contrast, does not allow refunds of R&D tax credits and the carry-forward period for R&D expenditures is limited to 8 years. In this setting, new entrants are likely to face significant disadvantages *vis-à-vis* incumbents, particularly in a context of scarce and expensive credit. Portugal should consider allowing refunds of R&D tax credits or alternatively extend the carry-forward period further.

Key recommendations for raising competitiveness and export performance

● Promote wage bargaining at the firm level, including by abolishing administrative extensions of wage agreements.

● Strengthen competition in non-tradable sectors through further regulatory reform. Phase out electricity generation schemes with guaranteed prices sooner than currently planned.

● Improve the links between researchers in universities and the private sector. Consider allowing refunds of research and development (R&D) tax credits for loss-making firms or extending the carry-forward period.

Making future growth more inclusive

Well-being and the social dimension of the adjustment process are crucial for maintaining social cohesion and political support for further reforms. The OECD's Better Life Index 2014 shows that Portugal's indicators of wellbeing are mixed (Figure 18). The subjective perception of well-being appears to be low in Portugal, with only three OECD countries having lower indicator scores in this area. Portugal is also below the OECD average in terms of income and wealth, jobs and earnings, education and skills, health, social connections and civic engagement and governance. By contrast it ranks relatively highly among the top ten OECD countries in terms of housing quality and slightly above the OECD average in terms of environmental quality and work and life balance.

Figure 18. **Well-being outcomes: Better Life Index**

2014[1]
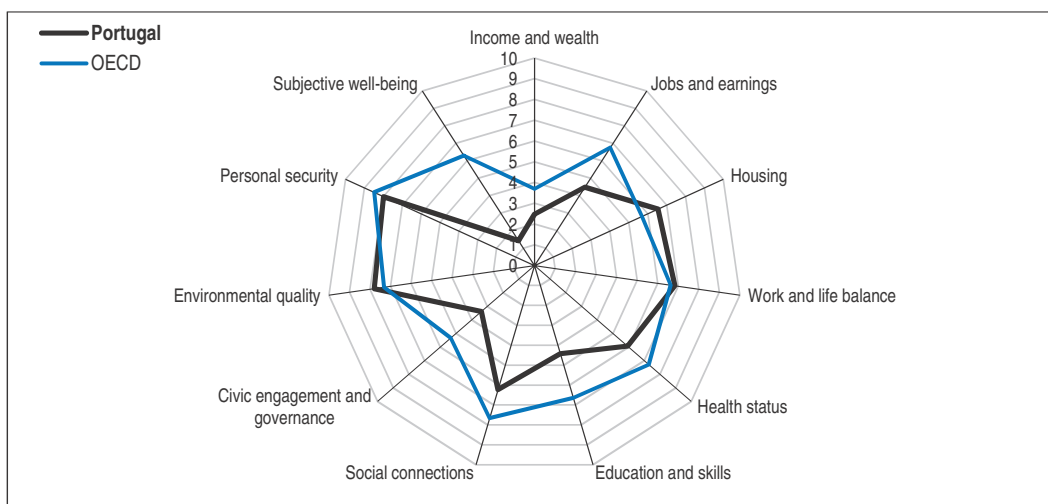
1. Each well-being dimension is measured by one to four indicators from the OECD Better Life Index set. Normalised indicators are averaged with equal weights. Indicators are normalised to range between 10 (best) and 0 (worst) according to the following formula: (indicator value - minimum value)/(maximum value - minimum value) × 10.

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

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Inequality and poverty are high

By all commonly used measures, income inequality in Portugal is considerably above the OECD average. In Europe, Portugal has the fourth highest level of relative poverty and is one of the most unequal countries with respect to disposable income (Figure 19). Between 2004 and 2009, inequality had been on a downward trend, the share of income accruing to the top 10% income earners has been coming down, and lower brackets of the income distribution recorded some improvement. The economic crisis, however, put this downward trend to a halt and the Gini coefficient has been broadly stable since 2010, with a small decrease in 2012. Portuguese households felt the impact of the crisis later than those in other European countries, with the disposable incomes still rising until 2010, while they started slowing down for the European Union as a whole as early as 2008.

Figure 19. **Inequality and poverty**[1]
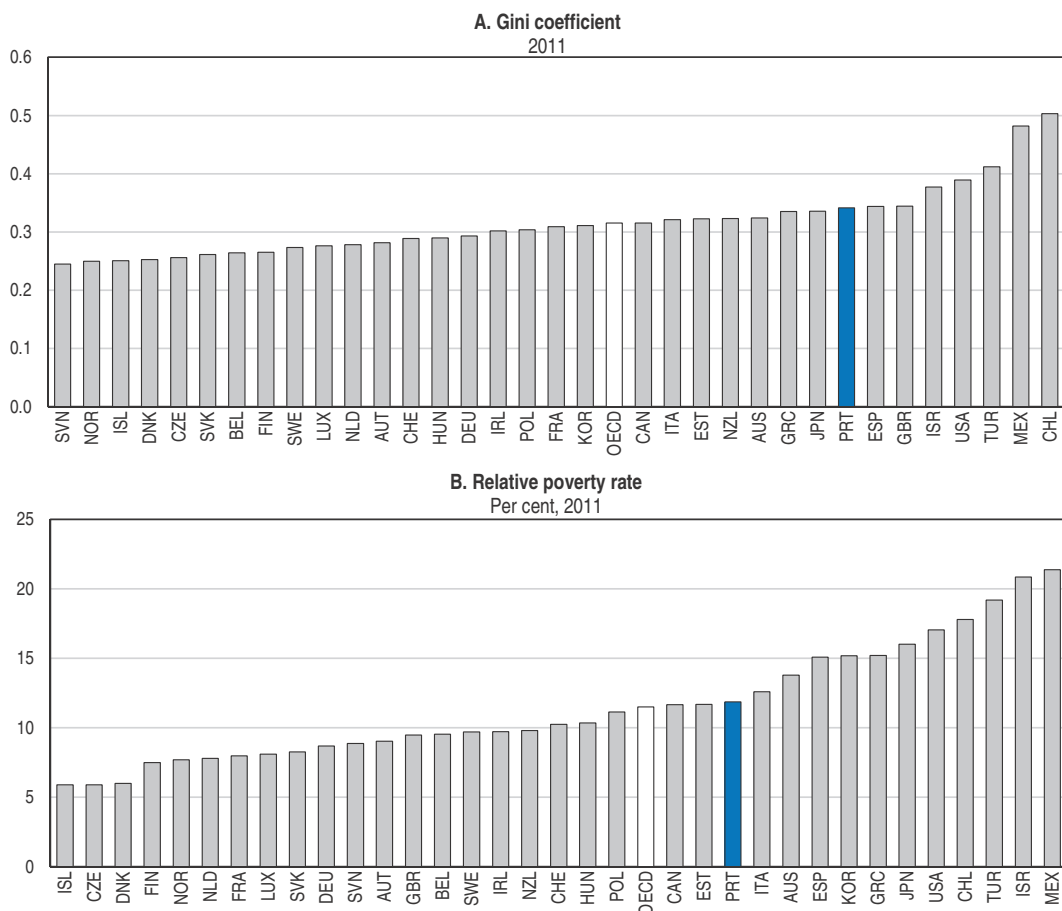
A. Gini coefficient
2011

B. Relative poverty rate
Per cent, 2011

1. The Gini coefficient is calculated for household disposable income after taxes and transfers, adjusted for differences in household size. The relative poverty rate is based on 50% of the median disposable income (adjusted for family size and after taxes and transfers) of the entire population. 2009 for Japan. 2010 for Belgium. 2012 for Australia, Hungary, Netherlands and Mexico.
Source: OECD (2014), "Income Distribution Database", *OECD Social and Welfare Statistics* (database), July.
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The incidence of poverty (income less than half of median income) appears fairly stable over the last four available years, and has decreased among the elderly and increased among youths. However, this largely reflects a fall in the median income itself. Using the 2009

anchored poverty line, which fixes the real value of the poverty threshold at 2009 levels and then adjusts only for inflation, the percentage of people with incomes below 60% of median income has increased by 6.8 percentage points between 2009 and 2012 (Table 3). Increases in poverty were most pronounced among the working age population, children and youths, while poverty increased only marginally among the elderly. In international comparison, Portugal has seen a sizeable increase in poverty, as only 4 OECD countries recorded stronger increases in poverty measured by an "anchored" poverty rate (Figure 20).

Table 3. **Inequality and poverty indicators**

	Unit	2009	2010	2011	2012
Disposable income[1]	EUR/year	8 678	8 410	8 323	8 173
Income inequality					
Gini index		0.337	0.342	0.345	0.342
S80/S20 income quintile ratio	%	5.6	5.7	5.8	6.0
S90/S10 income decile ratio	%	9.2	9.4	10.0	10.7
Relative poverty[2]					
Poverty line	EUR/month	434	421	416	409
Poverty rate (all)	%	17.9	18.0	17.9	18.7
0-17 years	%	22.4	22.4	21.8	24.4
18-64 years	%	15.7	16.2	16.9	18.4
65+ years	%	21.0	20.0	17.4	14.7
"Anchored" poverty[3]					
Poverty line	EUR/month	434	440	456	469
Poverty rate (all)	%	17.9	19.6	21.3	24.7
0-17 years	%	22.4	23.8	26.1	30.9
18-64 years	%	15.7	17.7	20.4	23.7
65+ years	%	21.0	21.6	20.1	22.4

1. In current EUR, adjusted for household size.
2. The poverty line is defined as 60% of median disposable income in each year, adjusted for household size.
3. The poverty line is fixed at 60% of median disposable income in 2009 and adjusted for inflation and household size.
Source: INE (2014), "EU Statistics on Income and Living Conditions (EU-SILC) 2013", Instituto Nacional de Estatística.

Figure 20. **Anchored poverty rates**

Percentage point change between 2009 and 2011[1]
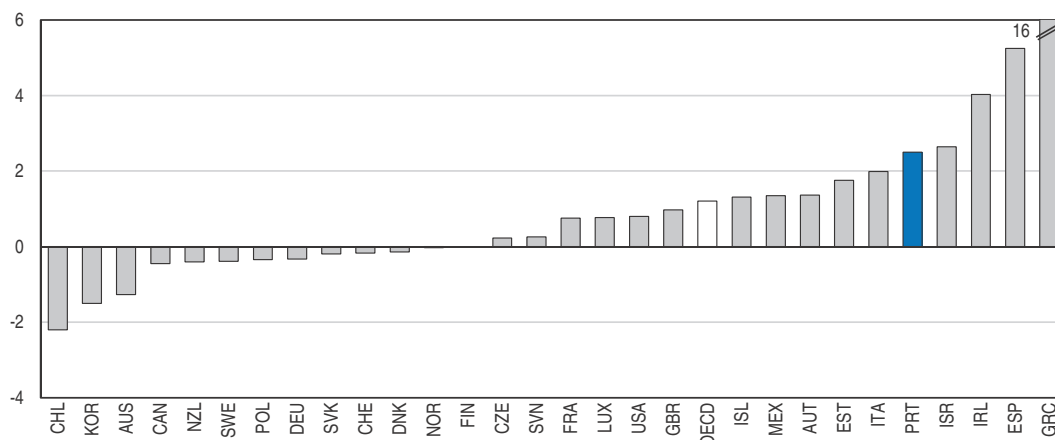
1. The "anchored" poverty rate is a benchmark "anchored" to half the median real incomes observed in 2005 (i.e. keeping constant the value of the 2005 poverty line). Change between 2010 and 2012 for Australia and Mexico. The OECD aggregate covers 29 countries.
Source: OECD (2014), "Income Distribution Database", *OECD Social and Welfare Statistics* (database), July.

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Losing employment is one of the principal reasons why households have suffered income losses. The unemployment rate has risen from 9.5% in 2009 to 14.0% in August 2014, with an intermediate peak of almost 17.5% (Figure 21). The rise in unemployment has particularly affected young people, whose unemployment rate rose to over 42% in the first quarter of 2013. Youth employment fell by more than half for those with below upper-secondary education and one out of six young adults aged 15-24 is neither in a job, nor preparing for employment.

Figure 21. **Unemployment rate by age groups**

Per cent of labour force
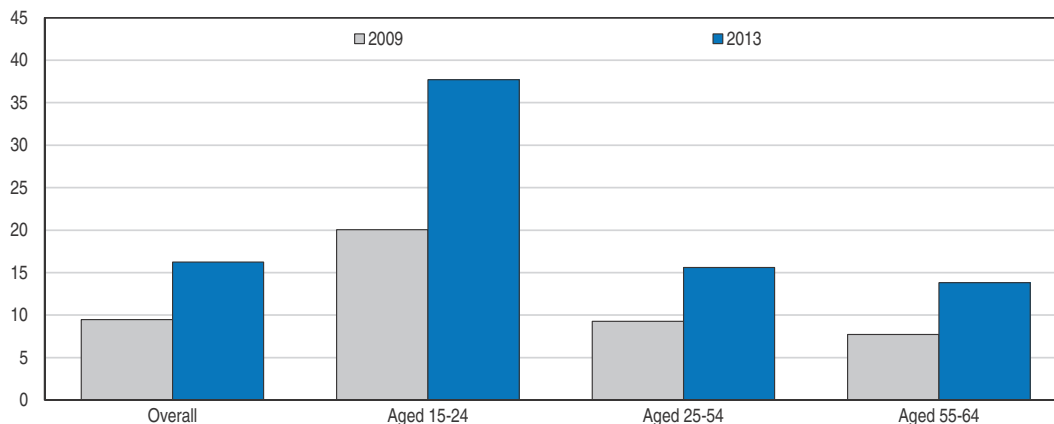
Source: OECD (2014), *OECD Employment and Labour Market Statistics* (database), June.

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Taxes and transfers alleviate the inequality of market incomes substantially, reducing the Gini coefficient by about 0.14 points (Figure 22). However, those OECD countries to the right of Portugal in the figure below achieve stronger reductions in inequality through taxes and transfers, starting in most cases from already lower inequality levels. This

Figure 22. **Reduction in inequality resulting from taxes and transfers**

Gini coefficient, working-age population, 2011[1]
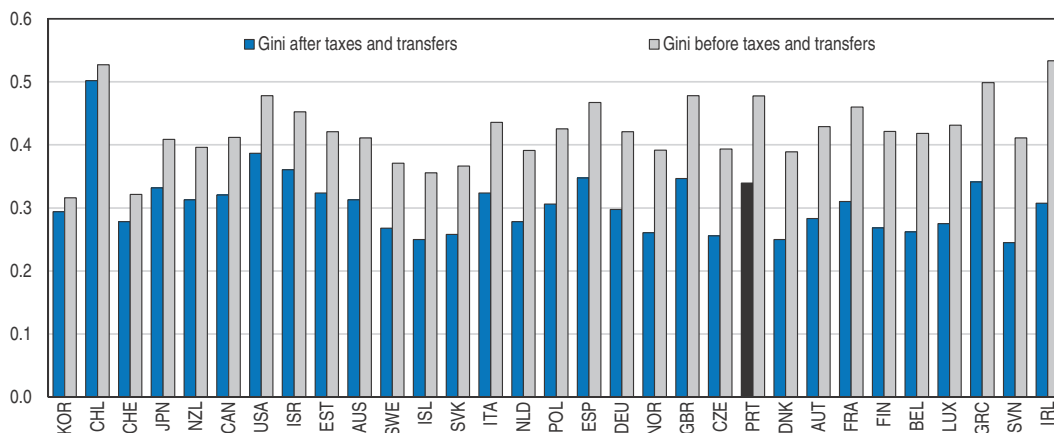
1. 2009 for Japan. 2010 for Belgium. 2012 for Australia and Netherlands. Working age is defined as 18-65 years old. Countries are ranked in increasing order of difference between Gini before and after taxes and transfers.

Source: OECD (2014), "Income Distribution Database", OECD *Social and Welfare Statistics* (database), July.

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suggests that more can be done to improve equity through social policies, and given that Portugal's social expenditure are above the OECD average, such improvements could likely be achieved by making existing redistributive policies more efficient, as opposed to spending more.

Policies to reduce inequality and poverty

Raising the distributional impact of social policies will require both consolidating overlapping benefits and improving the targeting of benefits to those most in need. While recent policy reforms in the context of fiscal consolidation have shifted most of the burden to high-income households, simulations suggest that the lowest income group has also suffered significant losses as a result of reforms (Figure 23). A similar pattern was observed in Greece and to a lesser extent in Spain, whereas in Italy fiscal consolidation affected all income groups in more or less the same way.

Figure 23. **Simulated change in household disposable income due to fiscal consolidation**
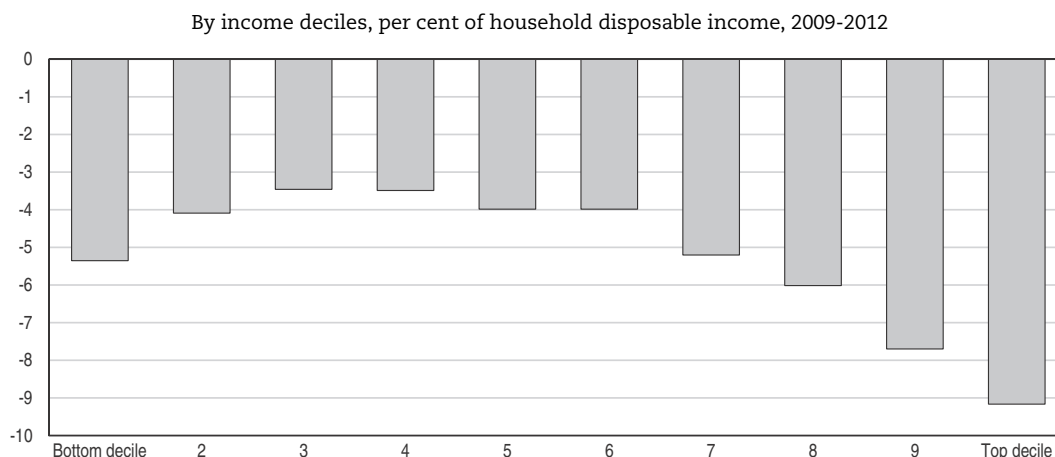
By income deciles, per cent of household disposable income, 2009-2012

Source: Avram, S., F. Figari, C. Leventi, H. Levy, J. Navicke, M. Matsaganis, E. Militaru, A. Paulus, O. Rastrigina and H. Sutherland (2012), "The distributional effects of fiscal consolidation in nine EU countries", *Research note 01/2012*, Employment, Social Affairs & Inclusion, December.

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Several other programmes are in place to protect the most vulnerable individuals and households, which leads to overlapping benefits with different sets of rules. This makes monitoring difficult, facilitates fraud and jeopardises the effectiveness and efficiency of the programmes. One way to reduce the overlap and improve targeting would be to consider a cap on accumulated social benefits, which would also improve the monitoring of total benefits received by households, including those provided by local governments. Such a benefit cap could ensure that an accumulation of benefits does not generate a disincentive to work. In particular, there is a risk that marginal effective tax rates (caused by tapering benefits as income rises) can spike as one programme is piled on another. The authorities should examine the cumulative effect of these programmes and rationalise them as needed.

Portugal's guaranteed minimum income scheme *Rendimento Social de Inserção* (RSI) is a monthly transfer that tops up the recipient's monthly income to a reference minimum income threshold. Benefits are conditional on participation in a compulsory social

inclusion programme, which includes short training courses and return to work initiatives, as well as on regular school attendance for all school-age children living in the household and adherence to children's vaccination plans. Reforms undertaken in 2010 and 2012, which modified how household income per person is calculated for multi-person households, led to a reduction in the number of eligible beneficiaries by over 40%, including the loss of RSI benefits for more than 50 000 children and youths, and to a reduction in transfer payments. Moreover, compared to either the minimum wage or the poverty line, minimum income benefits in Portugal are low in international comparison (Figure 23).

With 40% of the unemployed living below the poverty line, this reduction of the last-resort income support for the poor should be reversed. RSI reference thresholds should be raised, which would lead to higher benefit levels and more eligible beneficiaries. While there is a risk of creating disincentives to work, RSI benefits in Portugal are low relative to the minimum wage in international comparison (Figure 24). Better targeting resources to households with children could be achieved by giving children a more generous weight in the calculation of RSI benefits. At the same time, control and anti-fraud mechanisms should be reinforced and the social inclusion programmes made more effective, with the aim of integrating RSI beneficiaries in the labour market whenever possible.

Figure 24. **Minimum-income benefits**

Net income level provided by cash minimum-income benefit (with or without housing assistance) for single person families, 2012[1]

1. Median net household incomes are from a survey in or close to 2012, expressed in 2012 prices and are before housing costs (or other forms of "committed" expenditure). Results are adjusted for household size (equivalence scale is the square root of the household size) and account for all relevant cash benefits (social assistance, family benefits, housing-related cash support as indicated). The OECD and EU28 (i.e. European Union) aggregates refer to the unweighted averages of those countries that have minimum wage policy and are included in the chart.
Source: OECD (2014), "Taxes and benefits", *OECD Social Expenditure Statistics* (database), June.

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Tax reforms have also affected the income distribution in Portugal. In 2013, tax brackets for personal income taxes were redefined, marginal rates were raised and all incomes above the national minimum wage were subjected to an "extraordinary income surtax" of 3.5%. At the same time, tax exemptions were reduced, including for private education and health expenditures, which are overwhelmingly consumed by better-off households. The effects of these changes are still difficult to evaluate but they are likely in the direction of more

redistribution. VAT reforms include applying the higher standard rate to restaurant meals and some prepared foodstuffs. On the whole, these reforms likely made VAT more progressive as well, given that many of these items are consumed more by wealthier households. In any event, reduced VAT rates are an inefficient way to support low-income households.

Despite recent reforms, unemployment benefits reach only about 45% of the unemployed, and they have a built-in bias towards older workers. Benefit levels remain heavily age-dependent, as larger cuts in the duration of unemployment insurance for older workers are partly offset by longer unemployment assistance. The link between age and benefit duration should be eliminated, while the eligibility conditions should be made less stringent to extend benefit coverage, especially for young workers.

Social expenditures are characterised by a general bias towards older recipients. Portugal spends 12.4% of GDP on old age and survivor benefits, compared to 8.5% in the OECD on average, whereas family benefit expenditures are only 1.5% of GDP, compared to an OECD average of 2.3%. At the same time, poverty rates have increased particularly among households with children over the period 2009-12, suggesting a need to prioritise the support given to children and youths who live in poverty or are at risk of falling into poverty. This need is reinforced by the extremely high unemployment rates among youths.

The education system could also contribute more to equity objectives. In Portugal, the association between students' socio-economic background and their performance at school is more pronounced than on average in the OECD, and much of this relation lies at the school level (OECD, 2012b, OECD, 2013e). As a result, the socio-economic differences across schools are largely predictive of a school's performance in the OECD PISA assessments, and children from highly educated parents are much more likely to participate in higher education than others, compared to other countries (Figure 25).

Figure 25. **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]
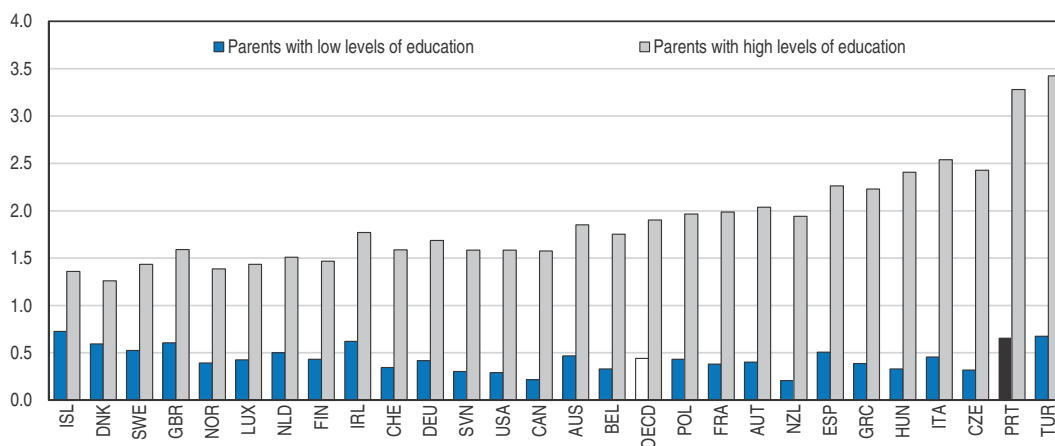
1. The chart shows the odds of someone from a low (or high) educational background attending higher education. The odds ratio is calculated by comparing the proportion of parents with low (or high) levels of education in the total parent population to the proportion of students in higher education whose 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: OECD (2012), *Education at a Glance 2012: OECD Indicators.*

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Policies that target disadvantaged schools can therefore be particularly effective in raising performance and equity levels. Moreover, the education system should put more emphasis on providing training options to less academically-inclined students by improving the vocational education and training (VET) system and by providing better support to the large number of school drop-outs.

Scaling up active labour market policies (ALMPs) can also improve labour market performance of the people with difficulties in the labour market, particularly the unemployed and youths. Recently adopted enhancements of ALMPs include short training courses, financial support for internships, a hiring subsidy paid to companies that provide training and the temporary reimbursement of social security contributions for hiring unemployed individuals below 30 or above 45 years. Going forward, career counsellors in job centres could take a more active role in managing referrals to specific ALMP programmes. This would both promote the enrolment of job seekers who would benefit the most from these programmes, and ease capacity constraints. Efforts in this direction have already started and empirical results suggest a significant positive impact on re-employment (Martins and Pessoa e Costa, 2014). Monitoring and sanctions, while very strict in principle, are in practice far less stringent, as proof of job search is often perfunctory and benefit cancellation seldom enforced. Welcome progress has been made in the evaluation of programmes to help the unemployed, and these efforts should be further strengthened and used to channel scarce resources into the most effective programmes.

Key recommendations to reduce inequality and poverty

- Strengthen the social safety net by reducing overlaps between programmes and ensuring better targeting, which could generate resources to eventually raise benefit levels of the minimum income support scheme RSI in a fiscally-neutral way.
- Make unemployment benefits independent of age and reform eligibility requirements to widen their coverage.
- Continue to scale up active labour market policies and closely monitor programme performance.
- Scale up adult education and back to school schemes to help the unemployed and those in need to gain relevant skills.

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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.*

Financial stability

Past recommendations	Actions taken and current assessment
Tackle incentives to investment in sheltered sectors and "ever-greening" of problematic loans.	A "Corporate Debt Restructuring Strategic Plan" is being finalised, including the development of an early warning system by the Bank of Portugal.
Make small and medium-sized enterprises more reliant on equity and re-direct EU funds towards them.	A development financial institution is planned to be operational by the second half of 2014, whose tasks include managing EU funded support to small and medium-sized enterprises (SMEs) and enhancing non-debt financing for SMEs.

Fiscal policy

Past recommendations	Actions taken and current assessment
Abide by the budgeted expenditure at all levels of general government to meet headline deficit targets.	Fiscal targets were broadly met.
Introduce a consistent, explicit and easily enforceable public expenditure rule.	Fiscal efforts are made towards public budget headlines.
Support to local and regional governments should be accompanied with improvements in the fiscal framework.	A new local finance law (Law No. 73/2013) entered into force in January 2014. It contains new budgeting rules for local governments, including regarding arrears, off-balance sheet liabilities and expenditure ceilings.

Education, labour and social policies

Past recommendations	Actions taken and current assessment
Focus the evaluation system on tracking individuals and cohorts over time.	A test at the end of the 4th year has been introduced, in addition to the existing at the end of the 6th year.
Further reduce severance pay.	Severance payments for fair dismissals were reduced.
Introduce binding arbitration in conflicts over dismissals.	No progress.
Make unemployment benefit duration less age dependent, and ensure that changes to eligibility improve benefit coverage.	Despite recent progresses, unemployment benefits still display significant degree of age dependency. Coverage of benefits was extended to cover some self-employed.
Abolish administrative extension of collective agreements.	Administrative extensions were temporarily frozen, but are likely to be re-activated.
Reduce employers' social contributions on low-wage workers.	A reimbursement scheme of social contribution was implemented for young unemployed persons, but not related to low-wages.

Business environment and product markets

Past recommendations	Actions taken and current assessment
Maintain the momentum in justice reform to speed up civil and commercial case resolution.	Despite several reforms that improved court management and changed the geographic structure of the justice system, the backlog of cases remains significant.
Fully implement the zero authorisation initiative.	Implemented.
Ensure that the new eviction procedures decrease the eviction time of non-complying tenants.	An electronic platform facilitating eviction was put in place.
Introduce a full Mobile Virtual Network Operator (MVNO) agreement.	A Mobile Virtual Network Operator (MVNO) agreement has been established.
Reduce excessive support to energy generation.	Support to renewables is still substantial.

Thematic chapters

Chapter 1

Boosting export performance

In the years before the economic crisis, Portugal had low growth, a decline in export competitiveness and rising imbalances that included a large current account deficit and a strong expansion of the non-tradable sector. Strengthening export performance is therefore one of the principal challenges for Portugal. A successful rebalancing of the economy is underway since Portugal started an ambitious structural reform programme in 2011, but more needs to be done to build on the recent export success. This includes both measures to improve competitiveness, such as reforms in energy and services sectors, and measures to boost productivity growth, such as tax reform, improving the performance of the judicial system and better public support for research and development. Given that exporting firms are typically the top performers in their industry, and have been so even before becoming exporters, it is important to avoid policies that could slow down the possibilities for high-performing firms to gain market share, such as the extension of collective wage agreements or the design of tax credits for research and development activities. Support for small enterprises should also be designed to benefit start-ups with a strong growth performance, as well as firms that are increasing their participation in international trade.

Between 2001 and 2010, the Portuguese economy recorded average annual GDP growth of less than one per cent and a series of imbalances built up. As traditional exports contracted due to increasing competition in export markets, the non-tradable sector expanded excessively. This expansion was facilitated by surging credit flows that financed either consumption and investment projects with little productivity benefits, heavily skewed towards construction, infrastructure and other sheltered sectors (Figure 1.1). Funding for surge in credit came mostly from external sources, leading to high indebtedness among corporates and households, and in particular a build-up of external debt, reflected by an average current account deficit of almost 10% of GDP between 2000 and 2009.

Figure 1.1. **Investment allocation by sector**

Percentage change between 2000 and 2009[1]
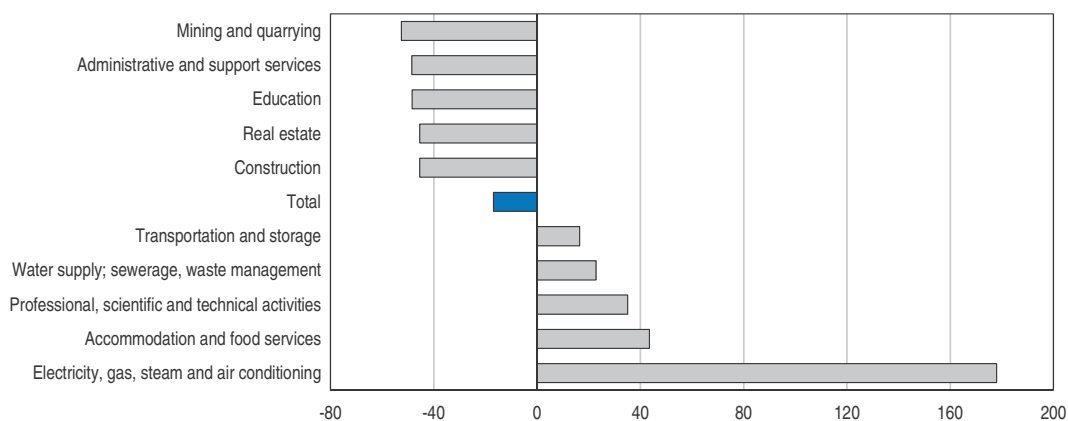
1. Investment refers to gross fixed capital formation. In real terms according to the NACE Revision 2 European Classification of Economic Activities.
Source: Eurostat (2014), *National Accounts* (database), April.

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During this time, the cost competitiveness of Portuguese producers deteriorated as average wages outgrew not only productivity growth at home, but also wages paid in key trading partners with much stronger productivity growth. Average unit labour costs rose until the beginning of the economic crisis relative to the euro area up until around 2010. These developments coincided with a sustained rise in unemployment (Figure 1.2).

Signs of successful rebalancing have emerged since Portugal started an ambitious structural reform programme in 2011. Improvements in export performance (the faster growth of exports relative to the growth of export markets), particularly since 2010, have supported a turnaround of the current account to a small surplus of 0.5% of GDP in 2013 (Figure 1.2). This rebalancing will allow the economy to import more in the future. Against the background of almost 4 years of negative investment growth until the end 2013, and even though the allocation of investment has improved, more investment will be needed to raise growth and strengthen the efficiency of domestic production in the future, and this

Figure 1.2. **Developments in cost competitiveness**[1]
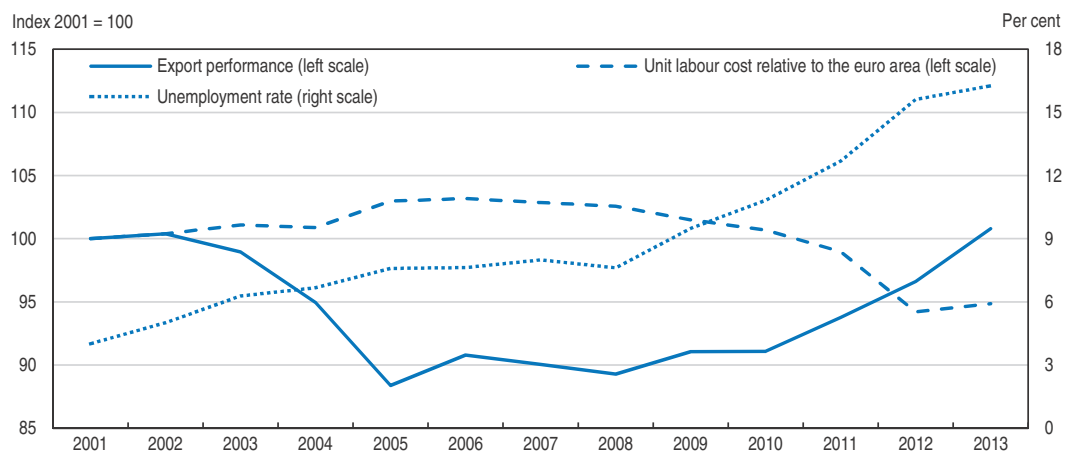
1. Export performance is the ratio between export volumes and export markets for total goods and services.
Source: Banco de Portugal (2014), "Main Indicators", *BP stat*, October and OECD (2014), *OECD Economic Outlook: Statistics and Projections* (database), October.

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will lead to stronger import demand. At the same time, external debt is very high at 221% of GDP, and will need to be reduced through sustained current account surpluses. More exports are therefore the only way forward.

The current rise in exports will need to be sustained. Many Portuguese companies had to look abroad to survive, and it is yet to be seen if they return to the home market once domestic demand recovers. Thus, a recovery of domestic demand could slow export growth (Belke et al., 2013; Esteves and Rua, 2013). But in some cases, the crisis has forced companies to pay fixed costs associated to selling in foreign markets, and now that they have managed to establish themselves in these markets, they may well stay as long as their production costs remain under control.

Although exports have risen from 27% of GDP in 2009 to 39% of GDP in 2013, they will still need to rise further. Considering the small size of its economy, which is typically related to a stronger weight of international trade in GDP, Portugal exports less than other similar countries (Figure 1.3). several of which export a significantly larger share of GDP than Portugal. Therefore, Portugal's transition towards stronger exports and insertion into global value chains has still some way to go.

Building on the recent progress and strengthening exports further will require both measures that strengthen the cost competitiveness of Portuguese companies and measures that ensure a sufficiently flexible industry structure in which new innovative firms can enter and thrive. In addition, enhancing innovation, the quality and the branding of exports will allow Portugal to further increase the value-added content of its exports. This chapter discusses in more detail what can be done to sustain and further strengthen Portugal's recent improvement in export performance, which is key to creating urgently needed jobs and growth.

Figure 1.3. **Exports and economic size in international comparison**
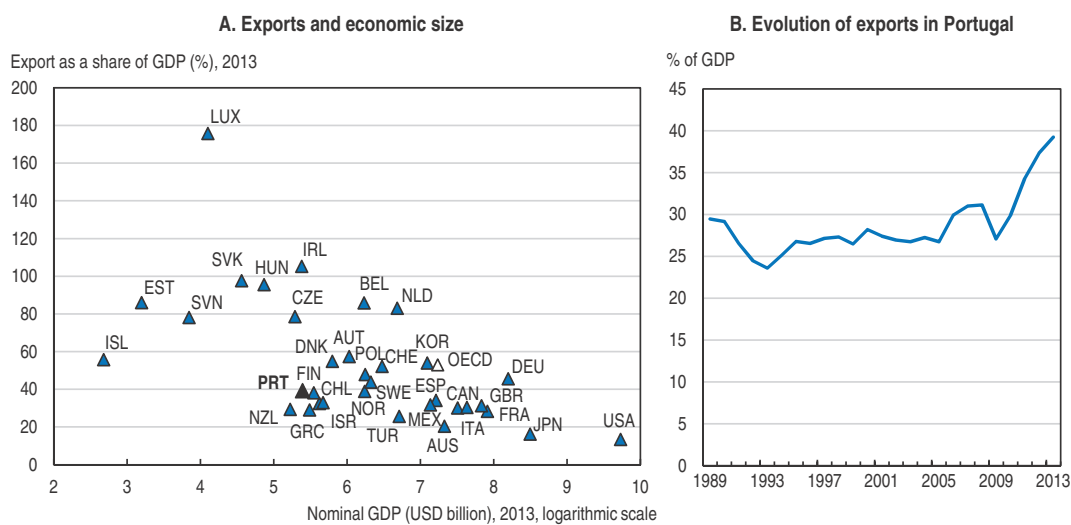
Source: OECD (2014), *OECD Economic Outlook: Statistics and Projections* and *OECD National Accounts* (databases), September.

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Recent developments in the structure of exports

The structure of Portuguese exports has undergone significant changes in the early 2000s (see Box 1.1). Nowadays, Portugal's merchandise exports, which account for around

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Box 1.1. **A historical overview over Portuguese exports**

Since joining the European Union in 1986, wages in Portugal have traditionally been lower than in the rest of the Europe, and Portugal's competitive advantage was mostly derived from this wage differential. As a result, labour-intensive low-technology sectors such as shoes and textiles featured prominently among the economy's exports, in the context of a European market that was still fairly closed *vis-à-vis* extra-European competition.

The wage-cost based model of specialisation was put into question by a number of events, including 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, all of which led to the emergence of new competitors in the niche occupied by Portugal. Significantly lower wages in some of these newly emerging competitors, particularly from Asia, required Portugal to rethink its trade specialisation strategy. Being no longer able to compete in the bottom-end price segments, Portuguese exports took a turn towards more medium-technology activities. Eastern European countries, however, soon emerged as strong competitors in this segment, with a geographic proximity to core European markets and a fairly educated labour force.

This series of events triggered profound changes in the structure of Portuguese exports. Traditional Portuguese export sectors like textiles, apparel, leather, wood and cork gave way to new export sectors such as motor vehicles, metals and metal products, plastic products, machinery and refined petroleum products. The pace of foreign direct investment (FDI) inflows also began to pick up significantly (Amador and Cabral, 2014). Broadly speaking, Portugal's export structure has managed to follow the trend of other European countries to move into more sophisticated and technology-intensive sectors. These changes have also implied significant turnover of exporting firms, giving rise to many firm closures and also a significant emergence of new exporters.

70% of overall exports, are fairly diversified across a number of sectors. As many as 16 sectors account for more than 3% of total merchandise exports each, and only one sector, motor vehicles, accounts for more than 10% (Figure 1.4). Changes in the export structure have also occurred within sectors, for example in textiles and footwear, where Portugal's exports have moved into higher value-added products.

Figure 1.4. Portugal's merchandise exports by sectors and destinations

Share of total merchandise exports, per cent[1]
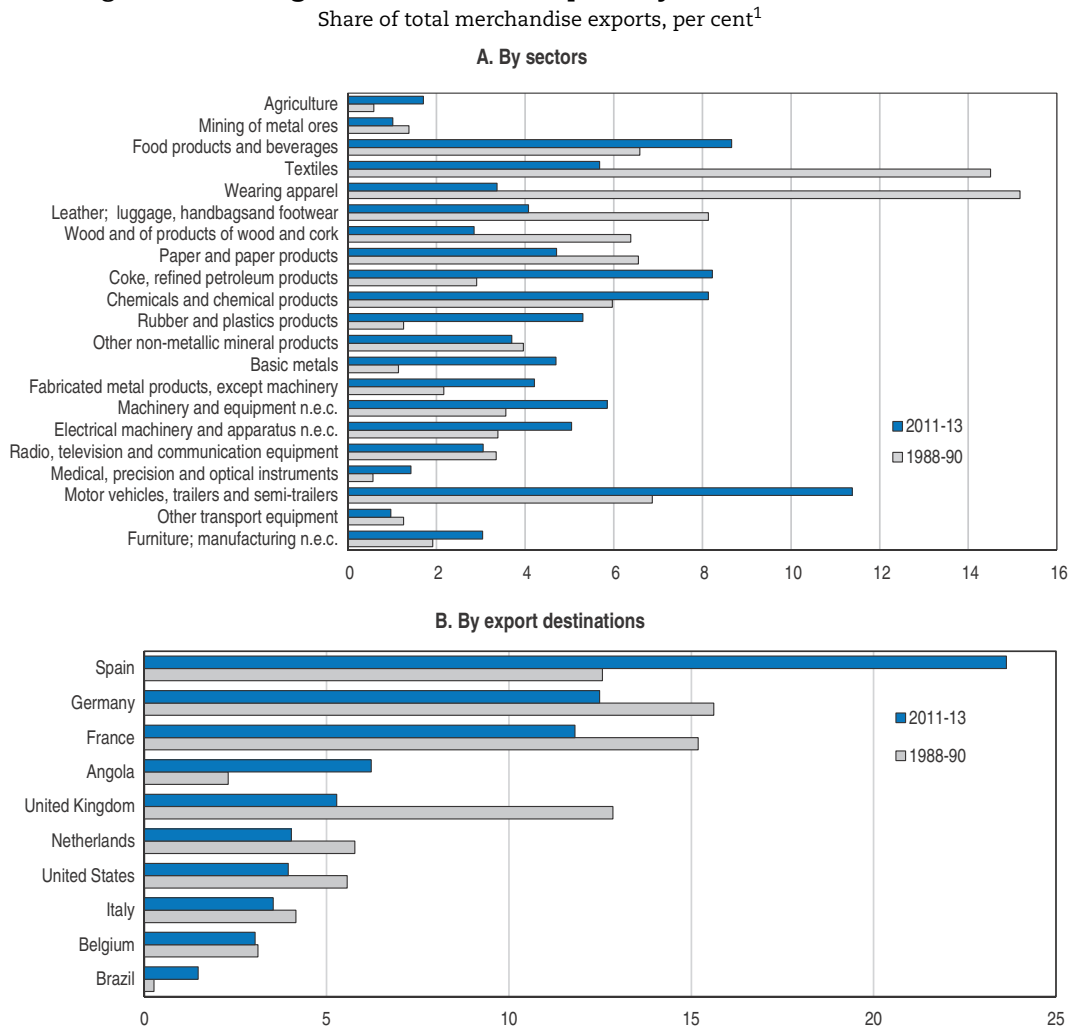
1. Average of observation periods (i.e. 1988-90 and 2011-13); n.e.c.: not elsewhere classified.
Source: UN Comtrade Database.

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Several of Portugal's main export sectors are characterised by strong world trade growth, and Portugal has gained market share in a number of these over the last decade (Figure 1.5). This bodes well for the economy's potential to export in the future. For example, Portugal's market share has increased in chemicals, food products, agriculture and metals, all of which are sectors in which world trade growth has been above average.

The services sector has also become increasingly involved in international trade. The lion's share of this is explained by the development of the tourism sector, for which the country's climate, coastline and cultural assets provide a natural competitive advantage.

Figure 1.5. **Portugal's export performance**

Per cent, 2003-2013[1]
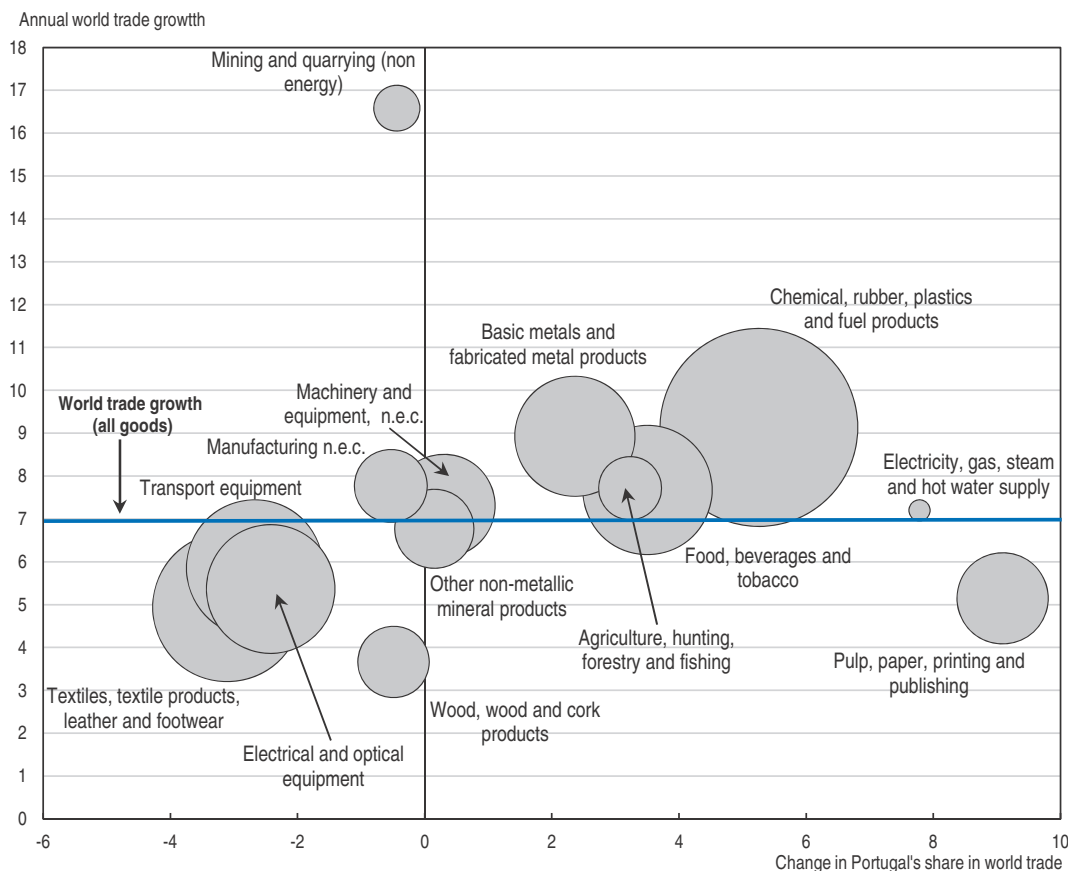
1.   Industry sectors based on ISIC Rev. 3 classification. The size of the bubble indicates the share of the sector in total exports in 2013.

Source: OECD (2014), *International Trade by Commodity Statistics* (ITCS database), July.

How to read this chart: Industries in the upper right corner are industries in which Portugal is gaining market share on world market, and where world trade growth is strong. This is the case, for example, for chemicals, rubber, plastic and fuel products, which is at the same time one of the sectors that accounts for a large share of Portuguese exports, as indicated by the size of the bubble.

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But the balance of non-travel service trade turned positive in 2005 and has grown since. Exports from business services and construction services are now accounting for almost one third of the country's services exports. Evidence suggests that Lisbon has emerged as a competitive offshore option for companies from Portuguese-speaking African countries such as Angola and Mozambique seeking legal advice. Companies in the crisis-hit construction sector, which is generally considered non-tradable, have similarly managed to shift part of their activity to Portuguese-speaking countries in Africa. A common language has also supported rising exports of medical services to Portuguese-speaking countries in Africa.

Portugal has also been able to diversify its export destinations. Spain, Germany and France are the three most important export, and this was already the case in 2001. The European Union as a whole is where 71% of Portuguese merchandise exports are sold. However, non-European export destinations, in particular Angola, have become

increasingly more important for Portugal. Exports to Angola have exceeded those to the United Kingdom, and non-European export destinations taken together have generated 44% of Portuguese export growth over the last decade. Africa as a whole now receives 10.4% of Portugal's merchandise exports, while Asia, North America and South America account for 5, 4 and 3%, respectively.

Portugal's value added content of its exports was 68%, slightly below the OECD average of 71% and the EU average of 87%, but higher than in a number of Central European countries. Foreign value added content is particularly high in transport equipment and electrical equipment, reflecting Portugal's strong integration into global value chains in these sectors (OECD, 2013). As in other economies, the share of intra-industry trade in Portugal's foreign trade has risen significantly, to reach around 70% in 2012 (Amador and Cabral, 2014).

A closer look at the characteristics of exporting firms

Recent academic literature on international trade has documented how heterogeneous firms are, even within narrowly defined sectors, and highlighted how important it is to look at exporting firms for analysing international trade flows, simply because exporting firms are very different from average firms (Bernard and Jensen, 1999; Altomonte et al., 2012). While productivity varies substantially among firms engaged in similar activities, it is typically only the highest-performing firms within a sector that manage to become successful exporters. The academic literature has traced this back to the existence of fixed costs of entering foreign markets which only the most productive firms will be able to recover once they have become exporters (Melitz, 2003; Melitz and Ottaviano, 2008). In practice, such fixed costs could be related to the need to collect information about export markets, establishing commercial contacts, hiring multi-lingual staff or adapting products to be sold abroad.

For policies that aim to affect a country's competiveness, it may therefore be misleading to be guided exclusively by aggregate or even industry-specific averages of key variables, such as unit labour costs. In fact, the needs and challenges of exporting firms may be quite different from those of a hypothetical average firm, which is in itself a not a very useful concept given how heterogeneous firms are.

Empirical background work for this chapter analyses firm-level data for all Portuguese manufacturing firms over the period 2006 to 2011. This analysis confirms many of the regularities documented for other countries by the academic literature (Table 1.1). Around 44% of Portuguese manufacturing firms have had at least one export transaction during 2006-11, although only 10% are persistent exporters in each of these years. Exporting firms are clearly the top performers in their industry. They are on average about five times larger than non-exporters in terms of employment (Table 1.1). Both their capital stock per employee and their labour productivity are 60% higher than for non-exporters, while they enjoy a total factor productivity (TFP) premium of 13% *vis-à-vis* non-exporters.

Empirical evidence that is becoming available for an increasing number of countries suggests that the direction of causality between performance and export status runs mostly in one direction: from high productivity to exporting (Arnold and Hussinger, 2005; Bernard and Jensen, 1999, 2004; Delgado et al., 2002; ISGEP, 2008; Wagner, 2012). Put differently, it is typically high-performing firms that become successful exporters, while the learning effects from exporting itself seem limited, although a few studies have found evidence supporting

Table 1.1. **Basic characteristics of manufacturing firms by export status**

Annual averages 2006-11

	Number of firms	Number of employees	Capital stock per employee[1]	Labour productivity[1]	TFP premium[2] (%)	TFP growth (%)
Non-exporters[3]	22 557	8.1	16.6	13.1	-5	-0.03
Exporters[3]	18 121	40.6	27.2	21.0	8	0.8
Only persistent exporters	4 169	65.2	30.8	24.6	13	0.7
Only new exporters	1 237	16.6	20.2	17.8	2	1.4
Whole sample	40 678	19.1	21.4	16.3	0	0.3

1. Capital stock and labour productivity are measured in multiples of EUR 1 000.
2. Total factor productivity (TFP) premium measures how much higher productivity is *vis-à-vis* the median firm in the respective sector.
3. The differences between exporters and non-exporters are statistically significant in all cases.
Source: OECD calculations based on data from Integrated System of Business Accounts (*Sistema Integrado de Contas*, SCIE).

such learning effects (ISGEP, 2008). Evidence on new exporters in Table 1.1 supports this hypothesis for Portugal, as new exporters in their first or second year of export activities already display many of the characteristics that differentiate exporters from non-exporters. This finding has important policy implications. If firms need to be high-performers before they can become exporters, then the role for policy is mostly to create the right framework conditions for productivity growth, and in particular for high-productivity firms to thrive and grow, including at the expense of other less productive firms.

The firm-level analysis suggests that a significant number of high-performing firms are companies that have recently entered the market, which have significantly stronger productivity growth than more mature firms, both with respect to labour productivity and TFP (Figure 1.6). Many new market entrants are on a steep upward trajectory during which they grow, become more productive and some of them become successful exporters (Criscuolo et al., 2014, Altomonte et al., 2012). This is part of the "up-or-out" dynamics typical of young firms, where some successful entrants experience fast post-entry growth while others leave the market after a short time (Haltiwanger et al., 2013, Anyadike-Danes

Figure 1.6. **Young firms experience faster productivity growth**

Average annual productivity growth, per cent, 2006-2011[1]
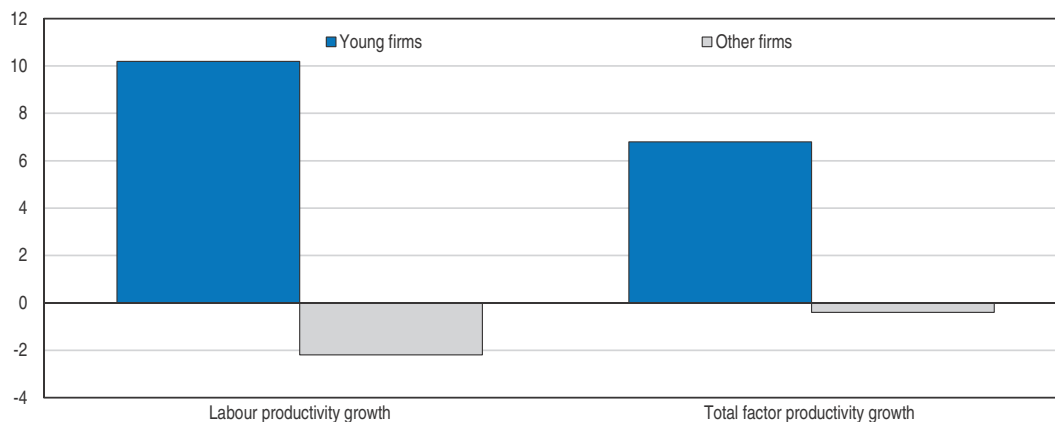
1. Young firms are defined as those aged 5 years or less.
Source: OECD calculations based on data from Integrated System of Business Accounts (*Sistema Integrado de Contas*, SCIE).

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et al., 2013). About a quarter of Portuguese exports nowadays comes from firms that are less than 10 years old (Banco de Portugal, 2013). Beyond their important role for exports, young firms are also an important driver of aggregate productivity growth and job creation. Estimates suggest that about 30% of labour productivity growth in Portugal is due to net entry (Bartelsman et al., 2009). Firm-level analysis also suggest that almost half the jobs created in Portugal are in young firms (Criscuolo et al., 2014). Policies that keep entry barriers low and facilitate post-entry growth of young firms can therefore play a key role for fostering export performance, aggregate productivity growth and job creation.

One salient feature of industry structures in Portugal is that small firms account for larger shares of value added than in other countries (Figure 1.7). This is also true for employment, with firms with less than 10 employees accounting for 84% of employment. At the other end of the size scale, only 3% of employment takes place in firms with over 50 employees. This tendency has exacerbated over the last decade, and Portugal had more small firms and fewer big ones in 2009 than it had in the 1980s, which is contrary to the trend in other countries, including countries of similar size (Braguinsky et al., 2011).

Figure 1.7. **Value added by enterprise size class**

Per cent of total value added, 2011[1]
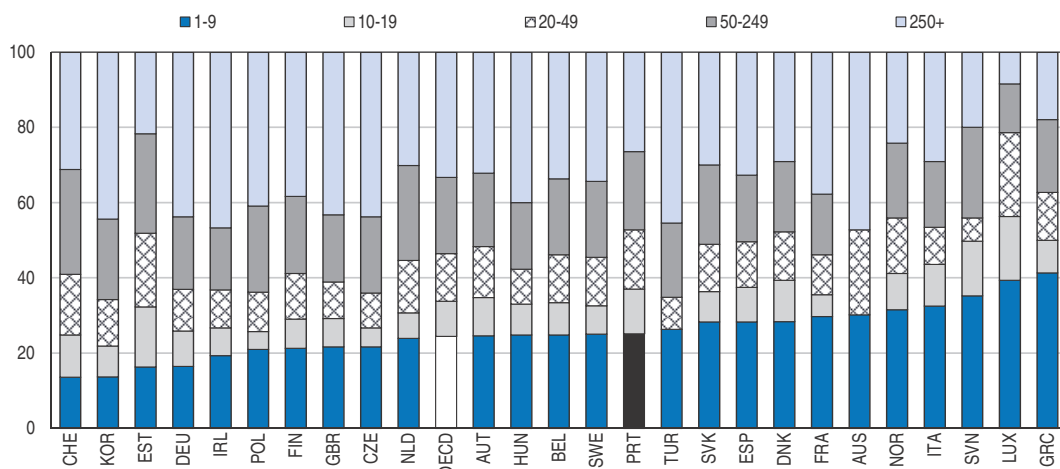
1. Data refer to value added at factor costs in EU countries and value added at basic prices for other countries. Data cover the market economy, excluding financial intermediation. For Korea in mining industry division, size class "10-19" refers to "1-19". For Australia, the size class "1-9" refers to "1-19", 20-49" refers to "20-199", "250+" refers to "200+". For Turkey the size class "1-9" refers to "1-19". 2009 for Australia, Greece and Turkey. 2010 for Denmark.
Source: OECD (2014), *Entrepreneurship at a Glance 2014.*

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But not all small firms in Portugal are those young and rising stars whose willingness to experiment brings new innovative ideas to the market. Only 30% of small firms are younger than 5 years old, and almost half of Portuguese small firms are more than 10 years old. In contrast to recent market entrants, these firms are generally net job destroyers and have weak productivity growth (Criscuolo et al., 2014).

In a number of policy areas, Portugal recognises explicitly the role small firms play in generating employment. Against the background of the stark differences between small firms and young firms, however, and the skewed sized distribution of Portuguese companies, the key question for policies aimed at small and medium companies should not be how to help small firms to survive as they are, but rather how to create the

conditions for new firms to enter the market and for young firms to grow. In fact, some authors have linked the small average firm size in Portugal with favourable treatment for small firms in a number of regulatory areas, including employment protection legislation (Braguinsky et al., 2011; Cabral, 2007). The authorities should analyse the extent to which size-specific rules and regulations, as well as the legislation for mergers and acquisition, can be an impediment for firms to grow, and remove such impediments where they exist.

Policies to improve Portugal's export performance

The empirical evidence on exporting firms has straightforward implications. For exporters that have already successfully entered an export market, the ability to continue and export depends in part on how their costs develop relative to competitors. The cost of labour and intermediate inputs from non-tradable sectors therefore matter for these firms, but also policies that affect productivity, including the tax system, the possibility to enforce contracts through the court system, and the possibilities and incentives for firms to innovate and improve their products and processes. For potential new exporters, what matters in particular are the conditions for high-productivity firms to grow and expand, including at the expense of lower-performing incumbents. Avoiding any kind of policy settings that could put entrants at a disadvantage *vis-à-vis* incumbents or that could create disincentives to grow above certain thresholds is key for the emergence of new exporters.

In Portugal, the three most important input costs for firms in tradable sectors are intermediate inputs from other tradable sectors, labour costs and intermediate inputs from non-tradable sectors (Figure 1.8). The remainder of this chapter will discuss policies that affect the competitiveness and productivity of firms, and will also flag areas where current policy settings might be putting an undue burden on potential entrants or on the growth of high-performing firms.

Figure 1.8. **A simplified cost breakdown in tradable sectors**

Per cent of costs of goods sold, mid-2000s
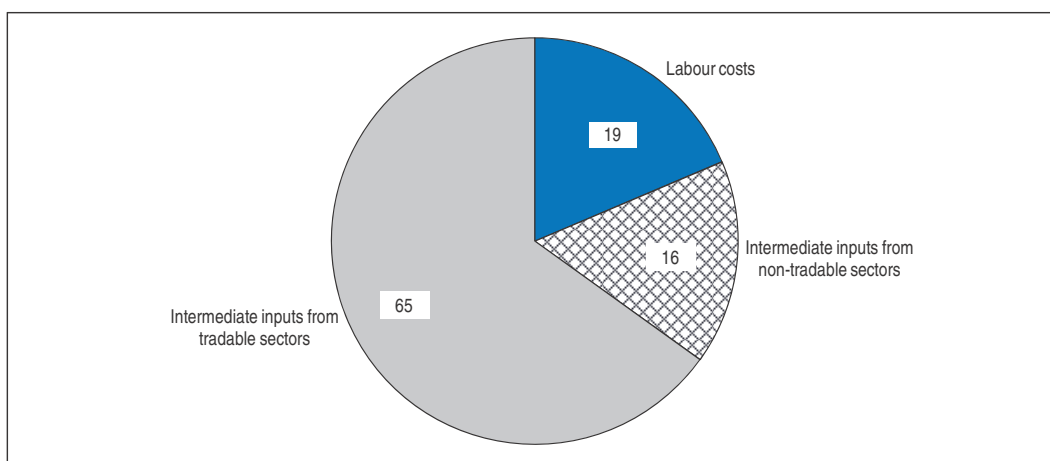
Source: OECD (2012), "STAN Input-Output: Input Output Database", *STAN: OECD Structural Analysis Statistics* (database), June.

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Access to intermediate production inputs from non-tradable sectors

Production inputs from non-tradable sectors account for 16% of average input costs for companies in tradable sectors, almost as much as wage costs, and are a key determinant of cost competitiveness (Figure 1.8). Their value added share in Portuguese exports is even higher given that inputs from other tradable sectors also contain value added from non-tradable sectors. According to OECD Trade in value added data, services, which are largely non-tradable, account for 57% of the value added of Portuguese exports (OECD-WTO, 2014). Prices in non-tradable sectors have risen significantly faster than tradable prices, even compared to other countries in the euro area (Figure 1.9). This calls for further action to strengthen competition and reduce prices in non-tradable sectors, in addition to reducing labour costs.

Figure 1.9. **Prices in non-tradable sectors have increased faster than in tradable sectors**
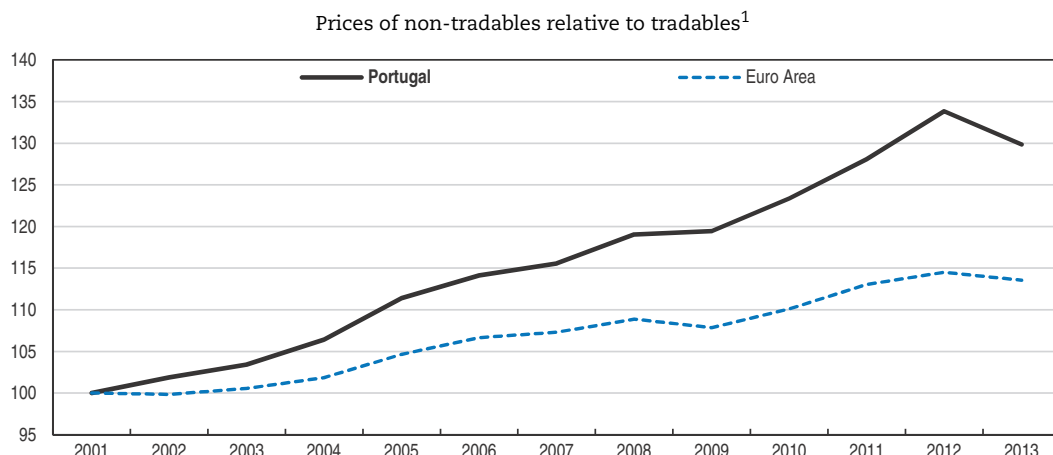
Prices of non-tradables relative to tradables[1]

1. Ratio of harmonised index of consumer prices (HICP) (2001 = 100) of non-tradable sectors to HICP (2001 = 100) of tradable sectors.
Source: Eurostat (2014), *Harmonised Indices of Consumer Prices (HICP)* (database), July.

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Strengthening competition on product markets

Product markets in Portugal have traditionally been characterised by low levels of competition in several areas, and despite substantial improvements in recent years there is much scope for further progress in reducing rents and facilitating market entry. While open borders and free international trade are generally effective in ensuring competition for tradable goods, regulation has a key role to play to ensure adequate competition in non-tradable sectors. Pro-competitive product market reforms in non-tradable sectors tend to induce lower prices, better quality and a wider array of services offered, as competition enhances the incentives for efficient production and investment. This in turn allows firms in other sectors to benefit from better inputs at lower prices, and can generate substantial downstream productivity improvements across the entire economy (Arnold et al., 2011).

OECD product market indicators measure the stringency of anti-competitive regulation across a wide range of countries. Between 2008 and 2013, the competition-friendliness of Portugal's product market regulation moved up 15 ranks among OECD countries, and it is currently ranked 11th of 33 OECD economies for which data is available (Figure 1.10). Recent OECD empirical work on the basis of sector-specific policy indicators

Figure 1.10. **Aggregate product market regulation indicator**
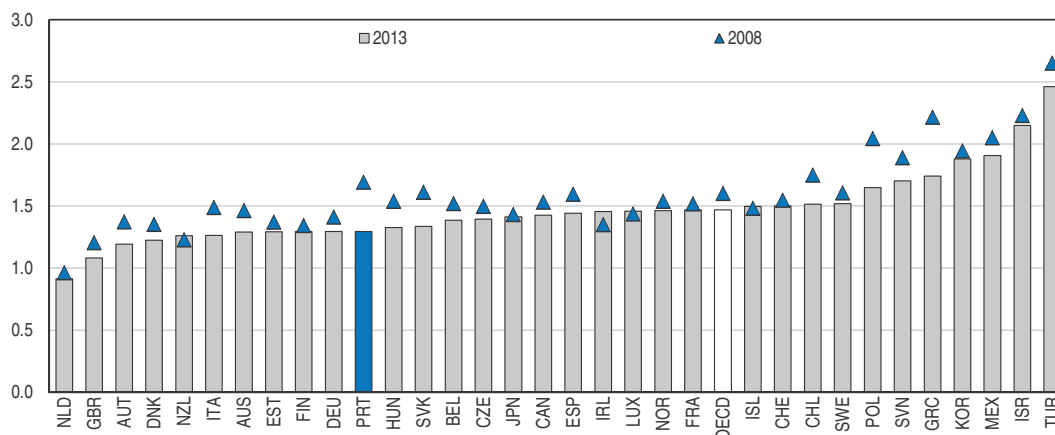
Index scale of 0-6 from least to most restrictive[1]

1. The OECD aggregate is an average of the data shown.
Source: OECD (2013), *OECD Product Market Regulation Database.*

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suggest a positive and significant link between reforms that enhance competition on one hand, and multi-factor productivity and growth on the other (Bourlès et al., 2013). The empirical relationships estimated in this work can be used for simulation exercises, which allow an initial approximation of the quantitative benefits of further product market reforms. By focusing on sourcing relationships between different sectors of an economy, these estimates are able to capture the economy-wide effects of reform actions in individual sectors.

The results of such simulations suggest that the product market reforms undertaken since end 2008 – including improvements in the electricity, gas and retail trade sectors – will raise the level of GDP by 3% by the year 2020 (Figure 1.11). But much more could be done. A reform scenario in which Portugal would further reduce regulatory barriers to competition by 20% in each sector – corresponding roughly to the magnitude of changes observed over the past ten years in those OECD countries that have implemented product

Figure 1.11. **Expected gains from product market reforms**

Impact on the level of productivity and potential GDP by 2020, per cent
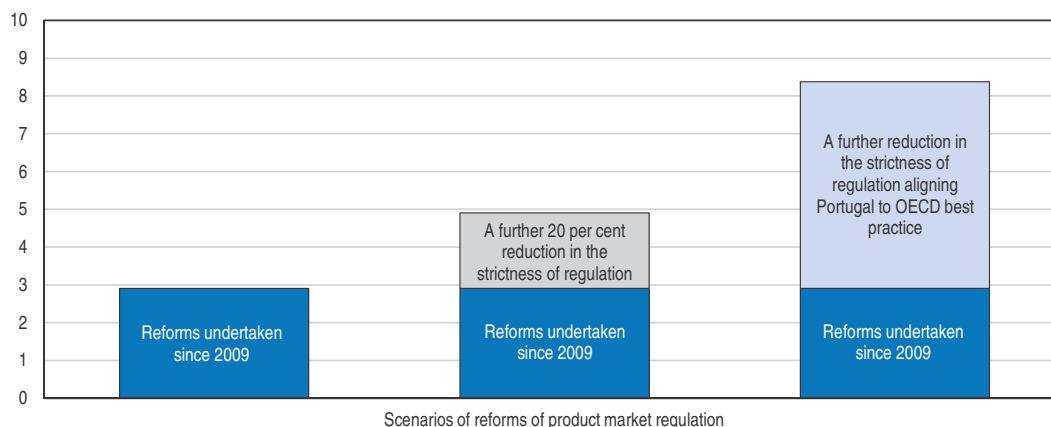
Source: OECD estimates.

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market reforms – would raise GDP by an additional 2% by 2020. A more ambitious scenario in which Portugal would align its regulation to best practice among all OECD countries in the various areas and sectors of product market regulations would yield an increase in the level of productivity and GDP of 5½ per cent by 2020, and even more over the longer term (Figure 1.11). In this scenario, the growth effects of product market reforms are equivalent to an increase in GDP growth by around 0.8 percentage points each year between now and 2020, or an annual increase in nominal GDP of EUR 1.3 billion, measured in 2014 euros. The overall effect of product market reforms undertaken since end-2008 combined with the additional reforms needed to move to OECD best practice would deliver a total gain of 8.5% in the level of productivity and GDP. While there are obvious uncertainties surrounding such empirical exercises, they clearly suggest that further reforms of product market regulations hold great potential to raise growth and living standards.

Energy sector.   More specific indicators for individual sectors suggest that substantial progress has been made in network sectors, where Portugal has become the OECD country with the second most competition-friendly regulation. However, despite this progress in legislation, several network industries are still facing significant challenges with respect to competition, and rules are not the only factor that affects the *de facto* strength of competition in a given sector. For example, the energy sector is still characterised by an insufficient use of market mechanisms, highly concentrated retail markets and high prices in international comparison.

Despite the ongoing liberalisation of the electricity sector, the largest incumbent operator retains a strong position in retail markets. Generation of electricity is formally open to competition, but unlike potential new entrants, incumbent operators benefit from legacy remuneration schemes such as power purchase arrangements, guaranteed compensation mechanisms and high feed-in-tariffs that continue to provide sizeable rents to incumbent electricity generators. The surge in renewable energy sources has increased electricity costs through price guarantees for electricity from both renewable and non-renewable sources. Some non-renewable electricity generation capacity is rewarded by these price guarantees to stand ready when the more intermittent renewable energy is insufficient to meet demand. In fact, over 90% of electricity production is sold at guaranteed prices, which leaves little room for the fluctuating "market price" at which the remainder of the electricity is sold and reduces the scope for effective competition.

In 2007, existing power purchasing agreements with fixed prices (CAE) for 26 hydroelectric and thermal power plants were replaced by a mechanism that would top up market prices instead (CMEC). These contracts, all of which with the former incumbent operator, remunerate electricity production and backup capacity according to a complex formula, resulting in acquisition costs that were more than 30% above market prices in 2013. The top-up mechanism basically eliminates all risk related to market volatility for the incumbent operator, and accounted for around a third of its profit before taxes in 2012, according to the competition authority. The number of power plants under the CMEC regime will gradually decrease as older contracts retire, but this will not be until 2027 for the last of them. After a renegotiation, the authorities and the incumbent operator agreed on a reduction in CMEC payments between 2013 and 2027, but the total net present value of this reduction amounts only around a quarter of the CMEC payments made in the year 2012.

For wind energy producers with feed-in-tariff regimes dating from before 2005, a revised feed-in-tariff scheme was negotiated in March 2013, whose main consideration was to balance the need for cost reductions with investor certainty. Producers could voluntarily opt into the new scheme and the overwhelming majority of the power plants concerned have done so. As a result, they benefit from guaranteed prices for an additional 5 or 7 years beyond the 15 year-validity of their original remuneration scheme, after which they would otherwise be remunerated at market prices. In return for this extension, producers that opted into the new scheme have to pay a contribution to the maintenance of the national electric system until 2020, and accept lower feed-in-tariffs, which are based on the daily average wholesale market price subject to a floor and cap. However, the definition of the floor significantly reduces the link to market prices unless the latter rise significantly in the future, because the floor is above the average market price prevalent in 2013. Cost reductions have been more successful for the scheme supporting micro and mini production of renewable electricity, which saw a reduction in feed-in tariffs by 30% in 2013.

Going forward, the current schedule for phasing out legacy agreements should be accelerated, including by exploring the scope for further renegotiations with incumbent companies. Over the next 8 years, electricity prices are set to rise by an additional 1.5% to 2% in real terms as electricity prices have been kept below production costs for many years, which has led to the accumulation of a debt of some EUR 4 billion (2.5% of GDP). It is to be gradually wound down by 2020. With electricity prices already high, particularly for electricity-intensive industrial consumers, this will have significant costs in terms of competitiveness. For an average of consumption bands between 20 MWh and 150 000 MWh, for example, electricity prices in Portugal are already 9% above the EURO-area average (Eurostat, 2014). Some recent measures, including an extraordinary contribution for the energy sector in October 2013, and subjecting energy assets to a 0.85% tax in 2014 can contribute towards achieving these goals as long as they are not passed on to end-users and do not stand in the way of further rent-reducing measures, particularly since the expected revenues from these measures are fairly low.

Efficiency gains in the electricity sector could also help to reduce prices, and could be achieved by improving international interconnection capacity. While the electricity 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 and facilitate grid management. In the current circumstances, there are concerns that Iberian electricity consumers might be unable to benefit from the advantages of a fully-integrated European electricity market. This situation, however, cannot be solved without international collaboration from Portugal's European partners.

In the retail market for natural gas, the incumbent operator, however, continues to provide more than half of the sales volumes and owns exclusive contract rights to the supply of wholesale pipeline gas from Algeria. The regulator should further require GALP to auction Algerian pipeline gas to other firms with no pre-set minimum price.

Stronger competition could be facilitated by intensifying market integration across borders. The common Iberian gas market (MIBGAS) is still hampered by lack of interconnection capacity between Portugal and Spain, and by cross-border transfer charges imposed by Spain. The Portuguese energy regulator, in tandem with the Spanish energy

regulator, should fully implement the inter-governmental agreement to reduce the cross-border transmission charges between Portugal and Spain to zero. However, despite scope for better integration between the two Iberian countries, most potential benefits could once again accrue from better onward connections to other European markets. Portugal has been working to diversify its sources of natural gas through a major expansion of liquefied natural gas capacity at its Sines port, which allows larger vessels to call that port, and capacity increases of underground storage caverns at Pombal. This has the potential to lower import prices, and with better onward connections to the rest of Europe, the Iberian peninsula could become an additional alternative source of gas supply for several European countries.

Professional services. Regulation in professional services such as accounting, legal, architecture or engineering services is more restrictive than the OECD average (Figure 1.12). 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. In addition, exclusive rights that reserve certain tasks only to members of a particular profession as well as regulations of prices and fees or the form of business further restrict competitive pressures. A new framework law was approved in 2013 that reforms regulations in 18 professional services, but implementation lags behind. For example, the bylaws of several professional associations have yet to be aligned with the new framework law.

Figure 1.12. **Regulation of professional services**

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

1. The OECD aggregate is an average of the data shown.
Source: OECD (2013), *OECD Product Market Regulation Database.*

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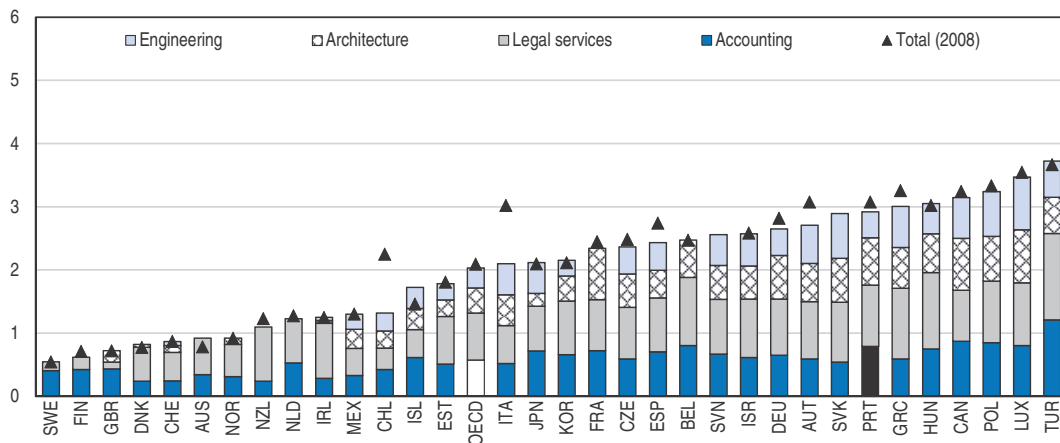
Cross-border competition through either arms-length transactions or the establishment of foreign professionals can also play an important role for competition in professional services. The OECD Services Trade Restrictiveness Indicators (STRI) take stock of regulations that hinder cross-border trade in services industries. These indicators show that Portugal has more restrictive regulations in accounting services, architecture, engineering and legal services than the average OECD country. For example, in accounting services, Portuguese or 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 similar for legal services. However, there are no nationality requirements for lawyers and foreign professionals can be qualified to practice after recognition has been granted. Additional limitations affecting both professions in Portugal include restrictions on firm names and on advertising.

Transport services and ports.   In transport services, the degree of competition is less than in other OECD countries, partly due to more anti-competitive regulations (Figure 1.13). Recently, steps have been taken to prepare to transition to competition, including the establishment of a new independent regulatory agency for transport in the context of the new regulatory framework law in 2014. In rail services, more than a decade after the formal separation of network and train operations, ownership of merchandise terminals will be handed over from the state-owned cargo rail company CP Carga, for which privatisation plans exist, to the network operating company Refer this year. This step is a precondition for competition in cargo rail services, as it will allow potential competitors access to these terminals and reduce entry costs.

Figure 1.13. **Regulation of transport sectors**

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

1.   The OECD aggregate is an average of the data shown.
Source: OECD (2013), *OECD Product Market Regulation Database.*
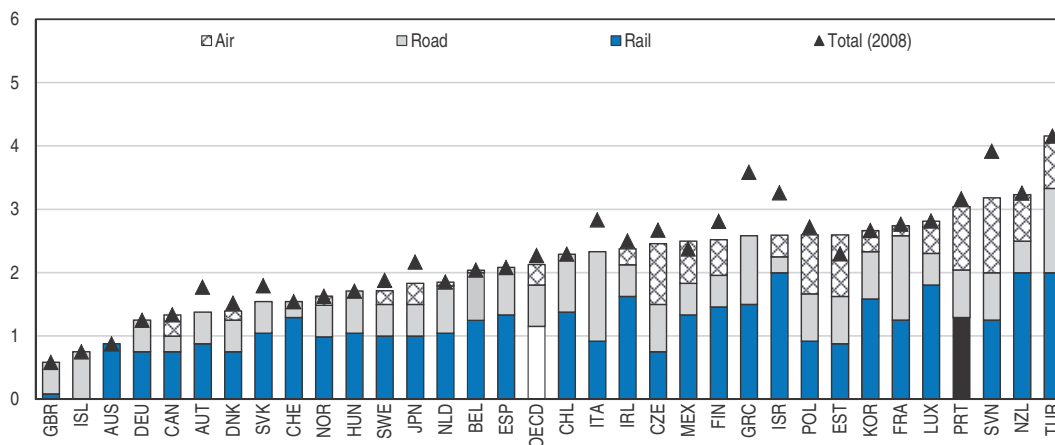
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Obstacles to competition also remain in air transport services. After a failed privatisation attempt, Portugal maintains public control in the national air carrier TAP, which may weaken performance incentives and limits the ownership of its equity shares. EU regulation on air services restricts non-EU equity participation in air services to less than 50%, which has led one unsuccessful bidder in an earlier bidding round to adopt EU citizenship. Airport take-off and landing slots are allocated based on historical rights and the commercial exchange of slots is not allowed. Furthermore, air carrier alliances, particularly code-sharing arrangements, are exempt from competition rules.

A 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). A well-functioning and cost-effective

port sector is also crucial for competitiveness, as port-related costs can often exceed 30% of total good transport costs (EC, 2013).

Recognising long-standing inefficiencies, the authorities have undertaken a series of reforms that aim to reduce port user costs. A particularly rigid Port Works Law 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, the cost savings resulting from the new Port Works Law have not yet been fully passed on to ports users. The authorities are planning renegotiations of existing port concession contracts to achieve lower user costs. Administrative procedures in ports have been simplified through the introduction of single windows and the regulatory framework has been updated. In addition, the elimination of a tax on cargo handling, TUP Carga, which used to generate annual revenues on the order of EUR 25 million, has directly reduced port user costs.

More 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. There are a number of ways in which other countries have successfully introduced competition in the ports sector (Box 1.2). While the scope for competition between different ports may be limited in a small country, there is a large potential gain from increasing intra-port competition in Portuguese ports, either through competition between independent terminals or between different services providers. 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).

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 requirements. Nonetheless, maximising the potential efficiency gains from private participation is far from trivial and 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.

> **Box 1.2. Competition in ports** *(cont.)*
>
> 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 services 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). Opening stevedoring operations to competition in Guayaquil, Ecuador led, for instance, to a 60% reduction in port charges and increased productivity by 55%, while the opening of ports terminals to competition reduced port charges by 80% in Buenos Aires, Argentina (Guasch, 1996). 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. Competition may also be limited if ports are highly specialised, or by technical constraints such as insufficient water depth for large vessels. 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).
>
> Where entry costs are prohibitively high but competition would be desirable, one possible way to lower market power is for the public sector to acquire both the infrastructure and superstructure and lease it to private firms. This model of port operation is often called the "Tool port".

Much of the future efficiency of Portuguese ports will depend on the continuation of reforms. General guidelines for restructuring the legal framework governing ports have been set. These include the introduction of a simpler and more transparent user fee structure, the renegotiation of existing concession contracts and guidelines for future concessions. Long-standing problems to be tackled include weak port governance, including the absence of service level agreements attached to concession contracts, and a lack of hinterland railroad connections. Over 40% of the expenditures related to the government's new infrastructure investment priorities until 2020 will be dedicated to the latter issue, which will improve Portugal's connections with Spain and other European markets (SSPM, 2014). Beyond the downstream effects on the competitiveness of other

sectors, the ports sector could also open new growth opportunities. Located at the intersection of major shipping routes from Europe to Asia and America, Portuguese ports could attract more trans-shipment business, i.e. the transfer of merchandise from very large vessels running intercontinental routes onto smaller ones serving different regional destinations. This could lead to stronger export performance in transport services.

Competition policy. In recent years, Portugal's competition law has been modernised and brought into line with European guidelines. However, effective enforcement of competition policy is equally essential as legal reform to foster a pro-competition environment. The Portuguese Competition Authority, whose new bylaws have recently been approved in the context of a new Competition Law approved in 2012, lacks adequate resources to be able to act effectively against vested business interests. In particular, the unit in charge of competition assessment needs to be better supported so that it plays a central role in sector reviews of existing regulation, particularly related to barriers to entry and command and control regulation.

The OECD has developed a Competition Assessment Toolkit to help identify new and existing regulations that pose unnecessary barriers to competition and to help lift the barriers identified. Sector-specific competition assessments of regulations have recently been carried out in Greece, for example, with a review of four sectors (tourism, retailing, food processing and building materials) that together account for 21% of GDP. In total, the assessment resulted in 329 recommendations for change with a total economic benefit estimated at 2.5% of Greece's GDP. Building on the expertise of the competition authority, such a sector-based competition assessment review could help to identify changes needed to regulations that restrict competition and provide central government support for implementation of recommended reforms.

Improving access to finance for Portuguese firms

Bank credit to firms is still contracting, in particular loans by domestic banks to large companies, although financing from foreign sources has increased. The conctraction of bank credit may reflect declining credit supply or demand. Interest rates on bank loans are high in international comparison, which may reflect banks' credit risk assessment and the fact that abnks are still facing financing constraints and high funding costs (Figure 1.14). In the euro area, the financing costs of Portuguese corporates are surpassed only by Greece. Even for those firms for which new credit is available, which tend to be concentrated in export sectors, these high financing costs put Portuguese companies at a direct disadvantage *vis-à-vis* foreign competitors. Non-financial companies still bear a debt burden of 156% of GDP (based on the OECD debt definition), which is the third highest corporate debt level in the OECD, after Ireland, Iceland and Luxembourg. These numbers suggest that part of the credit contraction is a natural consequence of the deleveraging needs of Portuguese companies, which may imply a stronger need to finance investment from retained earnings than in the past.

Small and medium companies face particularly high interest rates, while Portugal's largest companies can access credit markets abroad at significantly lower rates. Recent government initiatives to increase the lending resources available for small and medium-sized enterprise (SME) loans, including through the use of EU structural funds and the consolidation of existing SME financial support programmes into a new Development Financial Institution which will be operational before the end of 2014 may alleviate the

Figure 1.14. **Interest rates on bank loans**

Interest rate on loans to non-financial corporations, per cent per annum[1]
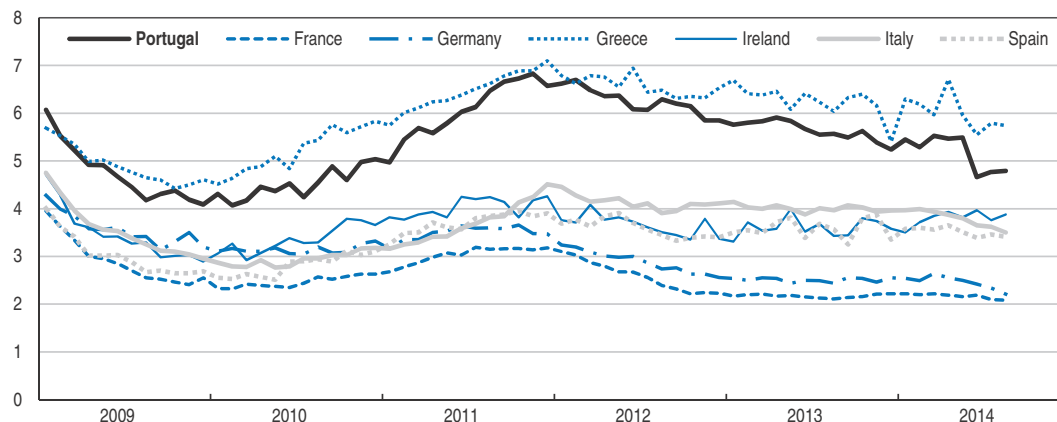
1. Figures refer to total loans (defined for cost of borrowing purposes) to non-financial corporations. The total for maturity is calculated by weighting the volumes with a moving average.

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

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difficulties of accessing finance for these firms. A new SME credit programme worth EUR 2 billion has been established in March 2013, with part of the funds earmarked for promoting export activities of SMEs. However, in light of the stark differences between young start-up firms that are initially small and SMEs more generally, there is a risk that specific SME credit programmes do not reach those firms that could contribute most to aggregate productivity and to export performance. A clearer focus on start-up financing and supporting young firms rather than small and mature firms would likely be more efficient for enhancing Portugal's export performance.

The need to focus on young firm also strengthens the case for providing alternative models to debt-financing, in particular through more availability of venture capital and other forms of equity-based start-up financing. Venture capital can be an important source of funding, especially for young technology-based firms, for which obtaining bank credit has traditionally been difficult due to a high perceived riskiness and a lack of collateral. Given that venture capital markets are significantly more developed in other countries both in terms of the amounts invested and the amount per deal, in particular in the United States, there appears to be scope for boosting this financing model in Portugal. The government has supported venture capital through a public outfit called "Portugal Ventures" in the past. The authorities should explore ways to strengthen the availability of venture capital further, including through the planned public SME financing institution. Exits from venture capital and other private equity investments, through trade sales (mergers and acquisitions) or initial public offerings (IPOs) on stock markets, provide an opportunity for investors to realise returns from their investment and potentially free up funding for further investment in innovative young firms.

Access to labour inputs

Labour costs are an important ingredient of cost competitiveness, accounting directly for 19% of costs of Portuguese companies in the tradable sector. Besides direct labour inputs, labour costs also have an additional indirect influence on competitiveness through labour services embedded in intermediate inputs from other sectors. But it is not only the

cost of labour that matters for firms, but also the skill set of the workforce. Skills are a crucial determinant of the ability of firms to move up the value chain into higher-quality products with better profit margins.

After years in which unit labour costs rose faster in Portugal than in its main trading partners, they have recently declined, particularly in the manufacturing sector (Figure 1.15). Comprehensive labour market reforms have contributed to this decline. Overtime pay was cut in half and working time was increased through a reduction of annual leave entitlements from 25 days to 22 days and the abolition of four national public holidays. Firms have gained more flexibility in work time arrangements, following the introduction of a bank of hours that allow a maximum of 150 hours per year to be used in agreement between the employee and the employer. Four public holidays and employees' entitlement to three additional vacation days per year based on seniority were eliminated.

Figure 1.15. **Unit labour costs**

Index 2008=100
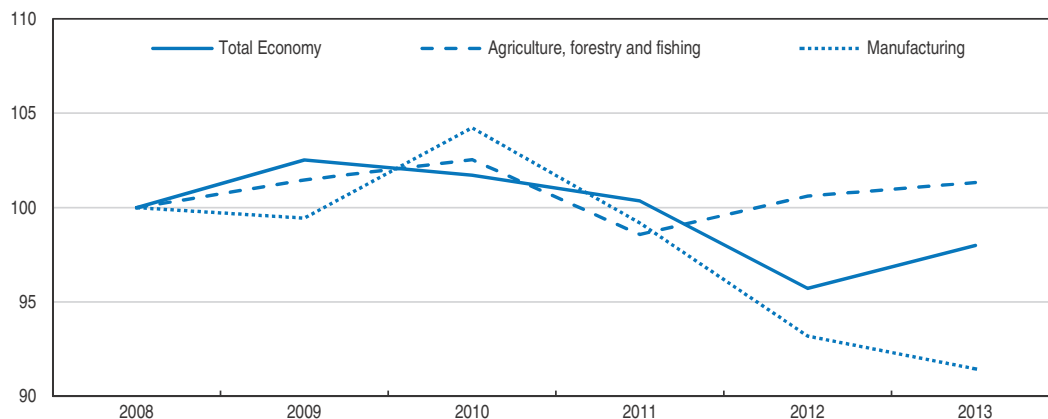
Source: Gabinete de Planeamento, Estratégia, Avaliação e Relações Internacionais do Ministério das Finanças (GPEARI).

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Wage-setting mechanisms

Collective wage bargaining has typically been at the sector level between the trade unions and employers' associations. The resulting collective agreements are used to determine wage floors that became binding for the entire industry through administrative extension. This mechanism limits the scope for wage agreements to adapt to the situation of specific firms and gives extra clout to those sitting at the negotiating table. By effectively stifling firm-level bargaining, this mechanism discourages 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.

New cases of administrative extensions were effectively suspended in May 2011, and a condition that negotiating employers' associations represent at least 50% of the workers in the relevant economic sector has prevented their re-emergence since then. This additional requirement effectively caused a freeze of administrative extensions, and implied a sharp drop on the number of workers covered by new extensions (Figure 1.16). The re-emergence of administrative extensions is planned, including by introducing alternative criteria that would allow extensions when the employer side includes 30% of small and medium

Figure 1.16. **New extensions of collective wage agreements have declined**

Number of workers covered by new extensions of collective wage agreements, in thousand[1]
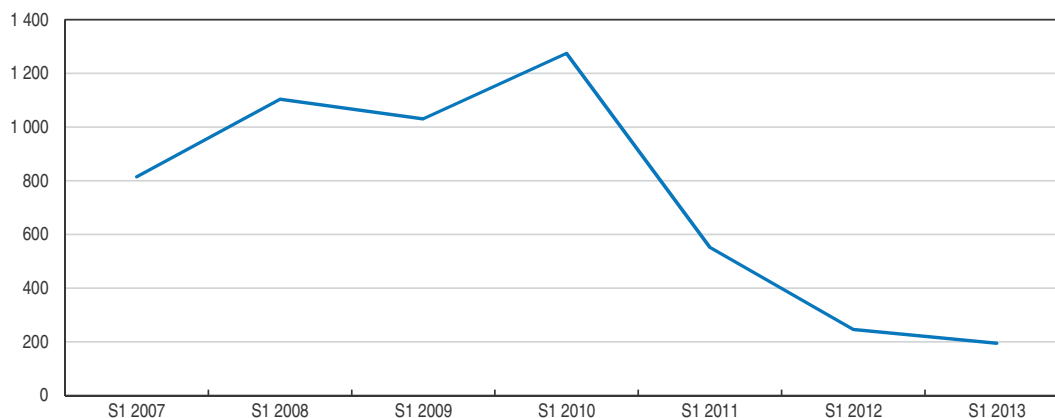
1. S1: first semester.
Source: Direção-Geral do Emprego e das Relações de Trabalho.

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enterprises; this would be an easy target to meet and would probably make administrative extensions the norm again in most sectors. However, such a change would clearly be a step backwards. Instead, more should be done to promote collective bargaining at the firm level, including by abolishing administrative extension altogether. Recent plans to shorten the survival of any expired collective bargaining agreement in the absence of a new agreement from 5 to 2 years would be a step in the right direction.

The firm-level analysis undertaken for this survey can provide some additional insights into the effects of extensions of collective wage agreements. A brief description of the setup of the empirical analysis is provided in Box 1.3. Since administrative extensions discourage firm entry by eliminating one of the channels by which new firms typically enter the market, namely by initially paying lower wages, changes over time in the number of workers covered by collective bargaining agreements have been interacted with sector-specific entry rates taken from US data from Bartelsman et al. (2009) to avoid endogeneity issues associated with using indicators based on data from Portugal. The results suggest

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Box 1.3. **A short description of the methodology of the micro-level analysis**

In order to explore the link between structural policy variables and productivity, a large data set of accounting data consisting of over 40,000 Portuguese manufacturing firms over the time span 2006-2011 has been analysed. Using data from firms' annual balance sheets and profit and loss accounts from the National Statistical Offices Integrated System of Business Accounts (Sistema Integrado de Contas, SCIE), total factor productivity (TFP) of firms is estimated sector by sector using the procedure suggested by Levinsohn and Petrin (2003). The main advantage of this approach is that it controls for a potential bias coming from the fact that firms choose their inputs simultaneously with changes to their productivity that they – but not the researcher doing the empirical analysis – may observe. In order to allow comparisons between observations from different sector estimations, each firm's productivity estimate is taken relative to the median productivity in the same sector. The data have been cleaned for obvious outliers and reporting mistakes, which has resulted in dropping less than 2% of the original sample.

> Box 1.3. **A short description of the methodology of the micro-level analysis** (cont.)
>
> Firm-level TFP is then used as a dependent variable and related to policy measures or variables that are directly influenced by policies. The empirical strategy follows closely the difference-in-differences approached proposed by Rajan and Zingales (1998), whose rigour stems from the fact that it draws on comparisons only across firm observations from the same year. In a typical estimation setup, the policy variable varies across time, and is interacted with an industry-specific variable that is assumed to measure the relevance of this policy aspect for the sector to which the firm belongs. For example, in the case of evaluating the effects of administrative burdens on startups, the industry-specific interaction factor is a measure of how much firm turnover the same industry typically has. This setup assumes that firms in sectors where the natural rate of firm turnover is higher are more affected by changes in administrative burdens on firm entry. The estimation coefficient is hence identified only from comparisons across firms in different industries within the year. Fixed effects control for all year-specific productivity influences such as the business cycle. The resulting estimation equation in this case is the following:
>
> $$\text{TFP}_{it} = \alpha + \beta \, \text{admin\_burdens}_t {}^* \text{firm\_turnover}_s + D_t + D_s + \varepsilon_{it}$$
>
> Where subscripts i denote the firm, t the year, s the sector. D are binary dummy variables and ε is a white-noise error term. Following the strategy of Rajan and Zingales (1998), the interaction factors at the industry level have been taken not from Portuguese data but from international benchmarks, for example the United States, to ensure a maximum degree of exogeneity. This empirical strategy means that the estimated effect can be interpreted as causal under acceptance of the identifying assumption, i.e. the relevance of the interaction factor chosen. Besides administrative burdens, estimation results have been obtained for the effects of taxes, tax compliance costs, the coverage of collective bargaining agreements and the ease of contract enforcement. Regression results are presented in the Annex to this Chapter.

that a more extensive coverage of collective wage bargaining agreements reduces firm productivity significantly. One possible explanation for this effect could be that by curbing entry, administrative extensions reduce the competitive pressures on incumbent firms and hence their incentives to improve production efficiency. Since more productive firms are more likely to become successful exporters, wage extensions are likely to have a negative effect on export performance as well.

Employment protection legislation

Recent reforms introduced in 2011, 2012 and 2013 have noticeably reduced employment protection for permanent and temporary contracts. Severance pay for fair dismissals has been reduced from 30 to 12 days per year of tenure, with a 12-month ceiling instead of a 3-month floor, although existing contracts preserve some entitlements accrued under the old rules through a transition regime applied to existing contracts. Individual dismissals for economic reasons no longer need to adhere to a pre-defined order of seniority, while those based on worker capability have become possible in a wider range of circumstances. In both cases, the obligation to transfer the employee to another suitable position was replaced by a requirement on the employer to assess whether, in the case of suppression of a post, the employee could be transferred to a position compatible with his professional qualifications. These comprehensive reforms have substantially reduced employment protection against individual dismissals although it remains more stringent

than in most OECD countries. It is already low for collective dismissals. Nonetheless, employment protection legislation in Portugal remains more stringent than in most OECD countries (Figure 1.17).

Figure 1.17. **Employment protection of permanent workers**

Scale from 0 (least stringent) to 6 (most restrictive)[1]
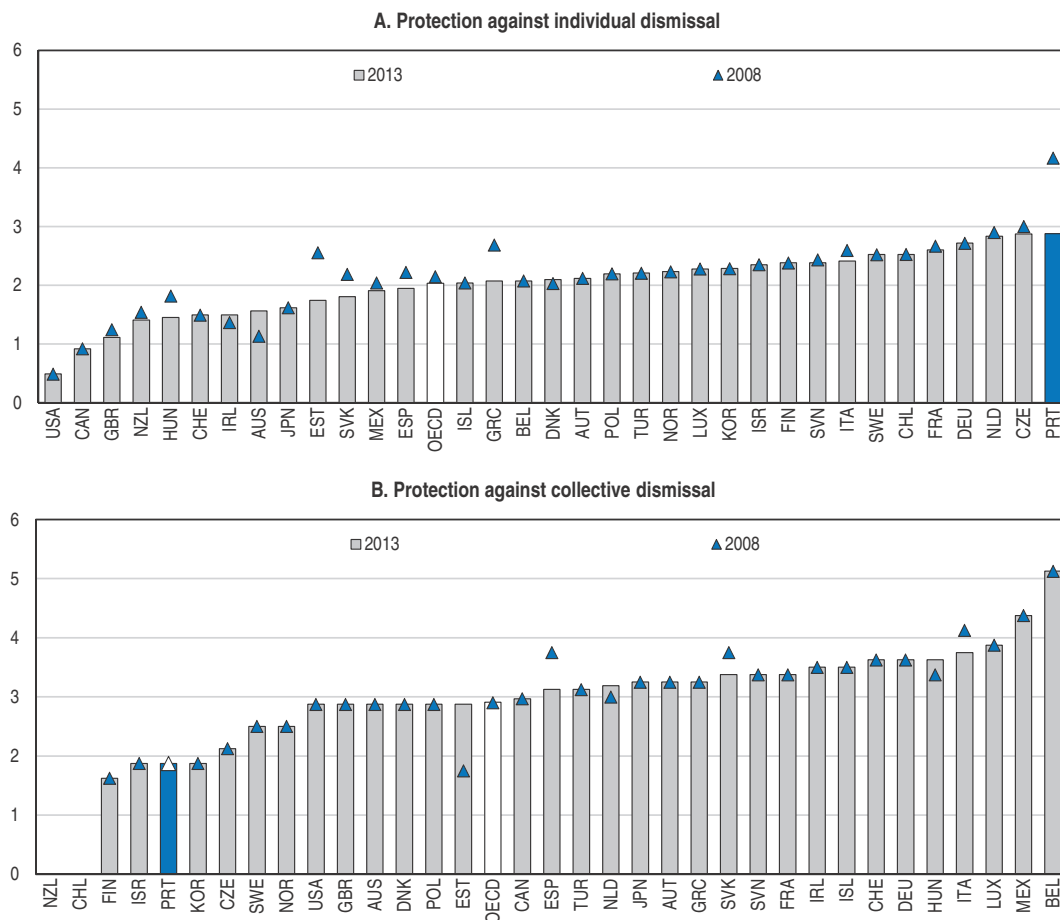
1. The indicator for collective dismissal measures additional costs and procedures involved in dismissing more than one worker compared with the costs of individual dismissal. For Chile and New Zealand the level of additional protection against collective dismissals is zero (i.e. least stringent). For Portugal only, the indicator values are preliminary calculations made for this survey using the OECD methodology and not official OECD indicators and they represent the situation at the end of 2013. The official indicator values are subject to change at the time of the next update, planned for 2018.For most other countries, the indicators represent the situation on 1 January 2013.

Source: OECD (2014), *OECD Employment Protection Database*, June and OECD calculations.

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Given the substantial recent reforms implemented over the last 3 years, the immediate priority will be to assess and monitor the reform impact and the performance of labour markets. In the longer run, an issue that may deserve further attention is the discrepancy between employment protection for dismissals that are considered "fair", including dismissals due to the extinction of the job, due to misbehaviour or due to unsuitability, and those considered "unfair", which are dismissals for all other causes. Severance payments for such dismissals have not been affected by recent reforms and courts can mandate firms to reinstate the worker, except in the case of small firms. The

strong sanctions in the case of unfair dismissals could reduce the quality of matching between jobs and workers and reduce the performance incentives for tenured workers, both of which can reduce productivity. However, changing the rules for unfair dismissals may require changes to the constitution.

Promoting skills development

The effect of labour on the competitiveness of companies is not only a question of cost and flexibility, but also of the quality and the skill set of the workforce. Educational attainments remain low, and further improvements in skills are crucial for enhancing productivity and competitiveness, but also innovation activities. Only 58% of people aged 25-34 had attained upper secondary education in 2012, compared with an OECD average of 82% (Figure 1.18). Tertiary education attainment rates are also over one third below the OECD average. Average performance of 15-year olds in the 2012 PISA assessment remains significantly below the OECD average, but has improved over the years. Compulsory education continues up to the 12th grade (18 years old) instead of 9th grade since 2012. Nevertheless, many children still do not make satisfactory progress at school. Grade repetition is frequent, and this has proven an ineffective and costly way to support poorly performing students. Around one third of students had repeated grades at least once by age 15 in 2012. Providing extra teaching time for students who fall behind and taking into account their needs so that they can catch up with their peers is a much better way of supporting those with learning difficulties than grade repetition, and is not necessarily more costly. With more than 20% of students leaving school early, Portugal still has one of the highest drop-out rates in the European Union, and reducing grade-repetition could help to build on the substantial improvements that Portugal has made in this area over the last decade.

Figure 1.18. **Upper secondary and tertiary attainment for 25-34 year-olds**
Per cent, 2012[1]
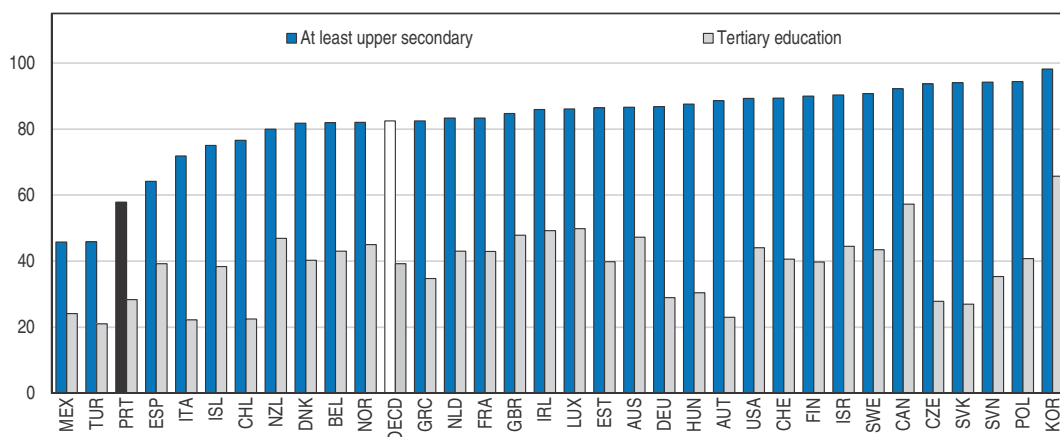
1. 2011 for Chile. The category of at least upper secondary education covers upper secondary, post-secondary non-tertiary education and tertiary education.
Source: OECD (2014), *Education at a Glance 2014*.

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The structure of government spending on education should be improved further. While the smaller size of classes can explain part of the differences in salary costs compared to the OECD average, analysis suggests that better qualified teachers have a

greater impact on students' outcomes than small classes, especially in secondary and tertiary education. Improvements could also be achieved through greater use of school, teacher, and student evaluation tools to provide targeted and timely support where it is most needed. This requires a greater focus on student progress in the evaluation and assessment system, as initiated for the 2012-13 school year; collecting information over time on individuals and cohorts; instituting development appraisal to complement the current accountability-focused appraisal for teachers; and shifting resources towards a system-wide analysis of outcomes.

Gearing vocational education better to the needs of the economy. The vocational education and training (VET) system has been subject to a number of reforms, and enrolment has risen by over 50% between 2011 and 2013. Around 150 000 students are currently enrolled in these courses, which include mandatory in-company training. Nonetheless, VET could be better aligned with labour-market needs. In the past, VET has suffered from a lack of continuity in policy strategies which has led to the views and opinions of private actors and social partners not being sufficiently heard and did not create the best incentives for aligning educational offers to labour-market needs. The Government should foster a close partnership with business to ensure that training is relevant to the labour market and students can have substantial workplace learning experience. The authorities should also ensure that VET programmes provide basic business skills and preparation for self-employment, as well as help to cope with the demands of new industries and technologies. Recent policy initiatives, such as the National Youth Guarantee Plan (*Plano Nacional do Programa Garantia Jovem*, 2013), which aims to help everyone under the age of 25 to find employment, continued education, an apprenticeship or a traineeship within four months of becoming unemployed or leaving the formal education system, shows promise. Nevertheless, it will be important to continue tracking the labour market outcomes of training participants and adjust programmes accordingly. Shorter training options such as the 2-year polytechnic course planned for the 2014 academic year can be interesting intermediate solutions between VET and academic qualifications.

The experience of other OECD countries might help Portugal to overcome some of the main challenges in building up a more effective VET system. Denmark and Switzerland illustrate the importance of effective employer engagement: in these countries, at least 75% of students enrolled in VET programmes spend at least half of the programme in the workplace. As a result of this employer involvement, students and their families see the labour market value of the programme, while employers benefit from lower hiring costs and productivity gains in the long run.

Supporting adult learning.   Education reforms take time to have an impact and a country can also develop the skills it needs by encouraging and enabling people to learn throughout their lives. Adult training is particularly valuable in Portugal which has made progress in catching up with respect to the education that young people receive nowadays, while the skills of its current labour force still reflect a legacy of low educational achievements. Improving the skills of those already in working age will not only ensure more rapid progress of workforce skills, but it can also improve equity by enhancing the earnings opportunities of those who did not have access to a quality education during their youth. Finally, establishing a skills-oriented migration policy for Portugal with the aim to both fill

local skills gaps but also to tap into the skills pool of the large Portuguese diaspora should also be part of the tool box for addressing skill shortages in specific areas.

Portugal is taking several initiatives to tackle these challenges and is currently conducting an OECD Skills Strategy country project, which aims to provide a strategic assessment of the national skills system in Portugal. The diagnostic phase aims to identify the main challenges in developing, activating and using skills in Portugal; the results will be published in early 2015. The project will help forge a stronger link between the economic recovery agenda and skills policies.

Policies affecting productivity and export performance

Taxes and administrative burdens

Portuguese companies are taxed more than in the average OECD country, and this can have negative consequences for their cost competitiveness and for the pre-tax returns required to make an export operation worthwhile. High taxes on companies can also have negative effects on competition, for example by reducing the incentives for risk-taking or for productivity-enhancing investment (Arnold et al., 2011). The tax wedge on labour inputs, for example, which includes also social security contributions, was considerably above the OECD average in 2013 (Figure 1.19). Although in the current fiscal situation the scope for cutting taxes is limited in the short term, there is nonetheless scope for making the tax system more conducive to productivity growth and supportive of exports by shifting the tax structure away from labour income taxes and social security contributions (SSC) towards less distorting taxes (Arnold et al., 2011). Revenue losses from these measures could be compensated by improving the efficiency of the tax system, including by further reducing tax expenditures and tax evasion. Successful efforts to reduce evasion and tax fraud have been made since 2012, and these efforts should be continued.

Figure 1.19. **Marginal tax wedge**
Per cent of total labour costs, 2013[1]
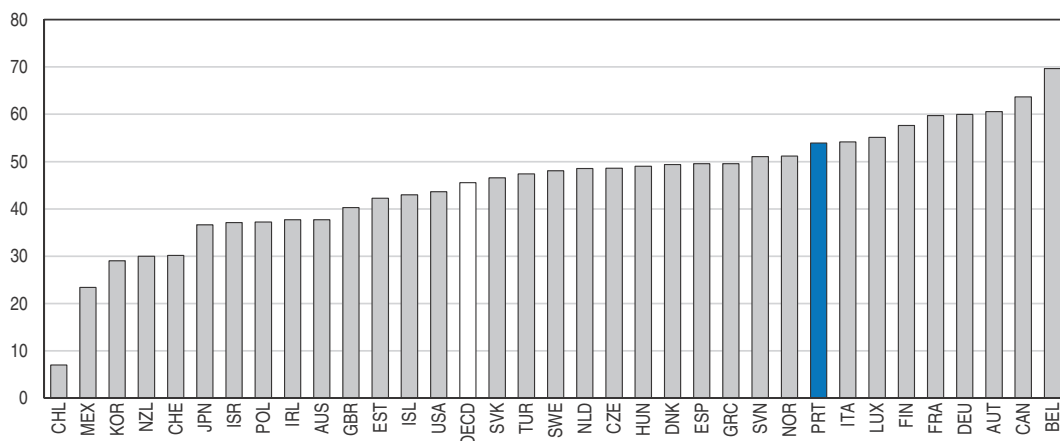
1. Income tax plus employee and employer contributions less cash benefits for a single person without children at the income level of the average worker.
Source: OECD (2014), *Taxing Wages 2014.*

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Taxes on corporate income reduce competitiveness, and can also affect the productivity of firms in several ways (Arnold et al., 2012). First, higher corporate taxes may

reduce incentives for productivity-enhancing innovations by reducing their post-tax returns. Second, higher corporate taxes may reduce the incentives to invest in physical capital by increasing investment costs. If new vintages of physical capital embody technological progress, this can also have a direct effect on TFP. Finally, compliance with taxes also draws directly on firms' resources, and dealing with taxes can consume substantial amounts of manpower. From the perspective of a potential exporter, the extra burden imposed by taxes can affect the decision on whether or not to export. Given that there are typically sunk costs involved in starting up export activities, which are not incurred for domestic sales, export projects may require higher expected returns to be realised than domestic sales, and these expected returns may be diminished if the tax burden is high, particularly if it is higher than for potential international competitors.

The micro-level evidence prepared for this survey suggests that the tax burden on corporations is negatively related to productivity (Annex 1.A1). The analysis exploits changes in the effective tax burden over time, and interacts these with the amount of taxes each sector pays relative to its overall value added. The rationale behind the interaction factors is that some sectors have larger tax bases than others due to their specific production technologies, such as the extent to which they rely on profits to remunerate investments in tangible and intangible assets, or their intensity in the use of production factors that are taxed particularly strongly. The results suggest a negative link between the tax burden and firm productivity. The results support the view that reducing the tax burden on companies could improve both productivity and export performance.

The Portuguese authorities undertook a broad corporate income tax reform in 2014, comprising a rate reduction, changes to the tax base affecting investment incentives and simplification measures aimed at reducing compliance costs. With a top marginal rate of 31.5% for large firms, the statutory tax rates are still high in European comparison. Looking at effective tax rates, which take into account differences in the tax base and other specific tax rules not reflected in the statutory rate, Portugal appears in the upper range of European comparator countries as well, even after the recent reform (Figure 1.20). This holds both for the marginal and the average effective tax rate. Going forward, future rate reductions to the range of 17-19% and an elimination of a 1.5% municipal surcharge are currently being discussed. Budget permitting, this would be a useful medium-term objective.

The reform has lowered the tax burden on all but Portugal's largest companies, as firms with taxable profits above EUR 35 billion face a new surcharge. This surcharge aims at targeting economic rents in non-tradable sectors, on the premises that the majority of the country's largest companies are indeed in the non-tradable sector. While there is evidence of significant rents in some sheltered sectors, and the options for reducing them in a more direct way are facing legal and political limits, attempts to reduce sector imbalances through a differential effective taxation based on firm size constitute a fairly poor targeting. By putting very large firms at a disadvantage, they also aggravate the skewed size distribution of Portuguese firms, and create disincentives to consolidation and exploiting economies of scale. Since exporters are known to be larger than non-exporting companies, they may have been put at a relative disadvantage by the reform. Of Portugal's 50 strongest exporters, 27 had profits above EUR 35 million in 2012 and these firms accounted for 18% of exports. This differential treatment of large firms with respect to the statutory corporate tax rate should not be made permanent.

Figure 1.20. **Effective corporate tax rates**

Per cent, 2012

A. Effective marginal tax rates

B. Effective average tax rates
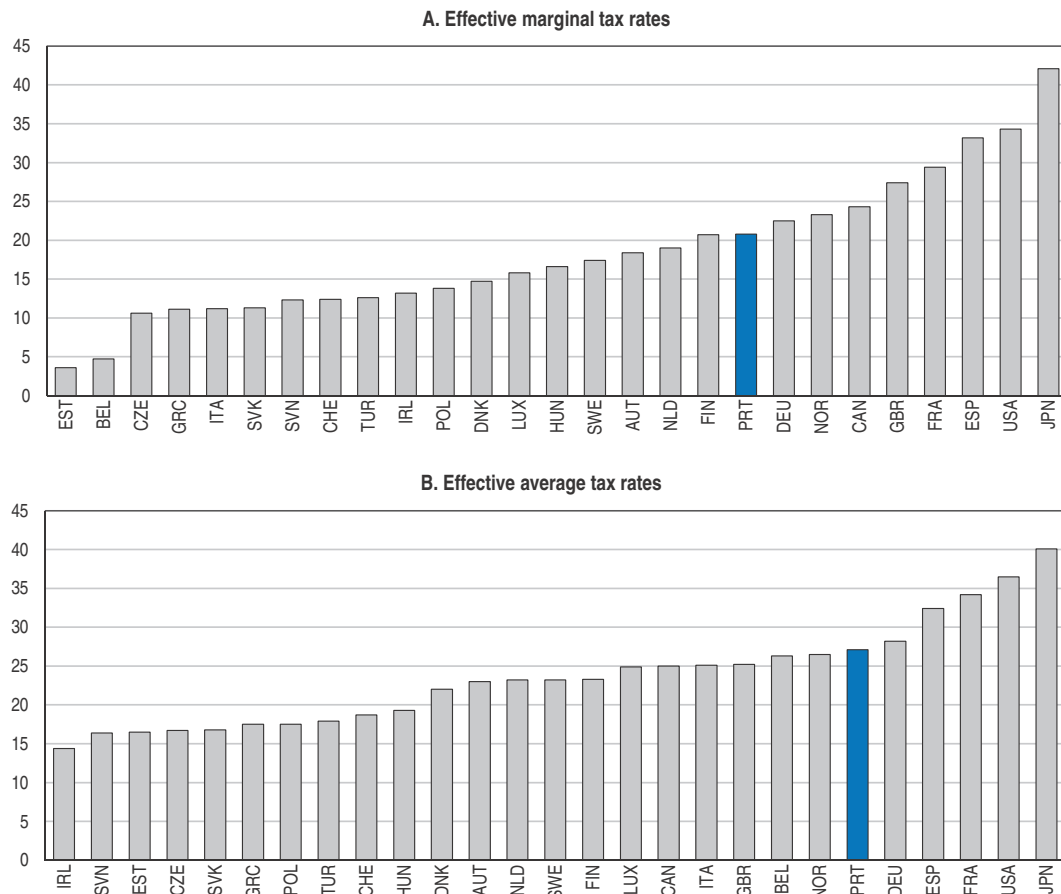
Source: Spengel, C., C. Elschner and D. Endres (2012), "Effective Tax Levels Using the Devereux/Griffith Methodology", Project for the EU Commission TAXUD/2008/CC/099, *Final Report 2012*, Centre for European Economic Research (ZEW), Mannheim, October.

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Beyond changes to the statutory corporate tax rate, the reform has also affected the definition of the corporate income tax base through an extension of loss carry-forward provisions. More generous loss carry-forward provisions enhance firms' incentives for risk taking, with possible benefits for productivity. If profits are taxed at a higher rate than losses are compensated, firms pay more in the event the risky project is successful than the taxes they save in the event it is unsuccessful. In general, innovative projects that test new ideas on the market or first-time exporting activities tend to be riskier than other projects. The 2014 reform has extended the possibility to deduct losses from earlier years from current taxable income from 5 years to 12 years, even though at the same time the loss carry-forward has been limited slightly from 75% to 70% of losses incurred. This extension will strengthen incentives for more risky investments with a possibly long amortisation horizon, which is a welcome measure. In addition to this change, the traditionally generous tax treatment of company vehicles has been reduced, although the tax rate on vehicles with an acquisition cost below EUR 25 000 is still significantly below the personal income tax rate, and there is no compelling economic reason why the fringe benefit of a company vehicle should be taxed lower than other income.

Portugal also has a more onerous tax administration than other countries. Although there is not one single method of measuring tax compliance costs, the widely used World Bank Doing Business Indicators imply that they are high in Portugal (World Bank, 2014). According to this source, Portugal ranks 81st out of 189 economies with respect the overall ease of paying taxes. The time required to comply with tax obligations, for example, is more than 50% higher in Portugal than in the OECD average. Empirical results obtained for this survey confirm the negative effect of high tax compliance costs on firm productivity, and hence export prospects. The more time it takes to comply with taxes, the lower the productivity of firms, particularly in sectors with more taxable profits. The corresponding regression results are presented in Annex 1.A1.

For small and medium companies with income below EUR 200 000 and assets below EUR 500 000, a simplified tax regime is being instated, with fixed sector-specific tax rates on turnover on the basis of previous studies. While this simplified regime will reduce compliance costs for SMEs, it also creates incentives to stay small and incentives towards vertical integration, which may distort the organisation of the value chain by taxing the use of intermediate inputs from outside the firm at a higher rate.

Portugal has made progress in enhancing tax compliance. A Large Taxpayer Office (LTO) was established at the end of 2012, and effective arrangements for the sharing of information between tax authorities and the social security administration have now been set up, in addition to the hiring of 1 000 new tax auditors. Official estimates suggest that 10-15% of the increase in tax revenues in 2013 was due to lower tax avoidance. The authorities should consider build on these efforts by rolling out more LTOs across the country and further improving information sharing between different parts of public administration.

Substantial progress has been made in the reduction of administrative burdens for starting a business. The "Zero Licensing" programme aims to reduce or abolish ex-ante licensing requirements for some services and industrial projects. It has recently been extended to large retail outlets, restaurants and a few additional services industries. For large retail outlets, this reform replaces a number of municipal license requirements with a single license obtained from the central administration, and significantly reduces the license fees, which could go up to EUR 1 million in the past. These are important steps in the right direction, but going forward, the implementation of the programme could be further enhanced. Beyond those licensing issues for which a reduction of administrative burdens through the programme is planned but not yet implemented, the authorities are advised to explore further areas into which this approach could be extended, with a view to reducing administrative burdens further. The case for lowering administrative burdens to improve the productivity of firms is indeed strong, and the empirical background work on Portuguese firms confirms a significant reduction of firm productivity as a result of higher administrative burdens (Annex 1.A1).

Judicial reform to reduce the cost of enforcing contracts

The ability of firms to enforce contracts with clients, suppliers, debtors, creditors and employees depends on the efficiency of the civil judicial system, and lengthy or cumbersome procedures of dealing with courts can substantially add to firms' costs and reduce their productivity. The empirical analysis prepared for this chapter confirms this reasoning. The firm-level regression find a significant link between the number of procedures required to enforce a contract on one hand, and firm productivity on the other.

The interaction factor employed in this analysis is a sector-specific indicator that measures the degree to which different industries depend on institutions to resolve disputes, which was created by Nunn (2007) and has been widely used in the literature.

Portugal's civil justice system continues to be characterised by difficulties in managing court backlogs and high trial lengths, particularly in first instance courts which deal with contract enforcement. The backlog of over 1.5 million court cases has come down slightly recently, but most of this progress is due to a lower number of incoming cases rather than genuine progress in case resolution (Figure 1.21). Reasons behind the decline in new litigation include a reform of the fee structure and a change in value-added tax (VAT) rules that had caused excess litigation in the past. Portugal spends a comparatively large share of GDP on its court system, but seems to be getting a poor return on these resources. One possible reason may be that the budget allocation is highly skewed towards wages, while investment in information and communication technology is fairly low (Figure 1.22). Excessively complicated and stringent procedures also 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, a stronger focus on substance rather than form and a reduction of the number of appeals and allowing for mediation and out-of-court settlements at different stages of a civil process.

Figure 1.21. **Backlogs in the judicial system remain sizeable**

Number of pending court cases, in million[1]
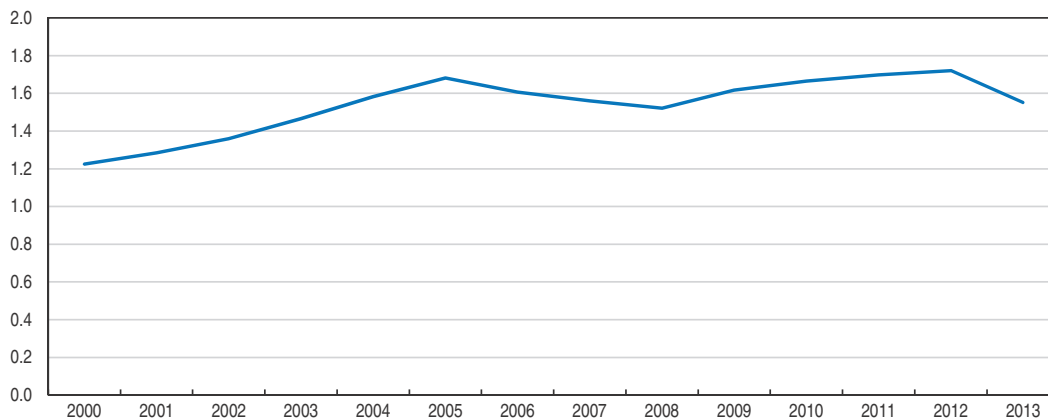
1. Values for 2013 are preliminary.
Source: Ministry of Justice, PORDATA.

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While the new code of civil procedure is a move into the right direction, implementation of judicial reform seems to be lagging. For example, the introduction of specialised courts has been found to reduce trial lengths (Palumbo et al., 2013), but the specialisation of courts is likely to make a real difference only if these courts are staffed with specialised judges, which is not the case in Portugal. There also seems to be an imbalance towards too many superior courts as opposed to courts of first instance, and in favour of certain regions, although a recent redefinition of the judicial map may be able to address some of this imbalance. 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.

Figure 1.22. **Resources devoted to court system**[1]

A. Budget allocated to courts
Per cent of GDP

B. Share of budget allocated to ICT
Per cent of public budget for justice
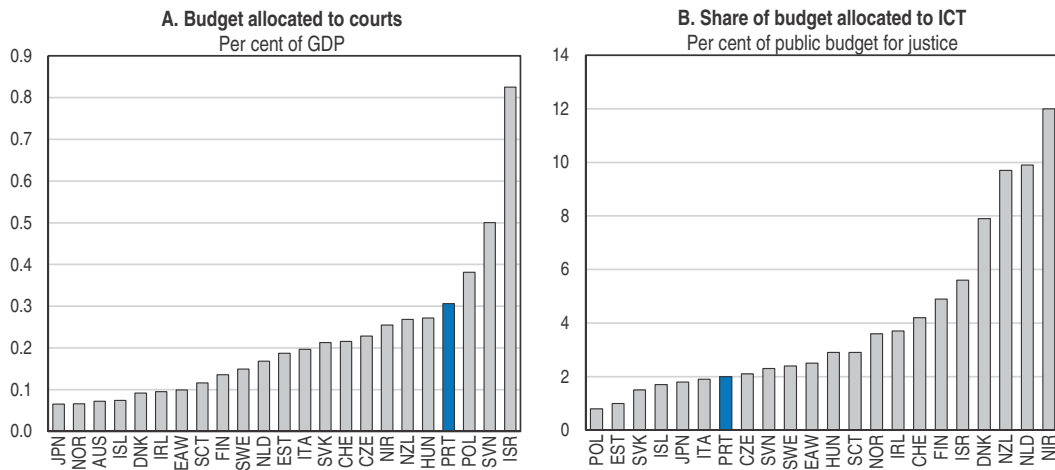
1.   EAW: England and Wales. NIR: Northern Ireland. SCT: Scotland. ICT: Information and Communication Technology.
Source: Palumbo, G., et al. (2013), "Judicial Performance and its Determinants: A Cross-Country Perspective", *OECD Economic Policy Papers*, No. 5, OECD Publishing.

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Innovation and technology

The innovation performance of Portuguese industry is weak, as is investment in knowledge capital more generally, including software and databases, innovative property and economic competencies. Both innovation and knowledge capital are key to creating value and enabling product differentiation, which can help sustain market shares against wage-based competition. One indicator for this low performance is that companies based in Portugal file less than a third of patent and trademark applications filed by the average OECD country (Figure 1.23).

Figure 1.23. **Patents and trademarks**
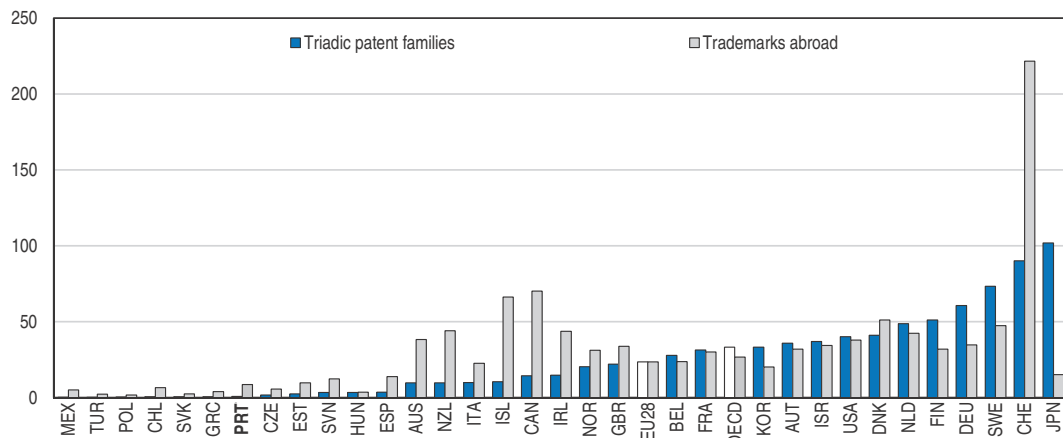
Average number per million population, 2009-11[1]

1.   Triadic patent families are defined as patents applied for at the European Patent Office (EPO), the Japan Patent Office (JPO) and the United States Patent and Trademark Office (USPTO) to protect a same invention. Trademarks abroad correspond to the number of applications filed at in the US, EU and Japan, corrected the relative average propensity of other countries to file in those three offices.
Source: OECD (2013), *OECD Science, Technology and Industry Scoreboard 2013*.

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Portugal also spends less than others on the generation of knowledge-based capital. Overall research and development (R&D) expenditures are significantly below the OECD average and have been declining since 2009, a trend that may place some of the recent progress in Portugal's innovation capacity at risk. R&D efforts are particularly low when focusing only on expenditures in business enterprises, which amount to less than half the OECD average relative to GDP (Figure 1.24, Panel A). R&D taking place in companies is arguably closer to market demands, and hence more likely to feed in to commercial results.

Figure 1.24. **Research and development (R&D) expenditures**

A. Business enterprise expenditure on R&D
Per cent of GDP[1]

B. R&D expenditure by sector
Per cent of gross domestic expenditures on R&D, 2012[2]
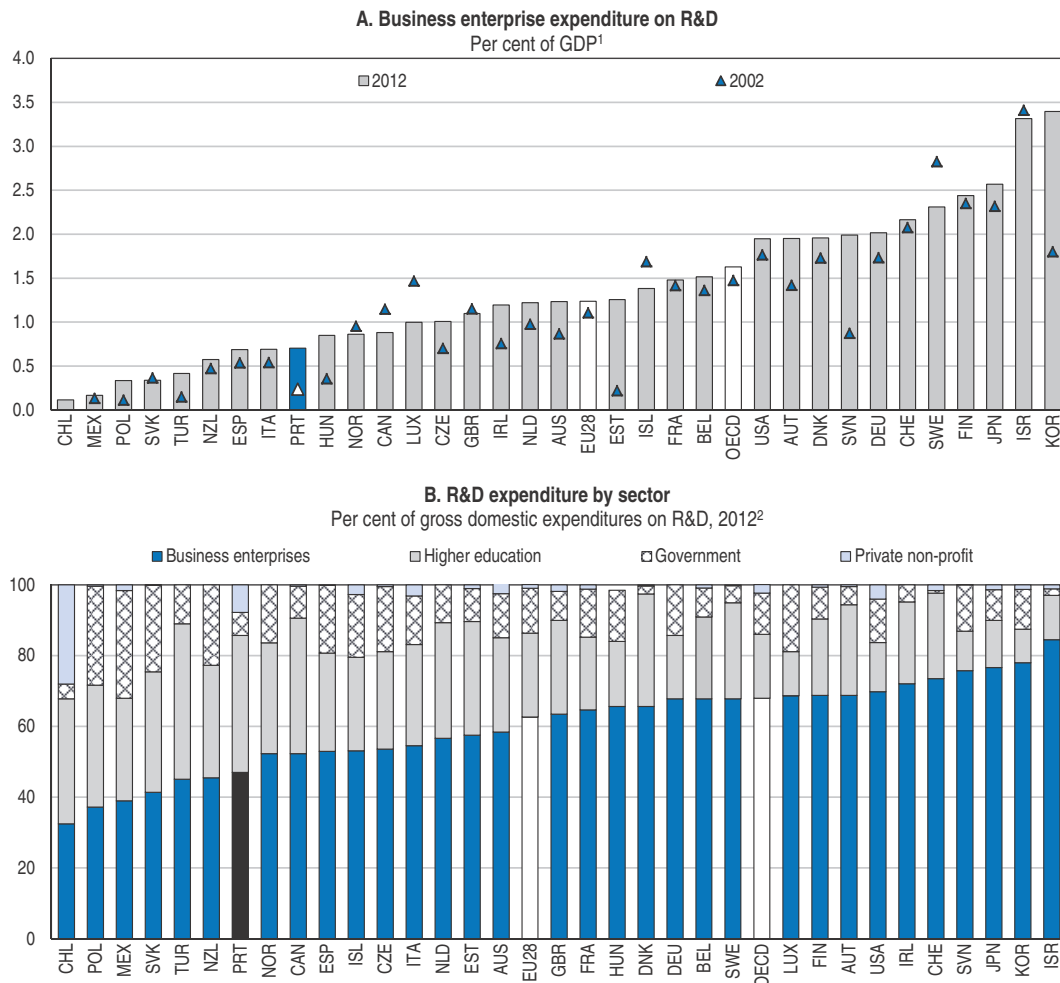
1. 2011 instead of 2012 for Australia, Iceland, New Zealand and Mexico. 2003 instead of 2002 for Luxembourg, New Zealand and Sweden. 2004 instead of 2002 for Switzerland.
2. 2011 for Iceland, Mexico and New Zealand. 2010 for Australia. 2008 for Switzerland. For Israel, defence R&D is partly excluded from available estimates. For Hungary, total GERD combines survey data and data from the central budget on R&D support. It includes R&D expenditures that cannot be attributed to a specific sector on a performance basis. For the Netherlands, expenditures in the private non-profit (PNP) sector are included in the government sector. For the Slovak Republic, defence is excluded from the government sector. For the United States, capital expenditures are excluded from R&D performed in the business, higher education and PNP sector and government is federal or central government only.

Source: OECD (2014), *Main Science and Technology Indicators* (database), July.

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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 (Figure 1.24, Panel B). 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. 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). A recent revision of university statutes is meant to facilitate exchanges between academia and business by allowing university teachers to move to companies to develop projects. A Strategic Programme for Entrepreneurship and Innovation seeks to promote knowledge transfers from academia to industry through several channels. These are steps into the right direction, but the lack of an effective connection between research efforts made at universities and their commercialisation in the private sector remains a serious issue.

One main 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. The weak performance of TTOs in many countries has led to efforts to consolidate operations and develop new organisational models and incentives that could be useful examples for Portugal. One example is the Idea Evaluation initiative at Chalmer's University of Technology in Sweden, which brings together entrepreneurs and senior academics to evaluate the commercial potential, including the business plans, of student inventors and entrepreneurs. In Finland, the Aalto Centre for Entrepreneurship (ACE) offers innovation, marketing and start-up services for Aalto University researchers, students and other stakeholders. In addition, it facilitates innovation and growth entrepreneurship by developing research and education in these fields across all Aalto schools.

Public support for business R&D and innovation is mostly through tax credits, while other OECD countries tend to rely on a more balanced mix between direct support for business R&D and R&D tax credits. Portugal spends almost 0.1% of GDP on R&D tax credits, which situates it 10th out of 32 countries on this issue (Figure 1.25), and the use of R&D tax credits has grown significantly over the last years, particularly since 2006. By contrast, Portugal spends only 0.03% on direct support to business R&D, which is slightly less than half the OECD average.

While R&D tax credits can be an effective tool to foster innovative activities, their design can also have the unintended side effect of favouring incumbent firms, and by doing so they can act as an implicit barrier to market entry and slow down the reallocation of resources towards more innovative entrants (Bravo-Biosca et al., 2013). 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). 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.

Some countries mitigate these effects by allowing tax credits to be converted into cash refunds, such as Australia, Canada, Denmark, Norway, or the United Kingdom. Highly

Figure 1.25. **Public funding for business R&D**

Per cent of GDP, 2011[1]
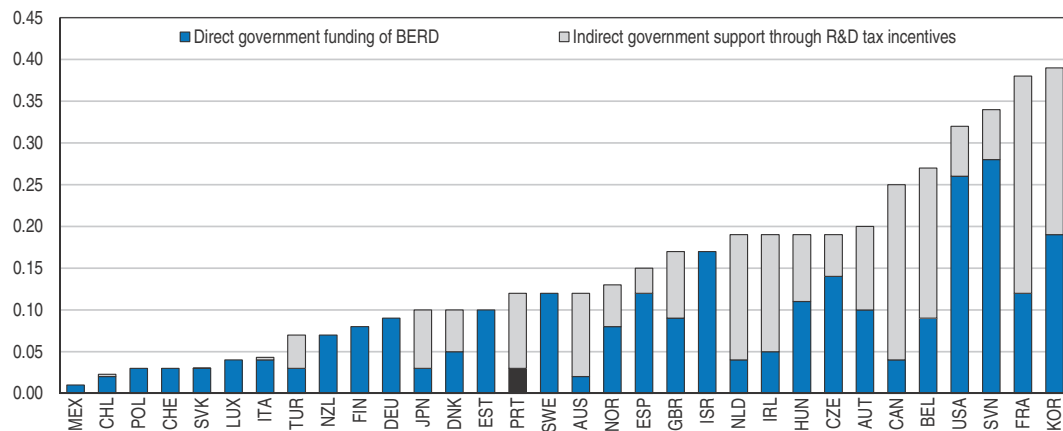
1. 2010 for Australia, Belgium, Brazil, Chile, Ireland, Israel and Spain. 2009 for China, Luxembourg and South Africa.
2008 for Switzerland. For Israel data on tax incentive support are not available. This is an experimental indicator.
International comparability may be limited. For more information, see *www.oecd.org/sti/rd-tax-stats.htm*. BERD:
Business enterprise expenditure on research and development. R&D: Research and development.
Source: OECD (2013), *OECD Science, Technology and Industry Scoreboard 2013.*

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generous loss-carry forward provisions can also help to level the playing field for new
entrants, and some countries are allowing loss-carry forward for R&D tax credit with an
indefinite duration (Australia, Belgium, Ireland, United Kingdom), or for 20 years in the
case of the United States (Andrews and Criscuolo, 2013). Portugal, in contrast, does not
allow refunds of R&D tax credits and the carry-forward period for R&D expenditures is
limited to 8 years. In this setting, new entrants are likely to face significant disadvantages
vis-à-vis incumbents, particularly in a context of scarce and expensive credit. Portugal
should consider allowing refunds of R&D tax credits or alternatively extend the carry-
forward period further.

Going forward, finding a better balance between tax credits and direct support may be
useful, as direct support can help address specific market failures such as the lack of
cooperation. Direct support can also be more beneficial for young firms facing financing
constraints, it part because it can act as an approval stamp and may allow entrants to get
easier access to market financing (Busom et al., 2012). In some cases, such as in the
footwear and rubber industry, industry associations have successfully promoted joint
technological centres in Portugal, often in connection with universities, and such joint
efforts could be candidates for direct support measures.

Box 1.4. **Recommendations for boosting export performance**

Regulation in services sectors

● Strengthen competition in non-tradable sectors through further regulatory reform.
Phase out electricity generation schemes with guaranteed prices sooner than currently
planned.

● Abolish unnecessary regulatory restrictions in professional services, including exclusive
rights for certain professions, regulations of prices and fees or the form of business and
nationality requirements. Reduce the role of professional associations for regulating entry.

> **Box 1.4. Recommendations for boosting export performance** *(cont.)*
>
> ● Improve the efficiency of ports by attaching service level agreements to concession contracts and by promoting intra-port competition between terminals.
>
> **Labour markets and skills**
>
> ● Promote wage bargaining at the firm level, including by abolishing administrative extensions of wage agreements.
>
> ● Continue to reduce drop-out rates from secondary education, including by reducing grade repetition and providing extra teaching time for students falling behind. Consider raising class sizes further if necessary to achieve this.
>
> ● Foster a close partnership between business and vocational education and training (VET), so that VET responds to labour market needs. Track the labour market performance of VET participants and adjust programmes accordingly.
>
> **Access to finance for firms**
>
> ● Focus public support for small and medium-sized enterprise (SME) financing mostly on start-ups and young firms, including for alternatives to debt-financing such as venture capital and equity financing.
>
> **Taxes**
>
> ● Further improve the efficiency of the tax system, including by eliminating remaining tax expenditures such as for company vehicles.
>
> ● Align the corporate tax burden on very large companies to that of other companies. Budget permitting, consider reducing the corporate tax rates in the medium term.
>
> ● Improve tax administration by rolling out more large taxpayer offices across the country and further improving information sharing between different parts of public administration.
>
> **Judicial reform**
>
> ● Reduce trial length and the backlog of pending court cases by concluding the implementation of the new code of civil procedure, staffing specialised courts with specialised judges, reducing the number of superior courts in favour of first-instance courts.
>
> ● Give more discretion to judges in case management and base their promotion on performance rather than seniority.
>
> **Innovation and technology**
>
> ● Improve the links between researchers in universities and the private sector.
>
> ● Consider allowing refunds of research and development (R&D) tax credits for loss-making firms or extending the carry-forward period.

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ANNEX 1.A1

A description of the empirical analysis and results*

This Annex provides details on the firm-level evidence on the links between market distortions and the productivity of firms. The analysis combines data from a number of sources. Firm-level productivity measures of total factor productivity (TFP) are obtained from the firm census *Sistema de Contas Integradas de Empresas*, compiled by the Portuguese National Institute of Statistics INE.

The firm-level data contain information from annual balance sheets and profit and loss accounts, with sufficient data available to estimate total factor productivity for 175 559 firm observations between 2006 and 2011, corresponding to 40 678 firms in Portugal. On average, there are 4.3 years of data per firm available. Nominal values have been deflated using industry-specific deflators from INE. Total factor productivity has been obtained as the residual from sector-specific estimations of a production function, using the semi-parametric estimator suggested by Levinsohn and Petrin (2003). The main advantage of this approach is that it controls for a potential bias stemming from the fact that firms choose their inputs simultaneously with changes to their productivity that they – but not the researcher doing the empirical analysis – may observe. In order to allow comparisons between observations from different sector estimations, each firm's productivity estimate is taken relative to the median productivity in the same sector. The data have been cleaned for obvious outliers and reporting mistakes, which has resulted in dropping approximately 2% of the original sample.

Firm-level TFP is then used as a dependent variable and related to policy measures or variables that are directly influenced by policies. The empirical strategy follows closely the difference-in-differences approached proposed by Rajan and Zingales (1998), whose rigour stems from the fact that it draws on comparisons only across firm observations from the same year. In a typical estimation setup, the policy variable varies across time, but many other things vary across time as well, making it difficult to disentangle the influence of the policy variable from other factors. Therefore, the policy variable is interacted with an

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* The empirical work was done by Natália Barbosa and Jens Arnold.

industry-specific variable that is assumed to measure the relevance of this policy aspect for the sector to which the firm belongs. For example, in the case of evaluating the effects of administrative burdens on start-ups, the industry-specific interaction factor is a measure of how much firm turnover the same industry typically has. This setup assumes that firms in sectors where the natural rate of firm turnover is higher are more affected by changes in administrative burdens on firm entry. The estimation coefficient is hence identified only from comparisons across firms in different industries within the year. Fixed effects control for all year-specific productivity influences such as the business cycle, and also eliminate the need to include the constituent terms of the interaction variable separately. The resulting estimation equation in this case is the following:

$$TFP_{it} = \alpha + \beta \; admin\_burden_{st}*firm\_turnover_s + D_t + D_s + \varepsilon_{it}$$

where subscripts i denote the firm, t the year, s the sector. D are binary dummy variables and ε is a white-noise error term. Following the strategy of Rajan and Zingales (1998), the interaction factors at the industry level have been taken not from Portuguese data but from international benchmarks whenever possible, for example the United States, to ensure a maximum degree of exogeneity. This empirical strategy means that the estimated effect can be interpreted as causal if one accepts the identifying assumption, i.e. the relevance of the interaction factor chosen. Besides administrative burdens, estimation results have been obtained for the tax burden on companies, tax compliance costs, the coverage of collective bargaining agreements and the ease of contract enforcement. Standard errors have been clustered to allow for possible correlations across firms within the same industry and year.

Table 1.A1.1. **Empirical results from firm-level analysis**

Dependent variable: TFP

Policy variable	Industry interaction factor	(1)	(2)	(3)	(4)	(5)
Coverage of collective wage bargaining agreements in sector (constructed from Quadros de Pessoal microdata)	Firm turnover rates by industry in the US (Bartelsman et al., 2008)	-0.0749[**] (0.030)				
Tax burden on companies (from Doing Business data)	Taxes paid as share of value added, from an input-output tables (OECD)		-0.752** (0.391)			
Tax compliance costs (from World Bank, 2014)	Taxes paid as share of value added, from an input-output tables (OECD)			-0.00075*** (0.00021)		
Number of procedures required to start a business	Firm turnover rates by industry in the US (Bartelsman et al., 2008)				-0.0016 ** (0.0007)	
Number of procedures necessary to enforce a contract	Institution-intensity by industry (Nunn, 2007)					-0.017[**] (0.009)
Industry fixed effects		Included	Included	Included	Included	Included
Time fixed effects		Included	Included	Included	Included	Included
Number of observations		122726	122726	122701	111663	169723

Clustered standard errors in parentheses.

Chapter 2

Reducing inequality and poverty

Portugal has one of the most unequal income distributions in Europe and poverty levels are high. The economic crisis has halted a long-term gradual decline in both inequality and poverty and the number of poor households is rising, with children and youths being particularly affected. Unemployment is one of the principal reasons why household incomes declined. The tax and benefit system alleviates both inequality and poverty significantly. The tax system is markedly progressive, and recent tax reforms have likely increased this progressivity. Transfer payments, especially non-pension benefits, are reducing inequality and poverty in a fairly efficient way. Nonetheless, a number of adjustments could strengthen the equalising role of the benefit system, which is generally biased towards benefits for elderly people, while families with children should receive more support. Raising income thresholds in the guaranteed minimum income scheme could be a well-targeted way to support the most vulnerable households, in particular families with children. Unemployment benefits also contain a significant bias towards older recipients, while their coverage is still relatively low. In-work tax credits for low-income earners may be a more effective way to support low-income families than raising the minimum wage, which could lead to job losses. The education system should provide more support to students at risk of falling behind to reduce grade-repetition and drop-out rates, while further increasing class sizes would be a reasonable way to generate savings without affecting learning progress much. Scaling up vocational courses and adult education, including in the context of active labour market policies, could improve the capacity of many households to generate income and lead to a more equitable income distribution.

Portugal has been severely affected by the recession, which has caused a steep rise in unemployment and a decline in disposable incomes. In such difficult times, paying attention to well-being and the social dimension of the adjustment process is crucial for maintaining social cohesion and political support for further reforms.

Recent developments in income distribution

The crisis has halted a long-term decline in inequality

Portugal has one of the most unequal income distributions in Europe. In 2011, the Gini index, a commonly used measure of inequality, was equal to 0.341, about 2.6 percentage points above the OECD average of 0.315 (Figure 2.1). Using other inequality measures that give more weight to the tails of the income distribution than the Gini index, Portugal also stands out as one of the most unequal countries in Europe.
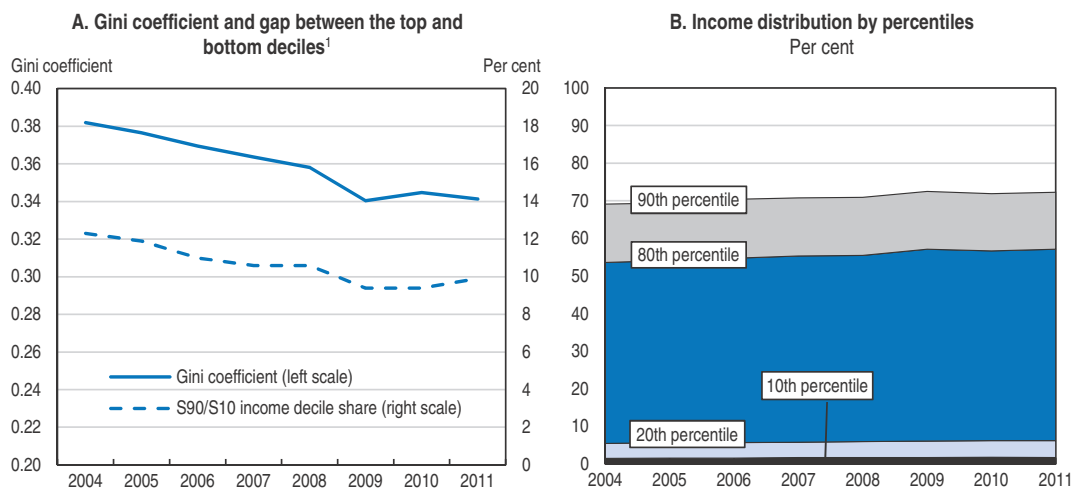
Figure 2.1. **Gini coefficient**
2011[1]
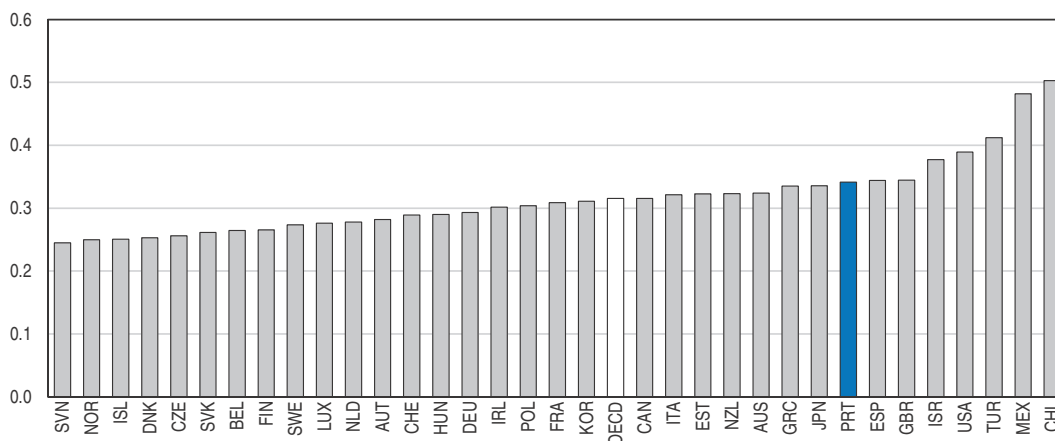
1. Gini coefficient is calculated for household disposable income after taxes and transfers, adjusted for differences in household size. 2009 for Japan. 2010 for Belgium. 2012 for Australia, Hungary, Netherlands and Mexico.
Source: OECD (2014), "Income Distribution Database", *OECD Social and Welfare Statistics* (database), July.

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Since 2004, inequality has been on a downward trend (Figure 2.2), with an average annual decline of the Gini coefficient of almost one percentage point. Similarly, the share of income accruing to the top 10% income earners has been coming down, while lower brackets of the income distribution recorded mild improvements. The economic crisis, however, has brought this downward trend to a halt and the Gini coefficient has been broadly stable since 2010, with a small decrease in 2012. Similarly, some of the decreases in the share of income appropriated by the top 10% income earners and some of the gains of the lower income strata have reversed since 2009. Portuguese households felt the impact of the crisis later than those in other European countries, with the disposable incomes still

Figure 2.2. **Trends in income distribution**

A. Gini coefficient and gap between the top and bottom deciles[1]

B. Income distribution by percentiles
Per cent

1. The Gini coefficient is calculated based on household disposable income after taxes and transfers, adjusted for household size. The S90/S10 ratio is the share of income received by the top decile divided by the share of income of the bottom decile.
Source: OECD (2014), "Income Distribution Database", *OECD Social and Welfare Statistics* (database), July.
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rising until 2010, and increases in unemployment becoming steeper as of 2011. By contrast, household disposable incomes started slowing down for the European Union as a whole as early as 2008, and were already declining in 2010.

While recent policy reforms in the context of fiscal consolidation have shifted most of the burden to high-income households, simulations suggest that the lowest income group has also suffered significant losses in disposable income as a result of reforms, and social policies could do more to alleviate this negative effect on the most vulnerable (Figure 2.3).

Figure 2.3. **Simulated change in household disposable income due to fiscal consolidation**
By income deciles, per cent of household disposable income, 2009-2012

Source: Avram, S., F. Figari, C. Leventi, H. Levy, J. Navicke, M. Matsaganis, E. Militaru, A. Paulus, O. Rastrigina and H. Sutherland (2012), "The distributional effects of fiscal consolidation in nine EU countries", *Research note 01/2012*, European Commission, DG Employment, Social Affairs & Inclusion, December.
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Poverty has increased in recent years

At the bottom end of the income distribution, Portugal is characterised by a higher poverty rate than the OECD average, although poverty is lower than in some European countries like Italy, Spain and Greece (Figure 2.4). These numbers are based on a standard relative poverty measure, defined as those below 50% of the median disposable income.

Figure 2.4. **Relative poverty rate**
Per cent, 2011[1]
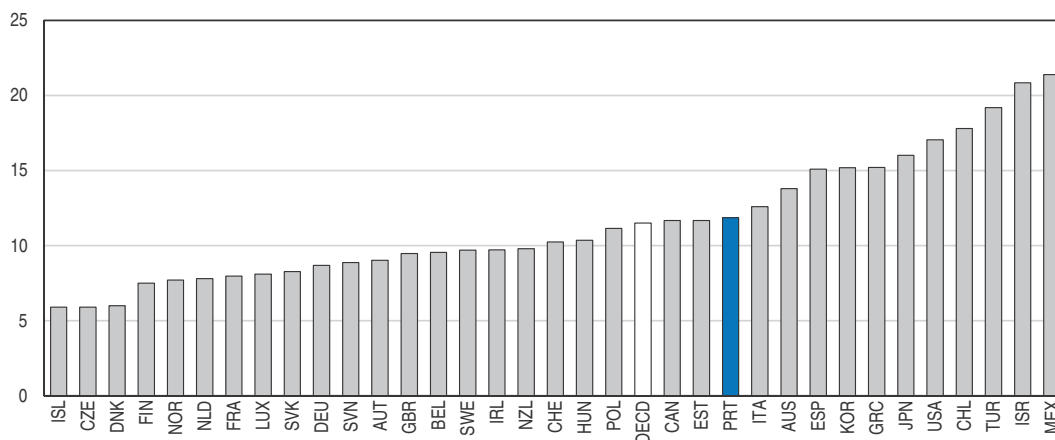
1. Relative poverty rate is defined as the share of people living in households with less than 50% of the median disposable income (adjusted for family size and after taxes and transfers) of the entire population. 2009 for Japan. 2010 for Belgium. 2012 for Australia, Hungary, Netherlands and Mexico.
Source: OECD (2014), "Income Distribution Database ", *OECD Social and Welfare Statistics* (database), July.

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Box 2.1. **Measuring inequality and poverty**

Income inequality

A number of summary statistics are used to describe the shape of the income distribution. The Gini, probably the most widely used measure of income inequality, is particularly sensitive to changes in the middle of the income distribution, while the other measures focus more on the tails of the distribution.

● Gini coefficient: measures the extent to which the income distribution amongst individuals or households deviates from a perfectly equal distribution. Geometrically, this is the surface between a cumulative income distribution function and the 45 degree line. The values of the Gini coefficient range between 0 ("perfect equality": each person receives the same income) and 1 ("perfect inequality": all income is held by one individual or household);

● P90/P10 inter-decile ratio: The ratio between the upper bound value of the 9th decile and the upper bound value of the 1st decile.

● Inter-decile share ratio S90/S10: The ratio of the average income of the 10% wealthiest to that of the 10% poorest, adjusted for household size.

● Inter-quintile share ratio S80/S20: The ratio of the average income of the 20% wealthiest to that of the 20% poorest, adjusted for household size.

> **Box 2.1. Measuring inequality and poverty** (*cont.*)
>
> **Poverty indicators**
>
> Poverty measures count the incidence or the intensity of poverty.
>
> - Relative poverty line: The proportion of individuals living in households whose income is below a relative threshold, usually either 50% or 60% of the median disposable income. Usually referred to as the "headcount ratio".
>
> - "Anchored" poverty line: The proportion of individuals living below a poverty line is set relative to the median household disposable income adjusted for household size in a chosen base year. In subsequent years, it is only adjusted for inflation.
>
> - Poverty gap: The percentage by which the average income of the poor falls below the poverty line. It measures the poverty intensity amongst the poor.
>
> **Adjusting household income for different household sizes**
>
> Household surveys that provide the basis for data on inequality and poverty typically report incomes at the household level. As households differ in size and composition, comparisons require a conversion of household income into individual income using an equivalence scale. See *www.oecd.org/els/soc/OECD-Note-EquivalenceScales.pdf*.
>
> - Square root scale: The main equivalent scale used in this chapter is the square root of the household size. Cross-country comparisons for OECD countries can only be done using this equivalence scale, but the most recent observation for Portugal is 2011.
>
> - "Modified OECD equivalence scale": Some of the studies mentioned in this Chapter use the so-called "OECD modified equivalence scale" that is used by Eurostat and the Portuguese statistics institute INE. Data for 2012 are only available using this equivalence scale. This scale gives a weight of 1.0 to the first adult, 0.5 to the other adults in the household, and 0.3 to each child.

Over time, the incidence of poverty – as measured by the relative poverty line – appears fairly stable since 2004, with a slight downward trend until 2010 and a mild increase thereafter, while the poverty gap has risen, meaning that the incomes of the poor have fallen further below the poverty line (Figure 2.5, Panel A). In the context of the economic crisis and its various effects on household incomes, however, a simple headcount ratio based on a relative poverty line can easily paint a misleading picture. The most recent years therefore warrant a closer look at the different elements of the poverty rate, including changes in the poverty threshold. After 2009, real earnings of employees began to decrease, initially for public-sector employees only, but later also for private-sector employees (Figure 2.5, Panel B).

The fall in public sector wages is a consequence of both declining employment levels and cuts in the nominal rate of pay in the public sector, whilst in the private sector it is mainly a result of rising unemployment and lower pay and benefits offered to newly hired workers. As a result of lower earnings in the middle of the income distribution, the median income has fallen, thus resulting in a lower poverty threshold and less poverty in relative terms. Individuals that used to be poor in 2009 may have ceased to be so in 2012, not due to an improvement in their incomes, but simply because the poverty threshold declined together with median incomes.

One way of examining changes to the real incomes of those at the bottom of the income distribution is the use of an anchored poverty line, which fixes the real value of the

Figure 2.5. **Developments in poverty, income and unemployment**

A. Relative poverty in Portugal[1]   B. Real earnings of employees and unemployment[2]
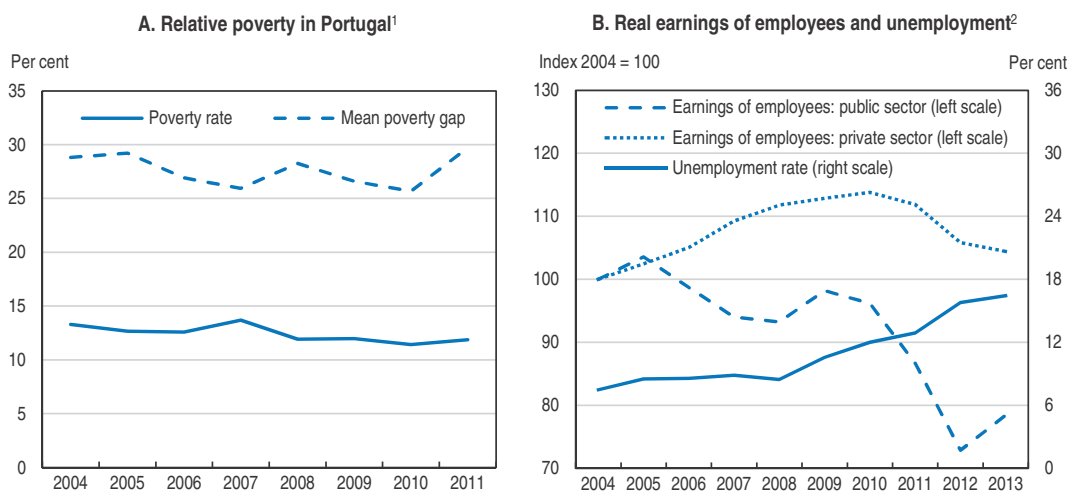
1. The poverty line is 50% of the median disposable income after taxes and transfers, adjusted for household size.
2. Seasonally adjusted harmonised unemployment rate.
Source: OECD (2014), "Income Distribution Database", *OECD Social and Welfare Statistics* and *OECD Employment and Labour Market Statistics* (databases), July; INE (2014), "National Accounts Statistics", Instituto Nacional de Estatística, June.

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poverty threshold at the level of a given year, 2009 in this case, and then adjusts only for inflation. Using this measure, and applying the modified OECD equivalence scale and the 60% of median income threshold for 2009, poverty has increased from 17.9% to 24.7% between 2009 and 2012 (Table 2.1). The use of this different definition is necessary because 2012 data are available only in this way.

Table 2.1. **Inequality and poverty indicators**

	Unit	2009	2010	2011	2012
Disposable income[1]	EUR/year	8 678	8 410	8 323	8 173
Income inequality					
Gini index		0.337	0.342	0.345	0.342
S80/S20 income quintile ratio	%	5.6	5.7	5.8	6.0
S90/S10 income decile ratio	%	9.2	9.4	10.0	10.7
Relative poverty[2]					
Poverty line	EUR/month	434	421	416	409
Poverty rate (all)	%	17.9	18.0	17.9	18.7
0-17 years	%	22.4	22.4	21.8	24.4
18-64 years	%	15.7	16.2	16.9	18.4
65+ years	%	21.0	20.0	17.4	14.7
"Anchored" poverty[3]					
Poverty line	EUR/month	434	440	456	469
Poverty rate (all)	%	17.9	19.6	21.3	24.7
0-17 years	%	22.4	23.8	26.1	30.9
18-64 years	%	15.7	17.7	20.4	23.7
65+ years	%	21.0	21.6	20.1	22.4

1. In current EUR, adjusted for household size.
2. The poverty line is defined as 60% of median disposable income in each year, adjusted for household size.
3. The poverty line is fixed at 60% of median disposable income in 2009 and adjusted for inflation and household size.
*Source:* INE (2014), "EU Statistics on Income and Living Conditions (EU-SILC) 2013", Instituto Nacional de Estatística.

Increases in poverty occurred mostly in the working age population, as well as among children and youths. Of those aged 17 and under, almost a third was below the 60% of median income poverty line in 2012. By contrast, poverty increased only marginally among the elderly. This marks the continuation of a trend that can be observed since 2004, whereby falling poverty rates of the elderly were the main driver behind the mild downward trend in overall poverty rates. Not surprisingly, this trend has not been affected by the crisis, as the elderly were not affected by deteriorating labour market conditions and pensions, the main income source for this income group, were not reduced for those at the bottom of the income distribution.

Rising unemployment has led to lower household incomes

Losing employment is one of the principal reasons why households have suffered income losses. Since 2009, the unemployment rate has risen from 9.5% to 13.9% in the second quarter of 2014, with an intermediate peak of almost 17.5% (Figure 2.6). The rise in unemployment has particularly affected young people, whose unemployment rate rose to over 42% in the first quarter of 2013. Youth employment fell by more than half for those with below upper-secondary education, and one out of six young adults aged 15-24 is neither in a job, nor preparing for employment. In 2013, 60% of the unemployment were considered in long-term unemployment.

Figure 2.6. **Unemployment rate by age groups**
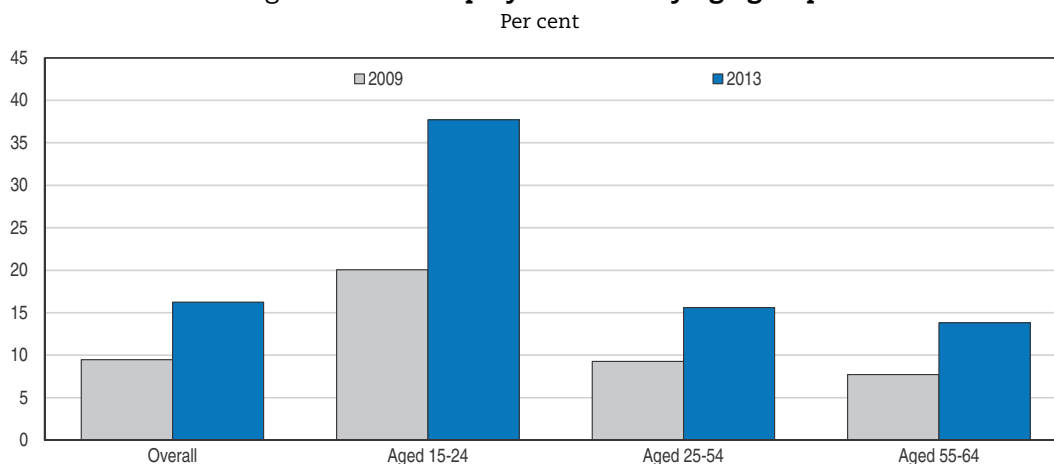
Per cent

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

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When comparing individuals with different working status, the unemployed are clearly those with the highest incidence of poverty (Table 2.2). Over 40% of the unemployed lived in poverty in 2012, based on the 60% poverty line. Poverty also rose among the working population. Indeed, not all of the poor are out of work, as the poverty rate of 10.5% among those in work demonstrates. This can be explained by the significant number of low-paid workers, many of which work less than full time. Retirees, by contrast, saw their relative poverty levels decline as median incomes fell. Comparing different household compositions, poverty rates are highest and have increased most among families with children, with families that have more children being particularly affected by poverty.

Table 2.2. **Poverty rate by working status and by household composition**

Per cent[1]

	2009	2012	Change (% points)
By working status			
In work	9.7	10.5	0.8
Unemployed	36.4	40.2	3.8
Retired	18.5	12.8	-5.7
Other inactive	28.0	29.5	1.5
By household composition			
Households with no children	16.5	15.0	-1.5
Households with children	19.1	22.2	3.1
Single parent households	37.0	33.6	-3.4
Two adults + one child	12.6	16.0	3.4
Two adults + two children	17.1	19.8	2.7
Two adults + three or more children	32.2	40.4	8.2
Other households with children	20.7	23.7	3.0
Total	17.9	18.7	0.8

1.   The poverty line is 60% of median disposable income in each year, adjusted for household size.
Source: INE (2011), "EU Statistics on Income and Living Conditions (EU-SILC) 2010", Instituto Nacional de Estatística and INE (2014), "EU Statistics on Income and Living Conditions (EU-SILC) 2013", Instituto Nacional de Estatística.

Policies for reducing inequality and poverty

Public policies play a significant role in shaping the income distribution, and without redistribution through taxes and transfers, both inequality and poverty would be much higher (Figure 2.7). In international comparison, however, a number of OECD countries (those to the right of Portugal in Figure 2.7) achieve stronger reductions in inequality and poverty through taxes and transfers, besides starting in most cases from already lower levels. This suggests that more can be done to improve equity through social policies.

Portugal's social expenditures are above OECD average, particularly in the areas of expenditures on old age and survivor pensions, which account for almost half of social expenditures (Figure 2.8). Health expenditures, which are typically also increasing in age, are also above the OECD average, while family expenditures are significantly lower. These numbers suggest a bias of social expenditures towards elderly recipients, which is one of the reasons why the overall decline in poverty since 2004 has largely been a result of lower poverty in this age group. The poverty reduction among elderly people is a remarkable achievement. However, given the strong and rising incidence of poverty among younger individuals, in particular among families with children, there may now be a case for focusing social expenditures more on these groups than in the past.

With social expenditures already high and fiscal space extremely limited, improvements in the effectiveness of social expenditures would most likely have to be achieved by making existing redistributive policies more efficient, as opposed to spending more. Raising the distributional impact of social expenditures can be achieved both by optimising the spending mix across different social expenditure items and by improving the targeting of existing benefits to those most in need, including by consolidating overlapping benefits and closing loopholes.

Rethinking the spending mix

An assessment of the spending mix requires an understanding of the distributional effects of different policy instruments. Household data allow a simple decomposition of

Figure 2.7. **Reduction in inequality and poverty resulting from taxes and transfers**
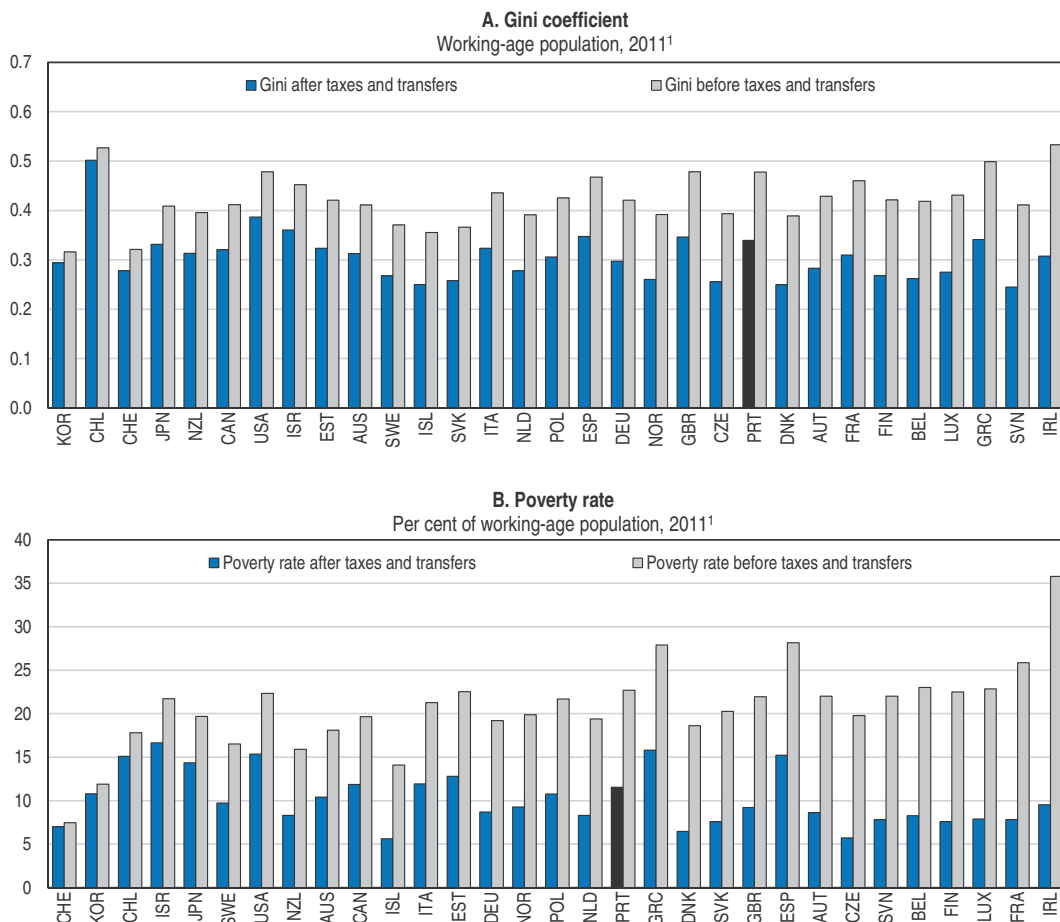
A. Gini coefficient
Working-age population, 2011[1]

B. Poverty rate
Per cent of working-age population, 2011[1]

1. 2009 for Japan. 2010 for Belgium. 2012 for Australia and Netherlands. Working age is defined as 18-65 years old. Countries are ranked in increasing order of difference between the value of the respective indicator (i.e. Gini coefficient and poverty rate) before and after taxes and transfers. The poverty line is defined as 50% of the median income, adjusted for household size.
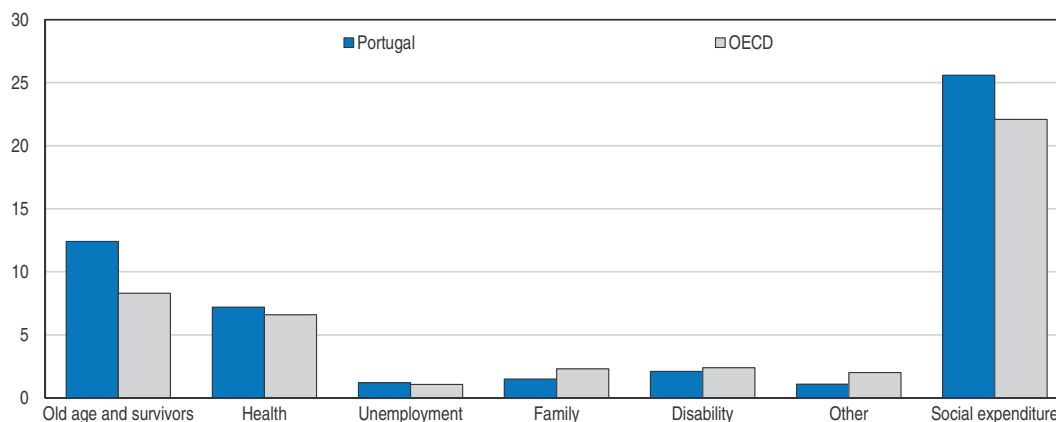
Source: OECD (2014), "Income Distribution Database", *OECD Social and Welfare Statistics* (database), July.

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the sources of disposable incomes for different quintiles of the income distribution (Figure 2.9). This exercise reveals the strongly progressive character of income taxes in Portugal. The top income quintile accounts for over two thirds of income tax payments, with the average income tax rate on the top quintile being three times higher than for the bottom quintile. Household data that reflect the 2013 income tax changes are not yet available, and these tax reforms have probably made personal income taxes more progressive. In addition, non-pension benefits provide strong support for low-income households, accounting for approximately 20% of disposable incomes for the bottom quintile. In monetary terms, however, an average household in the top quintile receives over 70% of the non-pension benefits that households in the bottom quintile receive, which may hint at scope for better targeting of benefits to low-income households, for example through a more use of means-testing. On the whole, these findings suggest a significant contribution of both non-pension benefits and income taxes to the reduction in inequality. The incidence of pension transfers, by contrast, is higher at the top than at the bottom, both in absolute terms and relative to disposable incomes.
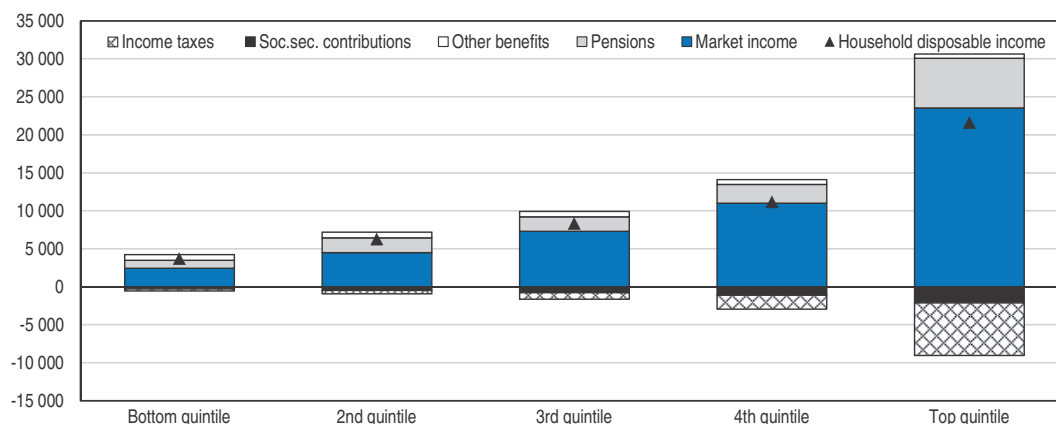
Figure 2.8. **Social expenditure**

Per cent of GDP, 2009

Source: OECD (2014), *OECD Social Expenditure Statistics* (database), July.

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Figure 2.9. **Disposable income by quintiles**

EUR per year, 2011

Source: Rodrigues, C.F. and Andrade, I. (2013), "Robin Hood versus Piggy Bank: Income redistribution in Portugal 2006-10", *Working Papers Department of Economics 2013/28*, ISEG – School of Economics and Management, Department of Economics, University of Lisbon.

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The exact effect of policies on the Gini coefficient has been calculated by Rodrigues and Andrade (2013) for three broad policy instruments, and these calculations have been updated for this chapter. Of these three, taxes account for the largest reduction in the Gini coefficient, almost 5 percentage points, while non-pension benefits reduce the Gini by around 2.4 percentage points and pensions by around 1.3 (Table 2.3). At the same time, however, the three instruments differ in size, with the share of taxes and pension expenditures in aggregate income being around four times as high as that of non-pension benefits. As a result, one would naturally expect differences in the amount of redistribution that they achieve. Hence, decisions about the spending mix require a notion of which instrument would deliver the largest reduction in inequality for a marginal spending increase, which means that the overall effects mentioned above must be corrected for their size. This concept, which is typically referred to as the efficiency of the instrument, is also presented in Table 2.3. The results suggest that non-pension benefits

Table 2.3. **Effectiveness and efficiency of benefits and taxes**[1]

	2006	2007	2008	2009	2010	2011[2]
Taxes						
Reduction in Gini coefficient	0.042	0.039	0.038	0.039	0.040	0.047
Efficiency in reducing inequality (relative to size)	0.230	0.224	0.240	0.249	0.237	0.235
Non-pension benefits						
Reduction in Gini coefficient	0.022	0.019	0.024	0.030	0.026	0.024
Efficiency in reducing inequality (relative to size)	0.466	0.400	0.513	0.542	0.484	0.477
Pension benefits						
Reduction in Gini coefficient	0.020	0.026	0.029	0.029	0.024	0.013
Efficiency in reducing inequality (relative to size)	0.112	0.145	0.163	0.152	0.123	0.060

1. The efficacy of an instrument is defined as the difference between the Gini (or concentration coefficient (CC) counterpart) before and after the introduction of that instrument. Efficiency is defined as efficacy/size * 100, where size is the average (instrument) amount received/paid by beneficiary/contributor.
2. Values for 2011 are calculated based on the same methodology applied by Rodrigues and Andrade (2013).
Source: Rodrigues, C.F. and Andrade, I. (2013), "Robin Hood versus Piggy Bank: Income redistribution in Portugal 2006-10", *Working Papers Department of Economics 2013/28*, ISEG – School of Economics and Management, Department of Economics, University of Lisbon and OECD calculations.

are the most efficient redistribution instrument among these three broad categories, so for a given amount of resources, non-pension benefits would achieve the greatest reduction in inequality.

The tax system also turns out to be a fairly efficient tool for redistribution in Portugal, even though significantly less so than non-pension benefits. In particular, the results suggest that the contribution of the tax system is not just a function of its size relative to the other two items, but that the tax systems is actually almost half as efficient as transfers.

Pensions are the least efficient instrument of redistribution. This is not surprising, due to the savings character of pension which creates an – in principle intentional – link between contributions paid during working age and pension received in retirement. This link will imply higher pensions to retirees who had higher earnings during their working life. A more detailed discussion of the redistributive effects of the pension system can be found in the next section.

Improving the efficiency of individual redistribution policies

Eliminating benefit overlap

The efficiency of the benefit system could be enhanced by eliminating benefit overlaps and improving means-testing. There are several other different programmes in place to protect the most vulnerable individuals and households, which leads to a fragmented and complex situation of overlapping benefits with different sets of rules. This makes monitoring difficult, facilitates fraud and jeopardises the effectiveness and efficiency of the programmes. For example, there are 93 different sickness benefits classified in 39 different types related to such aspects as length of payment, industries (textiles, energy), and type of disease. Another example of poorly implemented means-testing is that an individual who is entitled to the social pension will always get its full amount and never fractions of it, when the income is just below the threshold of the means-testing procedure. An additional solidarity complement is also always awarded automatically to those receiving the social pension benefit. One way to reduce the overlap and improve targeting would be to consider a cap on accumulated social benefits, which would also

improve the monitoring of total benefits received by households, including those provided by local governments. The authorities should examine the cumulative effect of these programmes and rationalise them as needed to strengthen the social safety net.
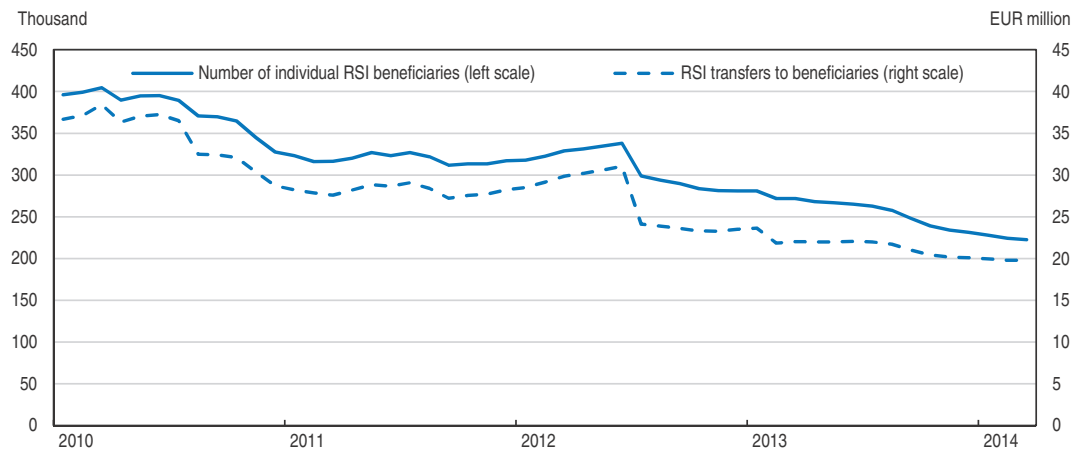
Reforming the guaranteed minimum income benefit

Guaranteed minimum income (GMI) benefits exist in almost all OECD countries as a last-resort safeguard to provide an acceptable standard of living to families in risk of extreme hardship and unable to earn sufficient income from other sources. In some countries, they are designed as a main income support-scheme and in others as a lower-tier programme, and while they have broad scope in some countries, other countries target them to specific groups, like the one-parent family payment in Ireland and the youth allowance in Australia. In some countries, GMI benefits are complemented by "near-cash" or in-kind social-assistance providing items as food, transport and education. They typically have lower budgetary impact in European countries where they are used as a lower-tier fall-back safety net (Immervoll, 2010).

Portugal's main GMI benefit programme is the *Rendimento Social de Inserção* (RSI), a non-contributory monthly transfer that tops up the recipient's monthly income to a reference minimum income threshold. Benefits are conditional on participation in a compulsory social inclusion programme, which includes short training courses and return to work initiatives, as well as requiring regular school attendance for all school-age children living in the household and adherence to children's vaccination plans. The RSI is subject to extensive means-testing, considering the income of all members of the household, to ensure that virtually all beneficiaries are indeed poor. Household assets are also considered in the means-testing, and beneficiaries cannot have financial assets or a car valued above EUR 25000. Given that the benefit level is set below the poverty line, the RSI does not alter the poverty rate *per se*, but it reduces the poverty intensity by over 25%, despite the fact that a significant number of eligible households do not take up this benefit (Rodrigues, 2009).

Since its inception in 1997, improvements in the assessment of applicants' resources of the beneficiaries and better ways to prevent fraud strengthened the distributional impact of the RSI. However, reforms undertaken in 2010 and 2012 have modified the way that household income per person is calculated for multi-person households. The original RSI scale gave a weight of 1.0 to the two first adults in the household, 0.7 to any further adults, 0.5 to each child until the second one and 0.6 to each child from the third onwards. The monthly minimum income threshold value for each adult equivalent was EUR 189.52. For a family consisting of two adults and two children, the RSI would lift the monthly income to EUR 568 if the household's own resources fell below that level. The two reforms reduced the weight of adults beyond the first one to 0.5 and the weight for each child to 0.3. In combination with a 6% nominal cut in the monthly threshold level per adult equivalent in 2013, this implied that the same family would only remain eligible if its monthly income was lower than EUR 374.

The first effect of these changes was a significant decline in the number of beneficiaries, almost halving the 400 000 recipients of January 2010 by March 2014, including the loss of RSI benefits for more than 50 000 children and youths. This implied a reduction in total RSI expenditures of about 24%, equivalent to 0.07% of GDP (Figure 2.10). For a household with two adults and two children, the threshold level of income guaranteed by the RSI has dropped from 62% of the poverty line in 2009 to 46% in 2013.

Figure 2.10. **Beneficiaries and transfers of the guaranteed minimum income benefit RSI[1]**

1. Portugal's main guaranteed minimum income benefit programme is the Rendimento Social de Inserção (RSI), a non-contributory monthly transfer that tops up the recipient's monthly income to a reference minimum income threshold.
Source: Ministério da Solidariedade e da Segurança Social (MSSS), Instituto de Informática, I.P., Departamento de Gestão de Informação.

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Micro-simulations suggest the effectiveness of the RSI to reduce inequality and poverty was severely dented by the reforms (Rodrigues, 2012; 2013). The changes have hardly affected the incidence of poverty, since most of the affected households already had incomes below the poverty line. However, the reforms have made the poor poorer. The poverty gap, defined as the difference between the median income of those below the poverty line and the value of the poverty line itself, expressed relative to the poverty line, has increased by almost 6 percentage points (Table 2.4). At the same time, the low budget impact of the reform suggests that the trade-off between fiscal savings and inequality was probably not very favourable in this case.

Table 2.4. **Effect of the changed eligibility rules of the guaranteed minimum income benefit RSI[1]**

	Without RSI	RSI pre-2010 changes	RSI post-2010 changes	RSI post-2012 changes
Poverty rate[2] (%)	17.8	17.5	17.7	17.7
Poverty gap[3] (%)	29.5	20.9	24.5	26.7
Gini index	0.353	0.343	0.347	0.350
S80/S20 income quintile ratio (%)	6.1	5.5	5.7	5.9
S90/S10 income decile ratio (%)	10.7	8.5	9.2	9.8

1. Portugal's main guaranteed minimum income benefit programme is the Rendimento Social de Inserção (RSI), a non-contributory monthly transfer that tops up the recipient's monthly income to a reference minimum income threshold.
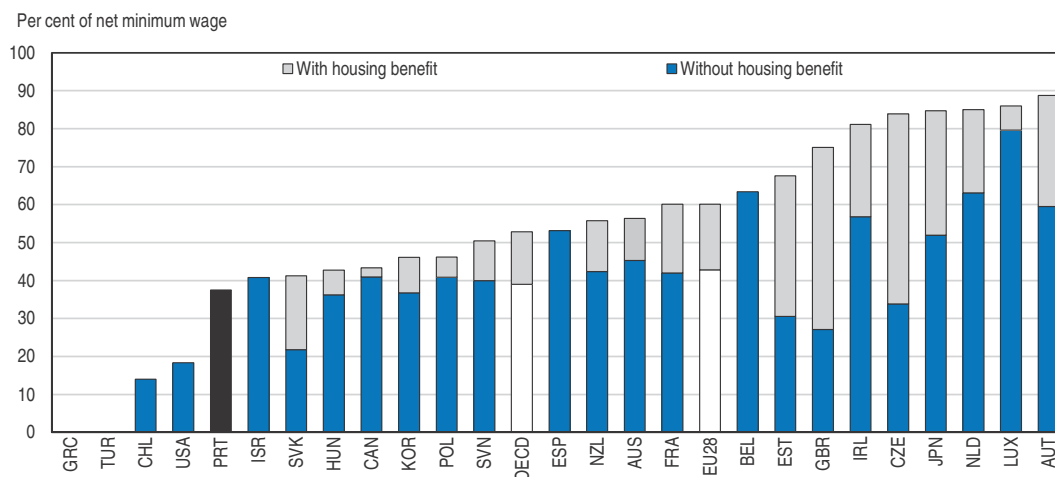2. The poverty line is defined as 60% of median disposable income in each year, adjusted for household size.
3. The poverty gap is defined as the difference between the median income of those below the poverty line and the value of the poverty line itself, expressed relative to the poverty line.
Source: Rodrigues, C.F. (2013), "Moving the goalposts not once but twice: minimum income benefit in Portugal", Paper presented at the 2013 EUROMOD research workshop, ISEG, Lisbon.

Compared to the minimum wage, RSI benefits in Portugal are low in international comparison, which suggests that the disincentives for taking up work generated by the benefits are probably very limited (Figure 2.11). A person moving from RSI benefits to a minimum wage would increase monthly income by over 150%. Even an individual with two children would still increase the monthly family income by 65%.

Figure 2.11. **Minimum-income benefits**

Net income level provided by cash minimum-income benefit (with or without housing assistance) for single person families, 2012[1]

Per cent of net minimum wage

1. Median net household incomes are from a survey in or close to 2012, expressed in 2012 prices and are before housing costs (or other forms of "committed" expenditure). Results are adjusted for household size (equivalence scale is the square root of the household size) and account for all relevant cash benefits (social assistance, family benefits, housing-related cash support as indicated). The OECD and EU28 (i.e. European Union) aggregates refer to the unweighted averages of those countries that have minimum wage policy and are included in the chart.

Source: OECD (2014), "Taxes and benefits", *OECD Social Expenditure Statistics* (database), June.

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Another way to look at work incentives is to calculate the effective marginal tax rate of a transition from social assistance to full-time employment. When taking up a job, a significant portion of these new earnings can be "taxed away" through reductions in benefit entitlements combined with imposition of income taxes. These participation tax rates, which are calculated by the OECD for many countries, are significantly below the OECD average in Portugal. For example, for a single person without children who takes up work at 33% or 50% of the average wage, the participation tax rates are 51% and 38%, respectively, compared to an OECD average of 69% and 60%, respectively. For a married couple with two children, the participation tax rates for one person taking up work are 55% and 57% for work paid at 33% and 50% of the average wage, respectively, while the OECD average is 71% and 69%, respectively. 33% of the average wage corresponds approximately to a minimum wage in Portugal.

With 40% of the unemployed and a quarter of children living below the poverty line, the recent reduction of the last-resort income support for the poor should be reversed. RSI reference thresholds should be raised, which would lead to higher benefit levels and more eligible beneficiaries. Better targeting resources to households with children could be achieved by giving children a more generous weight in the calculation of RSI benefits. Reducing existing overlaps in the benefit system and ensuring better targeting could free

resources that would allow to eventually raise RSI reference thresholds, and with that benefit levels, in a fiscally-neutral way.

At the same time, control and anti-fraud mechanisms should be further reinforced and the social inclusion programmes made more effective, with the aim of integrating RSI beneficiaries in the labour market whenever possible. Work incentives could also be strengthened through in-work benefits such as the earned income tax credits granted by the New Zealand, the United Kingdom or the United States, for example.

Making unemployment benefits less age-dependent and widening their coverage

Unemployment insurance benefits are available to dependent workers who have contributed to unemployment insurance for 12 months or more. Self-employed workers who get at least 80% of their revenues from a single company are considered *de facto* employees of that company for the calculation of unemployment benefits and are also eligible. The unemployment benefit payment is equal to 65% of the previous year's average wage for the first 6 months, and 55% thereafter. Couples that are both unemployed and living with children and/or step-children are entitled to an extra 10% of the amount that would have been otherwise awarded. The same rule applies to single parents who do not receive child maintenance payments. Unemployment benefits are also subject to a floor of EUR 419.22.

The duration of unemployment benefits depends on the age of the individual and the length of contribution prior to losing employment, with a maximum duration that was reduced from 3 years to 18 months in 2012. Prior to the 2012 reform, the required minimum contribution period to be entitled to unemployment benefit was 15 instead of the current 12 months (360 days over the last 24 months).

After the unemployment benefits expire, individuals with low household incomes that have not found a new job are eligible for "social unemployment assistance". This benefit, whose level is in between the regular unemployment insurance benefits and the RSI, is paid for half the duration of the unemployment insurance benefit the person received, except for individuals aged 40 and above, for whom it is paid for the same duration as unemployment insurance benefits. The combined duration of unemployment insurance benefits and social unemployment assistance for a person above 40 years of age can therefore be as long as 3 years.

Despite the fact that recent reforms extended the coverage, unemployment benefits reach only about 45% of the unemployed, and they have a built-in bias towards older workers. Benefit levels remain heavily age-dependent, as larger cuts in the duration of unemployment insurance for older workers are partly offset by longer unemployment assistance. The link between age and benefit duration should be eliminated by aligning the benefit duration for older workers to that of young workers. At the same time, the eligibility conditions should be made less stringent to extend benefit coverage, especially for young workers.

Giving priority to in-work benefits rather than minimum wage increases

Portugal's minimum wage is relatively high in international comparison, relative to the median wage (Figure 2.12), although its absolute level of currently EUR 505 is the lowest in Western Europe. The minimum wage rose significantly between 2007 and 2010, and then remained frozen at the same nominal level of EUR 485, until it was raised to EUR 505 in

Figure 2.12. **Minimum wages**

Per cent of median wage[1]
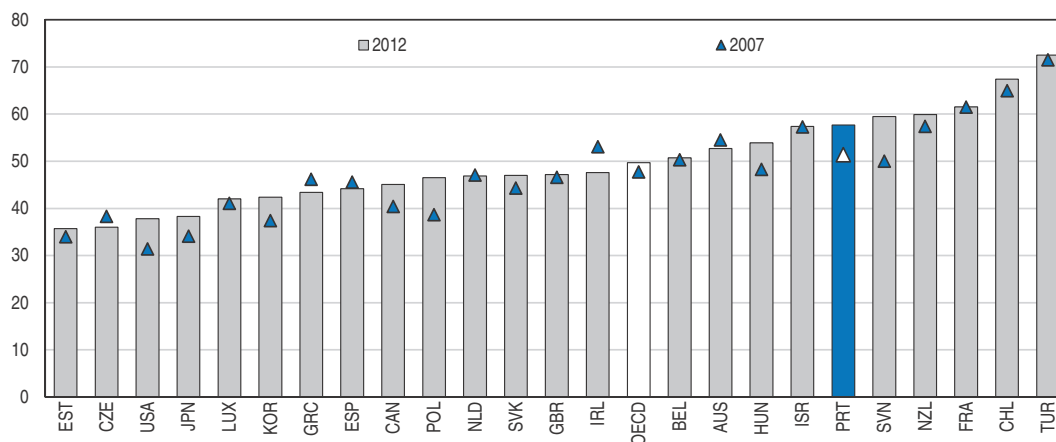
1. Data refer to 2006 and 2011 for Chile.
Source: OECD (2014), *OECD Employment and Labour Market Statistics* (database), July.

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September 2014. Recent years saw a rise in the fraction of workers who earned the minimum wage, from 6% in 2007 to 11.3% in 2011. This suggests that the minimum wage has become increasingly binding, and further increases of the minimum wage risk reducing employment among current minimum wage earners. With productivity growth being low, there is a risk that raising the minimum wage may actually sharpen inequalities rather than reducing them if such a measure generates significant employment losses. Already, not all people paid at the minimum wage rate manage to work full time, and raising the minimum wage might further reduce the demand for low-skilled labour. Future minimum wage adjustments should occur in line with productivity growth and inflation, as announced by the government.

At the same time, raising the minimum wage is not the only way to support low-income households. An earned-income tax credit limited to low-income households would reduce the earnings dispersion without reducing labour demand, although at a cost to the budget. By strengthening work incentives, its employment impact is likely to be positive. Although the introduction of such a scheme would raise public expenditures, it could be a comparatively efficient way of reducing inequality without reducing employment. Against this background, potential savings that could be made in other areas, such as aligning the duration of unemployment benefits for older workers to that of young workers, might be better invested in earned income tax credits.

Making pensions more equitable

Portugal has a defined-benefit pension system, and spends 12.5% of its GDP on old age and survivor pensions, which is the fifth highest in the OECD. Separate public and private sector pension systems have been unified for those who joined the labour force as of 2006, but remain separate for most current workers and pensioners. Demographic conditions and pension increases that outpaced growth in GDP per capita have led to rising public spending on pensions, and several pension reforms have been implemented to improve the sustainability of the pension system in the face of population ageing. These measures have included reducing accrual rates and rewarding delayed retirement. Most of these

reforms have exempted current retirees through "grandfathering" rules, which has shifted much of the burden of adjustment onto future generations (EC, 2012).

As a result, projected increases in pension spending over 2010-20 are among the largest in Europe, while those over 2020-60 are among the smallest. Two thirds of the burden of benefit reductions, for example, has been put on those who receive pensions in more than 20 years from now, as opposed to an average of about half of the adjustment burden in the European Union (IMF, 2013). Given that the benefit system already contains a significant age bias at present, these long-term pension reforms only add to the significant redistribution from the current young to the older generations through public transfer payments, and there is a risk that pensions may crowd out resources available for other transfer programmes. Attempts by the government to change this intergenerational inequality effect of the pension system have turned out impossible due to constitutional concerns.

The pension system redistributes from the working population to retirees, whose incomes are typically lower. Nonetheless, 40% of old age pension benefits is received by the top quintile in the income distribution (IMF, 2013). This is largely due to the more generous legacy public sector pension scheme *Caixa Geral de Aposentações* (CGA), in which currently retired civil servants and those that joined the public sector before 2006 are enrolled, because the private sector pension scheme GCR is *de facto* almost a flat rate system, with about 90% of the pensioners receiving the minimum pension benefit. Based on a comparison of the average wage differentials and average pension differentials for public and private sector employees, it appears that public sector pensions carry a premium of about 15% relative to private sector pensions (IMF, 2013). In fact, as a result of the CGA system whose beneficiaries make up only a small fraction of the population, average public pensions are nearly 100% of average public wages. Attempts to curtail accrued benefit rights in the CGA, however, have been vetoed by a ruling of Portugal's Constitutional Court, which has clearly limited the scope for pension reform.

Recent pension reforms have nonetheless found ways to reduce pension expenditures while strengthening the progressivity of the system. In 2011, pensions above EUR 5 000/ month were subjected to an "extraordinary solidarity contribution". This contribution has then been extended to lower pensions and currently increases progressively from 3.5% for pensions above EUR 1 000 to a marginal rate of 40% for pensions exceeding EUR 7 126. Pensioners with the lowest pensions have not been affected by any pension reductions. Even considering that pensioners' incomes are below the overall average income, these cuts have likely improved the contribution of pensions to the reduction of inequality. With regard to poverty, the cuts had no direct effects, as they only affected pensions above the poverty line.

In addition to contributory pensions, a means-tested non-contributory pension benefit, the *Complemento Solidário para Idosos* (CSI), was introduced in 2006 and guarantees an annual minimum income for pensioners aged 65 and above. The program was particularly effective to reduce the poverty incidence, since the minimum income threshold was initially fixed at the relative poverty line corresponding to 50% of the median average income. This would have eliminated old-age poverty entirely if the benefit had been taken up by all eligible beneficiaries, but actual take-up rates are low. Simulations suggest the CSI reduces the old-age poverty rate by about 10 percentage points, which implies a reduction of the overall national poverty rate by around 2 percentage points (Rodrigues, 2009).

Strengthening family and education benefits

Family benefits include a means-tested cash benefit for children. Means-testing ensures that most of these benefits go to low-income groups, although an income threshold of approximately 1.5 times the minimum wage implies that two-thirds of the beneficiaries are non-poor (IMF, 2013). Child benefits are not taken into account for assessing eligibility in the guaranteed minimum income scheme RSI. Education benefits contribute to the living expenses and tuition costs of tertiary students, and are also subject to means-testing. While tertiary education benefits support those who should expect above-average incomes in the future, on top of the subsidies financing tertiary education, almost 80% of the benefits go to the lowest two income quintiles (IMF, 2013). Such measures can be a powerful tool to enhance intergenerational mobility and improve the equality of opportunities. Given Portugal's low average educational attainments, promoting tertiary education may also be useful from a perspective of enhancing productivity growth (see Chapter 1). Overall, means-tested family and education benefits seem to be providing a useful contribution to reducing inequalities. Given the high and rising incidence of poverty among children, raising the means-tested child benefits is likely to be an efficient way to reduce child poverty.

Taxes are clearly progressive

Portugal's income tax system is clearly progressive, with several estimates suggesting that the redistributive effect of income taxes is higher in Portugal than in the average EU country (Alves, 2012, OECD, 2011). The average effective income tax rate faced by the top quintile of the income distribution is around three times higher than for the bottom quintile, and as a result, the top quintile accounts for over two thirds of income tax payments (Figure 2.9). Income tax rates were increased in 2010, 2011 and 2013, and a comprehensive income tax reform in 2013 reduced the number of income brackets from 8 to 5, significantly increased marginal rates, and reduction in tax breaks, including for private education and health expenditures, which are overwhelmingly consumed by better-off households. The elimination of these tax breaks is clearly a step in the right direction, and it also makes the tax system simpler and more transparent. The overall redistributive effects of these changes to income taxes are difficult to evaluate, particularly the 2013 changes to personal income taxes. Most likely, however, they will reinforce the progressive character of direct taxes, and will therefore strengthen the inequality reduction achieved through personal income taxes.

Further tax reforms affected value-added taxes (VAT) and tax compliance. VAT reforms in 2012 included a wider application of the standard rate, including to restaurant meals and some prepared foodstuffs, which were previously taxed at a lower rate. These reforms likely made VAT more progressive as well, given that many of these items are consumed predominantly by wealthier households. Tax authorities also reinforced anti-tax evasion measures and compliance incentives, building on the work of previous governments. Strengthening tax compliance is also expected to improve the distributional efficiency of taxes, as high-income individuals typically have more opportunities to for tax evasion than low-income earners.
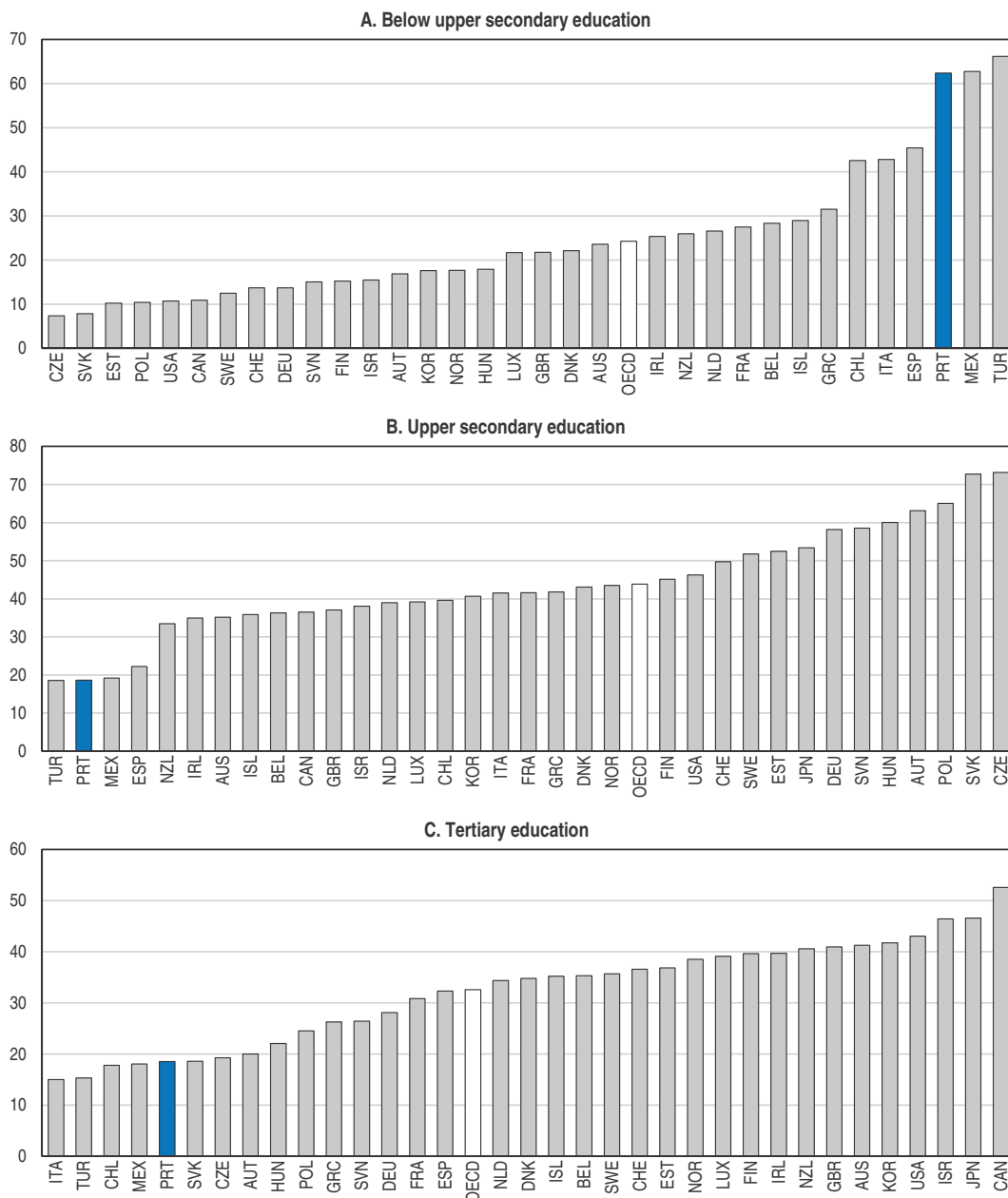
Education could do more to reduce inequality

Education affects people's capacity to generate earnings, and Portugal's low educational attainments are an important reason why average incomes are lower and

poverty is higher than in other countries. Portugal is one of the OECD countries where the proportion of working-age adults with less than upper secondary education is highest (62% versus the OECD average of 24%) and tertiary education attainment is among the lowest at 14 percentage points below the OECD average (Figure 2.13). Household data suggest that the level of educational attainment of the household head is one of the major explanatory variables behind inequality, explaining about 25% of its total level. Higher educational attainments are also associated with lower unemployment and poverty rates (Table 2.5).

Figure 2.13. **Highest educational attainment of 25-64 year-olds**

Per cent, 2012[1]

A. Below upper secondary education

B. Upper secondary education

C. Tertiary education

1. 2011 for Chile.
Source: OECD (2014), *Education at a Glance 2014.*

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Table 2.5. **Unemployment and poverty rates by level of educational attainment**

Per cent

	2009	2010	2011	2012	2013
Unemployment rate (population aged 25-64)					
Primary and lower secondary education	10.1	11.8	13.3	16.0	17.1
Upper secondary and post-secondary non-tertiary education	8.2	9.7	10.9	14.5	14.4
Tertiary education	5.6	6.3	8.0	10.5	11.7
Poverty rate (population aged 18-64)					
Primary and lower secondary education	19.1	19.9	20.6	..	..
Upper secondary and post-secondary non-tertiary education	9.3	10.9	12.1	..	..
Tertiary education	3.3	2.5	3.6	..	..

Source: Eurostat (2014), "Employment and unemployment (Labour Force Survey)" and "Income and living conditions", databases, July.

Several studies have provided evidence of an empirical link between education on one hand and inequality and poverty on the other (Martins and Pereira, 2004; Rodrigues et al., 2012; Rodrigues and Andrade, 2014). Portugal's dearth of highly educated people has also been mentioned as one of the reasons behind high returns to education, which exacerbate inequalities (Alves, 2012b). For example, the share of people living in households whose head has attained tertiary education rose from 7.4% in 1993 to 13.8% in 2009. Concomitantly, the disposable income of this group declined from 2.5 times the national average in 1993 to just 1.8 in 2009 (Rodrigues et al., 2012). Successive governments have made a determined effort to improve the general level of education of the Portuguese population, and although such improvements always take time to show up in the data, there are some encouraging results. Between 2001 and 2011 the proportion of people aged 25-34 who attained at least upper secondary education rose from 32% to 56%, and the proportion of people with tertiary education almost doubled.

Nonetheless, more could be done to improve the contribution of the education system to equity objectives. In Portugal, the association between students' socio-economic background and their performance at school is more pronounced than on average in the OECD, and much of this relation lies at the school level (Figure 2.14). As a result, the socio-economic differences across schools are largely predictive of a school's performance in the OECD PISA assessments. Policies that target disadvantaged schools, but also disadvantaged students, can therefore be particularly effective in raising performance and equity levels. Grade repetition is frequent, and this has proven an ineffective way to support poorly performing students. Around one third of students had repeated grades at least once by age 15 in 2012. Providing extra teaching time for students who fall behind and taking into account their needs so that they can catch up with their peers is a much better way of supporting those with learning difficulties than grade repetition, and is not necessarily more costly. With more than 20% of students leaving school early, Portugal still has one of the highest drop-out rates in the European Union. As drop-outs are likely to be significantly penalised in their earnings opportunities, continuing to reduce drop-out rates further could diminish the number of those at risk of falling into poverty. At the same time, class sizes are small, although OECD evidence suggests that class size is a far less important factor than teacher qualifications for student's learning progress. Increasing class sizes may be one way to free the resources needed for providing extra teaching time to those at risk of dropping out of the school system.

Figure 2.14. **Relationship between student performance
and socio-economic status**

Per cent of explained variance in mathematics performance by socio-economic status, 2012[1]
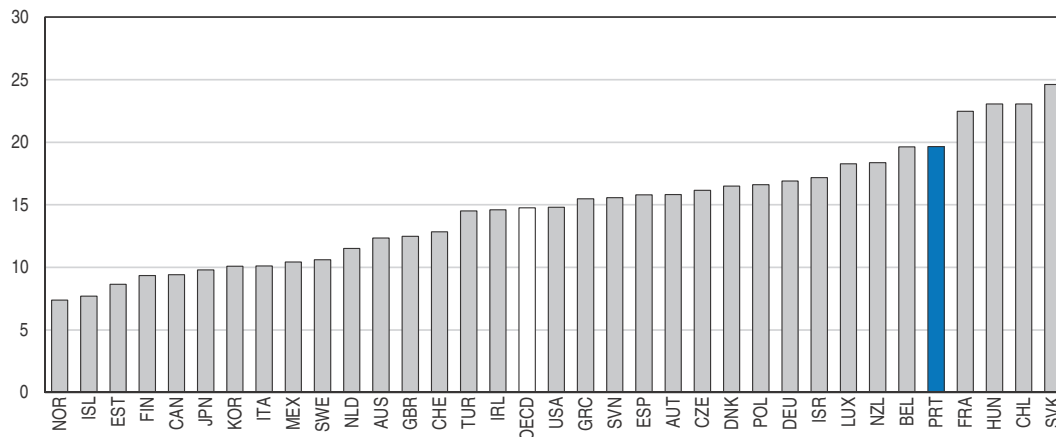
1. Socio-economic status is measured by the PISA index of economic, social and cultural status.
*Source:* OECD (2013), *PISA 2012 Results: Excellence Through Equity: Giving Every Student the Chance to Succeed* (Volume II), PISA.

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In the last few years, progress has been particularly significant in terms of adult education, which is an effective way to reduce the gap in educational attainment between younger and older cohorts. Enrolment in adult education programmes has risen sharply as of the school year 2008-09, although most of the sharp increase was accounted for by the national scheme of recognition, validation and skills certification (RVCC). This scheme involved a recognition and validation of acquired professional skills and work experience, with a lesser focus on providing new skills. However, a recent evaluation of the RVCC scheme argued that schemes that include formal teaching are more successful for improving the employability and increased earnings opportunities for adults than the RVCC (Lima, 2012). This has led to a sharp decline in the RVCC scheme, and reset the focus on schemes that combine the recognition of skills with new coursework, however at the cost of a significant decline in enrolment (Figure 2.15). The continuation and further

Figure 2.15. **Adult enrolment in return to education initiatives**

Number of students enroled, in thousand
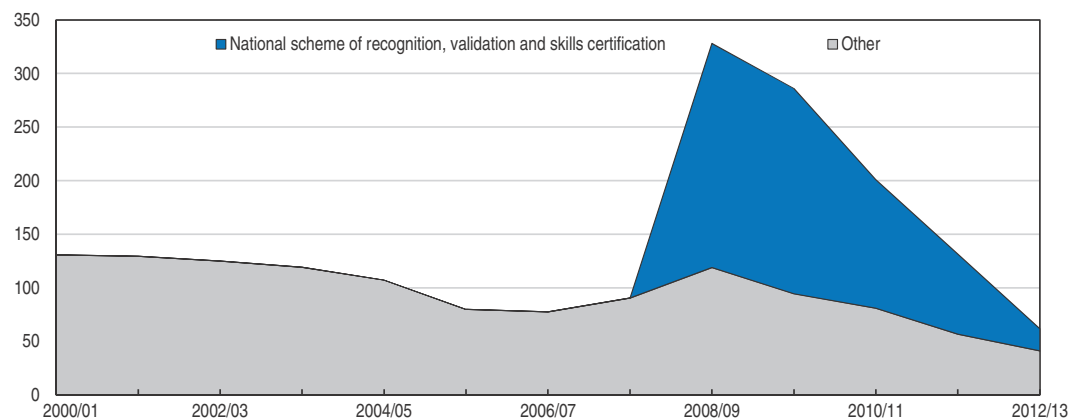
Source: Ministério da Educação e Ciência (2014). *Estatísticas da Educação 2012/2013*, DGEEC/MEC, Lisbon.

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development of adult learning initiatives is fundamental for achieving greater equity, and a particularly important challenge will be to compensate the lower enrolment in the RVCC scheme with higher enrolment in other schemes. Moreover, the education system should put more emphasis on providing training options to less academically-inclined students, by expanding the vocational education and training (VET) system.

Scaling up active labour market policies (ALMPs) that involve training activities can also improve the labour market performance of the unemployed, particularly for youth. Recently adopted enhancements of ALMPs include short training courses, financial support for internships, a hiring subsidy paid to companies that provide training and the temporary reimbursement of social security contributions for hiring unemployed individuals below 30 or above 45 years. Going forward, job centres could take a more active role in managing referrals to specific ALMP programmes. This would both promote the enrolment of job seekers who would benefit the most from these programmes, and ease capacity constraints. Efforts in this direction have already started and empirical results suggest a significant positive impact on reemployment probabilities (Martins and Pessoa e Costa, 2014). Monitoring and sanctions, while very strict in principle, are in practice far less stringent, as proof of job search is often perfunctory and benefit cancellation seldom enforced. Welcome progress has been made in the evaluation of programmes to help the unemployed, and these efforts should be further strengthened and used to channel scarce resources into the most effective programmes.

Box 2.2. **Recommendations to reduce inequality and poverty**

- Strengthen the social safety net by reducing overlaps between programmes and ensuring better targeting, which could generate resources to eventually raise benefit levels of the minimum income support scheme *Rendimento Social de Inserção* (RSI).

- Prioritise the support given to children and youths, including by giving a more generous weight to children in the calculation of RSI benefits, or by raising child benefits.

- Make unemployment benefits independent of age and reduce eligibility requirements to widen their coverage.

- Raise the minimum wage only in line with productivity increases and inflation, as planned, but consider the use of in-work tax credits to improve the incomes of low-wage earners and strengthen work incentives.

- Continue to scale up active labour market policies and closely monitor programme performance.

- Scale up adult education and back to school schemes to help the unemployed and those in need gain relevant skills.

- Reduce drop-out rates from secondary education, including by reducing grade repetition and providing extra teaching time for students falling behind. Consider raising class sizes further if necessary to achieve this.

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