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BASIC STATISTICS OF LITHUANIA, 2014

(Numbers in parentheses refer to the OECD average)*

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (millions)	2.9		Population density per km²	45.1	(35.2)
Under 15 (%)	14.6	(18.1)	Life expectancy (years)[a]	74.6	(80.4)
Over 65 (%)	18.4	(16.0)	Men	69.1	(77.8)
Foreign-born (%)	4.7		Women	79.9	(83.0)
Latest 5-year average growth (%)	-1.6	(0.6)	Latest general election (parliament)	October 2012	
ECONOMY					
Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	48.4		Primary (Agriculture, forestry and fishing)	3.4	(2.5)
In current prices (billion EUR)	36.4		Industry including construction	30.5	(26.6)
Latest 5-year average real growth (%)	3.6	(1.9)	Services	66.0	(70.8)
Per capita (000 USD PPP)	26.7	(39.0)			
GENERAL GOVERNMENT					
Per cent of GDP					
Expenditure[a]	34.8	(41.9)	Gross financial debt[a]	52.7	(112.8)
Revenue[a]	34.1	(37.8)	Net financial debt[a]	25.3	(69.6)
EXTERNAL ACCOUNTS					
Exchange rate (EUR per USD, 2015)	0.902		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1, 2015)	0.445		Machinery and transport equipment	20.2	
In per cent of GDP			Mineral fuels, lubricants and related materials	17.6	
Exports of goods and services	81.2	(53.3)	Miscellaneous manufactured articles	15.5	
Imports of goods and services	79.3	(49.4)	Main imports (% of total merchandise imports)		
Current account balance	3.6	(0.0)	Mineral fuels, lubricants and related materials	24.5	
Net international investment position	-42.2		Machinery and transport equipment	23.4	
			Chemicals and related products	13.8	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate for 15-64 year olds (%)	65.7	(65.7)	Unemployment rate, Labour Force survey (15 and over) (%)	10.7	(7.3)
Men	66.5	(73.6)	Youth (age 15-24) (%)	19.3	(15.1)
Women	64.9	(57.9)	Long-term unemployed (1 year and over) (%)	4.8	(2.5)
Participation rate for 15-64 year-olds (%)	73.7	(71.2)	Tertiary educational attainment 25-64 year-olds[a] (%)	36.7	(33.3)
Average worked hours per year	1 834	(1 770)	Gross domestic expenditure on R&D (% of GDP)[a]	1.0	(2.4)
ENVIRONMENT					
Total primary energy supply per capita (toe, 2013)[b]	2.4	(4.1)	CO_2 emissions from fuel combustion per capita (tonnes, 2012)	4.5	(9.7)
Renewables (%, 2013)[b]	17.4	(9.1)			
Fine particulate matter concentration (urban, PM10, µg/m^3, 2011)	31.8	(28.0)			
SOCIETY					
Income inequality (Gini coefficient, 2012)[c]	0.351	(0.308)	Education outcomes (PISA score, 2012)		
Relative poverty rate (% below 50% of median income)[d]	11.3	(11.0)	Reading	477	(497)
Median equivalised household income (000 USD PPP, 2012)	9.4	(22.7)	Mathematics	479	(494)
Public and private spending (% of GDP)			Science	496	(501)
Health care	6.3	(8.9)	Share of women in parliament (%, September 2015)	23.4	(27.7)
Pensions[e]	7.0	(8.7)	Net official development assistance (% of GNI)	0.10	(0.36)
Education (primary, secondary, post sec non tertiary, 2012)[e]	2.9	(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 exists for at least 29 member countries.

a) 2013 for the OECD.

b) 2014 for the OECD.

c) For Lithuania, OECD Secretariat calculations from EU-SILC – preliminary results.

d) 2012 for the OECD.

e) 2011 for the OECD.

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

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Executive summary

- *Productivity growth has resumed after every crisis*
- *The convergence process has not been inclusive enough*
- *The economy is volatile*

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Productivity growth has resumed after every crisis

Labour productivity gap to OECD (%)

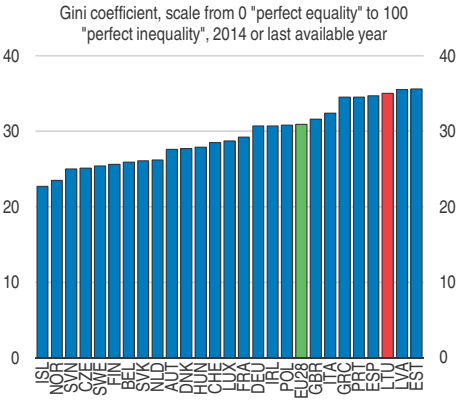


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Accession to the euro area confirms Lithuania's commitment to sound and sustainable economic policies. The economy is expected to recover despite weak Russian demand. Labour and product markets are flexible. Productivity rose on average by 5% per year between 1995 and 2014, but remains one-third below the OECD average. Some firms lack skilled workers and the innovation intensity of the business sector is low. Greater spending efficiency needs to make a contribution to finance productivity-enhancing measures.

The convergence process has not been inclusive enough

Income inequality

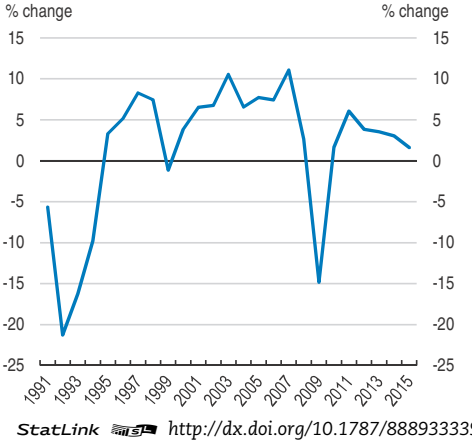


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Inequality and poverty rates are high, job satisfaction and life expectancy are low while emigration is high, although to a lower extent more recently. Social assistance is not effective enough at reducing poverty. Securing effective job search and programmes to get people back to work would foster inclusive growth. These challenges are addressed in the "New Social Model" reform package. Promoting healthy lifestyles and primary health care would also help to achieve better well-being outcomes.

The economy is volatile

GDP growth



StatLink http://dx.doi.org/10.1787/888933339255

Past fiscal consolidation has placed government debt at a sustainable level. Longer term challenges relating to population ageing and future potential macroeconomic shocks should be addressed by: 1) Further moving taxation away from labour towards less distortionary tax bases and continuing to improve tax collection. 2) Strengthening the sustainability of the pension system. 3) Continuing to strengthen the medium-term budgetary framework.

MAIN FINDINGS	KEY RECOMMENDATIONS
Fiscal and financial policies to support the economy	
Fiscal policy needs to be adjusted to meet medium to long term fiscal challenges related to population ageing and future potential macroeconomic shocks.	Continue fighting tax evasion also beyond the VAT gap and improve spending efficiencies (especially in education and health care areas), to allow medium term fiscal consolidation and finance public spending needs.
The tax mix does not facilitate enough inclusive growth.	Further shift the tax burden away from labour, especially from employer social security contributions, and raise recurrent taxes on personal immovable property.
Low energy efficiency increases vulnerability to world energy price shocks and jeopardises climate change objectives.	Increase taxes on activities that damage the environment.
Boosting productivity	
Businesses have difficulty finding suitable skilled labour.	Further increase the role of workplace training and co-operation with employers in the education system, especially in the context of vocational education and training programmes.
Test scores for secondary school students are low.	Attract higher performing graduates to the teaching profession by paying higher wages and investing in teacher development.
	Promote participation in pre-primary education.
Regulations are generally business friendly, but innovation intensity of Lithuanian firms is low and access to finance is a constraint for some high productivity firms.	Promote new forms of business financing and ensure that innovation policies support young innovative firms. Reform bankruptcy procedures.
Promoting inclusive growth	
High wage inequality, low employability for the low skilled and low job satisfaction reduces the well-being of workers and contributes to high emigration.	Improve inclusiveness by providing in-work benefits for low-paid jobs and increasing access to lifelong learning.
	Lower employer social security contribution on low-skilled workers while maintaining their entitlements.
Weak support to the unemployed increases vulnerability to poverty and contributes to skill mismatch.	Implement the plans in the "New Social Model" to reform labour regulations and temporary income support for the unemployed.
	Strengthen active labour market programmes and the capacities of public employment services to implement programmes to get people back to work.
The social assistance benefits programme is not effective enough at reducing poverty.	Increase the income support to social assistance recipients while strengthening work incentives.
Life expectancy is relatively low and the health care system could make a better contribution to health status.	Further promote healthy lifestyles and primary care services especially in rural areas through general practitioners, greater role for nurses and the recently established network of public health bureaus.
	Increase health sector efficiency and effectiveness of health policy by continuing to merge hospitals and widening the scope for the newly established e-health infrastructure while fully respecting privacy concerns.

Assessment and recommendations

- *Growth is projected to gain momentum despite weak external conditions*
- *Fiscal and financial policies to support the economy*
- *Boosting productivity to accelerate convergence*
- *Promoting an inclusive labour market*
- *Improving health outcomes for all*

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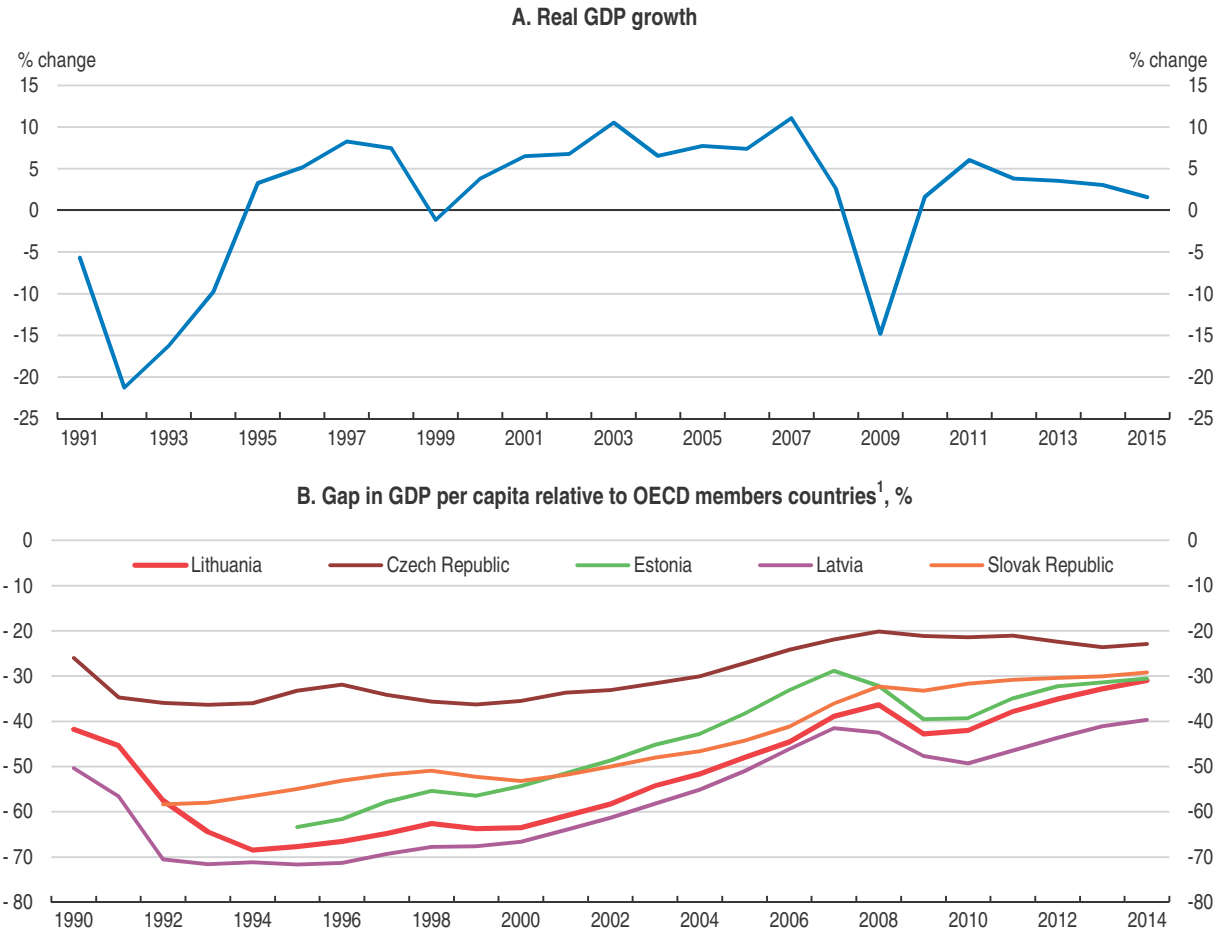
Lithuania is a small open economy with about 3 million inhabitants. The institutional environment is overall stable, transparent, and market-friendly. The country has taken significant strides to work more closely with the international community: it joined the World Trade Organization in 2001, the European Union in 2004 and, after operating under a currency board for the preceding 25 years, the euro area in 2015. Since 2011, economic growth has been one of the highest among European countries, reflecting a swift recovery from the global financial crisis thanks to the economy's high flexibility. Market-friendly institutional arrangements have helped; Lithuania was ranked 20th in the World Bank *Ease of Doing Business Index* for 2015. At the same time, financial and fiscal frameworks have been strengthened with the adoption of the fiscal compact and participation in European system of financial supervision. However, inequality indicators are high and the share on informal activities is significant.

The economy has exhibited substantial volatility over the past 25 years (Figure 1, Panel A). The collapse of the central planning system in 1991 required a difficult transition to a market economy. Reforms during the transition period focused on price liberalisation, small-scale privatisation and the establishment of a national currency – the *Litas*. The share of military goods in production fell substantially, there was a diversification of supply chains and industrial restructuring, and the economy opened up to foreign trade (Černiauskas and Dobravolskas, 2011). Following a domestic banking crisis in 1995, growth picked up.

Recent volatility of the Lithuanian economy has mostly reflected it being a small open economy; exports account for 81% of GDP. As a consequence, the Russian financial crisis in 1997-98 was the catalyst for a temporary slowdown and the impact of the global financial crisis in 2008 was severe. The main economic developments to note since 2000 are:

- The economy experienced an average annual growth rate of 7.5% between 2000 and 2007. An inflow of cheap finance and lenient credit standards (credit to the economy grew by 50% per year on average between 2003 and 2007), led to an increase in private loan-financed domestic demand and a housing bubble at a time when no counter-cyclical fiscal policy framework existed.
- The trend increase in house prices began to reverse in mid-2007, before the global financial crisis pushed Lithuania into recession due to a sudden stop of capital inflows. The drop in GDP in 2009 was dramatic although similar in scale to the experiences of Estonia and Latvia. The unemployment rate peaked at 18% in 2010, the fiscal deficit rose to 9% of GDP and the current account balance moved from -13% of GDP in 2008 to +2.1% of GDP in 2009, mainly due to collapsing domestic demand.
- The economy then recovered quickly, with average growth of 3½ per cent between 2010 and 2014, returning real GDP to its pre-crisis level. Unemployment declined to less than 11% in 2014 and the fiscal deficit fell below 1% of GDP. Competitiveness has been improved thanks to an internal devaluation (the currency was pegged to the euro in 2002) and as a result the current account remained in surplus.

Figure 1. **The economy has been volatile but also resilient to shocks**



1. In constant 2011 PPPs.

Source: OECD calculations based on World Bank, *WDI Database*; OECD *Economic Outlook 98 Database*.

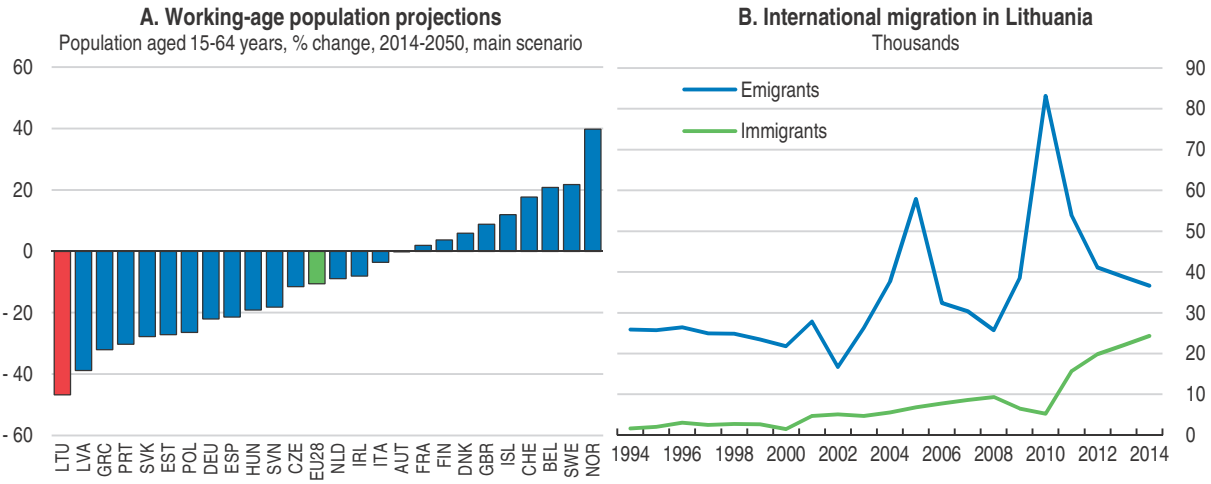
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Despite recent strong economic performance, Lithuania still faces several challenges. The informal economy is relatively large, creating an uneven playing field for firms and exacerbating economic inequality. The wounds from the financial crisis are also still yet to heal. The housing boom and its subsequent bust led to the loss of a large number of jobs in the construction sector and those jobs are unlikely to return. This has increased skill mismatch and structural unemployment, which is estimated at 10-12% (Ebeke and Everaert, 2014). Despite a pick-up, investment as a share of GDP remains well below its pre-boom level, further undermining future potential growth and productivity.

Lithuania has a rapidly declining population (Figure 2, Panel A). A low fertility rate, high mortality and significant emigration have all been contributing factors. United Nations population projections suggest that Lithuania's working age population will decline by 15% over the next 15 years (United Nations, 2015). Such a trend implies mounting challenges for future potential output growth and fiscal sustainability.

Since 1990, 22% of the population (of 1990) has emigrated. The average emigration rate accelerated from 7% of the population in 1990-2000 to above 12% during the 2000s, and the average net rate of recent years is one of the highest in the EU (Statistics Lithuania;

Figure 2. **Emigration has been high and the working age population is declining**



Source: Eurostat Population and *Social Conditions Database*; *Statistics Lithuania*.

StatLink http://dx.doi.org/10.1787/888933338549

Sipavičienė and Stankūnienė, 2013). Most Lithuanians leave for economic reasons, with the greatest proportion moving to the UK where net average earnings are more than five times higher. Since the financial crisis, emigration to Norway has increased while migrant flows to Russia and Belarus have fallen. A relatively high proportion of Lithuanian emigrants are female, young and well educated (Arslan et al., 2014, Figure 2). On the positive side, return migration has trended up since the global financial crisis and contributed to the lowest annual net emigration in 2014 since 2002.

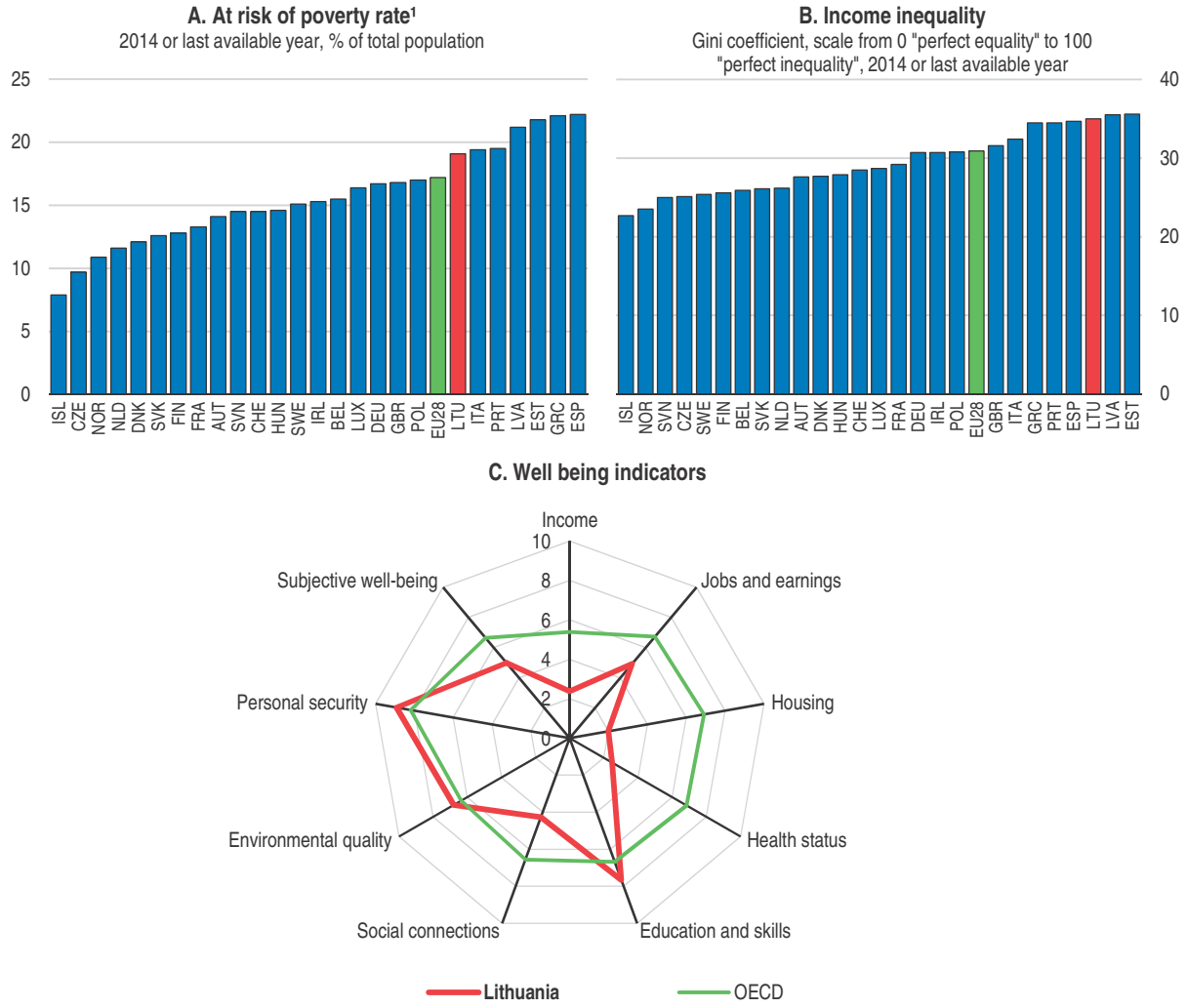
Against this background, the *Economic Assessment of Lithuania* has two main messages:

- *Accelerating the convergence process*. Boosting productivity will be critical to raise further living standards. Despite impressive progress over the last two decades, GDP per capita remains relatively low, reflecting weak productivity (Figure 1, Panel B). Greater productivity gains can be achieved by further strengthening the institutional framework to ensure improvements in firm's absorptive capacities and efficient resource allocation. Other major priorities are to guarantee the educational system provides the right mix of skills and that the policy environment promotes innovation.
- *Inclusiveness*. Inequality and poverty remain comparatively high (Figure 3, Panels A and B). Lithuania lags behind regarding indicators of well-being measuring the quality of life (Figure 3, Panel C). There is room for making social support and labour market institutions more effective at bringing jobless people back to the labour market, reducing social inequality and making Lithuania an attractive place to live and to work. The ongoing revision of the "New Social Model" is an opportunity for achieving these objectives (see Annex 1). Improving health status and life expectancy would make also an important contribution to well-being.

Growth is projected to gain momentum despite weak external conditions

In 2015, the volume of investment was 15.4% greater than a year earlier. Rising house prices since mid-2013 combined with low real interest rates have led to higher residential investment. Reflecting the high cash reserves of businesses, purchases of machinery and equipment have been particularly strong, buoying imports since mid-2014. This should

Figure 3. **There is scope to be more inclusive**



1. Cut-off point: 60% of median equivalised income after social transfers.

Note: The well-being performance of Lithuania is based on a preliminary assessment considering the available information, reduced compared to the OECD average. The OECD dimensions scores have been adjusted to mirror the reduced indicators' coverage of Lithuania.

Source: Eurostat Population and *Social Conditions Database*; OECD *Better Life Initiative 2015*.

StatLink http://dx.doi.org/10.1787/888933338559

increase the potential output of the economy and thus help expand economic activity in the future.

Recession in Russia and counter-sanctions caused the value of Lithuanian exports to Russia to shrink by 40% in 2015 compared to a year earlier. Re-exports have traditionally made up a very high proportion of Lithuanian exports to Russia, meaning the direct impact on the domestic economy from slower trade activity with Russia may not be very large. Nevertheless, the transport sector has been negatively impacted and some pockets of Lithuanian industry, such as dairy and meat production, have experienced a sharp decline in sales. Lithuania has had some success in reorienting exports to a diverse range of countries. Export volumes of sanctioned goods of Lithuanian origin have particularly risen to the Middle East and Asian countries.

Table 1. **Macroeconomic Indicators and Projections**

	2013	2014	2015	2016	2017
GDP	3.5	3.0	1.6	2.8	3.4
Private consumption	4.3	4.1	4.9	4.0	4.0
Government consumption	1.0	1.3	2.0	0.9	0.6
Gross fixed capital formation	8.3	5.4	10.3	3.3	4.9
Residential	11.5	16.9	13.6	9.8	5.2
Final domestic demand	4.5	3.9	5.4	3.3	3.6
Stockbuilding[1]	0.3	-0.4	-0.3	0.0	0.0
Total domestic demand	3.8	3.0	6.2	2.1	3.8
Exports of goods and services	9.6	3.0	1.2	4.2	4.3
Imports of goods and services	9.3	2.9	7.0	4.4	4.8
Net exports[1]	0.3	0.2	-4.6	-0.2	-0.3
Memorandum items					
GDP deflator	1.3	1.2	0.4	0.7	1.7
Harmonised index of consumer prices	1.2	0.2	-0.7	1.5	2.0
Private consumption deflator	1.0	0.1	-0.9	1.6	2.0
Unemployment rate	12.0	10.9	9.3	8.7	8.1
Output gap[2]	0.1	0.7	-0.5	-0.6	-0.1
General government financial balance[3]	-2.6	-0.7	-1.2	-1.0	-0.9
General government gross debt[3]	48.0	52.7	53.4	53.5	53.1
General government gross debt, Maastricht definition[3]	38.8	40.7	41.2	41.5	40.9
Current account balance[3]	1.5	3.6	-1.7	1.4	1.1

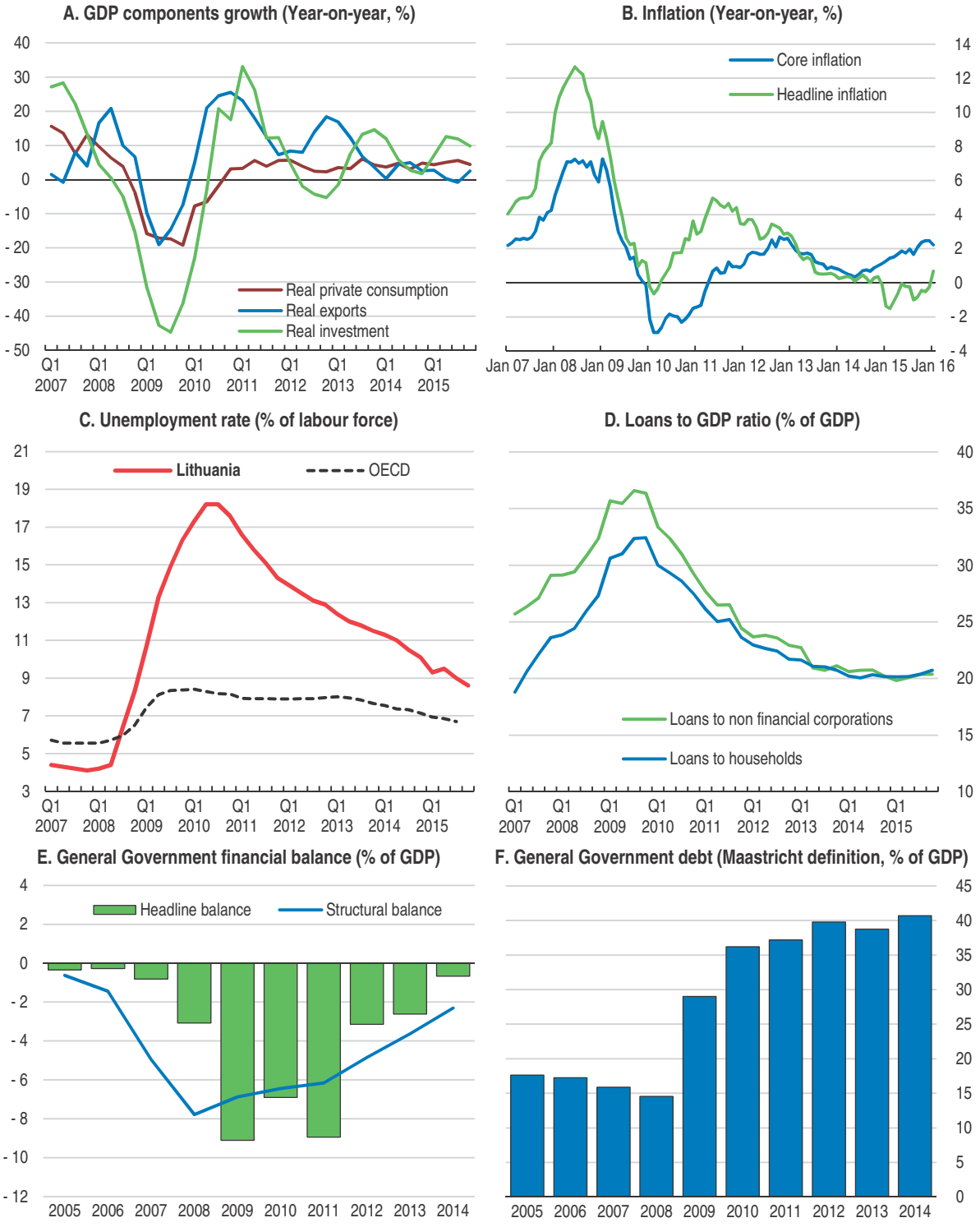
1. Contributions to changes in real GDP.
2. As a percentage of potential GDP.
3. As a percentage of GDP.

Source: Update from *OECD Economic Outlook 98*.

Growth is projected to gain momentum in 2016 and 2017 as export growth recovers in line with improvements in major export markets. This, combined with easier financing conditions, will spur domestic investment activity, especially in 2017. Private consumption growth will continue to be supported by improving labour market conditions. The unemployment rate will continue to fall and exert upward pressure on wage growth. Growth in unit labour costs will slightly increase, even assuming a solid rise in productivity. Compared to the past few years, which were marked by substantial fiscal contraction, fiscal policy will exert less drag on domestic demand (Figure 4, Panels E and F), as the government's fiscal stance is expected to become broadly neutral. The European Commission sees a risk of Lithuania deviating from its medium-term fiscal objective under EU rules (European Commission, 2015d). However, the Commission has a different view on the cyclical position of the Lithuanian economy and did not take into account the full potential effect of recent tax administration improvements.

Risks to the economic outlook are to the downside. A weaker-than-expected recovery in the euro area could hurt the export recovery. Empirical evidence suggests that 1 percentage lower growth in Lithuania's trading partners would reduce GDP growth by 1.25 percentage points, mainly through the trade channel (IMF, 2013). A rise in geopolitical tensions may also weaken business confidence and delay the investment recovery, but an easing in tensions could have the opposite effect. On the upside, substantial stimulus from accommodative monetary policy and lower oil prices is currently supporting euro-area economies, including Lithuania. If coupled with progress in implementing structural reforms, especially boosting the volume and quality of European infrastructure, this could

Figure 4. **Short term economic indicators**



Source: Eurostat, *OECD National Accounts Database*, *OECD Main Economic Indicators Database*, Bank of Lithuania; OECD estimates, OECD *Economic Outlook 98 Database*.

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further boost external demand for Lithuanian goods and services. In addition, Lithuania could face shocks that are difficult to quantify in the projections, but which might have large repercussions if they materialise (Box 1).

Box 1. **Potential shocks not factored into the outlook**

There are a number of low probability events that are not taken into account in the forecasts that would create significant challenges for the Lithuanian economy.

Vulnerability	Possible outcome
Large rises in oil prices	The economy has benefitted from the substantial fall in the oil price since mid-2014. A heightening of geopolitical risks in the Middle East could reduce expected oil supply and send prices higher. This would reverse some of the recent improvement in Lithuania's current account balance.
Increased financial risks	Renewed disturbances on international financial markets, potentially stemming from geopolitical tensions, concerns about sovereign debt sustainability in the euro area or a surprisingly rapid normalisation of US monetary policy, could have particularly large effects on small countries such as Lithuania.
Geopolitical events	Future geopolitical events relating to Russia are very uncertain in both directions, but could have large and unpredictable effects on neighbouring countries, including Lithuania.

Fiscal and financial policies to support the economy

As discussed, Lithuania faces important challenges to make economic convergence stronger and more inclusive, heightening the need for a robust fiscal and financial framework. Spending on health and labour market policies are a priority in the short-term and the ageing population will require greater public support in the longer-term (Box 2). Nevertheless, such government interventions are likely to enhance both economic growth and labour market participation, improving the future fiscal position. At the same time, measures that improve the efficiency of education and health spending and further promote tax compliance can also expand fiscal resources and contribute to medium-term consolidation. Adjusting the tax mix away from the most distortionary revenue sources would raise productivity and economic growth. A fiscal and financial architecture that protects the economy against the build-up of imbalances will also be important for ensuring that the income convergence process is sustainable.

Strengthening long-term fiscal sustainability and growth

The fiscal position is robust

Lithuania's fiscal position is strong with a small fiscal deficit (-0.7% of GDP in 2014) and government debt (41% of GDP; Figure 4, Panels E and F; and Figure 5). The current fiscal position has benefitted from significant consolidation efforts in the aftermath of the crisis. Two-thirds of the consolidation was done through cutting expenditures, including decreases in public wages, temporary cuts in pensions, and reductions in selected social benefits (Geng, 2013; IMF, 2014a; European Commission 2014a). This tight stance was needed to retain financial market confidence and to ensure euro adoption. The benefits of this effort are now apparent, as the government has appropriately shifted to a broadly

Box 2. **Long term costs related to ageing and sustainability of the pension system**

Lithuania is one of the fastest-ageing countries in the European Union (EU): the old-age dependency ratio is expected to rise from one senior (person above 65 years old) for every 2.4 workers in 2013 to 1 senior for 1.2 workers in 2040. This implies additional annual fiscal costs that will peak at around 2 percentage points of GDP in 2040 (European Commission, 2015b).

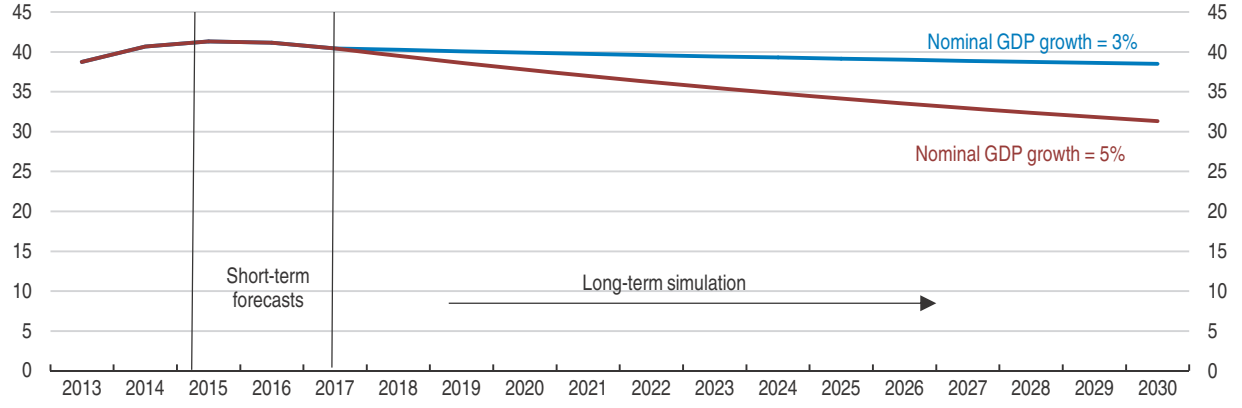
Reforms to the pension system are underway. Since 2012, the retirement age has been gradually increasing and will reach 65 in 2026 for both men and women. A new system was implemented from 1 January 2014 allowing the accumulation of additional pension rights in addition to the state social insurance contribution. A reform on indexation of pensions is planned for the second half of 2015 (NRP, 2015).

Those reforms are welcome but are not sufficient to meet the challenges. Although it has not yet been legislated, there is a plan to more closely link working age to life expectancy from 2026 as part of the ongoing reforms to the social model. Other planned measures include increasing the required length of service for eligibility for a full old-age pension (to 35 years by 2026 rather than 30 years now) and restricting the early retirement schemes (European Commission, 2015a).

neutral fiscal stance, which will not depress demand going forward. Nevertheless, Lithuania has one of the fastest ageing populations in the EU and further measures will be needed to contain the associated fiscal costs (Box 2).

Figure 5. **The fiscal position is strong**

Debt-to-GDP ratio with fiscal deficit of 1% of GDP each year



Source: OECD calculations.

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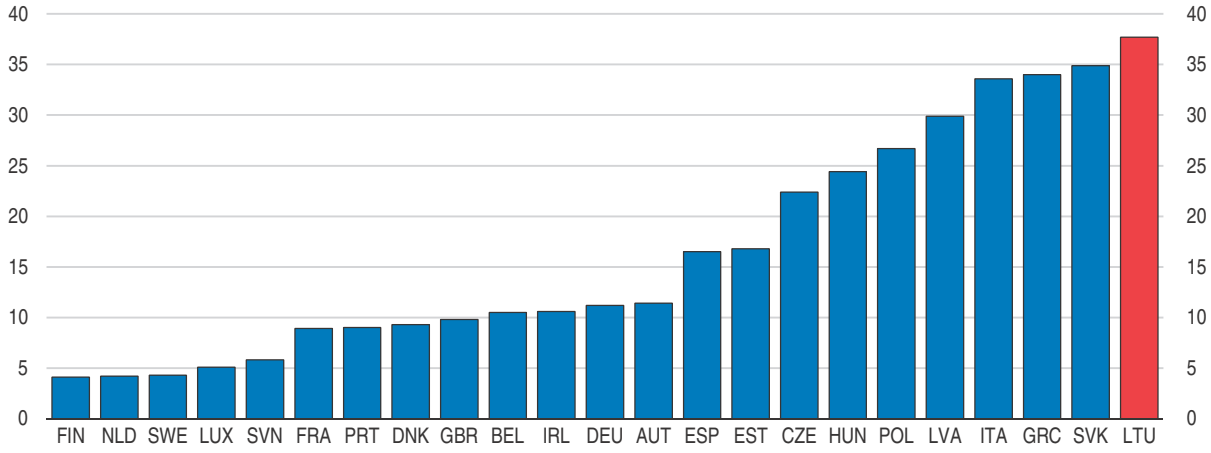
Fighting tax evasion

Lithuania's tax revenue potential is not fully exploited: when comparing revenues to the tax capacity of the economy, taking into account its structural characteristics such as the level of GDP per capita and the sectorial composition of GDP, Lithuania's tax collection is estimated at 61% of tax capacity against 77% for other central European economies (IMF, 2014b). Recent work suggests that despite shrinking in recent years, Lithuania's informal economy is one of the largest in the EU (Schneider, 2015).

Lithuania's value added tax (VAT) collections are estimated to be 64% of potential VAT given the VAT structure and actual consumption. Closing this non-compliance gap would deliver revenues equivalent to 4.4% of GDP (Figure 6). Fighting tax evasion is therefore a priority, and the authorities have introduced a compliance action plan which delivered its first positive effects in 2013-14 (European Commission, 2015a). Steps taken to fight tax evasion include restrictions on cash payments, improving the tax administration information system, simplifying procedures on tax recovery and specific measures to fight abuse of VAT exemptions (NRP, 2015; Box 3). Efforts should be continued, paying attention to successful policy measures implemented in comparable countries. For example, the Slovak Republic's "tax cobra" scheme – which promotes close cooperation among police, prosecution and tax administrations to fight major fraud – has proven quite successful: the VAT gap there was reduced to 32% in 2014 from 40% in 2012 (OECD, 2014a).

Figure 6. **VAT non-compliance is high**

2013, VAT gap,[1] % of VTTL



1. The VAT Gap is the difference, in any given year, between the VAT Collections (as recorded by Eurostat) and the amount theoretically due, i.e. VTTL (VAT Total Tax Liability). The latter is the total amount of estimated VAT payments on the basis of national accounts aggregates and the existing structure of rates and exemptions.

Source: CASE, "Study to Quantify and Analyse the VAT Gap in the EU Member States 2015 Report", May 2015, *http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/vat_gap2013.pdf*; Eurostat *Annual National Accounts Database*.

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Box 3. **Measures taken to fight tax evasion**

- Law on Tax Administration: amendment aimed at optimising the processes of the provision of information for identifying undeclared income and unjustified sources of acquisition of property, setting a tax obligation and cooperating with tax administrations of other countries.
- Law on Excise Duty: amendment establishing a more efficient mechanism for levying excise duty on lubricant oils.
- The State Tax Inspectorate implemented the Strategy for tax compliance and tax collection for 2014-17. Measures include further control of income from unregistered and illegal activities and the implementation of targeted measures for the prevention of fraud.

Box 3. **Measures taken to fight tax evasion** *(cont.)*

- The Law on Value Added Tax and the Law on Tax Administration: aim at establishing additional measures to combat VAT evasion and abuse of VAT exemptions notably by establishing a general obligation for VAT payers to provide VAT invoices through the "Smart Tax Administration System".

Additional laws under discussion at the Parliament (October 2015):

- Law on Restriction of Payments in Cash: establishes restrictions on payments in cash (up to EUR 5 000 for natural persons, who are not engaged in any economic-commercial activities, and up to EUR 3 000 for other persons).

Source: NRP 2015; EC 2015a.

Adjusting the tax structure to be more growth and equity-friendly

The tax structure could be made more growth and equity-friendly by shifting the tax mix towards less distortionary revenue measures and reducing economically or socially unjustified tax exemptions. Some steps have already been taken. For example, part of the tax burden has been moved from labour to consumption (European Commission, 2014c), helping Lithuania to have a relatively broad VAT base (European Commission, 2015c). However, additional specific further adjustments to consider are:

- Recurrent taxation on property accounted for only 0.3% of GDP in 2012, compared with 1.5% in European countries (European Commission, 2014d). Some steps were recently taken: in 2014, the threshold value above which properties are taxed was reduced from EUR 300 000 to EUR 220 000 (NRP, 2015). The 2013 land tax reform also increased the value on which the tax is applied by introducing, over a period of five years, market value as the basis for taxation (NRP, 2014).
- Personal taxation of capital gains from the sale of real estate is limited. Exemptions favour high-income earners and reduce the progressivity of the tax system, which is already low due to a flat personal income tax rate. From 2016, the tax exemption for capital gains on the sale of a non-principal residence will be restricted to property held for at least 10 years (rather than 5 years, as currently is the case). Going forward, the authorities should consider phasing-out such exemptions.
- Dividends, rental income, interest on deposits and gains on securities are subject to the standard personal income tax, at 15%. However, the gains from the disposal of financial instruments not exceeding EUR 500 per tax period are exempted from taxation. Such exemptions may generate distortions in investment and saving decisions and should be avoided (Mirrlees et al., 2011).
- There is scope to increase environmentally-related taxes which amounted to 1.7% of GDP in 2012 compared to 2.4% in European countries, including through raising taxes on motor and heating fuels and introducing a car tax (differentiated according to the fuel characteristics of the vehicle). The planned imposition of a landfill tax in 2016 should help reduce pollution.
- Personal income tax in Lithuania is calculated on an individual basis using a flat tax rate. The system includes some progressive dimensions through tax allowances. However, the contribution of taxation to reducing inequalities remains modest. Going forward, an in-depth analysis of the Lithuanian tax system is needed to assess if the advantages of

introducing a progressive tax system in terms of inclusiveness could offset some of its drawbacks on the labour supply of highly skilled workers.

Ensuring the fiscal framework protects against the build-up of imbalances

Against the background of further government spending needs, a robust fiscal framework provides a safeguard against unsustainable fiscal policy. The credibility of Lithuania's fiscal framework has been strengthened by the adoption of the EU Fiscal Compact at the constitutional level in January 2015, the establishment of a multiannual budgetary framework and an independent fiscal council.

The adoption of a medium-term budgetary target and multi-year expenditure ceilings requires general government revenues and expenditures to be forecast for the following three years. In particular, if the budget records a deficit on average over the past five years, the annual growth of expenditures may not exceed half of estimated nominal potential GDP growth. However, recent studies highlight that adherence to the multi-year expenditure ceilings is not fully binding and the scope for applying escape clauses may be too wide (European Commission, 2015a). The national fiscal discipline legislation foresees counter-cyclical consolidation when the output gap is positive and allows automatic stabilisers to work when the output gap is negative, which is a welcome move toward fiscal sustainability. However, the escape clause which allows the fiscal consolidation needs over the past five years to be limited to periods when the output gap is positive may not be sufficient. This underlines the need for prudent fiscal policy in good times. More transparency regarding the assessment of the cyclical position, in particular technical issues such as the methodology used, is important.

The fiscal framework was further reinforced in January 2015 by the establishment of an independent fiscal council. This institution is a non-partisan authority, independent of the existing government institutions, currently tasked with endorsing the economic scenario contained in the government budget. In some OECD countries, such institutions also monitor the implementation of budget plans and provide macroeconomic forecasts for the preparation of the budget. Using a fiscal council for the latter has been found to be effective in reducing forecasting bias (Hagemann, 2011). Lithuania's Fiscal Council is relatively small and currently operates within the National Audit Office (also an independent institution), an arrangement that is working well. Nevertheless, a divergence in the priorities of the two institutions in the future could hamper the effective operation of the fiscal council. In time, some adjustment may be needed to the legislative provisions governing the organisation. While the government has responded to the reports of the council in parliament, this is not a legal obligation. If legally adopted, such a practice could enhance the quality of communication between the fiscal council and policy makers. Further financial resources may also be needed to ensure the full range of operations included in its mandate (monitoring fiscal policies including of sub-national governments and assessing budgetary/macroeconomic forecasts and fiscal rules). Steps are already taken to hire two additional employees in 2016 in addition to the five persons working already for the department in 2015. A planned assessment by the European Commission will be helpful in providing direction for reforms.

Ensuring financial stability and the investment recovery

The financial sector is stable

Financial stability is critical for the capacity of the economy to absorb shocks and to promote further income convergence. Lithuania's macro-financial framework provides the central bank with the power needed to undertake financial supervision and administer macro-prudential policies (Box 4). The Bank of Lithuania (BoL) has already demonstrated its capacity to deal with potential sources of financial instability. Between 2011 and 2013, bankruptcy procedures were initiated against two domestic banks (Snoras Bank and Ukio Bank) following excessive risk-taking by these institutions. As part of the European Banking Union, from 1 January 2015, a number of supervisory responsibilities of the largest credit institutions (including AB DNB Bankas, AB SEB Bankas and Swedbank) were assumed by the ECB.

Box 4. **Macro-financial framework**

Macro-prudential framework

The Law on Financial Stability was amended in November 2015, granting resolution powers to the Bank of Lithuania. The Law on the Bank of Lithuania, as amended in September 2014, obliges the Bank of Lithuania to conduct macro-prudential policy. Among its responsibilities, the Bank of Lithuania must ensure the resilience of the financial system and mitigate the build-up of systemic risk. This requires regular monitoring, analysis and the application of macro-prudential instruments.

A Macro-Prudential Policy Strategy was adopted in March 2015 with five objectives:

- limit and prevent excessive credit growth and leverage;
- limit and prevent excessive maturity mismatch, excessive currency and liquidity risk in the financial system;
- limit exposure concentrations by type of economic activity, asset class or other criteria;
- limit the systemic impact of misaligned incentives of financial institutions, with a view to reducing their moral hazard;
- strengthen the resilience of financial market infrastructure.

In line with the new Capital Requirement Directive two resolutions have been adopted:

- In addition to the 8% minimum capital requirement, since 30 June 2015, a 2.5% capital conservation buffer requirement is applied to institutions in Lithuania.
- Strengthening banks' internal management and shareholder control were transposed into national law.

Financial supervision

Since 2012, the Supervision Service of the Bank of Lithuania supervises commercial banks, credit institutions, payment institutions, electronic money institutions, insurance market and financial instruments. The Bank issues licenses to financial market participants for the provision of financial services and supervises their activities.

The Bank of Lithuania monitors the compliance of financial market participants with laws and requirements set by legal acts of the Bank of Lithuania, International Financial Reporting Standards, and requirements recommended by international organisations for safe and sound activities.

Box 4. **Macro-financial framework** *(cont.)*

The Bank of Lithuania is also part of the Single Supervisory Mechanism (SSM) that provides the European Central Bank (ECB) the mandate to exercise supervision of the largest credit institutions that carry some systemic risk while the Bank of Lithuania is responsible for less significant institutions.

Source: Bank of Lithuania.

Lithuania's financial sector is dominated by Scandinavian-owned banks. While these institutions contributed to the excessive credit cycle during the pre-crisis housing boom, they have since been a source of stability. In the lead-up to the crisis, external financial conditions spilled-over to the Lithuanian banking sector through easy access to funding at low cost. The fixed exchange rate regime aggravated the impact on credit growth by putting downward pressure on real interest rates (Bakker and Gulde, 2010). Private sector debt rose to 85% of GDP in 2009 (Figure 7, Panel A). The onset of the financial crisis and a substantial decline in house prices created strong deleveraging needs, in particular for the subsidiaries of foreign-owned banks (Figure 7, Panel B). However, the reversal in capital flows was limited, as parent institutions provided substantial liquidity to their Lithuanian operations and absorbed asset losses (Purfield and Rosenberg, 2013).

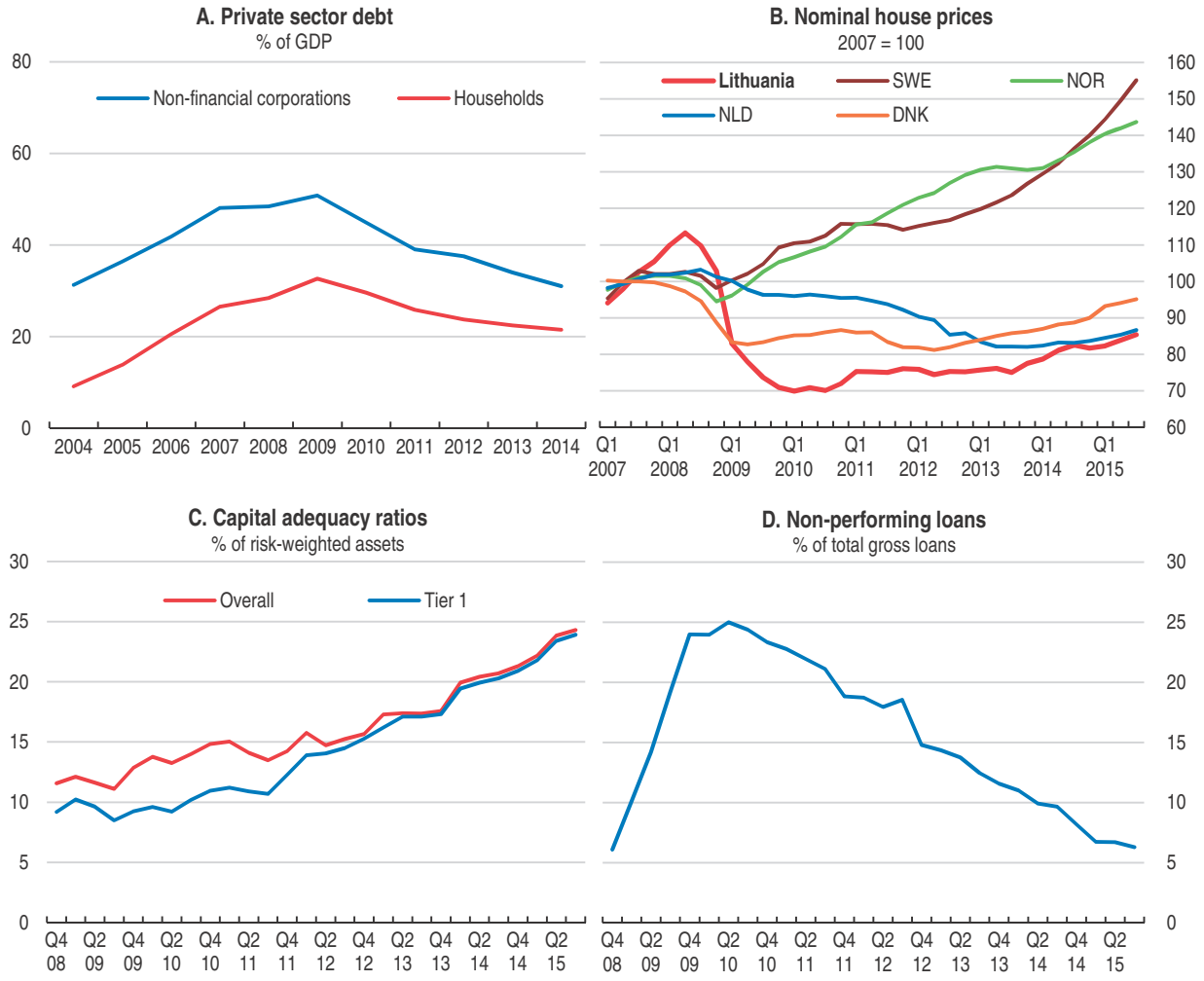
The financial sector is sound following the swift recovery from the crisis. Private sector debt declined from 85% of GDP in 2009 to less than 60% in 2013. The banking sector loan-to-deposit ratio declined from a peak at 170% in 2009 to 90% in 2015 and the share of non-performing loans declined from 20% to less than 7%. At the end of the third quarter of 2015, the average capital adequacy ratio was 24.3%, far above the regulators' requirement of 10.5%, which includes the capital conservation buffer of 2.5% (Figure 7, Panels C and D). According to stress tests, no banks are expected to breach the minimum capital requirement under a severe shock scenario (Bank of Lithuania, 2013). The three large financial institutions covered by the European Central Bank's asset quality comprehensive assessment (AB DNB Bankas, AB SEB Bankas and Swedbank) all passed the review (ECB, 2014). In the insurance sector, a new risk-based prudential and supervisory regime ("Solvency II") will be introduced from January 2016.

The credit union sector poses some risks (Bank of Lithuania, 2014), but it is small, as assets represent only 2.5% of all financial-sector related assets. Five of 76 credit unions went bankrupt in 2013 and 2014 due to large loan losses. The law on credit unions was subsequently amended. In 2015, Parliament's Committee on Budget and Finance approved the Concept of Sustainable Operations of Credit Unions. Amendments of the law on credit unions particularly aimed at strengthening their capacities to absorb losses as well as their management and the framework for cooperation. More importantly, potential instability in Scandinavian financial markets is also a risk for the Lithuanian banking sector. Nevertheless, the decline in liabilities of Lithuanian banks to parent banks and the parallel rise in deposits in recent years suggest lower vulnerabilities to external financing conditions than in the past (Bank of Lithuania, 2014; Figure 8).

Credit and investment have not yet recovered

Investment collapsed at the onset of the crisis (Figure 9, Panel A). This followed the overinvestment experienced during the economic boom when the level of business gross

Figure 7. **The financial sector has swiftly recovered**



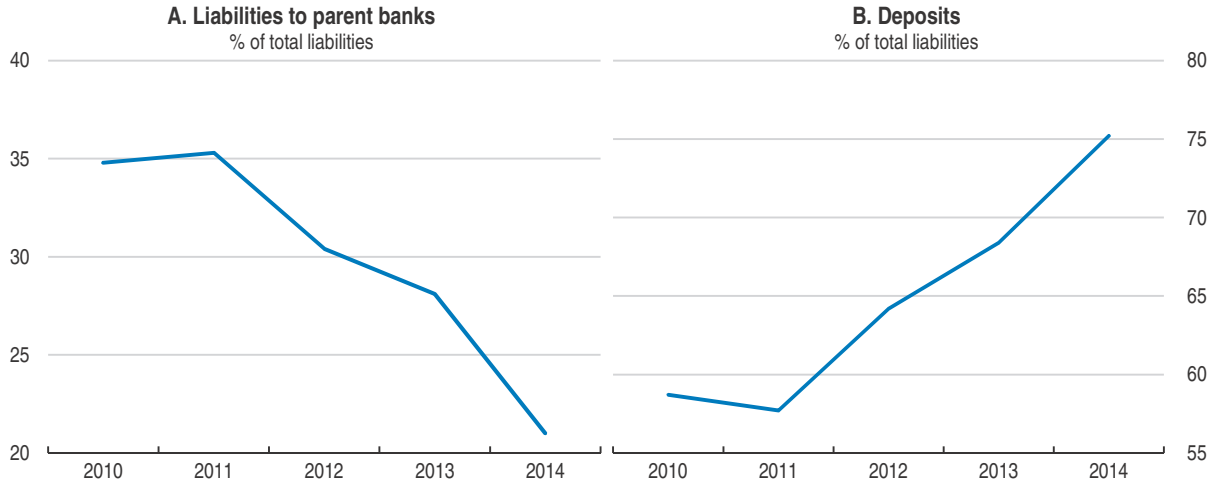
Source: IMF, *Financial Soundness Indicators* (FSI) *Database* and Eurostat tables on EU policy; OECD *Housing Prices Database*.

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fixed capital formation peaked at 20% of GDP. International comparisons suggest, however, that the correction has been too strong. While investment growth has begun to recover, the investment-GDP ratio is below the average level in the euro area while Lithuania, as a catching-up economy, should have a relatively high share of investment in GDP (Figure 9, Panel B). Both supply and demand factors explain the evolution of investment and credit in Lithuania (Everaert et al., 2015). Stock market capitalisation in Lithuania fell from 24% of GDP in 2007 to 9% in 2013 (European Commission, 2014a).

Going forward, several measures could further boost investment such as improving the bankruptcy law. Closing a business is relatively time consuming in Lithuania as insolvency procedures take, on average, 2.3 years compared to 1.5 years in Latvia and 1.8 years in the OECD. In addition, the average recovery rate on insolvency is only 43 cents per dollar compared with 71 cents per dollar in the average OECD country (World Bank, 2015). Improvements in these areas could reduce costs and free up resources more quickly for new and growing enterprises. Structural reforms could also contribute to boost domestic and foreign investment, including through the Juncker plan and further promotion of venture

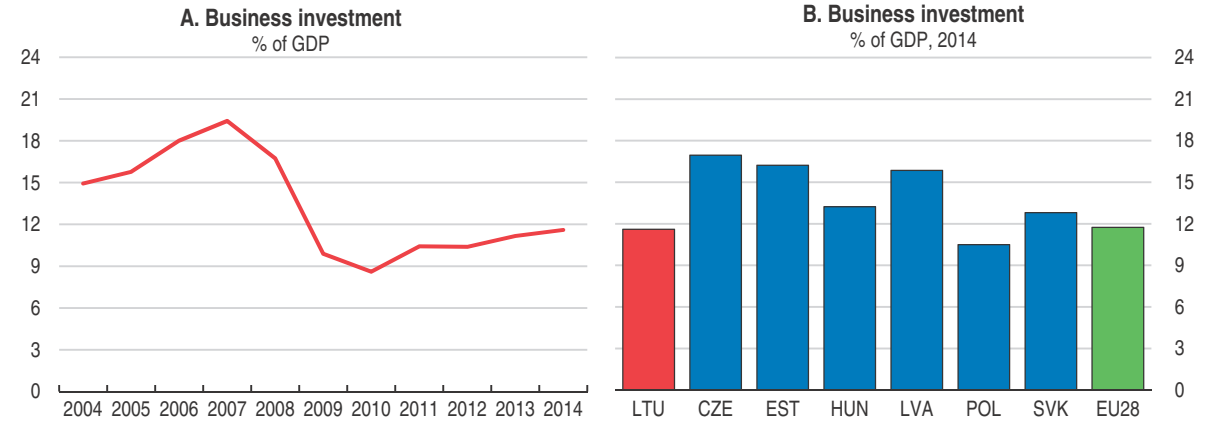
Figure 8. **The banking sector is less dependent on parent banks loans**



Source: Bank of Lithuania, *Financial Stability Review 2015*, Statistical annexes.

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Figure 9. **Investment has not recovered since the crisis**



Source: Eurostat *Annual National Accounts Database*.

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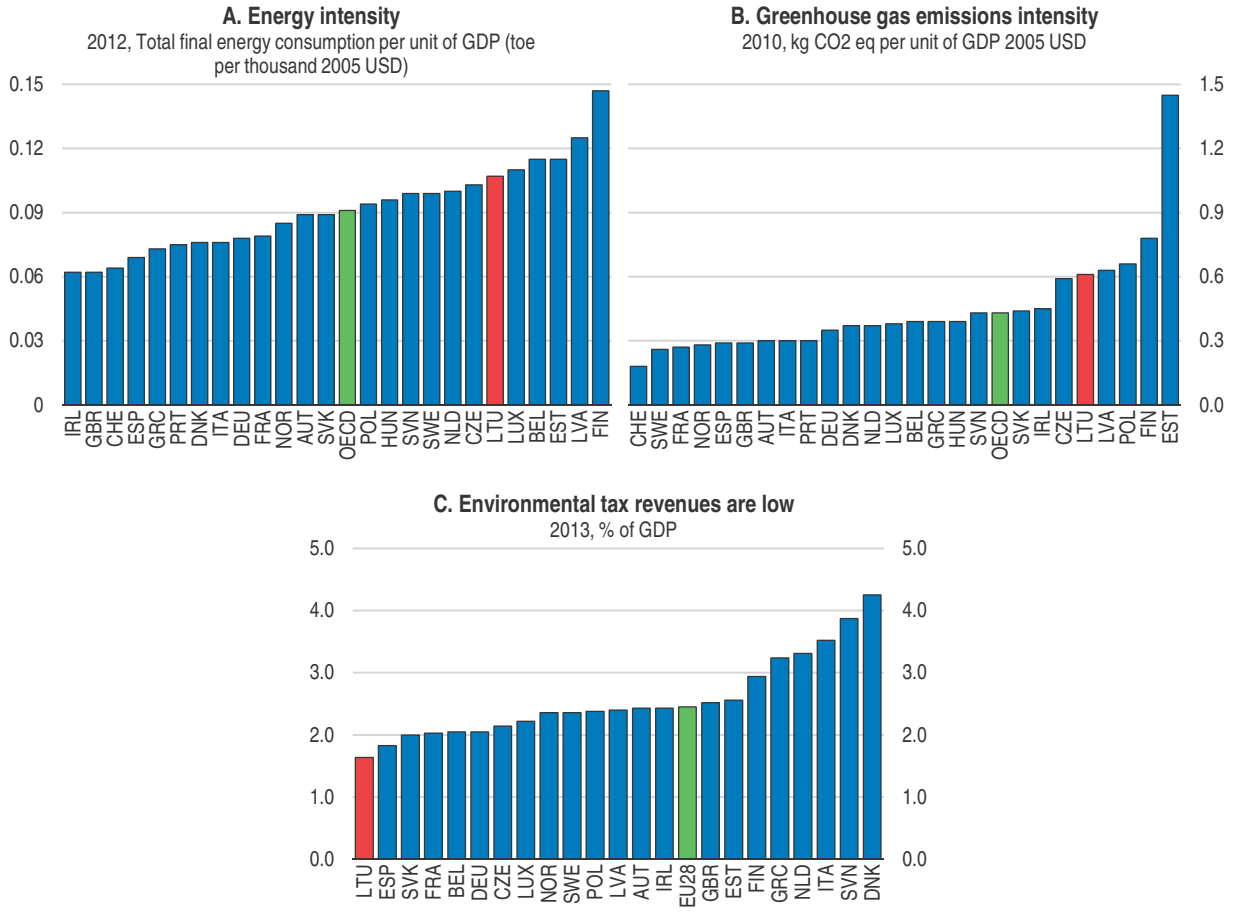
capital and investment in R&D (Chapter 1). This will complement the easier credit conditions in the euro area that have resulted from quantitative easing (ECB, 2015).

Enhancing energy efficiency

High energy intensity (Figure 10, Panel A) combined with a recent fall in domestic energy supply has raised Lithuania's dependence on energy imports and its vulnerability to energy price movements. The country's reliance on imported oil has risen markedly since 2000 (International Energy Agency, 2015). Since the closure of the Ignalina nuclear plant in 2009, around three quarters of the country's total primary energy supply has been imported. Reducing energy intensity would both reduce Lithuania's vulnerability to shocks and help lower it's relatively high greenhouse gas emissions intensity (Figure 10, Panel B).

There has been little decline in Lithuania's energy intensity since 2005, and new policy measures will be needed if Lithuania is to reach its target of increasing energy efficiency by

Figure 10. **Environmental challenges remain high**



Source: IEA (2014), *World Energy Statistics and Balances*; IEA (2014), *CO_2 Emissions from Fuel Combustion Statistics*; Eurostat *Environment and Energy Database*.

StatLink http://dx.doi.org/10.1787/888933338621

1.5% annually from 2009 to 2020. Lithuania participates in the EU Emissions Trading Scheme, there are no direct subsidies that support fossil-fuels and the share of renewables has risen notably as a share of gross final energy consumption in the past decade (Eurostat, 2015a). But environmentally-related tax revenue is low by European standards (Figure 10, Panel C). There is no car tax or road-user charges for passenger cars, and taxes on motor fuels and on fuel used for heating are among the lowest in the EU – just above the minimum rates imposed by the Energy Taxation Directive in most cases (European Commission, 2014b).

In the medium term, reducing energy intensity of residential housing will be instrumental to raising energy efficiency (European Commission, 2015a). The government has recently implemented new policy measures. A renovation loan scheme has been established in partnership with the European Investment Bank (through the JESSICA and JESSICA II fund), whereby loans are offered at preferential terms to homeowners in multi-apartment buildings that commit to energy saving measures. The volume of renovations of such buildings has increased in the past few years, though the pace of activity will need to remain high given that two-thirds of the population still live in multi-apartment houses built before 1993 to outdated technical standards (Sirvydis, 2014). Similarly, a large portion

of public buildings date to the Soviet era and are not energy efficient. The government has committed to improve the energy efficiency of public buildings and street lighting. An energy efficiency fund of 80 million euros has been established for this purpose, with the intention that it will be complemented by financing from private sources.

Recommendations for fiscal and financial policies to support the economy

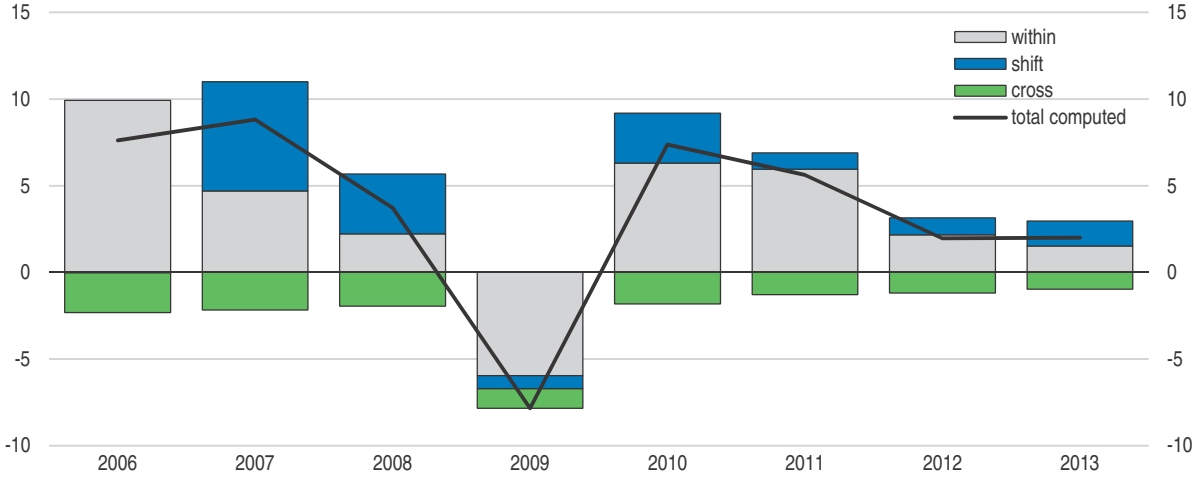
- Continue fighting tax evasion also beyond the VAT gap and improve spending efficiencies (especially in education and health care areas), to allow medium term fiscal consolidation and finance public spending needs.
- Further shift the tax burden away from labour, especially from employer social security contributions, and raise recurrent taxes on personal immovable property.
- Increase taxes on activities that damage the environment.

Boosting productivity to accelerate convergence

The level of labour productivity in Lithuania today is about one-third below the OECD average. Improvements in living standards and the maintenance of Lithuania's competitiveness in international markets will increasingly rely on productivity gains, especially given rapid population ageing. Since the financial crisis, productivity growth has been driven by both the reallocation of resources from less productive to more productive sectors and by efficiency improvements within each sector (Figure 11). Public policy settings enabling contributions from both these influences will continue to be crucial.

Figure 11. **Productivity has benefitted from both within-sector advances and between sector reallocation**

Labour productivity growth (%)



Note: "Within" measures the contribution to total labour productivity growth from productivity growth within sectors. "Shift" measures the contribution resulting from the movement of labour between sectors. "Cross" indicates whether the within-sector and between-sector effects are complementary. A negative value for the latter indicates that productivity growth is particularly strong in sectors that have a contracting labour share.

Source: OECD calculations, based on data from *Eurostat Database*.

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Policies for better resource allocation

Better allocation of resources relies on a policy framework that promotes favourable firm dynamics – the easy entry of new firms, their access to the necessary resources to expand in the initial years of life and the swift exit of less productive entities. The contribution of between sector reallocation in Lithuania to productivity growth (i.e. the "shift" effect in Figure 11) over the past decade has been large by international standards (Molnar and Chalaux, 2015), consistent with relatively favourable policy settings.

The burden of some product market regulations protecting incumbents and deterring firm entry has fallen substantially. By 2013, the complexity of regulatory procedures was less stringent than in the average OECD country according to the OECD Product Market Regulation (PMR) Indicators. Specific measures have included a one-stop shop for online business registration and a new legal form of company (a "small partnership") that has no minimum capital requirement and a reduced number of regulatory procedures. Between 2003 and 2015, the average time it took to register a business in Lithuania fell from 26 to 3.5 days (World Bank, 2015).

An area in which the PMR indicators suggest scope for further reforms concerns state-owned enterprises (SOEs), which have a relatively large presence in Lithuania (OECD, 2016a). Many of these institutions perform commercial functions poorly (State Property Fund, 2014), meaning that they absorb resources that could be reallocated to more productive firms. The government set a 5% target ROE for SOEs engaged in commercial activities for 2013-15, but in 2013 the ROE for this group was only half that (OECD, 2016a). Underperformance may partly reflect poor governance practices. In particular, the ownership and regulatory functions of SOEs are often undertaken by the same government institution (OECD, 2016a). The *OECD Guidelines on Corporate Governance of State-Owned Enterprise* suggest that there should be a clear separation between the state's ownership functions and state functions relating to market regulation. SOE boards also tend to have a high concentration of representatives from government ministries (Baltic Institute of Corporate Governance, 2013), which raises the potential for political interference in business operations.

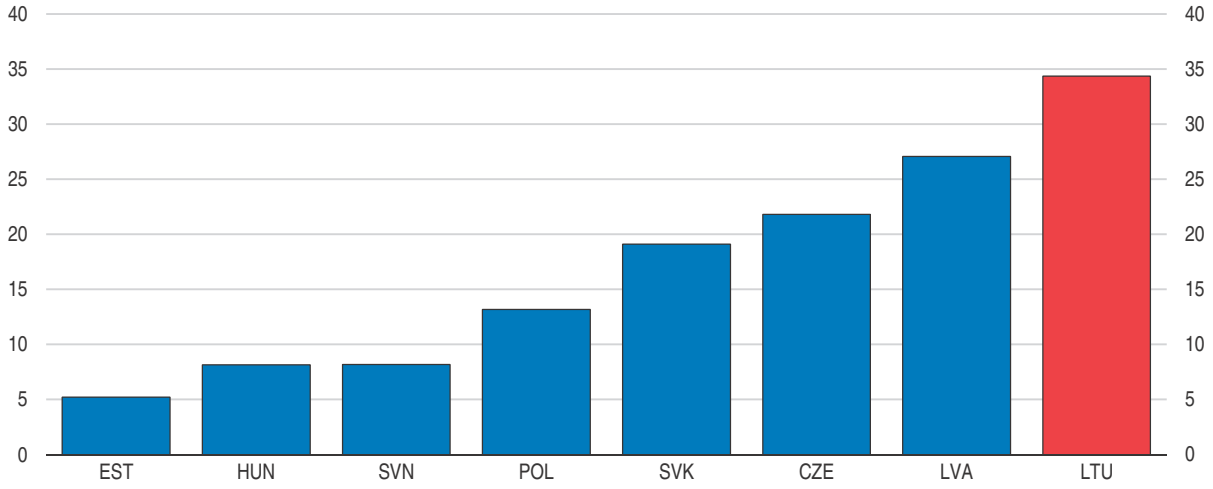
The PMR indicators also highlight an opportunity for reforming some barriers to trade and investment that restrict firm growth. In particular, burdensome regulations mean that it generally takes many months to employ a non-EU worker (for details, see Box 1.2). These include a labour market test which, as at 2013, existed in only 3 of the 34 OECD countries (OECD, 2013a). Such regulations may be particularly detrimental to Lithuania given that the domestic labour force often does not possess the skills required by industry. Over 40% of businesses surveyed in the first half of 2015 for Lithuania's *Investor Confidence Index* characterised the availability of qualified labour as insufficient. Furthermore, cross-country surveys suggest that skill shortages are a larger constraint to businesses in Lithuania than in other comparable countries (Figure 12).

The size of Lithuania's informal sector may also create a barrier to entry and misallocation of resources. By not paying tax, firms operating in the shadow economy are able to provide goods and services at a lower price, which may displace more efficient taxpaying firms. This means that informal sector firms absorb resources that would be allocated elsewhere if all firms operated on a level playing field.

Access to finance has improved but some firms may still face constraints. Around 16% of Lithuanian respondents to the EBRD-World Bank *Business Environment and Enterprise*

Figure 12. **Lithuanian industry finds the education of the labour force inadequate**

% of firms citing an inadequately educated workforce as a major or very severe obstacle to operations, 2013



Note: Calculations are based on 259 firm responses for Lithuania, 329 for Latvia, 243 for Czech Republic, 267 for Slovak Republic, 516 for Poland, 269 for Slovenia, 307 for Hungary and 268 for Estonia.
Source: OECD calculations, based on EBRD-World Bank *Business Environment and Enterprise Performance Survey 2013*.

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Performance Survey (BEEPS) cited access to finance as a major or very severe obstacle to their operations in 2013. This was higher than in Estonia (5%) and about the same as in Latvia (15%). Furthermore, unlike in the other Baltic countries, the Lithuanian firms facing financial constraints were generally those with higher levels of labour productivity (Figure 13). Lithuania's venture capital market is in its infancy, although the government is promoting its development by establishing new venture capital funds and investing in existing ones. An example is the Baltic Innovation Fund (BIF), jointly financed by each of the Baltic country governments, which invests in existing private equity and venture capital funds that then finance high potential firms in the Baltic countries. There is also scope for public policy to promote new forms of financing, such as through equity markets or crowd-funding platforms. Indeed, the government is currently considering proposals in some of these areas.

Promoting within-firm productivity growth

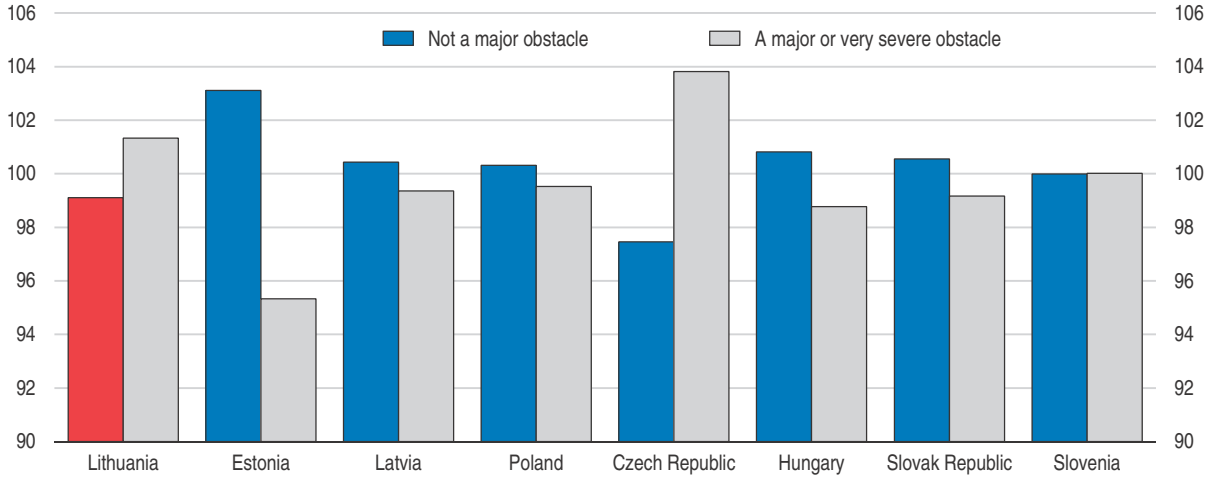
Promoting the accumulation of intellectual and physical capital

The EU Summary Innovation Index for Lithuania was well below the EU average in 2014, with firms reporting particularly weak product and organisational innovation activity (Table 2). In 2014, over 80% of Lithuanian Small and Medium Enterprises (SMEs) were classified as having "low-absorptive capacity" (Leichteris et al., 2015), which is concerning given the large productivity gap between Lithuania and more advanced economies. The share of researchers working in the business enterprise sector in Lithuania is low compared with the other Baltic countries. This may be exacerbated by administrative burdens associated with hiring foreign specialists and Lithuania's elevated high-skill emigration rate. At the same time, weak business innovation may be one factor behind high-skilled emigration from Lithuania over the past decade (Figure 18 below).

Business R&D intensity is low despite generous R&D tax incentives (Figure 14). The take-up of R&D tax incentives is poor, with many firms unaware of their existence or

Figure 13. **Some productive Lithuanian firms face difficulty accessing finance**

Productivity level in 2013 (Index 100 = country average), by whether access to finance is an obstacle



Note: Calculations are based on 218 firm responses for Lithuania, 269 for Latvia and 241 for Estonia. Productivity is calculated as total sales per full-time employee. The survey is taken from a stratified random sample where the dimensions of the strata are firm size, business sector and geographic region within the country.
Source: OECD calculations, based on EBRD-World Bank *Business Environment and Enterprise Performance Survey 2013*.

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Table 2. **Firm level innovation in Lithuania is low**

% of enterprises with innovation activity, 2010-12

	Product innovative enterprises	Process innovative enterprises	Organisational innovative enterprises	Marketing innovative enterprises
Lithuania	11.6	13.1	17.5	19.3
EU28	23.7	21.4	27.5	24.3

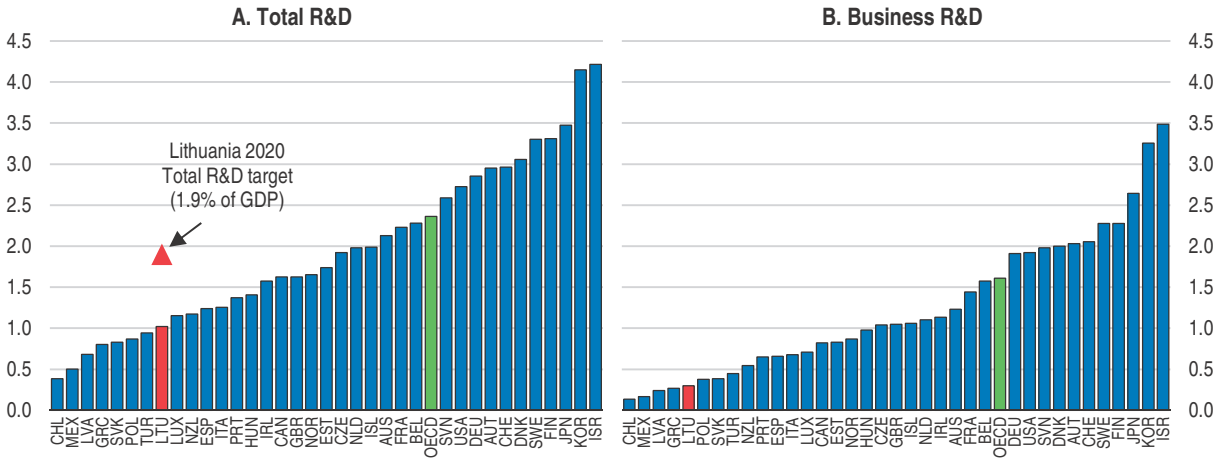
Note: A *product innovation* is the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. A *process innovation* is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software. An *organisational innovation* is the implementation of a new organisation method in the firm's business practices, workplace organisation or external relations. A *marketing innovation* is the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing.
Source: Eurostat (2015b).

uncertain about the definition of eligible R&D. Despite carry-over provisions, tax incentives may disadvantage young firms that are often in a loss-making position. As a result, government R&D grants, loans and loan guarantees, which are often particularly conducive to supporting young innovative firms, should continue to play a prominent role in the innovation-policy mix.

Innovation, and within-firm productivity growth, would benefit from greater international knowledge spillovers and improvements in firm's absorptive capacity, which would make Lithuania more attractive for FDI and boost the participation of Lithuanian firms in GVCs. While Lithuania's inward FDI stock at 2012 was below that in the other Baltic countries (Figure 15, Panel A), there are signs of relatively strong growth in inward FDI flows since then (Invest Lithuania, 2014). Inward FDI to Lithuania is characterised by a relatively large share of greenfield investment, which may be more beneficial than other types of FDI for domestic job creation. Nevertheless, there was relatively low "backward participation" of Lithuanian firms in GVCs as at 2011 (i.e. A relatively low share of foreign value added embodied in Lithuanian exports; Figure 15, Panel B).

Figure 14. **Business R&D intensity is very low**

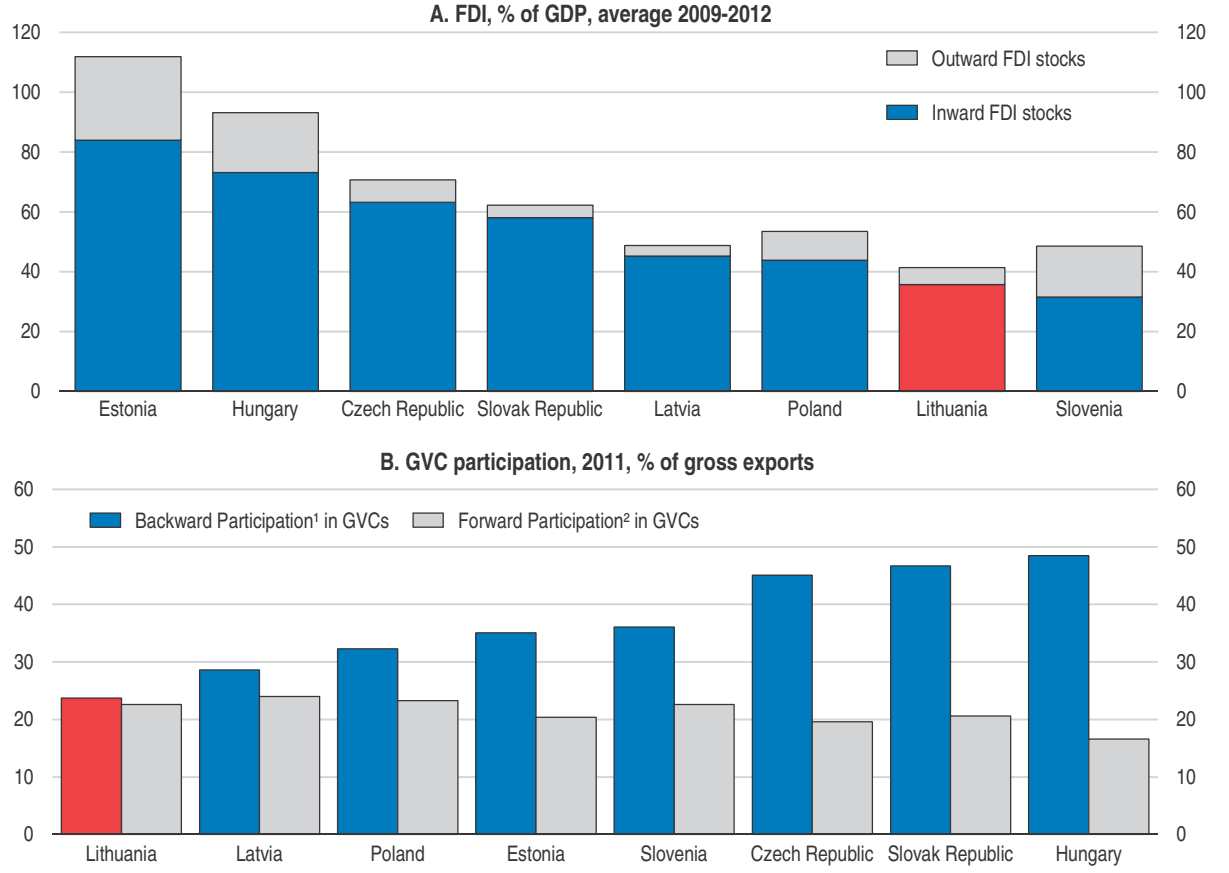
% of GDP, 2013 or last available year



Source: OECD *Main Science and Technology Indicators* and Eurostat *Statistics on Research and Development Database*.

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Figure 15. **FDI and participation in Global Value Chain are low**



1. Foreign Value Added embodied in exports, as % of total gross exports.
2. Domestic Value Added embodied in foreign exports, as % of total gross exports.

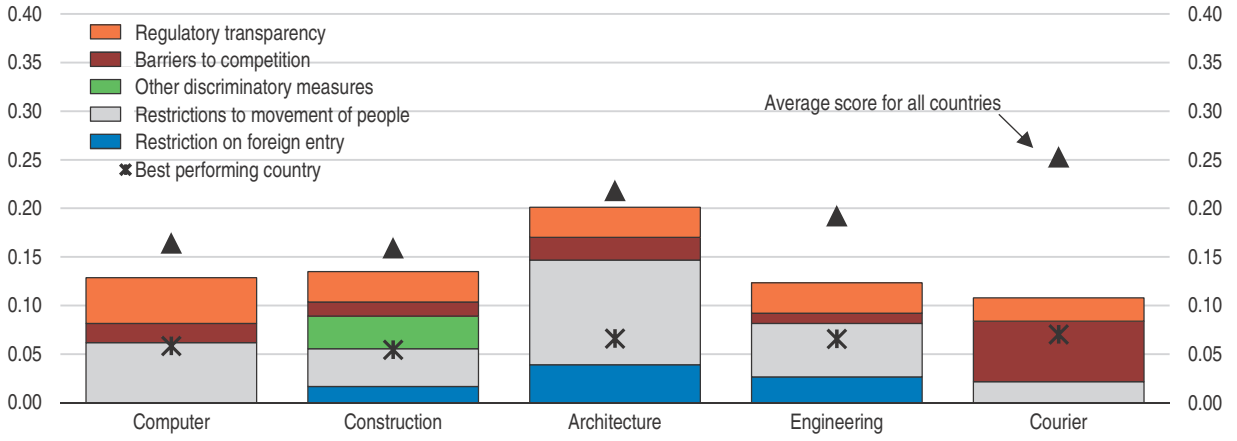
Source: Eurostat, OECD-WTO *Statistics on Trade in Value Added*.

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The OECD *Services Trade Restrictiveness Index (STRI)* for Lithuania suggests that the regulatory framework is open to trade (Figure 16; OECD, 2016b). However, in addition to the restrictions on foreign workers already discussed, the prohibition of foreigners from some countries to acquire real estate may restrict foreign trade and investment. Furthermore, better integration into GVCs could be promoted by improvements to Lithuanian infrastructure (Kowalski et al., 2015).

Figure 16. **Lithuania's regulatory framework is open to trade**

Services Trade Restrictiveness Index, 2015



Source: OECD Services Trade Restrictiveness Index.

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While some infrastructure is well developed, such as the broadband network (Fibre to the Home Council Europe, 2015), businesses judge Lithuania's infrastructure overall to be below the OECD average (Figure 17). For example, poor compatibility of the transport, electricity and gas networks with those in the rest of Europe may reduce competition and raise costs for Lithuanian firms. However, a number of noteworthy public infrastructure projects have been undertaken in recent years. These include a sequence of expansions to the Klaipeda port and the ongoing Rail Baltica project which will connect Finland, Poland, Germany and the Baltic States. The sources of Lithuanian energy supply have been diversified with the completion of the Lithuania-Sweden ("NordBalt"), the Lithuania-Poland ("LitPol") electricity interconnections in late 2015 and a liquefied natural gas terminal in 2014.

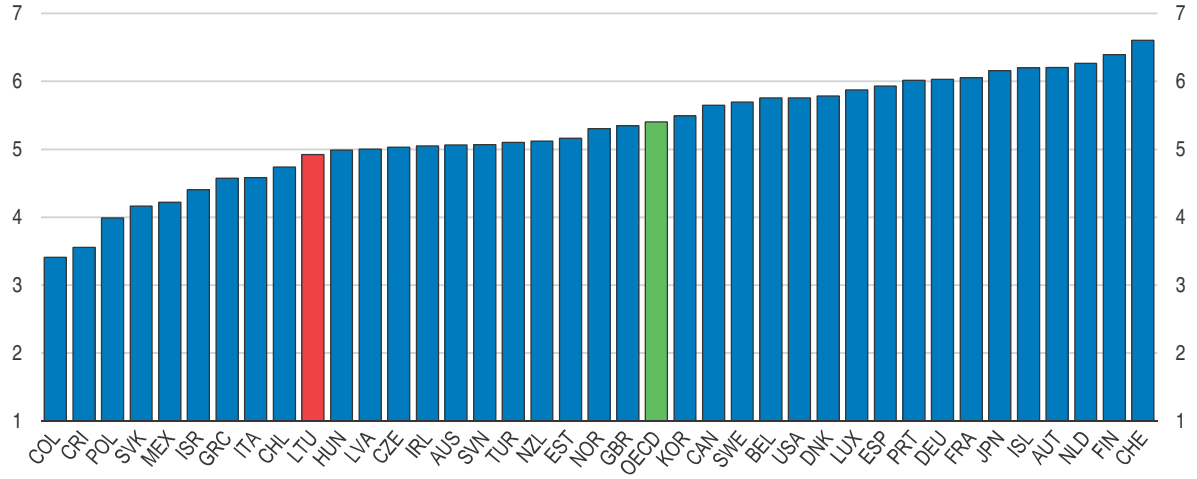
Providing the right mix of skills

As suggested by Figure 12, finding workers with the right skills is a significant constraint to firms. Along with restrictions on non-EU workers and recent high skilled emigration (Figure 18), a lack of suitable labour in Lithuania may reflect the low quality of the domestic education system.

In 2014, 53% of Lithuanians aged 30-34 had tertiary education, compared with 38% in the EU. Nevertheless, firms report inadequate technical skills of graduates as a key factor behind labour shortages (European Parliament, 2015). This reflects both failings in the skills being taught and the fact that lifelong learning is low. In 2015, the proportion of 25 to 64 year-

Figure 17. **The quality of Lithuanian infrastructure could be improved**

Quality of overall infrastructure score, 2014-15

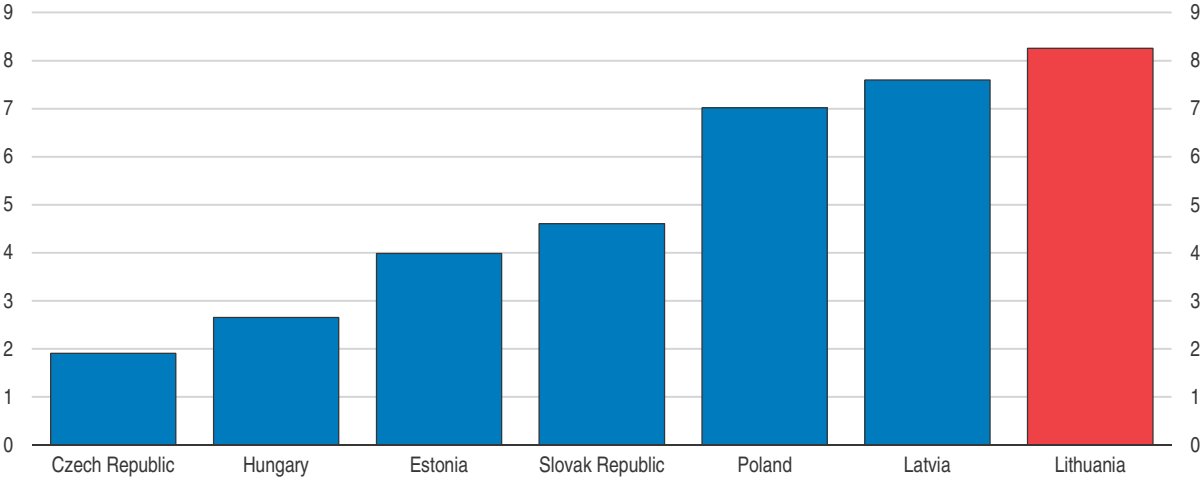


Note: The score is based on the assessment of business leaders operating in the country to the question: how would you assess general infrastructure (e.g. transport, telephony and energy) in your country? [1 = extremely underdeveloped – among the worst in the world; 7 = extensive and efficient – among the best in the world].
Source: World Economic Forum *Global Competitiveness Index Dataset*.

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Figure 18. **High skilled emigration has reduced Lithuania's pool of human capital**

High skilled emigrants to OECD at 2010-11 that have moved in the past 10 years, % of domestic 15+ population



Note: High skilled workers are defined as those with tertiary education.
Source: Calculations based on *OECD Database on Immigrants in OECD Countries* (DIOC) 2010/11.

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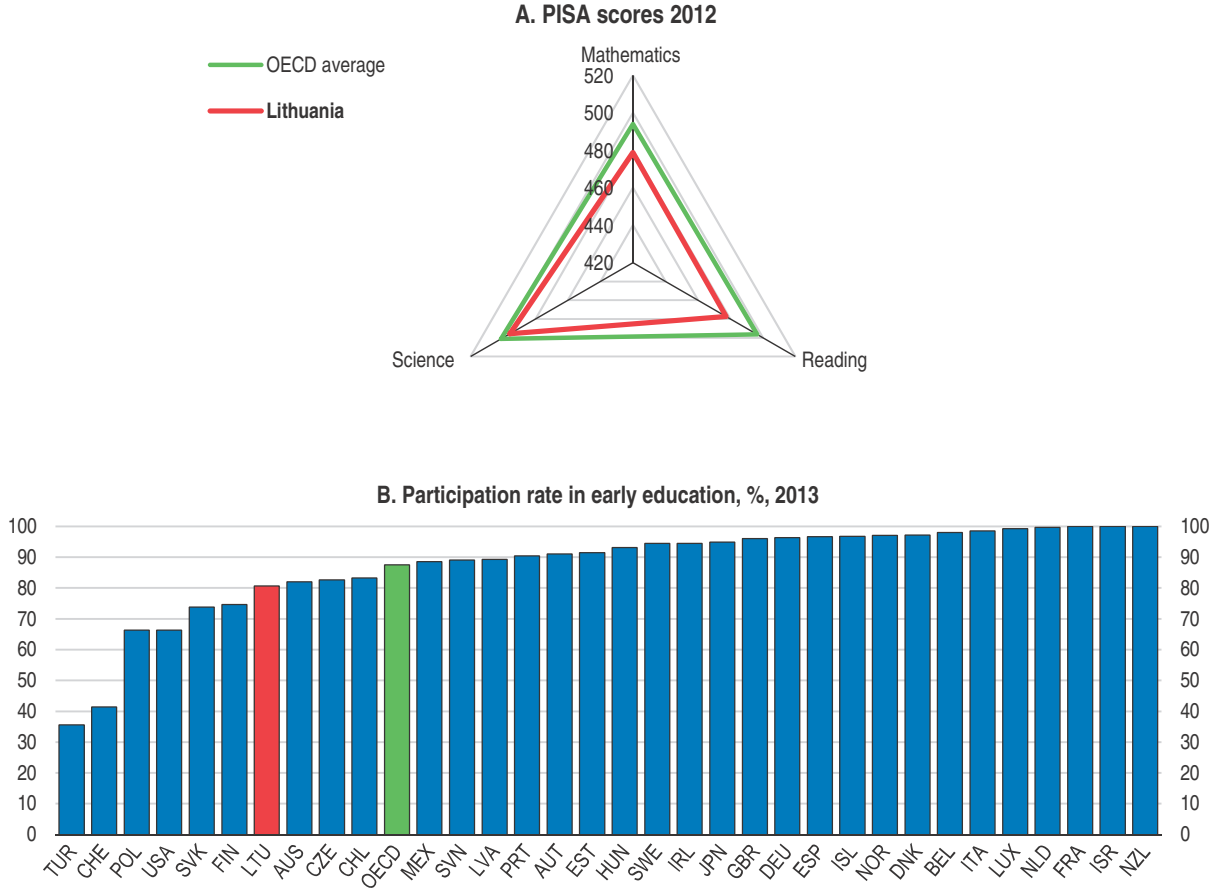
olds participating in education and training in Lithuania was around half the EU average. The difficulty faced by firms in finding adequately-skilled workers highlights a need for more work-based training that teaches practical skills. The Lithuanian government has prioritised reform of the vocational education and training system (VET), which is largely school-based. Complementary measures that encourage participation by businesses in the training process and involve them in the development of VET curricula should also be considered.

There have been many important reforms to Lithuania's higher education system over the past decade. For example, the introduction of student vouchers in 2009, in place of

direct funding of education institutions, to make courses more demand-driven. Nevertheless, no Lithuanian university was ranked in the top 400 universities published by the *Times Higher Education World University Rankings 2014-15*. This contrasts with some smaller OECD economies, such as Finland and Denmark which have seven and five universities in the top 400 respectively. Scope for improvement in the quality of Lithuanian universities was highlighted by a study in 2015 that found that the short-run returns to university education were low relative to other forms of education (MOSTA, 2015). The higher education system may benefit from some rationalisation: there are 14 state universities and 13 state colleges in Lithuania: on a per capita basis, this is relatively high (Mitchell, 2014). There may also be some benefit from greater specialisation of institutions within the university system.

The inadequacy of skills may also reflect deficiencies in the education system at early ages. Lithuanian secondary students participating in the most recent wave of the Programme for International Student Assessment in 2012 (PISA; Figure 19, Panel A) scored particularly poorly for reading and mathematics compared with students in OECD countries. Participation in early childhood education is low in Lithuania, especially in rural areas (Figure 19, Panel B; Poviliūnas, 2014), which may contribute to students' future poor test scores.

Figure 19. **Poor basic skills partly reflects low participation in early childhood education**

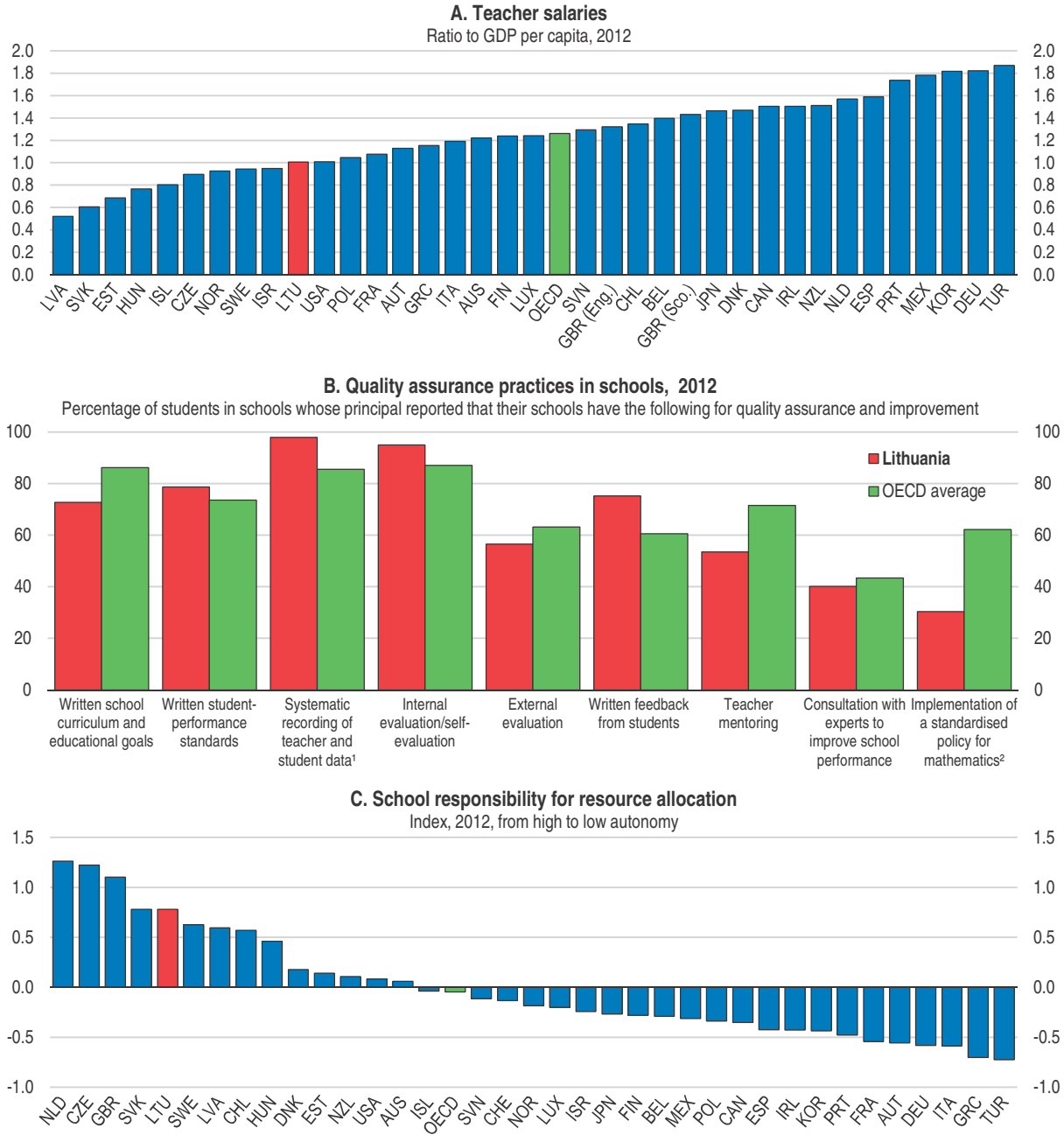


Note: Children of 4 years old in education at ISCED level 02-1.
Source: OECD *PISA 2012*, OECD *Education at a Glance 2014*; Eurostat *Education Indicators Database*.

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Low PISA scores may also reflect the difficulty in attracting young, high-quality teachers. Up to one-third of the variation in PISA scores between OECD countries can be explained by differences in teacher salaries (Ali, 2009). In Lithuania, teacher salaries are in line with GDP per capita: they are around 20% higher than GDP per capita in the average OECD country (Figure 20, Panel A). Furthermore, teacher performance has typically not

Figure 20. **Teacher salaries are low and there is scope for improving quality assurance**



Note: The ratios in Panel A are calculated as a simple average of those for lower and upper secondary education.
1. Including teacher and student attendance and graduation rates, test results and professional development of teachers.
2. Such as a school curriculum with shared instructional materials accompanied by staff development and training.
Source: OECD *PISA 2012*, OECD *Education at a Glance 2013*, PISA system-level data collection in 2013.

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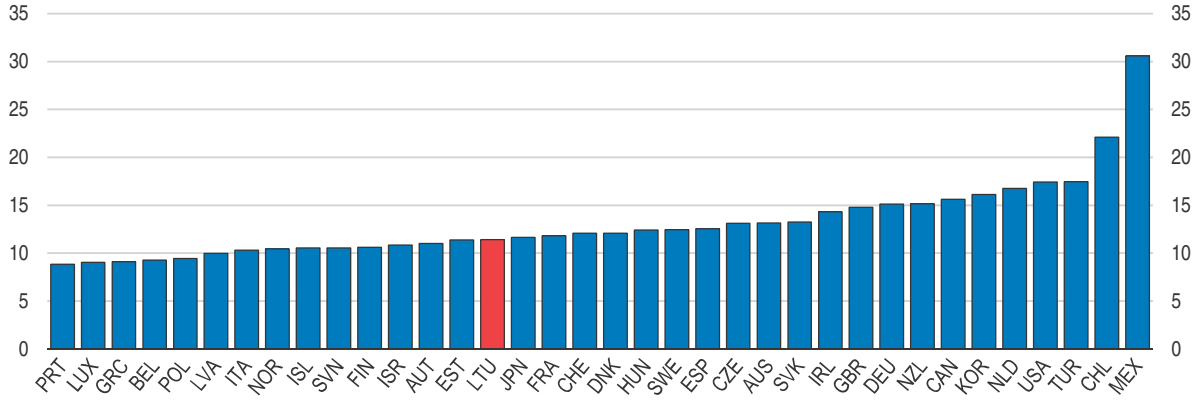
been a criterion for setting base salary and supplementary payments in Lithuania (OECD, 2013b). Evaluating the impact of an individual teacher on students' results can be difficult, meaning a system based on the evaluation of good practices or group performance may be preferable. There also appears to be scope to improve the professional development of Lithuanian teachers, through more mentoring and observation by senior teachers (Figure 20, Panel B).

External evaluations of Lithuanian schools should be undertaken more frequently. Schools have a relatively high level of autonomy in making decisions about salaries, recruitment and budget allocations (Figure 20, Panel C). However, school principals report that external evaluations in Lithuania are less common than in the OECD. This suggests that the role of the school inspectorate or other external review body could be boosted.

The costs involved in further improving educational quality could be partly offset by efficiency gains. A decline in Lithuania's school-aged population has prompted the government to consolidate schools. However, the student-teacher ratio is still low compared with most OECD countries (Figure 21). Furthermore, population projections by the United Nations suggest that the school-age population could fall by over 20% between 2010 and 2030 (United Nations, 2015). Some further consolidation of schools may enable cost savings and facilitate better coordination of curricula and teaching standards. However, this should be accompanied by measures such as improved transport infrastructure that ensure educational opportunities for students, especially those in rural areas, are not reduced.

Figure 21. **The student-teacher ratio is relatively low and likely to further decline**

Student-teacher ratio, 2012



Source: OECD *PISA 2012*.

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Recommendations for boosting productivity

- Further increase the role of workplace training and cooperation with employers in the education system, especially in the context of vocational education and training programmes.
- Attract higher performing graduates to the teaching profession by paying higher wages and investing in teacher development.
- Promote participation in pre-primary education.
- Promote new forms of business financing and ensure that innovation policies support young innovative firms. Reform bankruptcy procedures.

Promoting an inclusive labour market

To ensure that higher productivity results in higher living standards for all and lower poverty risk, labour markets and social policies both have an important role to play. The labour market is the natural staring point, as being employed is the principal route for reducing the risk of poverty. Promoting institutions that are conducive to job creation, employability of the most vulnerable and better job satisfaction will improve both labour participation and well-being. The risk of being unemployed is, however, inherent to a decentralised labour market and providing adequate unemployment benefits is critical for avoiding job loss being associated with poverty. Along with people at risk of being temporary unemployed, there will always be more vulnerable individuals with low jobs prospect. Taking care of them requires a balanced social assistance system that provides incentives to seek work and adequate income support to alleviate poverty. In such a framework, effective public employment services are instrumental to reduce unemployment and inactivity by helping people getting back to work.

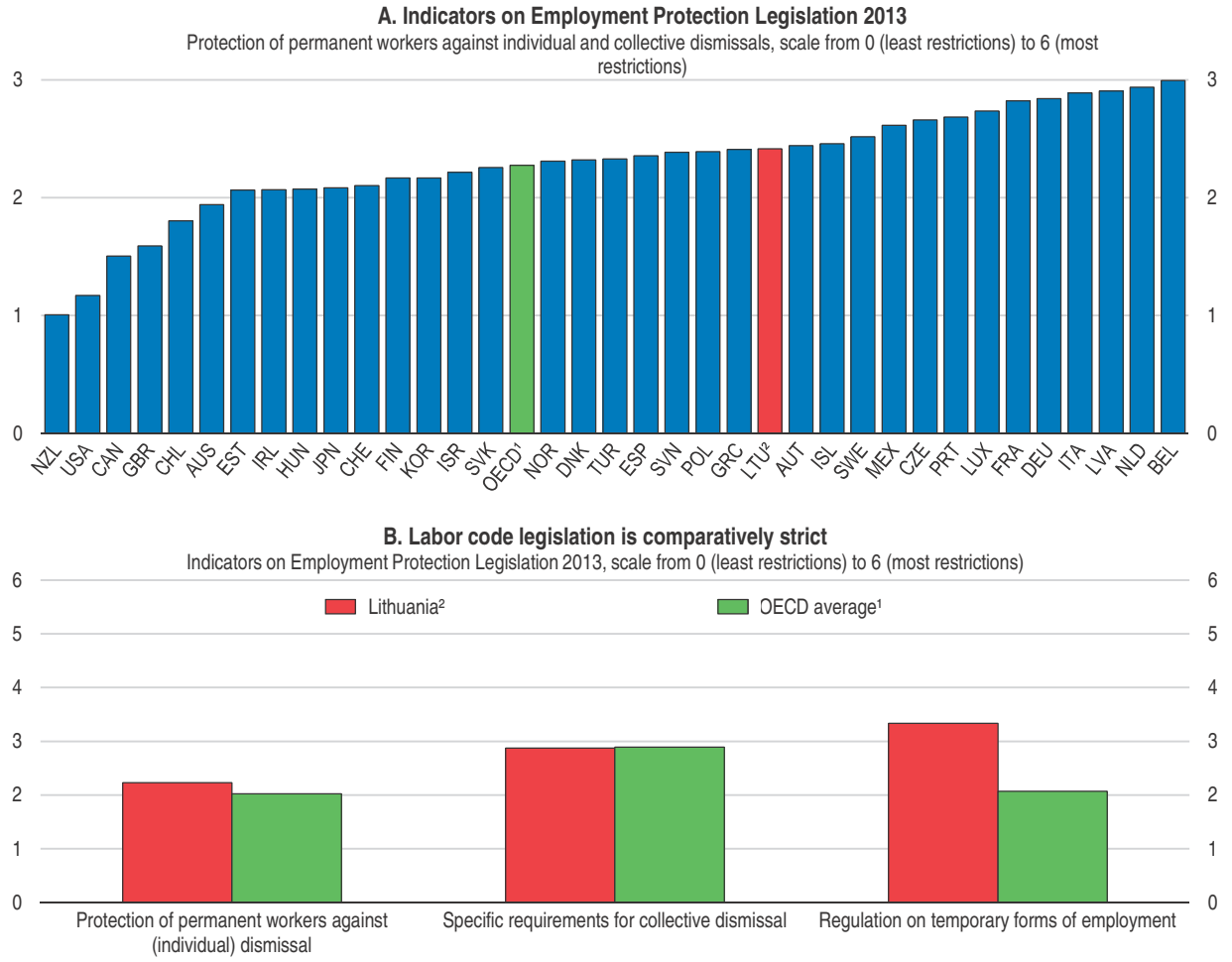
Providing more and better jobs for all

The Lithuanian labour market has proven to be flexible, which can make job creation more dynamic and is more conducive to growth (Bassanini and Duval, 2006; Andrews and Cingano, 2014). The relationship between GDP and unemployment (so-called Okun's law) is estimated at 0.49, similar to the United States, which suggests a high degree of labour market flexibility (Ebeke and Evereart, 2014). Such flexibility allows quick reallocation of resources and increases the adaptability of the economy to shocks. This is important for a catching-up economy like Lithuania, where structural change, technical change and job reallocation are particularly necessary.

Labour code legislation is strict by international standards, especially the rules regarding individual dismissal and the use of temporary employment (Figure 22; OECD, 2015a). At the same time, the labour code is not always enforced. For instance, legislation sets redundancy payments of up to 6 average monthly wages, but recent studies suggest that only 8-9% of dismissed women and 5-6% of dismissed men received redundancy payments, mainly from the public sector (European Commission, 2015a). This generates uncertainty for firms and for workers, which, for instance, may undermine Lithuania's attractiveness for FDI, as foreign firms are less aware of national practices to cope with an uneven implementation of labour regulations. The authorities plan a welcome reform of the labour code to better align practice according to the flexicurity model.

Providing more job opportunities for all, in particular for the most vulnerable workers, is instrumental to having an inclusive labour market. The performance of Lithuania's labour market has been impressive since the start of the recovery (the unemployment rate has fallen by 2 percentage points a year on average since 2010). The unemployment rate for youth, which peaked at 35.7% in 2010, has been in particular reduced to 19.3% thanks to specific support measures including training, wage subsidies and a "youth guarantee" which ensures that all youth under 29 get a good-quality offer for a job, training or continued education within four months of leaving education or entering unemployment (OECD, 2015a). However, the overall unemployment rate is still above the OECD average and seniors and the low-skilled still face a high risk of unemployment (Figure 23, Panel A). Shifting taxation away from labour, by reducing employer social security contribution which accounts for almost 60% of the tax wedge, would improve the employability of the low-

Figure 22. **Employment protection legislation is stricter than the average of OECD countries**



1. OECD unweighted average.
2. Data refer to 2015.

Source: OECD *Employment Protection Database*, 2013 update.

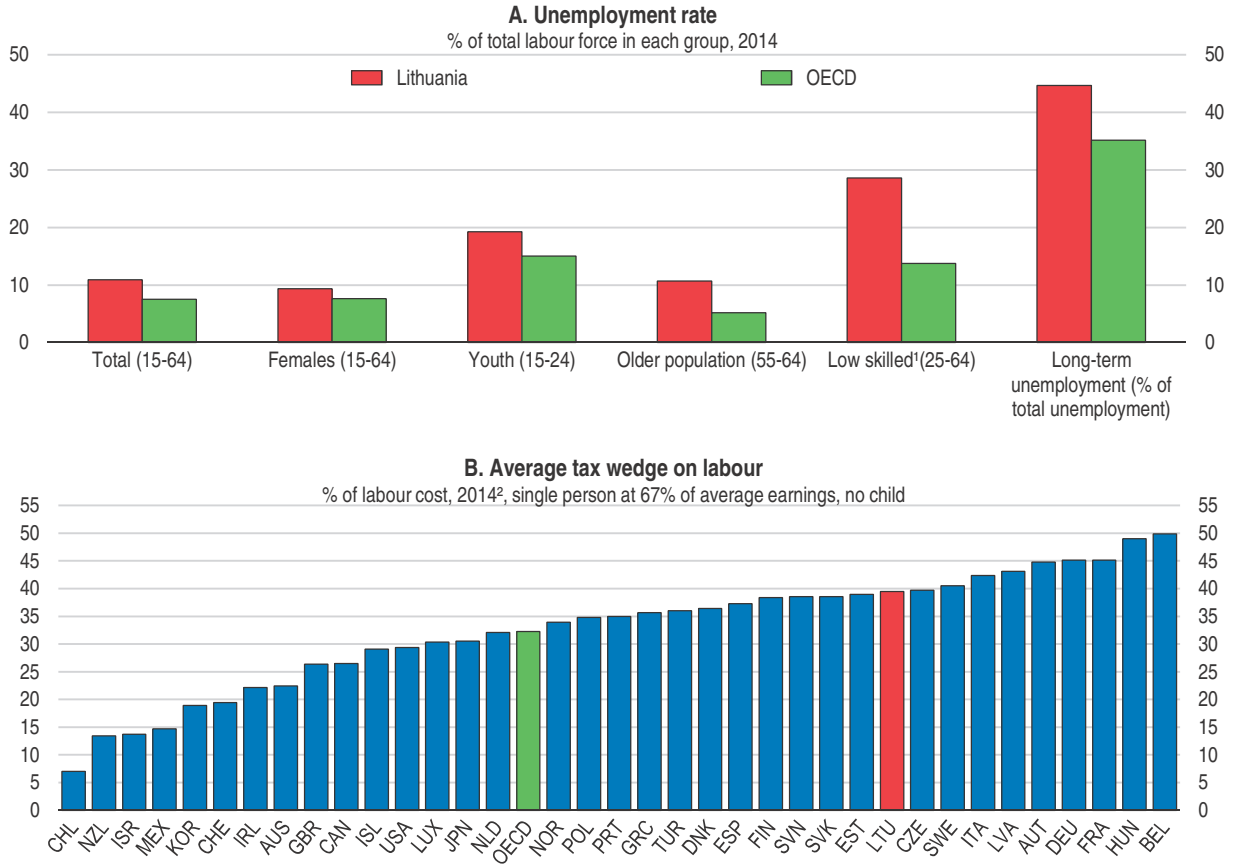
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skilled (Figure 23, Panel B; Giannella et al., 2008; IMF, 2014a). However, targeting low-skilled requires reliable information on wages which is not fully the case in Lithuania due to the relatively large use of informal wage payment (Eurobarometer, 2014; Schneider, 2015). An option is to limit exemptions to employers hiring low-skilled previously unemployed.

Along with more jobs for all, providing workers opportunities to improve their careers would raise well-being and productivity. According to the European Survey on Working Conditions, which assesses the quality of jobs, 30% of Lithuanians are not satisfied with their working conditions. This is significantly higher than the average of European Union countries (Eurofund, 2012). Job dissatisfaction reduces participation in the labour market and fuels emigration, in particular for youth (OECD, 2015a, Gruzevskis and Blaziene, 2013; Gataulinas and Zabarauskaite, 2014).

International experience suggests there is no trade-off between the quality and quantity of jobs (OECD, 2014d). Labour market institutions could both allow secure career paths and sufficient flexibility for job creation and reallocation. Promoting lifelong learning

Figure 23. **Unemployment rate for low-skilled is high**



1. 2013 data for OECD (unweighted average).
2. 2013 data for Latvia and Lithuania.

Source: OECD *Labour Market Statistics*; OECD *Education at a Glance Database*; Eurostat *LFS Main Indicators Database*; OECD *Tax Statistics*; European Commission, *Tax and Benefits Database*.

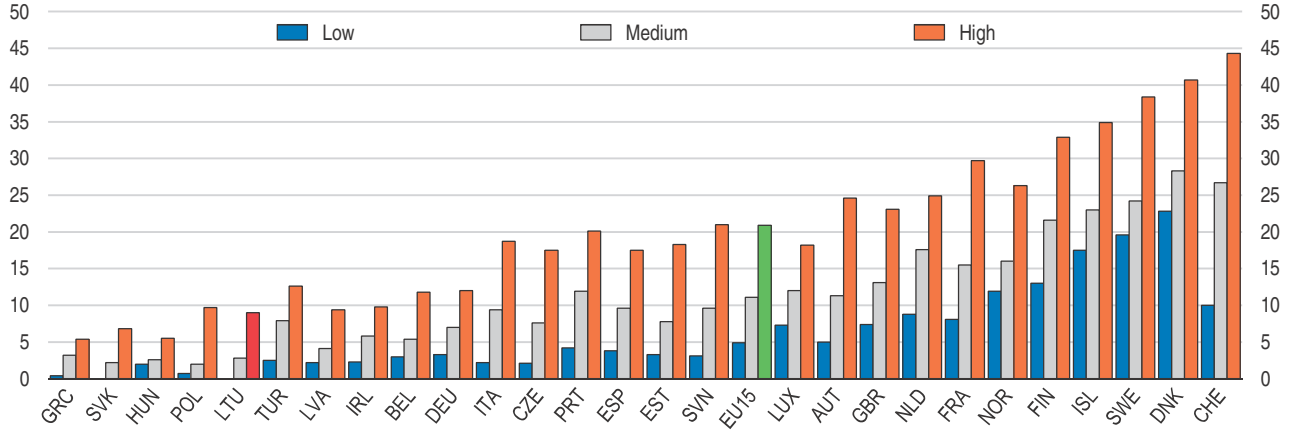
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is a key instrument for workers to move into better jobs (Bassanini et al., 2005;OECD, 2014a). Only 5% of workers are engaged in training activities, half the level in the EU, and the participation of low-medium skilled workers is even lower (Figure 24; European Commission, 2013). Ongoing plans to entitle workers to 5-20 days of training per year and to establish a new apprenticeship contract are welcome. The authorities should develop further complementary schemes such as vouchers training; individual loans for training or regulatory provisions that protect firms' investment in training, all measures that have proven to be successful in promoting lifelong learning (OECD, 2005).

Wage inequality is another important determinant of job satisfaction and is comparatively high in Lithuania (Figure 25, Panel A). While increasing the minimum wage can reduce inequality of earnings, it may also undermine job creation for low skilled workers if set too high. The minimum wage is currently at 50% of the median wage, which is about the average observed in OECD countries, suggesting the room for further increasing the minimum wage is limited (Figure 25, Panel B). In the medium-to-long term, the best way for boosting earnings of the low skilled is to improve their productivity through better education and job training. In the shorter-term, in-work benefits schemes (discussed below) could also make a contribution to improve work satisfaction by increasing take-home pay.

Figure 24. **Underinvestment in skills contributes to poor jobs quality**

Participation in lifelong learning by education level[1], 25-64 years old, 2014, %



1. Based on ISCED 2011 levels: low corresponds to less than primary, primary and lower secondary education (levels 0-2), medium corresponds to upper secondary and post-secondary non-tertiary education (levels 3 and 4), high corresponds to tertiary education (levels 5-8).

Source: Eurostat *Education and Training Database*.

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Figure 25. **Wage inequality is high**

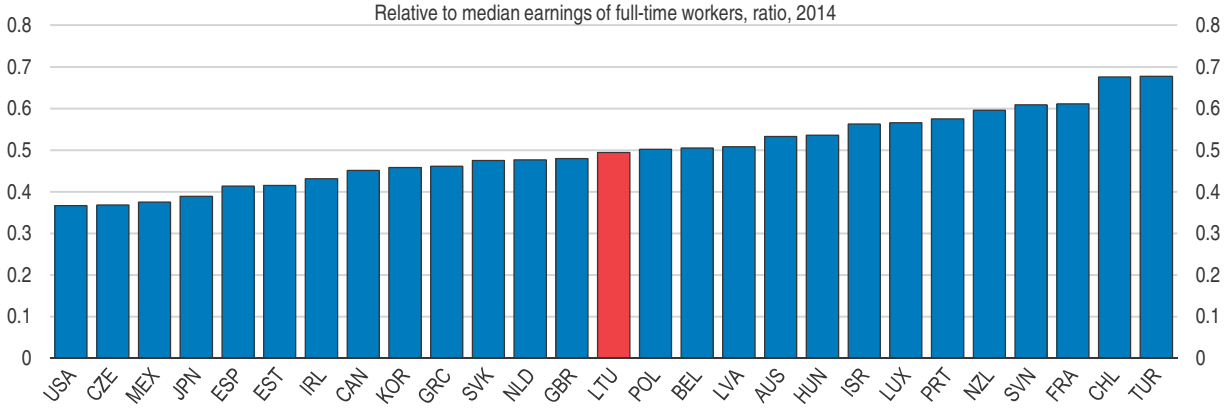
A. Earnings dispersion

Ratio of 9th to 1th deciles limits of earnings, 2012 or last available year, from low to high dispersion



B. Minimum wage

Relative to median earnings of full-time workers, ratio, 2014



Source: OECD *Earnings Distribution Database*.

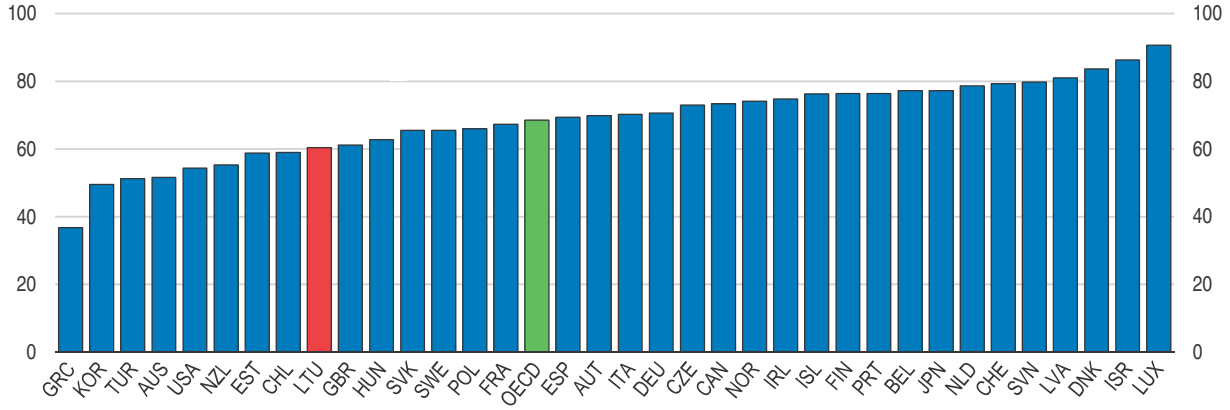
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Designing effective income support for out-of-work people

Income support to the unemployed is underdeveloped which increases vulnerability to poverty in the case of job loss and undermines skill matching. The net replacement rate of insurance benefits for low-paid earners is significantly lower than the average of OECD countries (Figure 26). Entitlement criteria are also among the most restrictive in the OECD

Figure 26. **Income security for unemployed is low**

Net income replacement rate for unemployment,[1] initial phase of unemployment, 2013, %



1. Simple average of the net replacement rates for the following households situations: single with no child and with two children at 67% and 100% of Average Wage (AW), one-earner married couple with no child and with two children at 67% of AW and 100% of AW. After tax and including unemployment and family benefits. Social assistance and other means-tested benefits are assumed to be available subject to relevant income conditions. Housing costs are assumed equal to 20% of AW.

Source: OECD, *Tax-Benefit Models*.

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which results in weak coverage, at 15-17% of unemployed (Lazutka, 2014a; Lagenbusher, 2015). The low level of unemployment insurance benefits and tight entitlement criteria provide an incentive for searching and taking a job. However, this may also inhibit labour market matching if financial constraints prevent the unemployed from devoting enough time to job search (Tatsiramos, 2009; Amable and Gatti, 2004). The weak level of unemployment insurance also reduces the incentive to work in the formal sector (OECD, 2008). It may also limit the effectiveness of job-search and training policies, because the opportunity cost of not taking these programmes is low. Steps to strengthen unemployment insurance are welcome (Box 5).

Box 5. **Main planned changes to the unemployment insurance system**

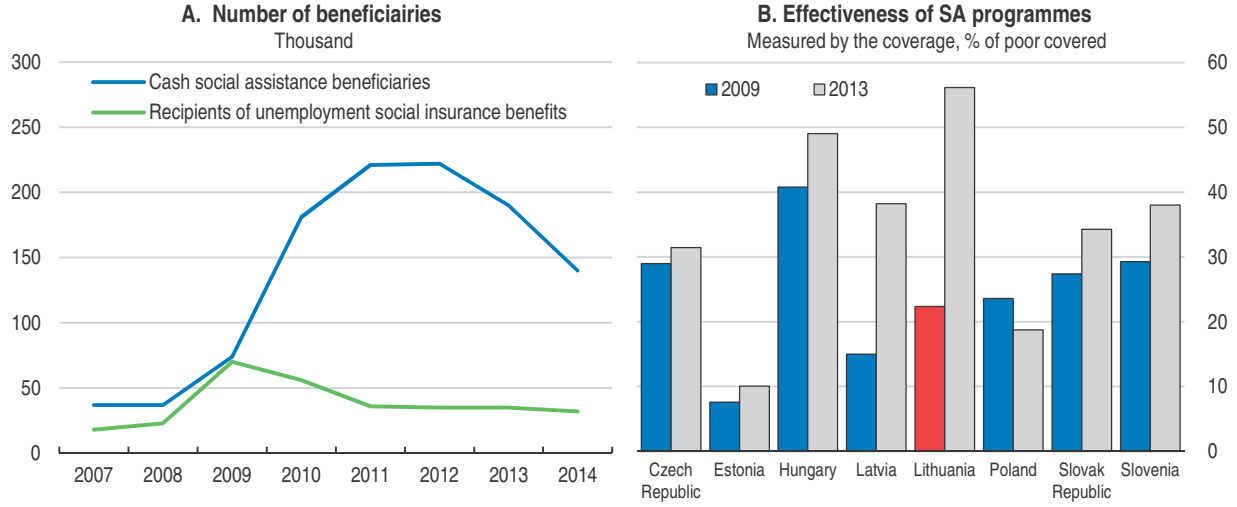
- The constant part of unemployment benefits will be computed based on a minimum monthly wage (at 30%), while previously it was equal to the State Support Income (set at EUR 100 since 2008), which is the reference for social benefits. This would strengthen the link between labour market insurance and wage development while the level of the state income insurance is for now set in an ad-hoc way and determined by political decision.
- The variable part of the benefits will increase: it will be equal to 50% of former earnings during the first three months of an unemployment spell and then be gradually reduced to 40% between the 4th and 6th month, and to 30% between the 7th and 9th month. In the current system, the variable part is equal to 40% of the former insured earnings and reduced by 50% after three months.

Box 5. **Main planned changes to the unemployment insurance system** *(cont.)*

- The eligibility rights will also be extended by reducing the required length of the period of contribution to unemployment insurance to 12 months instead of 24 months.
- The duration of unemployment benefit will be prolonged to 9 months compared to 6-9 months currently.

With an underdeveloped unemployment insurance scheme, the social assistance programme plays an important role in Lithuania where the risk of poverty is high (see Figure 3, Panel A). Since the global crisis, the number of social assistance recipients has increased significantly and was at 5% of the population in 2014, while the number of unemployment benefit recipients remained broadly constant (Figure 27, Panel A). The increase in social assistance beneficiaries has been driven by the fact that the crisis has pushed more people below the minimum income threshold that determines eligibility (Table 3). This implies a wider coverage of poor. However, social assistance benefits are only at half the poverty line, and, despite performing relatively well compared to peer countries, half the poor are not covered at all (Figure 27, Panel B). The reform implemented in 2012 that reduces benefits along the inactivity spell adds to the problem by reducing even further the level of benefits. Overall, this suggests that there is room for reinforcing social assistance.

Figure 27. **Despite progress more needs to be done to fight poverty**



Source: Lazutka (2014); Avram (2013), update based on EU-SILC data; Ministry of Social Security and Labour.

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Table 3. **The level of the minimum income benefit is low**

SSI	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Minimum Income (in EUR)	39.1	39.1	47.8	59.4	82.5	101.4	101.4	101.4	101.4	101.4
Poverty line at 60% median income in EUR, per month	102.9	126.7	163.8	205.6	235.8	201.5	192.9	216.9	234.9	241.2
Ratio, %	38.0	30.9	29.2	28.9	35.0	50.3	52.6	46.8	43.2	42.0

Note: Poverty line calculated each year at 60% of the median income.
Source: SSI based on Resolution of the Government of Lithuanian Republic "Dėl valstybės remiamų pajamų dydžio patvirtinimo"; OECD calculation.

A major challenge is to design social assistance programmes that are effective at reducing poverty while not raising disincentives to work. However, the complete withdrawal of benefits when the recipient takes up a job makes employment less attractive (Navicke, 2015). An option to raise the incentive to work is to provide direct in-work benefits for social assistance recipients who take a job. Such measures boost the labour supply without increasing the labour costs of firms by widening the gap between income from work and out-of-work benefits (Box 6). In addition, they potentially have substantial beneficial effects on income distribution (Immervoll and Pearson, 2009). Since January 2014, in-work benefits (equivalent to 50% of previous benefits) have been provided for six months to the long-term unemployed who are entitled to social assistance benefits and take up a job. The duration and the eligibility for such benefits could be extended to a wider range of out-of-work individuals, for instance unemployed with a shorter spell of unemployment.

Box 6. **Making work pay – In-work benefits schemes in OECD countries**

Design

In-work benefits strengthen incentives to work by widening the income gap between working and not working. Different designs of in-work benefits exist depending on the objective:

- Transitional benefits paid for a limited period following hiring (e.g. Australia, Belgium and Canada), which aim to increase the transition to employment.
- Permanent benefits can be paid, as long as the recipient meets the eligibility conditions (e.g. Belgium, Finland, Germany, France and United-Kingdom). These can take different forms such as tax concessions, social security contribution exemptions and refundable tax credits. Compared to transitory benefits, they have more pronounced effects on in-work poverty and distribution.

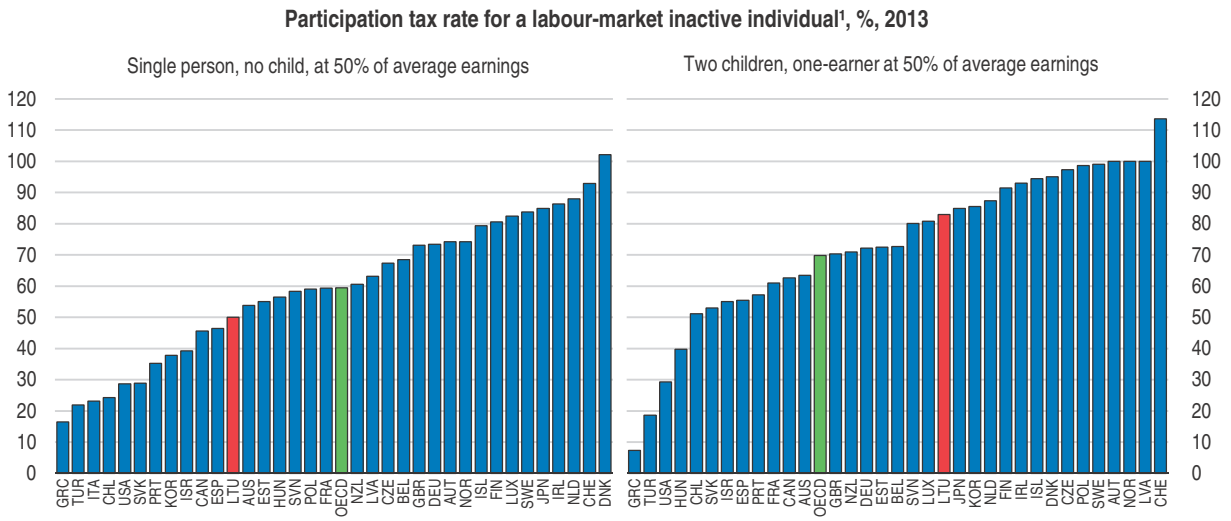
Potential effect

A 1% change in the income gap between working and non-working is on average found to increase participation by 0.2%. The elasticity is found to be higher for women and lone parents: between 0.3 and 1. The presence of children for women and being low educated also increases the elasticity. However, such elasticities should be interpreted with caution as they have been estimated during periods of strong labour market performance.

Source: Immervoll and Pearson (2009).

The financial incentive to take up a job may depend too strongly on the size of the family in Lithuania: support for single individuals is comparatively low, at 24% of median income, far below the poverty line, while support for a family is 50-60% of median income (Lazutka 2014b, Figure 28). Reducing further the support to large families may, however, have strong distributional effects and increase the risk of poverty for children. Instead, designing in-work benefit schemes that target the family level have proven to be effective, notably as the second earner is more sensitive to financial incentives (Immervoll and Pearson 2009; de Boer et al., 2015). Some measures are planned to increase take-home pay for family earners in the context of the budgetary law for 2016 by raising the tax allowance for residents raising children from 60 to 120 euros and increasing the basic tax allowance from 166 to 200 euros. However, a universal tax allowance may come with high fiscal costs by supporting families with large incomes. The authorities should instead

Figure 28. **The financial incentive to take a job is comparatively low for large families**



1. Average effective tax rates measure the extent to which taxes and benefits reduce the financial gain of moving into work. The estimates here relate to the situation of a person who is not entitled to unemployment benefits (e.g. because they entitlements have expired). Instead, social assistance and other means-tested benefits are assumed to be available subject to relevant income conditions. Where receipt of such assistance is subject to activity tests (such as active job-search or being "available" for work), these requirements are assumed to be met in the out of work situation. Cash housing benefits are calculated assuming private market rent, plus other charges, amounting to 20% of the full-time wage for all family types. The percentage of AW relates to the earnings from full-time employment of the individual moving into work.

Source: OECD, *Tax-Benefit Models*.

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consider targeting family allowances at low income earners which would be less costly and more effective at reducing inequalities.

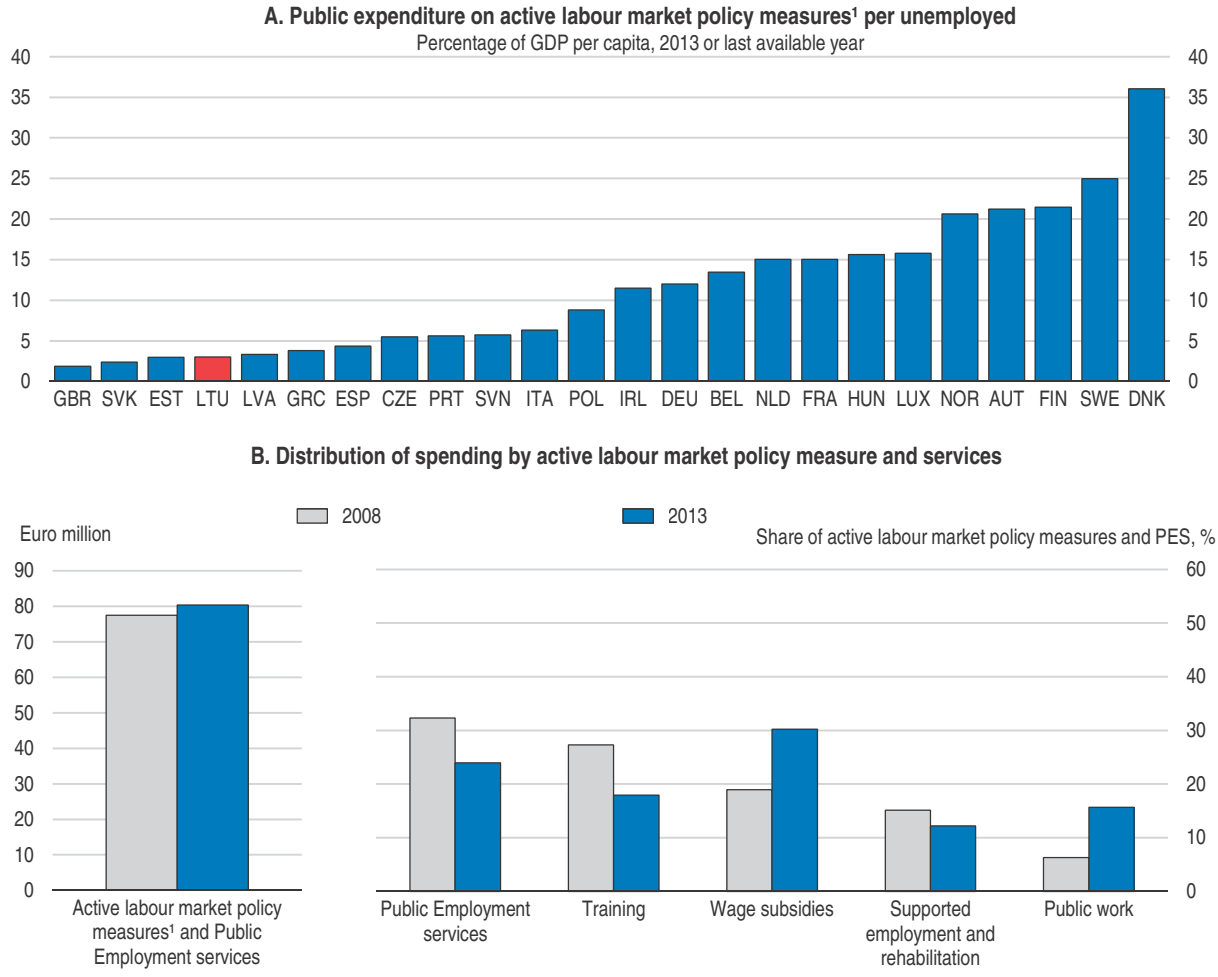
Making employment support services more effective

Adequate out-of-work benefits help connect jobless people with the public employment service (PES) and an effective PES helps to get people back to work (Immervoll and Scarpetta, 2012). Both social assistance and unemployment benefits recipients have to register at PES in Lithuania and to comply with the requirements in terms of job-search and programmes. However, only 0.18% of GDP in 2012 was devoted to active labour market policies (ALMPs) in Lithuania, compared with 0.43% on average in the OECD (Figure 29, Panel A).

Lithuania's PES is understaffed, with almost 200 unemployed individuals per case worker compared to less than 50 in Germany, where Hartz reforms have significantly strengthened the effectiveness of PES and improved labour market matching (OECD, 2012b). More case workers would improve personalised support and other measures to help the unemployed and the low skilled to find jobs (OECD, 2015a). This is critical given the high level of structural unemployment, estimated at 10-12% (Ebeke and Everaert, 2014), and the outward shift in the Beveridge Curve, which suggest that the efficiency of labour market matching may have deteriorated since the 2008 global financial crisis (Chapter 2).

The effectiveness and efficiency of ALMP programmes could be improved by reallocating resources to the most efficient programmes. Spending on ALMPs should be further regularly monitored and evaluated in order to target resources to the most effective

Figure 29. **There is room for more generous and effective spending on ALMPs**



1. ALMP measures (categories 2-7) cover training, wage subsidies, supported employment and rehabilitation, public work and start-up incentives.

Source: European Commission, *Labour Market Policies Database* and OECD *Economic Outlook 98 Database*.

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programmes and tailor them in line with country-specific characteristics. Some directions for reform are suggested by the experience of the best-performing countries':

- Resources devoted to training could be increased, as they have proven to raise employability and the quality of jobs in the medium to long-term (Card et al., 2015; Wulfgram and Fervers, 2013). Experience in Denmark reveals that company-based training is the most effective at increasing employability. The new voucher programme implemented in 2012 provides more flexibility by allowing the trainee and the employer to choose the training provider. Progress has also been made in targeting the most vulnerable: long-term unemployed accounted for 20% of participants in training in 2013, compared with 9% in 2012. However, more needs to be done to develop the quality assurance of training (European Commission, 2014b; OECD, 2015a).
- Wage subsidies are efficient at improving the employability of low skilled workers (Card et al., 2010). However, overall ALMPs appear too skewed towards those programmes at the expense of programmes that increase long-term employability such as training. In

addition, the cost-efficiency of wage subsidy programmes could be improved by targeting the "Support for the first job" programme to the most vulnerable rather than to all youth without professional experience (OECD, 2015a).

- While public works programmes have proven to be the least effective at raising employability, including in Lithuania (Card et al., 2010; ESTEP, 2014), spending in that area has increased in the post-crisis period and still accounts for almost 20% of ALMPs spending in Lithuania (Figure 29, Panel B). Such schemes should be targeted at the hardest-to-place job-seekers, with a view to gradually bringing them back to market-based employment.

Getting social assistance beneficiaries back to work is underpinned by their mandatory registration in local labour offices. Some directions to strengthen the effectiveness to bring people back to work are:

- A first priority is to better coordinate PES and municipalities' actions, in particular, by developing specific PES programmes for social assistant recipients. Jobseekers that have good prospects are rightly subject to standard job-search obligations, but the most vulnerable jobless individuals require specific assistance and intensive services if they are to escape unemployment (Immervoll and Pearson, 2009).
- Another direction is to revise municipalities *workfare* programmes which require social assistance recipients to take part in "socially useful activities" (40 hours per month) and cover one-third of social assistance recipients (European Commission, 2015a). These programmes aim at enforcing the availability to work and tackling informality (Lazutka, 2014b) However, international experience suggests that workfare programmes are weakly effective at improving the employability of participants (Crisp and Fletcher, 2008). They should hence be targeted for only the hardest-to-place recipients with the aim to develop some work habits.

Social assistance recipients who do not comply with administrative and job-search requirements can encounter sanctions, as in several OECD countries (Immervoll, 2015). However, sanctions appear comparatively strict in Lithuania where they imply either a full suspension (for at least three months) or a termination of benefits (Lazutka, 2014a; see Table 2.3 for details) while OECD experience suggests that moderate sanctions, such as a temporary reduction of benefits, could be effective (Immervoll, 2009). This suggests some room to design more balanced sanctions. In particular, a specific look should be given to the reasons behind the decline of social assistance recipients (see Figure 27, Panel A) to ensure that it is explained by better labour market performance and not associated with benefit termination leading to stronger poverty and social exclusion.

Recommendations for promoting inclusive labour market

- Improve inclusiveness by providing in-work benefits for low-paid jobs, and increasing access to lifelong learning.
- Lower employer social security contribution on low-skilled workers while maintaining their entitlements.
- Implement the plans in the "New Social Model" to reform labour regulations and temporary income support for the unemployed.
- Strengthen active labour market programmes and the capacities of public employment services to implement programmes to get people back to work.
- Increase the income support to social assistance recipients while strengthening work incentives.

Improving health outcomes for all

Better health and higher life expectancy for all Lithuanians would make a direct contribution to well-being, labour utilisation and productivity. International experience suggests that better health raises employment, and that unemployment tends to weaken health (Barnay, 2014). Health policies thus appear integral to an inclusive growth strategy in Lithuania and priorities are to strengthen equity, effectiveness and sustainability.

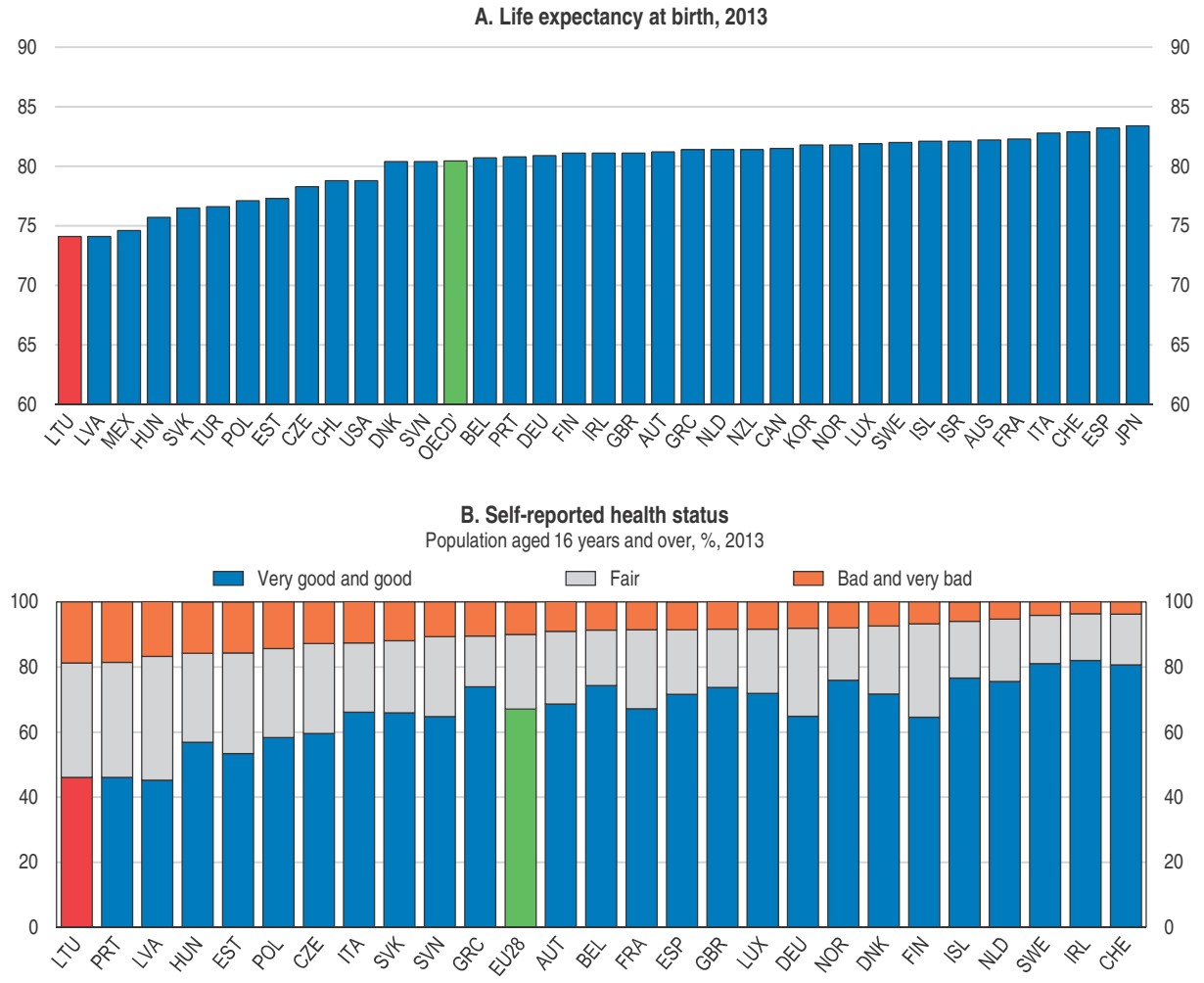
Despite significant progress since the transition, life expectancy remains low at 74 years compared to 80 on average in OECD countries, and men have a life expectancy of only 68 years, compared with 78 in OECD countries. Comparatively poor life expectancy mainly reflects the prevalence of unhealthy life styles and a lack of access to modern medical treatment and prevention among lower socioeconomic groups (Jasilionis and Stankuniene, 2012). Access to health has improved and the proportion of Lithuanians self-reporting unmet needs for medical examination fell to 3.2% in 2012 from 7% in 2005 (Stamati and Baeten, 2014). However, only 44% of Lithuanians claim to have good or very good health, compared with 66% on average in Europe (OECD, 2014f; Figure 30).

Better primary care and prevention policies could contribute to better health and efficiency. Significant progress has already been achieved, as the number of family physicians has increased from 5 per 10 000 inhabitants in 2000 to 9 in 2012. However, the Lithuanian healthcare system still relies too much on hospital care (Murauskiene et al., 2013). Potential additional reforms include further promoting out-patient care. Strengthening the role of nurses in primary care services has proven effective in improving health in other countries, such as Denmark and the UK, where nurses can visit patients with minor health problems and prescribe drugs (Masseria et al., 2009).

Tackling health status inequality related to differences in socio-economic backgrounds is instrumental to inclusive growth and requires a multi-pronged approach:

- Health status differences are pronounced between rural and urban areas: The population in rural areas tends to make fewer visits to physicians than those in urban areas and their life expectancy is three years lower (*Statistics Lithuania*). The Lithuania Health Programme 2014-25 includes the development of a monitoring system of health inequalities to help target the at-risk population and the promotion of an integrated health policy that involve health, education and social institutions. While the causes of excess mortality of the lower educated are mainly related to the prevalence of unhealthy life styles (Jasilionis and Stankuniene, 2012), the room for raising excise taxes on alcohol may be limited as it is already above the European average.
- Another factor behind health inequalities may be out-of-pocket payments, in particular for pharmaceutical products, which amount to 64% of pharmaceutical expenditures (Figure 31, OECD, 2014f). Pharmaceuticals are reimbursed for certain people (children, pensioners, disabled and patients suffering from certain diseases) but others pay the full cost. The "programme for the third stage of the restructuring of health care institutions and services", adopted in 2009, has reduced payments on pharmaceuticals and the average price of a prescription (Stamati and Baeten, 2014). However, Lithuania is still one of the countries that experienced the highest increase in co-payments between 2007 and 2012 (OECD, 2014f). There is also room for promoting further generic drugs (IMF, 2015).
- Another important dimension for promoting inclusive health is to tackle corruption in the health sector; a recent study reported that 35% of Lithuanians have paid a bribe in exchange for health care services (OECD, 2015c). The government programme 2012-16

Figure 30. **Health outcomes are poor**



1. Unweighted average.

Source: OECD *Heath Statistics*; Eurostat *Heath Statistics Database*.

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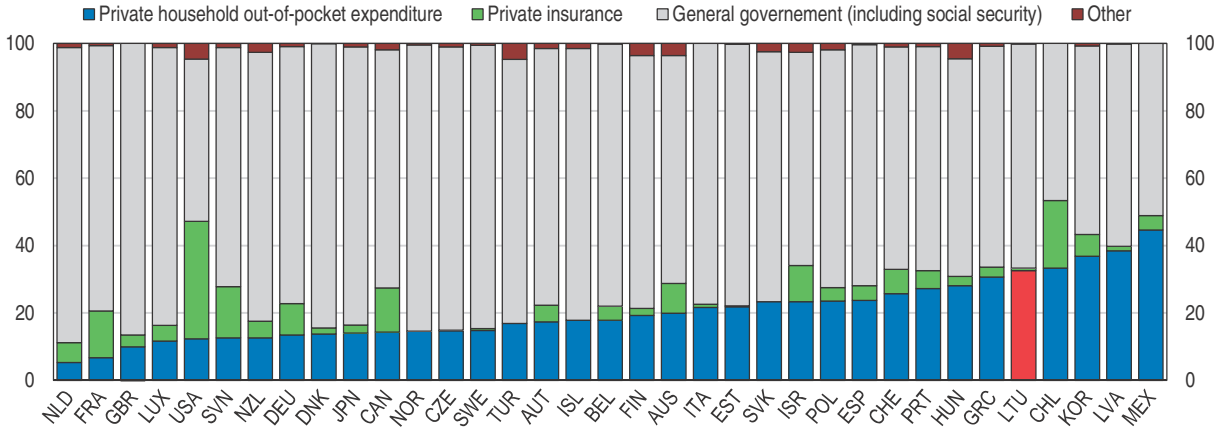
includes a provision to tackle the use of informal payments and illegal public procurement practices.

Lithuanian spending on health care has increased to 6.7% of GDP in 2012 from 5.8% in 2005, which is low by international comparison but similar to regional peers (Figure 32). Efficiency could derive from merging more hospitals and improving further governance. The number of beds has been reduced from 8.8 for 1 000 inhabitants in 2000 to 7.3 in 2013, but this is still higher than the European average at 5.2 per 1 000 inhabitants. The launch of the fourth stage of the hospital network consolidation in 2015 goes in the right direction to the extent that access to health care services is guaranteed, in particular in rural areas. Since 2012, the financing method for hospitals, based on diagnostic-related group (DRG) has also improved efficiency by imposing the same level of hospital resources for patients with the same diagnosis. Going forward, more can be done to improve governance, in particular by strengthening further the notion of open government, including by making more visible the results of policy actions and further involving stakeholders and patients. (OECD, 2015c). There is also scope for further promoting the use of the newly established e-health

infrastructure (e.g. electronic records) to make it an effective instrument of communication among health care service providers while fully respecting privacy concerns.

Figure 31. **Out-of-pocket payments in health care are high**

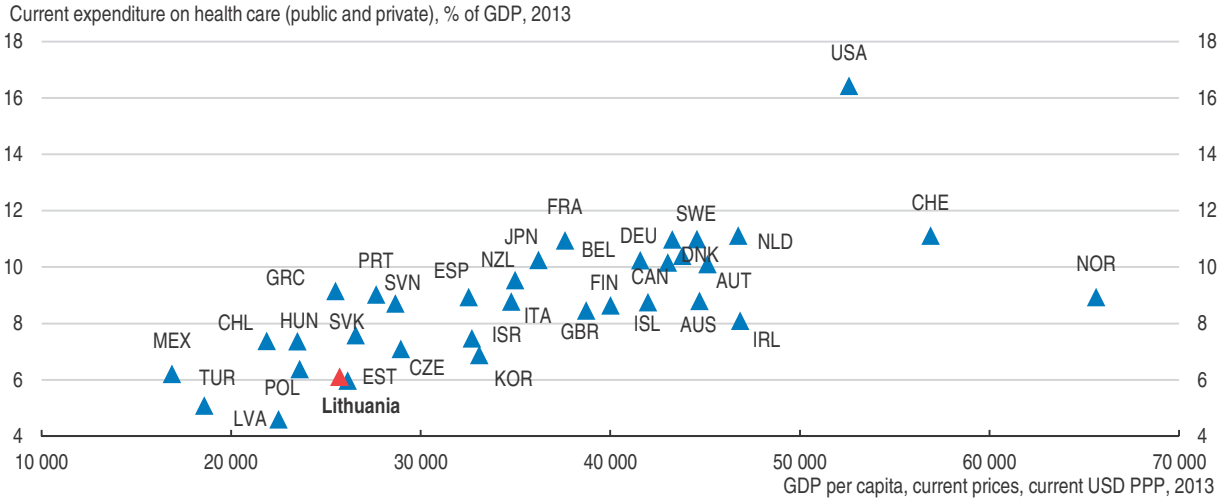
Expenditure on health by type of financing, % of current expenditure, 2013 or last available year



Source: OECD *Health Statistics*.

StatLink http://dx.doi.org/10.1787/888933338832

Figure 32. **Spending in health care is low but in line with peers**



Source: OECD *National Accounts Statistics*; OECD *Health Statistics*.

StatLink http://dx.doi.org/10.1787/888933338847

Recommendations for improving health outcomes for all

- Further promote healthy lifestyles and primary care services especially in rural areas through general practitioners, greater role for nurses and the recently established network of public health bureaus.
- Increase health sector efficiency and effectiveness of health policy by continuing to merge hospitals and widening the scope for the newly established e-health infrastructure while fully respecting privacy concerns.

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ANNEX 1

Main areas for reforms planned by the authorities in the context of the "new social model"

Reform of the labour code

- Increasing the variety of the available types of contracts.
- Easing regulation of working hours.
- Easing the regulation on individual dismissal.
- Reducing the administrative burden on employers.
- Introducing specific exemptions for small firms (up to 10 employees).

Improving employment relationships

- Strengthening collective agreement.
- Clarifying the procedure for minimum wage determination, strengthening the transparency of the payment system, applying the minimum wage for non-qualified employees.
- Promoting lifelong learning.
- Promoting work-life balance, equality and non-discrimination.

New employment programmes

- Targeted active labour market measures.
- Developing service vouchers for low skilled, vulnerable groups.

Social insurance

- Increasing the coverage of individuals subject to social insurance.
- Reducing the social insurance tax rate and introducing a ceiling.

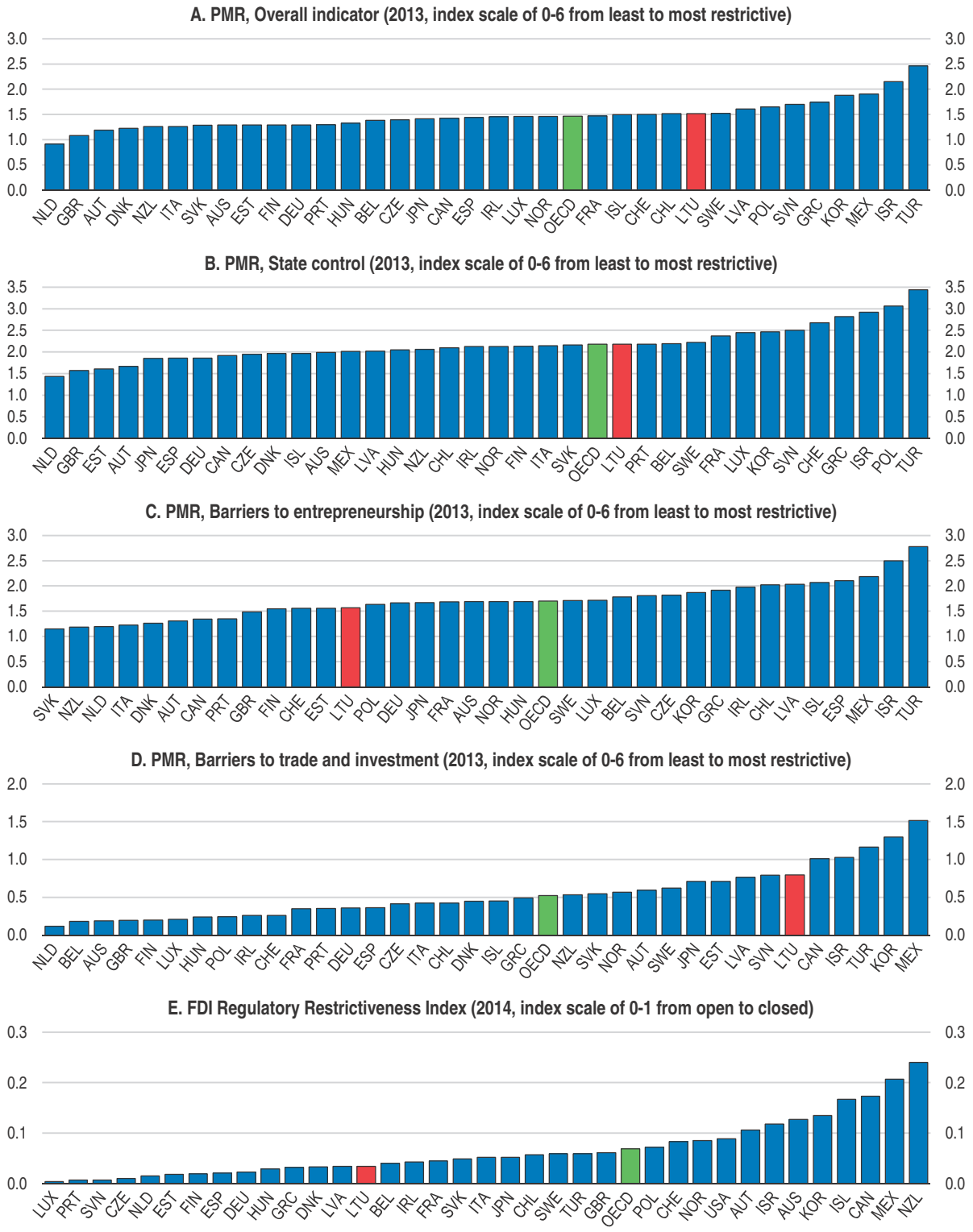
Pension system

- Changing the pension indexation rules.
- Phasing-in an increase of the mandatory insurance period for the full basic pension entitlement from 30 to 35 years.
- Adjusting the retirement age to life expectancy.

ANNEX 2

Selected policy indicators

Figure A1. **Product market regulation (PMR) and FDI Regulatory restrictiveness index**

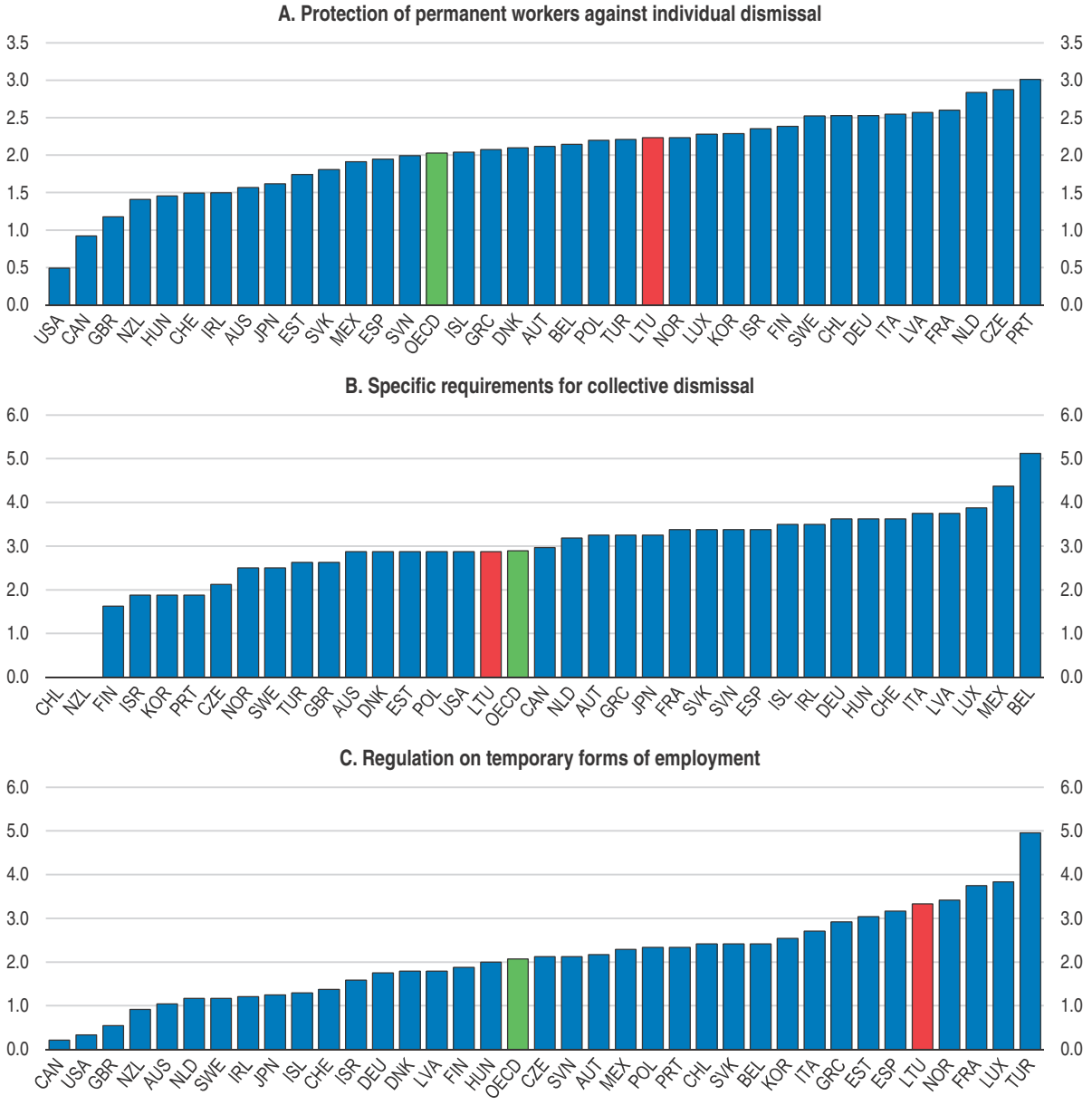


Source: OECD (2013), *Product Market Regulation Database* and *www.oecd.org/investment/index*.

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Figure A2. **OECD indicators on Employment protection legislation (EPL)**

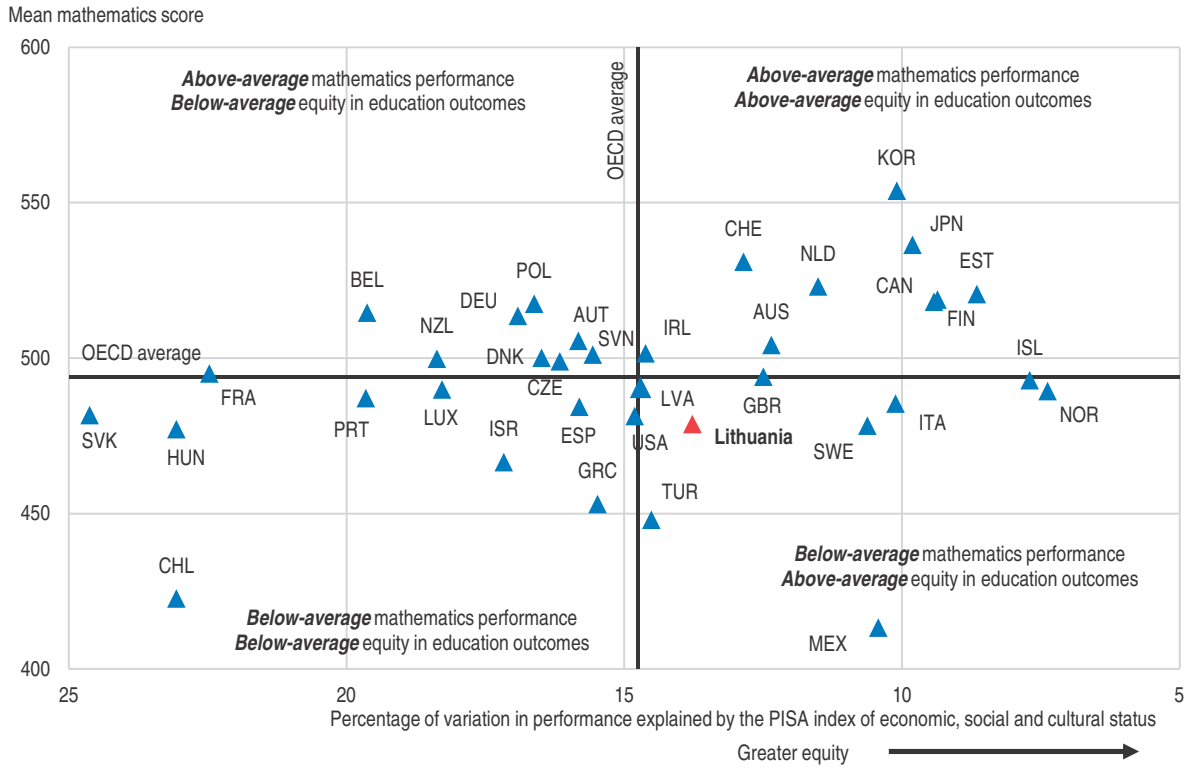
2013 or latest year available, index scale of 0-6 from least to most restrictive



Source: OECD *Employment Protection Database*, 2013 update.

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Figure A3. **Student performance and equity**

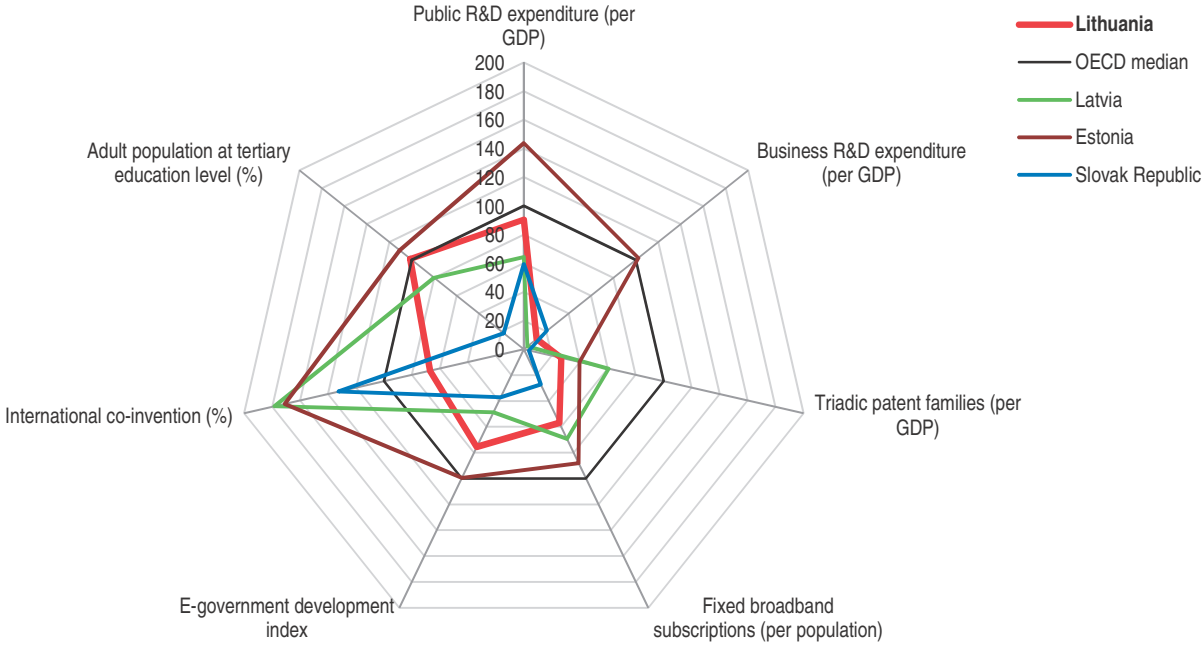


Source: OECD (2014), *Education at a Glance*, Chart A9.4.

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Figure A4. **Science and innovation indicators**

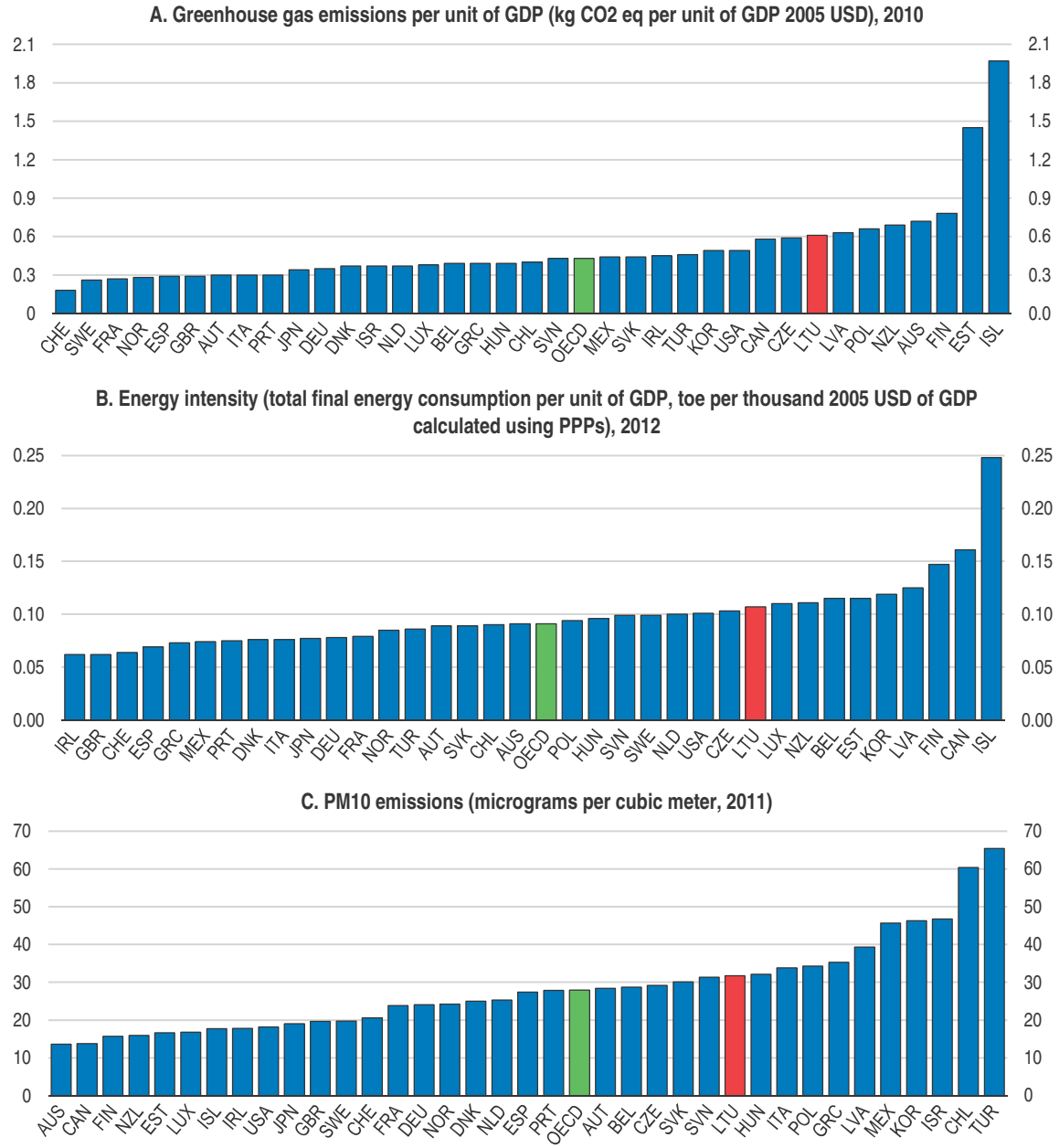
Normalised index of performance relative to the median values in the OECD area (Index median = 100)



Source: OECD (2014), OECD *Science, Technology and Industry Outlook*.

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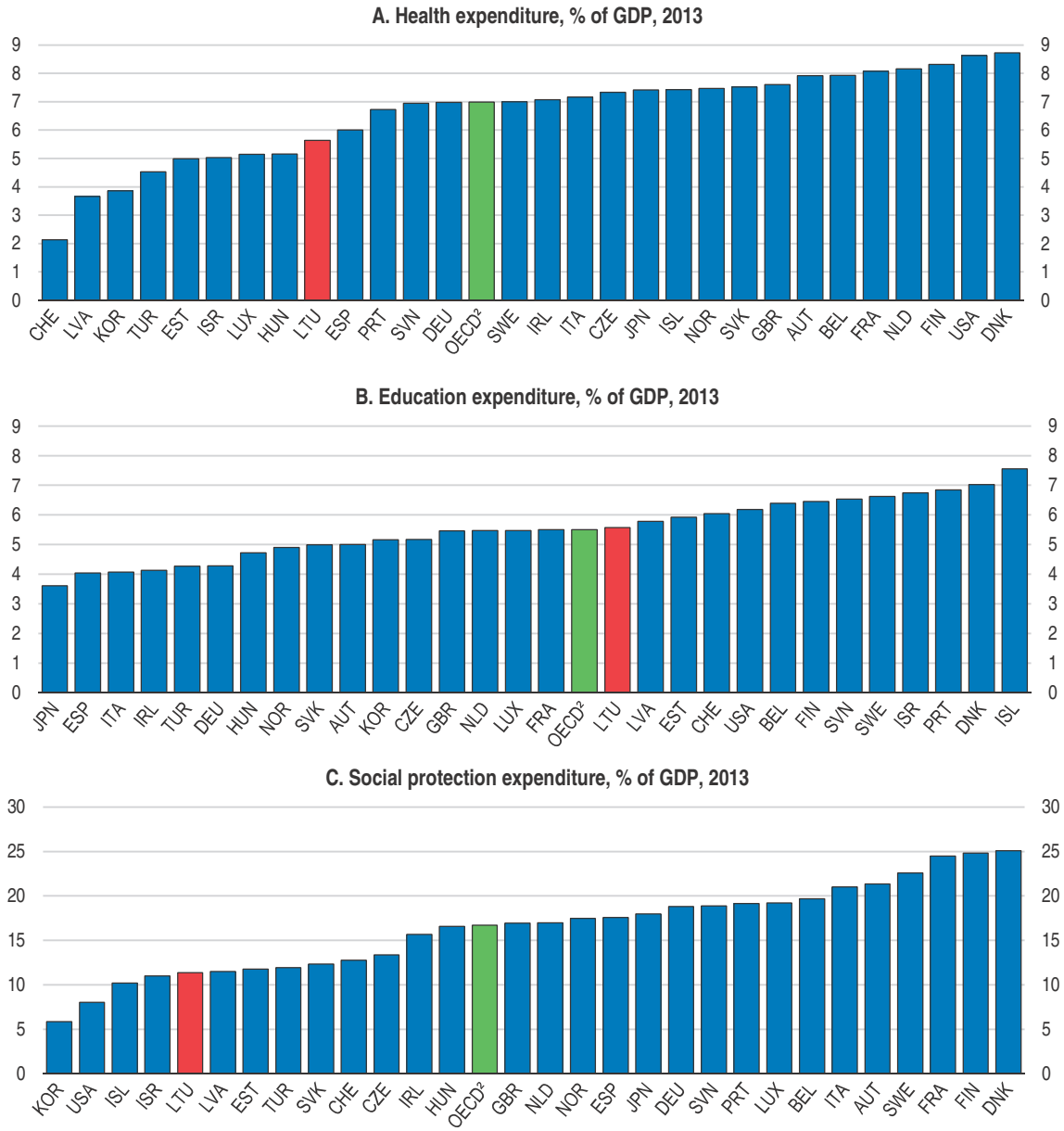
Figure A5. **Environmental indicators**



Source: OECD/IEA *Energy Database* and World Bank, *WDI Database*.

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Figure A6. **General government expenditure**[1]



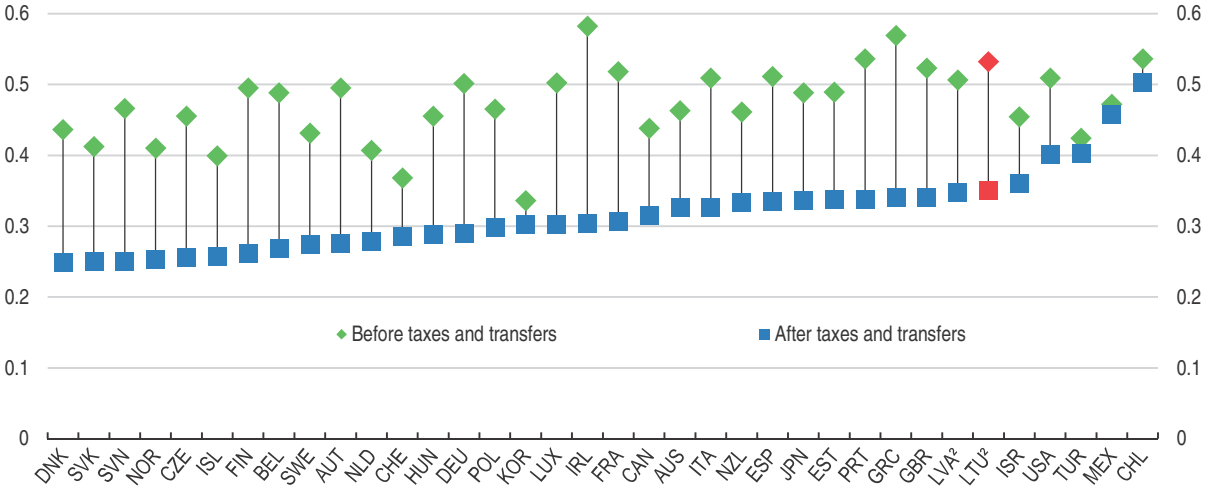
1. According to the Classification of the Functions of Government (COFOG).
2. OECD average of available countries.

Source: OECD *National Accounts Statistics*.

StatLink http://dx.doi.org/10.1787/888933338900

Figure A7. **Income redistribution**

Gini coefficient, scale from 0 "perfect equality" to 1 "perfect inequality", 2012[1]



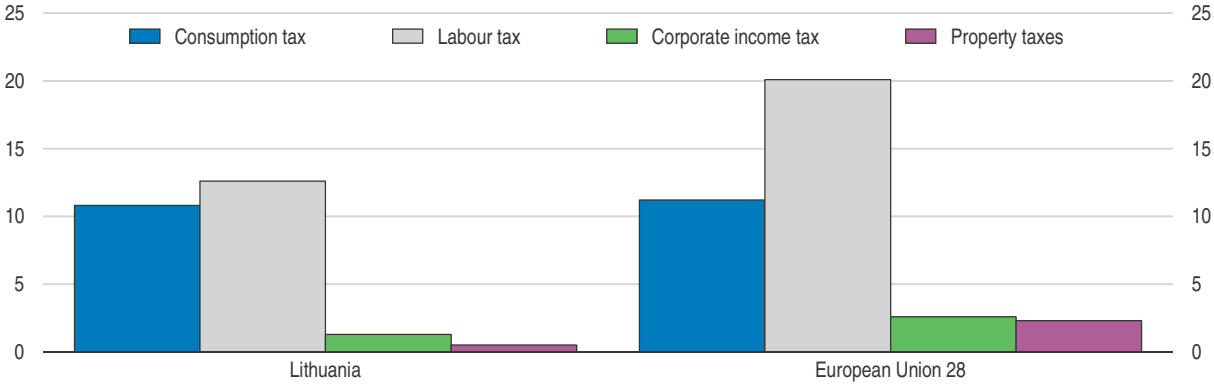
1. 2009 for Japan, 2011 for Canada and Chile, 2013 for Finland, Israel, Korea, the Netherlands and the United States, 2014 for Hungary.
2. OECD Secretariat calculations from EU-SILC – preliminary results.

Source: OECD *Income Distribution Database* and OECD Secretariat calculations.

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Figure A8. **Government tax revenues**

2012, % of GDP

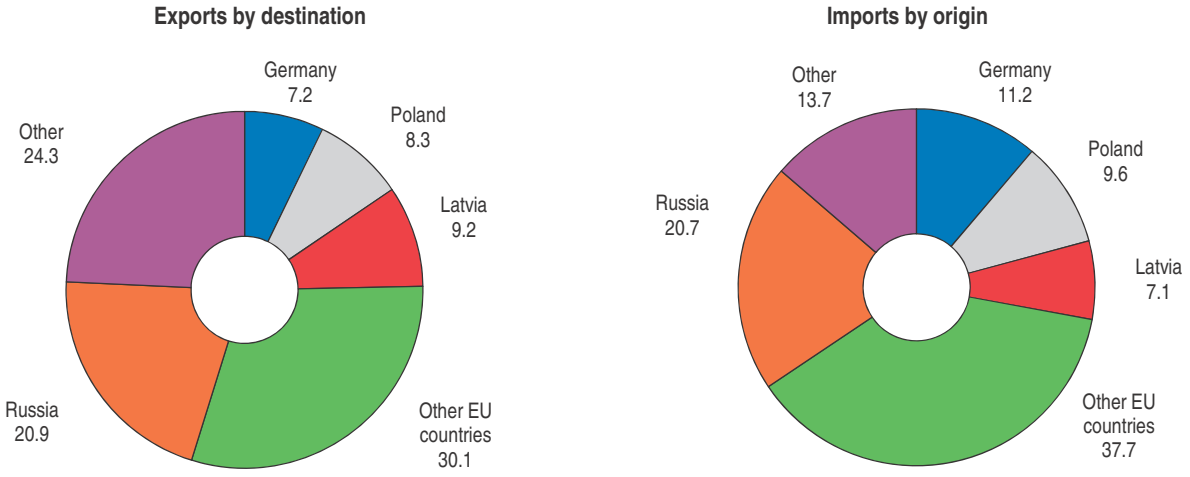


Source: Eurostat (2014), *Taxation Trends in the European Union*.

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Figure A9. **Trade of goods by destination**

2014, % of total

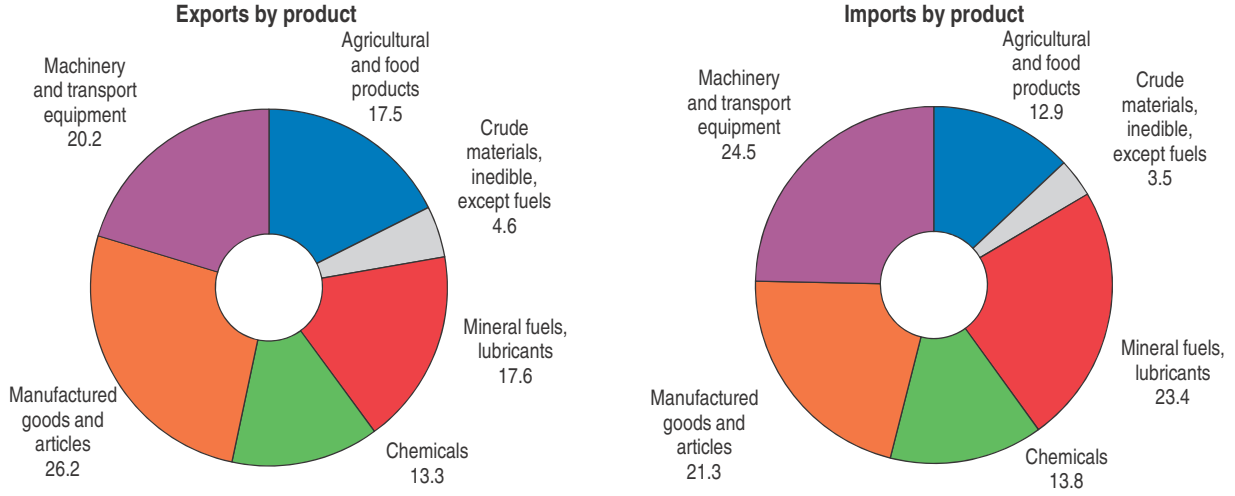


Source: Lithuanian authorities.

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Figure A10. **Trade of goods by product**

2014, % of total



Source: Lithuanian authorities.

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Thematic chapters

Chapter 1

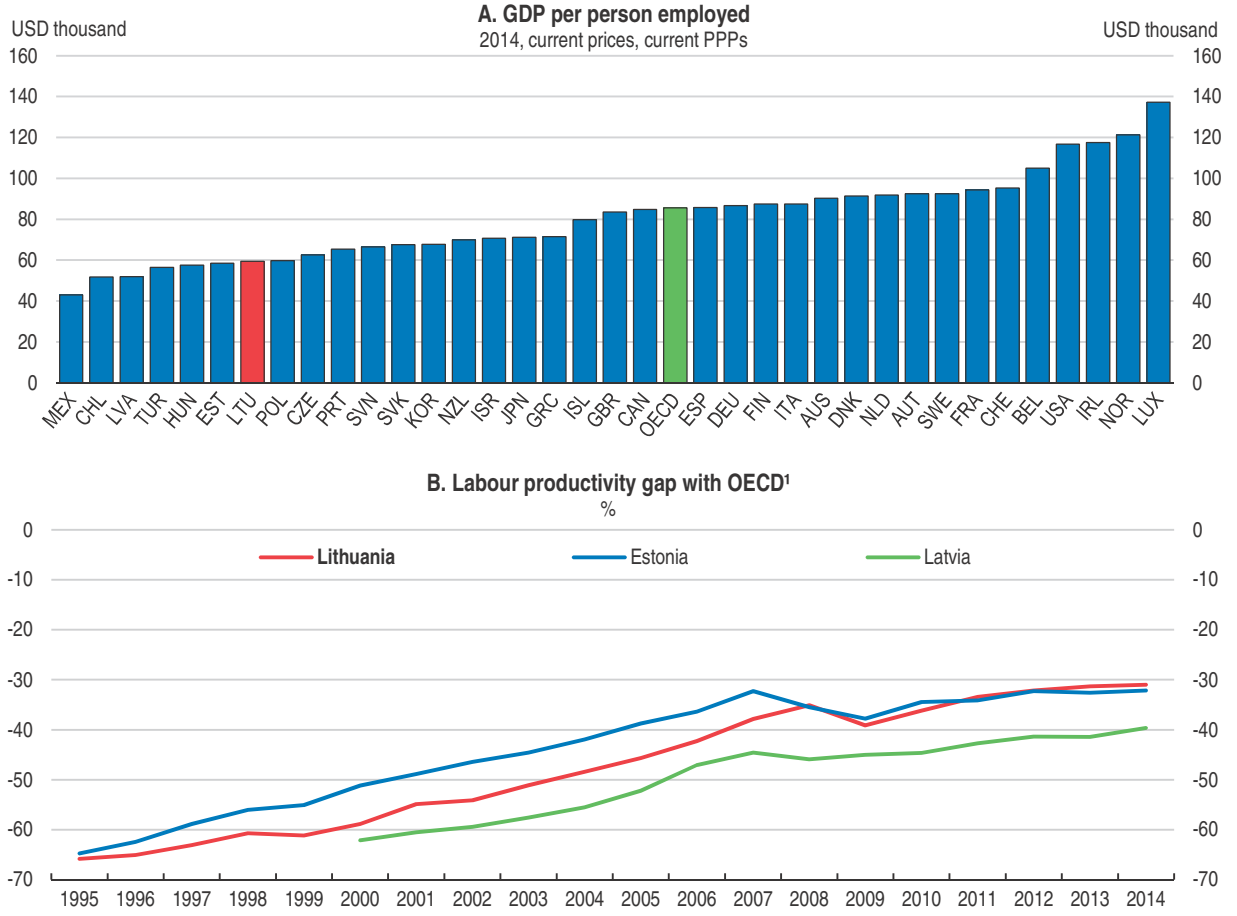
Scaling new heights: Achievements and future challenges for productivity convergence

GDP per capita rose from one third to two thirds of the OECD average level between 1995 and 2014, despite internal and external crises. Productivity catch-up was critical to this process, although the level of labour productivity also remains around one-third below the OECD average. Further convergence will partly rely on improvements in resource allocation. In particular, the government should promote better governance of state-owned enterprises, effective bankruptcy procedures and new forms of business financing. Convergence will also depend on policy settings that encourage advances in within-firm productivity growth. Improvements to the quality of education at all levels and increasing the role of workplace training will be important. However, so too will be further measures that encourage the innovation capacity of the business sector, including innovation policies that further promote the absorptive capacity of firms and do not favour incumbents at the expense of young firms.

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

In the past two decades, the income level in Lithuania has steadily risen toward that of OECD countries. Between 1995 and 2013, GDP per capita rose from one third to two thirds of the OECD average level. Productivity catch up was critical to this process, aided by enhanced integration into the global economy which enabled the adoption of more advanced production technologies from abroad. Even so, the level of labour productivity in Lithuania today remains around one-third below the OECD average (Figure 1.1). With a workforce that is ageing at the fastest pace of any country in the European Union (EU; European Commission, 2015a), future advances in Lithuanian living standards will mostly rely on the country's ability to raise productivity.

Figure 1.1. **Despite convergence, Lithuania's productivity gap with the OECD remains large**



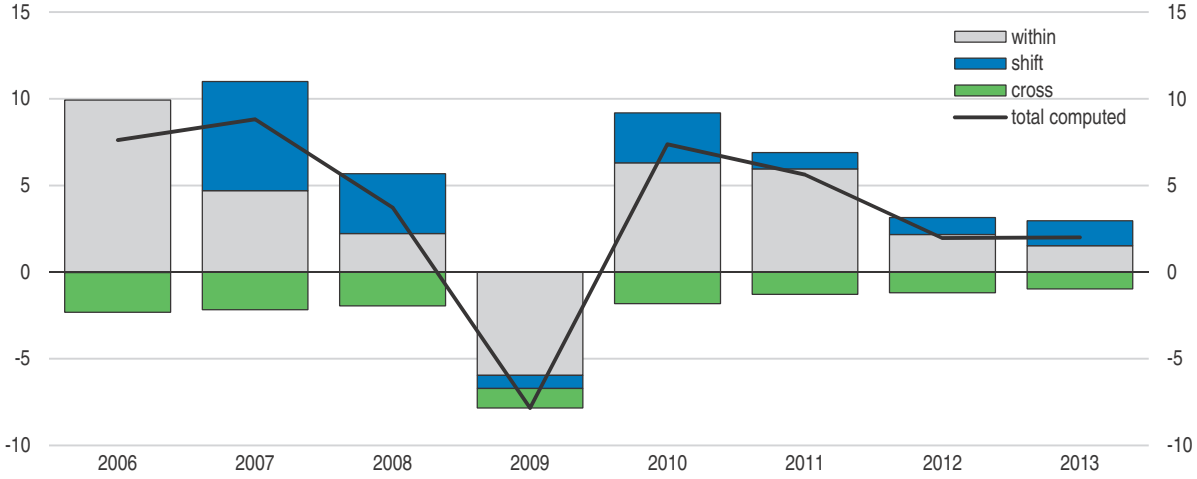
Note: Labour productivity is measured as GDP per person employed.
Source: OECD calculations based on OECD *National Accounts Statistics*.

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Decomposing Lithuanian labour productivity growth since 2006 reveals that both reallocation of resources between sectors and within-sector productivity growth have been important (Figure 1.2). The latter can be driven by reallocation between firms in the same sector as well as increases in within-firm productivity which often relies on absorbing and implementing new ideas and technologies.

Figure 1.2. **Productivity has benefitted from both within-sector advances and between sector reallocation**

Labour productivity growth (%)



Note: "Within" measures the contribution to total labour productivity growth from productivity growth within sectors. "Shift" measures the contribution resulting from the movement of labour between sectors. "Cross" indicates whether the within-sector and between-sector effects are complementary. A negative value for the latter indicates that productivity growth is particularly strong in sectors that have a contracting labour share.

Source: OECD calculations based on data from *Statistics Lithuania*.

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Changes in government policy settings are important determinants of both resource allocation and within-firm productivity growth. This chapter examines public policy settings in Lithuania in the context of two critical objectives: 1) continuing to improve the efficiency of resource allocation, and 2) promoting within-firm productivity growth. To set the scene, recent productivity-related trends are first assessed.

Main findings

- Most industries in the services sector experienced negligible productivity growth over the past decade. There are signs of suboptimal resource allocation in the broad services industry, with the largest firms not the most productive.
- Compared to other countries, a high proportion of firms report difficulty in finding adequately skilled workers as a constraint to business operations.
- Participation in early childhood education is relatively low and test scores for high school students in reading and mathematics are poor. Teaching careers do not appear to be attractive compared with other European Union (EU) countries.

Main findings *(cont.)*

- Lithuania's reforms to product market regulations over the past decade have been impressive. However, burdensome regulations relating to the employment of foreign workers from outside the EU and time-consuming bankruptcy procedures may still hamper firm growth.
- Innovation intensity in Lithuanian firms is low, despite supportive framework conditions and innovation-specific policies. Some measures, such as R&D tax incentives, may be less-supportive of young firms.
- Knowledge spillovers may have been muted by relatively modest backward participation in global value chains (GVCs).
- The financial performance of Lithuanian state-owned enterprises (SOEs) is poor. The composition of some SOE boards may cause conflicts of interest and raise the potential for political interference in business operations.
- Access to finance is an obstacle to business operations for some productive firms. The development of new sources of finance for young firms is in its infancy.
- A number of noteworthy infrastructure projects have been undertaken in recent years or are currently underway. Projects aimed at further integration with the European rail, electricity and gas network are a priority.

Recent productivity trends are strong but uneven

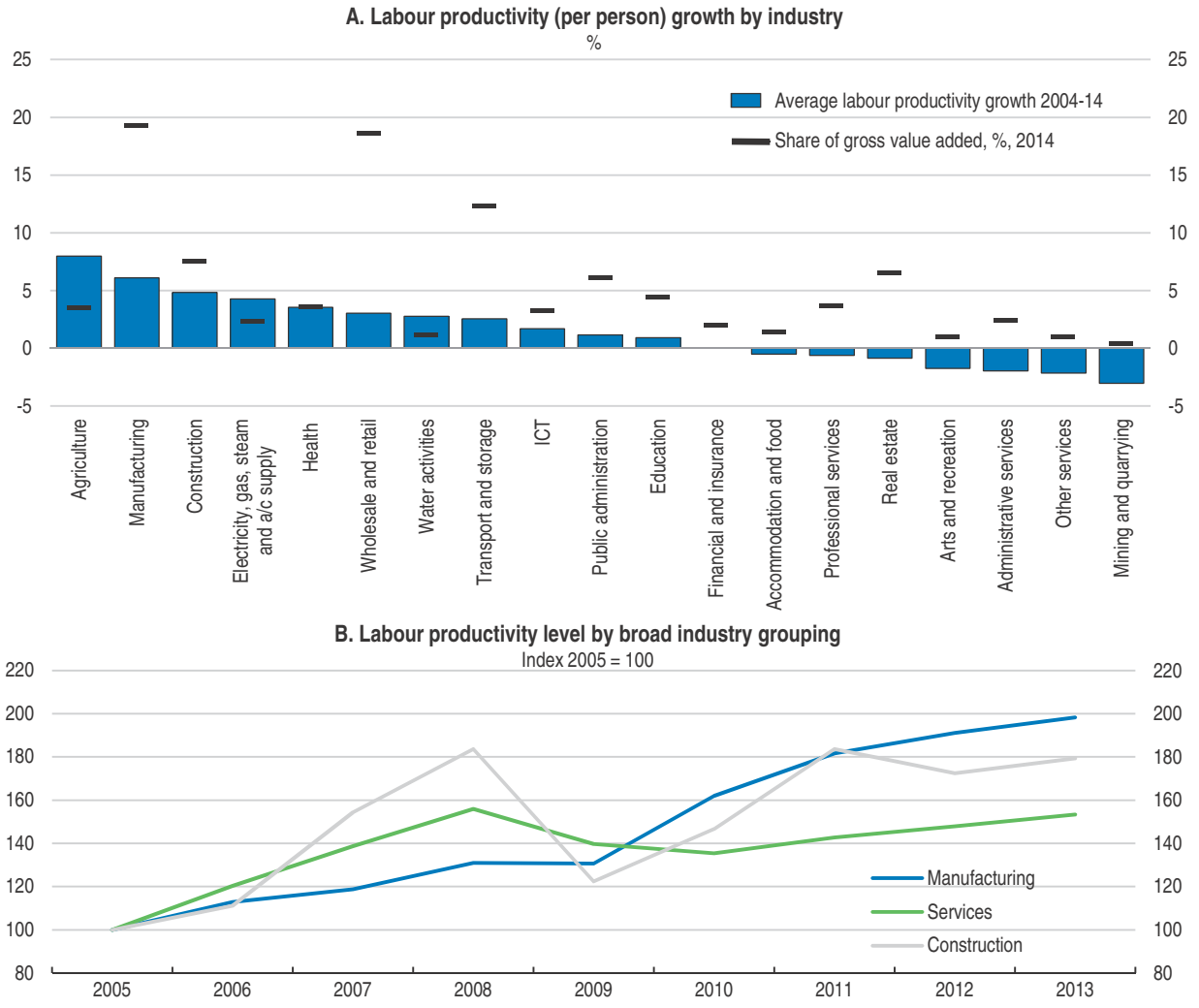
Aggregate labour productivity growth has been strong over the past decade, but it has masked sectoral disparities. In particular, advances have been quite slow in some services sectors.

Since EU-accession in the mid-2000s, Lithuanian labour productivity growth has averaged 5% per year. Between 2005 and 2013, there were particularly sizeable productivity gains in the utilities (electricity, gas, steam and air conditioning supply), manufacturing, health and agricultural industries. This reflected a combination of government reforms (i.e. utilities and health), absorption of EU structural funds (i.e. agriculture) and strong foreign direct investment flows (i.e. manufacturing). In a number of these sectors growth has also reflected a reallocation of resources to more productive uses following the burst of the housing bubble.

In contrast, productivity growth in a number of service sectors was modest. In particular, there was negligible productivity growth in a number of professional and business services. Aggregate services sector labour productivity only returned to its 2008 level in 2013, by which time the level of productivity in the manufacturing sector was 50% higher than in 2008 (Figure 1.3, Panel B).

One factor weighing on service sector productivity may be that the largest service companies in Lithuania are on average less productive than some smaller companies (Figure 1.4). This is not the case in Lithuania's manufacturing or construction industry. In order to maximise aggregate productivity, a situation where the most productive firms are the largest is optimal. Such a scenario signals that resources have been allocated efficiently and are not encumbered by adjustment frictions that constrain firm growth and reallocation away from less productive entities. Disaggregating the results for Lithuania's

Figure 1.3. **Productivity differs significantly across Lithuanian industries**



Note: Consistent with the definition used in OECD (2015a), in Panel B, manufacturing industries include mining and quarrying, manufacturing, electricity, gas, steam and air conditioning supply and water supply, sewerage, waste management and remediation activities. Services industries include wholesale and retail trade, transport and storage, accommodation and food services, ICT services, real estate, financial and insurance services, professional, scientific and technical services, administrative and support services, education, health and social work activities, arts, entertainment and recreation and other service activities. Industries are weighted according to gross value added at previous year prices. Panel B presents gross value added per employed person in euro currency.
Source: Statistics Lithuania, OECD calculations.

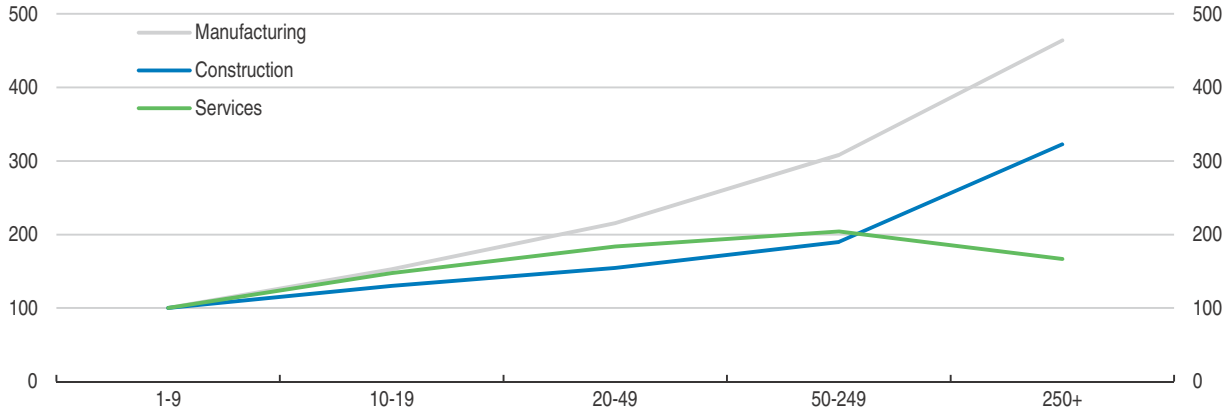
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services industry, there appears to be particularly low efficiency of resource allocation in the wholesale and retail trade sectors.

An efficient services sector is especially important given that services are intermediate inputs for other firms and can be integral to successful participation in GVCs (Adalet McGowan et al., 2015). In turn, involvement in GVCs can benefit productivity growth as it increases the exposure of domestic firms to new ideas and technologies, heightens product market competition and increases market size for domestic firms (Adalet McGowan et al., 2015; Crespi et al., 2008; Acemoglu and Lin, 2004). Lithuania's trade and financial openness has increased significantly since independence, partly through

Figure 1.4. **Larger companies are not the most productive in Lithuania's services sector**

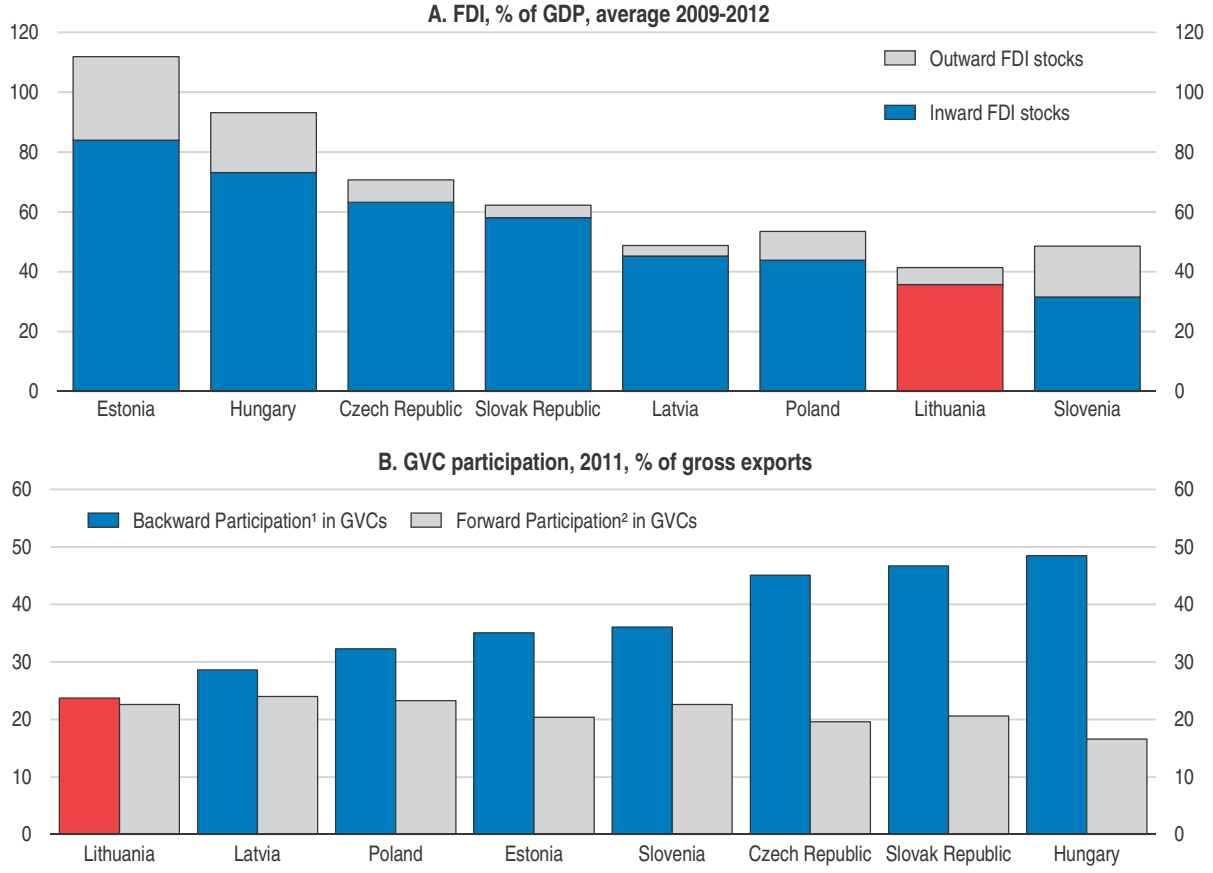
Value added per person employed, firms with 1-9 employees = 100, 2012



Note: Value added per person employed is an average across the enterprises in the particular employment size-class presented on the horizontal axis.
Source: OECD, 2015a.

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Figure 1.5. **FDI and participation in global value chains are low**



1. Foreign Value Added embodied in exports, as % of total gross exports.
2. Domestic Value Added embodied in foreign exports, as % of total gross exports.

Source: Eurostat, OECD-WTO *Statistics on Trade in Value Added*.

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joining the EU (OECD, 2016a). However, the "backward participation" of Lithuanian firms in GVCs (i.e. share of foreign value added embodied in Lithuanian exports) was relatively low as at 2011 (Figure 1.5, Panel B; OECD, 2016a).

Participation in GVCs tends to be higher in countries that are more open to FDI (Kowalski et al., 2015). In addition to the impact through GVC participation, FDI can foster technology transfer. While Lithuania's inward FDI stock at 2012 was below that in the other Baltic countries (Figure 1.5, Panel A), there are signs of relatively strong growth in inward FDI flows since then (Invest Lithuania, 2014). Furthermore, inward FDI to Lithuania is characterised by a relatively large share of greenfield investment, which may be more beneficial than other types of FDI for domestic job creation.

Further improving resource allocation requires new policy reforms

Policy settings that allow efficient resource reallocation raise the returns to businesses from implementing productivity-enhancing improvements. Policies that promote favourable firm dynamics – the entry of new firms, their expansion in the initial years of life and the exit of less productive entities are critical in this regard. This process is particularly important for Lithuania as it entered the global financial crisis with large scale distortions and an unsustainable current account deficit. Furthermore, recent analysis using firm-level data suggests that the pace of resource reallocation in Lithuania has slowed in recent years (Earle et al., 2015).

Lithuania's product market regulations are generally conducive to efficient resource allocation

Since regaining independence in 1990, successive Lithuanian governments have undertaken reforms to improve the market orientation of the economy. Along with the country's entry into the EU in 2004, advances have been made that reduce the burden of product market regulations deterring firm entry and hence the growth of high potential firms. By 2013, Lithuania's overall product market regulation, as judged by the OECD PMR index, was roughly in line with the OECD average (OECD, 2013a).

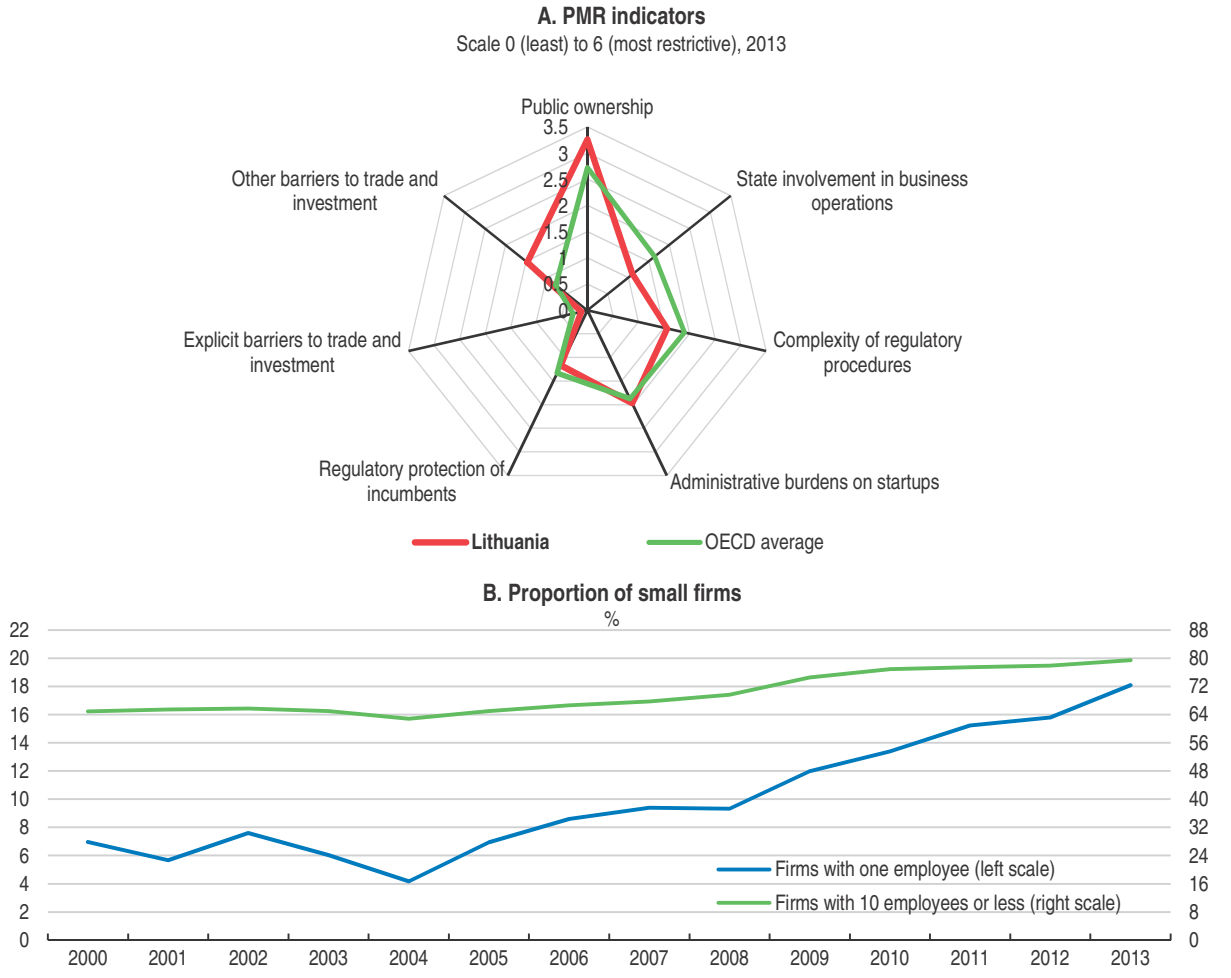
Some aspects of Lithuania's regulatory framework are particularly competition-friendly. Government has relatively little involvement in business operations through price controls and command and control regulation (Figure 1.6, Panel A). Furthermore, there have been large reductions in the complexity of regulatory procedures, especially when establishing a firm. The World Bank *Doing Business* indicators highlight that the time and cost to start a business were significantly reduced between 2003 and 2015 (Table 1.1), by which time Lithuania was ranked 8 of 189 countries for ease of starting a firm.

Table 1.1. **Starting a business has become significantly easier**

	2003	2015
Procedures to start a business (number)	8	2
Time to start a business (days)	26	3.5
Cost to start a business (% of income per capita)	4	0.6
Paid-in minimum capital to start a business (% of income per capita)	68	0

Source: World Bank *Doing Business*.

Figure 1.6. **Product market regulations have become market-friendly but there is scope for further reform**



Note: In Panel A, "OECD average" is a simple average for all the OECD countries that reported. The US is the only OECD country not included in this aggregate.
Source: OECD (2013a), *Statistics Lithuania*.

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Specific reforms in the past few years have included the introduction of a one-stop shop for online business registration and measures that reduce the difficulty of companies to register as a value added taxpayer. A new form of legal company (a "small partnership") has also been established that has no minimum capital requirement and a reduced number of regulatory procedures, meaning registration now takes only one third the amount of time it previously did. As a consequence, the number of days it takes to register a business has fallen from 26 in 2005 to 3.5 in 2015 and the cost to start a business as a percent of income per capita has declined by 85% (World Bank, 2015). Unsurprisingly, this has coincided with a pick-up in the proportion of small businesses (Figure 1.6, Panel B). In particular, the proportion of firms with one employee has risen sharply.

Importantly, new OECD analysis suggests that the reduction in the cost to start a business contributed to the productivity-enhancing shift of labour resources recently observed in Lithuania (Box 1.1). Moreover, reductions in the number of procedures needed

Box 1.1. **The impact of Lithuania's product market reforms on productivity growth**

High capital intensity or technological complexity of production in some sectors creates naturally higher barriers to firm entry than in others (Andrews and Cingano, 2013). This feature can be used in a regression analysis to identify any influence of the reduction in regulatory costs for starting a business in Lithuania on labour productivity growth (for further technical details, please see Annex A1).

The dependent variable in the regression analysis is aggregate labour productivity growth. However, in order to identify the particular channel through which productivity is impacted, separate regressions are also run with the dependent variable being the within-effect and the shift-effect highlighted in Figure 1.2. Any impacts of policy are identified through the coefficient on an interaction term which reflects whether various policy changes (at the country level) had a larger impact on industries that are particularly exposed to such measures. The time period considered is 2006-13.

Selected results of the regression analysis are presented in the below table. They suggest that recent reforms in Lithuania to improve the business climate have benefitted resource reallocation both within industries and between industries. To summarise the main findings:

- Policy changes in Lithuania that have increased the ease of starting a business have had a positive effect on labour productivity growth (Column 1). This impact may have arisen through beneficial resource allocation within industries or increased firm productivity due to the reduction in administrative costs. Specifically, policy measures that have reduced the number of procedures needed to start a business (Columns 2 and 5) and the time it takes to start a business (Columns 3 and 6) have been associated with higher productivity growth.
- Policy changes that have reduced the cost of starting a business (Column 7) have been associated with productivity-enhancing shifts in resources between industries (although the impact on aggregate productivity growth is not identified).

The estimated effect of policy changes on productivity growth

Dependent variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	LP growth	LP growth	LP growth	Within effect	Within effect	Within effect	Shift effect
*Manufacturing*year*	0.0271	0.0221	0.0743*	-0.0003	-0.0076	0.0499	0.0344
	(1.57)	(1.24)	(1.96)	(0.01)	(0.3)	(1.56)	(1.43)
Δoverall ease of starting a *business*exposure*	0.0266*			0.0309**			
	(2.05)			(2.38)			
Δcost to start a *business*exposure*							-0.0201*
							(1.93)
Δnumber of procedures to start a *business*exposure*		-0.0381*			-0.0470**		
		(1.92)			(2.32)		
Δtime to start a *business*exposure*			-0.0176*			-0.0179***	
			(1.98)			(3.63)	
Constant	-33.15	-27.03	-90.96*	0.44	9.42	-60.99	-42.09*
	(1.57)	(1.24)	(1.96)	(0.01)	(0.27)	(1.56)	(1.43)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	184	184	184	184	184	184	184
R-squared	0.16	0.16	0.16	0.19	0.19	0.18	0.07
Number of NACE sectors	23	23	23	23	23	23	23
F	3.02	2.96	2.65	6.94	6.56	6.63	2.99

* p < 0.10; ** p < 0.05; *** p < 0.01.

Note: t-statistics in parentheses. The regressions include industry and year fixed effects and standard errors clustered at the industry level. The policy measures are taken from the World Bank Doing Business Indicators. The variable *manufacturing*year* is a time-varying dummy for industries that belong to the broad manufacturing sector and should capture the fact that productivity growth was generally stronger in manufacturing during the sample period.

Source: Annex A1.

to start a business and the time it takes to start a business have been associated with higher within-industry productivity.

As highlighted in the recent OECD *Regulatory Policy Review of Lithuania*, further efforts should be made to establish a framework for evaluating whether well-designed regulatory policies are implemented in practice (OECD, 2015b). Encouragingly, compared with similar countries, firm level surveys suggest good alignment in Lithuania between the proportion of firms reporting obstacles to obtaining business licenses and permits, and the *Doing Business* indicator of the ease of starting a business (World Bank, 2013).

According to the OECD PMR indicators, non-explicit barriers to trade and investment is one area in which regulations in Lithuania are less conducive to firm growth than in the average OECD country. Specific regulations include tight restrictions and administrative costs on the employment of workers from outside the EU (Box 1.2). These regulations can cause delays for businesses that are trying to expand, particularly those in specialised sectors where the global talent pool is shallow. Furthermore, firms from non-EU countries that are trying to relocate operations to Lithuania may be deterred by the regulatory barriers to migrating firm-specific human capital. This reduces competition and can cause resources to be trapped in domestic incumbent firms that are less productive. Such barriers to foreign investment may also limit the potential for Lithuanian firms to embed themselves into GVCs (Kowalski et al., 2015), reducing their ability to raise market size and capture knowledge spillovers from foreign firms.

Box 1.2. **Obtaining a Lithuanian work permit for non-EU foreign nationals**

The conditions for non-EU foreigners to live and work in Lithuania are governed by the Law on the Legal Status of Aliens issued by the Lithuanian Ministry of Social Security and Labour. A work permit must be obtained before entering the country and will only be issued to a non-EU foreigner if there is no specialist in Lithuania meeting the employer's qualification requirements. As at 2013, only 3 of the 34 OECD countries required the fulfilment of such a test in order to employ a foreign worker (OECD, 2013a). A non-EU foreigner can only be employed for a specific job after the following process has occurred:

1. The employer registers a vacancy in the regional labour exchange.
2. If no EU workers with the appropriate skills are found after one month, the employer submits an application to employ a foreign worker to the regional labour exchange.
3. The regional labour exchange then submits an application to the Lithuanian Labour Exchange. The time within which an application needs to be submitted is determined by the type of worker obtaining a visa. The time limit varies between 7 and 21 calendar days depending whether the worker is employed under a contract of employment, is posted by their company or is an intern or trainee.
4. If the application is approved, the Lithuanian Labour Exchange issues a work permit within 7-20 calendar days (depending on the type of worker).
5. Once the work permit is issued, the employee submits an application for a national visa or residence permit to a diplomatic mission or a consular post of Lithuania abroad or a migration service in Lithuania.
6. A work permit is issued within the following 2 months (in practice often less than 1½ months), the employer must then submit the employment contract to the local labour exchange office for approval.

Box 1.2. **Obtaining a Lithuanian work permit for non-EU foreign nationals** *(cont.)*

An express EU Blue Card (all inclusive residency and work permit) can be obtained for a non-EU worker in less than 15 days. However, such a procedure is only for professionals that earn 3 or more times the average Lithuanian salary.

Work permits for non-EU foreigners are issued for the work contract duration. However, for employees posted by a foreign company, work permits are issued for a maximum of 2 years. For such workers, an additional application process is required for renewal, albeit shorter than the original procedure. A new procedure has been drafted whereby foreign companies recognised by the Ministry of Economy as strategic investors are eligible to receive assistance from immigration specialists in preparing the necessary documentation.

Source: Lithuanian Labour Exchange, Ministry of Social Security and *Labour and Invest Lithuania*.

The large size of Lithuania's shadow economy may contribute to inefficient resource allocation that limits aggregate productivity growth. Recent work suggests that despite falling in recent years, Lithuania's informal economy is one of the largest in the EU (Schneider, 2015). Compared with other transition economies in the region, a relatively high proportion of Lithuanian firms responding to the EBRD-World Bank *Business Environment and Enterprise Performance Survey (BEEPS)* in 2013 identified practices of competitors in the informal sector as a barrier to their operations. By not paying tax, firms operating in the shadow economy are able to provide goods and services at a lower price, which may displace more efficient taxpaying firms. This means that informal sector firms absorb resources that would be allocated elsewhere if all firms operated on a level playing field. As informality tends to be concentrated in services industries (Hazans, 2011), Lithuania's large informal sector may help explain the relatively disappointing productivity growth in services.

Lithuania's state-owned enterprises hold back aggregate productivity growth

In terms of employment share, the size of Lithuania's SOE sector is above the OECD average (OECD, 2015c). This is partly a legacy of the Soviet system. In general, the existence of SOEs may be justified in industries where natural monopolies exist or where such firms undertake non-commercial functions that improve public welfare. However, in many countries, poor corporate governance and weak incentives lead SOEs to perform commercial functions poorly (Estrin et al., 2009). This both reduces aggregate productivity growth and means that unproductive SOEs absorb resources that could be reallocated to more productive firms. There is some evidence that this is the case in Lithuania. The average return on equity (ROE) for SOEs in the energy and transport and communications sectors in 2013 was less than half that of comparable foreign companies (Table 1.2). Even so, performance of Lithuanian SOEs in these sectors was substantially better than those in the manufacturing, finance and telecoms sectors, which, on average, posted negative rates of return (OECD, 2015c). The government set a 5% target ROE for SOEs engaged in commercial activities for the 2013-15 period, though in 2013 the ROE for this group was only half that (OECD, 2015c). SOEs also exist in some sectors, such as retail trade and accommodation and food services, where the rationale for public sector ownership is not clear.

Beginning in 2010, the government has made efforts to more closely align the corporate governance of SOEs with the *OECD Guidelines on Corporate Governance of State-*

Table 1.2. **The performance of Lithuanian SOEs is relatively poor**

	Energy		Transport and communications	
	Lithuanian SOEs (%)	Comparable foreign companies (%)	Lithuanian SOEs (%)	Comparable foreign companies (%)
Return on equity	2.66	5.36	2.64	8.93

Note: Comparable foreign companies operate in the particular sector (i.e. energy or transport and communications) and are located in Western Europe, Eastern Europe or Russia.
Source: State Property Fund (2014).

Owned Enterprises (Martinkus, 2014). As of 2014, SOEs have publicly disclosed separate financial results for commercial activities and non-commercial activities a private company would not assume. This promotes greater transparency and allows the performance of the commercial activities of SOEs to be evaluated against non-public companies. The separation of the ownership and regulatory functions of SOEs has been stated as a goal. However, in many cases, the two functions continue to be performed by the same ministry (OECD, 2015c). Further reform efforts are important given recent work has highlighted a positive relationship between the performance and the corporate governance of Lithuanian SOEs (Jurkanis and Petrusauskaité, 2014).

SOE performance may also benefit from improvements in the composition and administration of boards. There have been changes to the guidelines for appointing SOE board members, emphasising the importance of independent board appointees that possess the required competencies. In June 2015, a government resolution outlined the selection procedure for board members to statutory SOEs. However, outside of listed SOEs, independent non-executive board members are relatively rare. Instead, SOE boards tend to have a high concentration of representatives from government ministries (Baltic Institute of Corporate Governance, 2013). Such an arrangement can cause conflicts of interest and raise the potential for personal interference in business operations. Indeed, the Baltic Institute of Corporate Governance has recently warned that the government has excessive influence on the hiring of the Chief Executive Officers of SOEs and the overall management of the institutions (Baltic Institute of Corporate Governance, 2013). A recent government bail-out of the state-owned Lithuanian Shipping Company, which had filed for bankruptcy, also sends a poor signal to other underperforming SOEs.

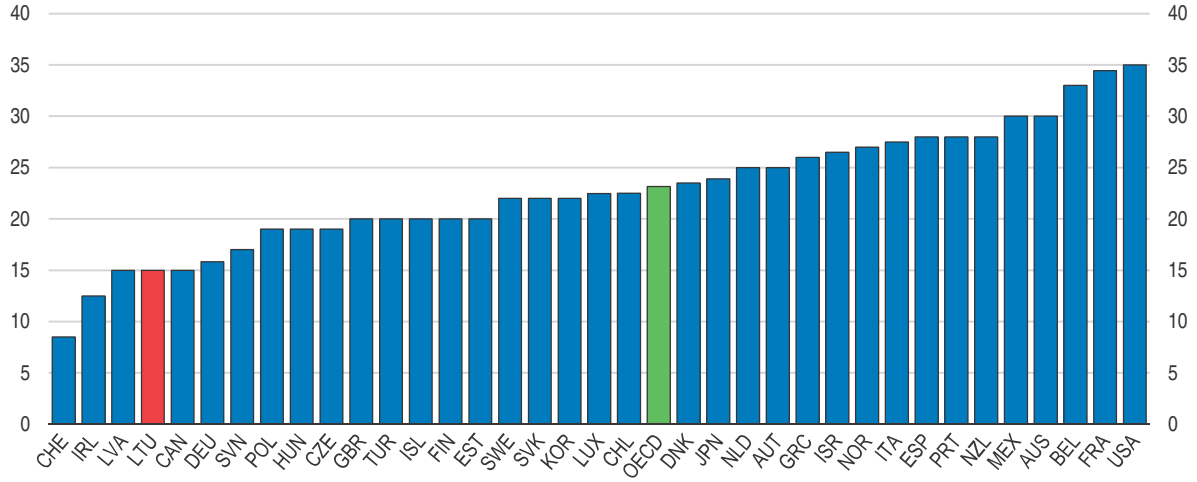
The corporate tax rate is low but differential tax treatment could cause distortions

Lithuania's corporate income tax rate is low by international standards at 15% (Figure 1.7). However, the tax rate is reduced to 5% for micro companies that have up to 10 employees and EUR 300 000 (24 times GDP per capita) income per year. The rational for having a preferential rate for micro companies is not clear, as past OECD work suggests that the investment decisions of small firms tend to be less sensitive to corporate taxes than those of larger firms (OECD, 2010). Furthermore, such differential tax treatment can have negative consequences for the efficiency of resource allocation.

While many young highly productive Lithuanian firms may fall under the classification of a micro company, there will also be a number of businesses where their small size reflects underperformance. The tax advantage for micro firms in Lithuania will not discriminate between these firm types and may cause resources to be trapped in unproductive small businesses rather than being reallocated to more productive small firms, thereby allowing the latter to grow.

Figure 1.7. **The corporate tax rate is relatively low**

Statutory corporate income tax rate (%), 2015

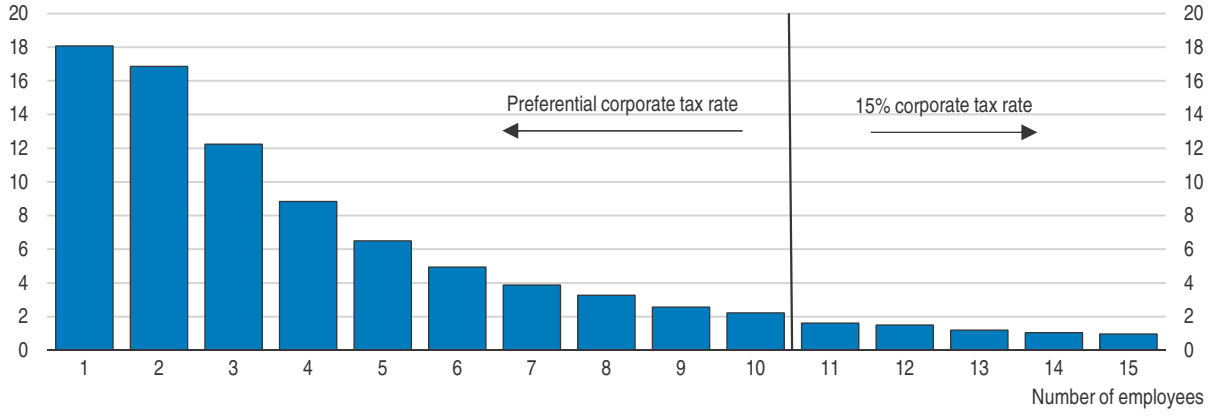


Source: OECD *Tax Database*, KPMG.

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Figure 1.8. **There is no strong evidence so far of differential tax rates distorting firm size**

Proportion of firms by number of employees (%), 2013



Note: In addition to having 10 employees or less, eligibility for the preferential corporate tax rate in 2013 was also subject to firms having income of less than Lita 1 million (approximately EUR 300 000).

Source: Statistics Lithuania.

StatLink http://dx.doi.org/10.1787/888933339003

It is also possible that size-dependent tax advantages disincentivise firms from growing beyond the tax deduction threshold, and hence slow the reallocation process (Chen and Mintz, 2011). Nevertheless, the evidence of such a threshold effect in Lithuania was not conclusive in 2013. For example, there was not a disproportionately large share of firms reporting just below the employment threshold (10 employees or less; Figure 1.8). The distribution of firms should continue to be closely monitored to ensure that the small business tax advantages do not distort the pattern of firm growth. Such monitoring, along with other evidence-based advice on the economy-wide effects of government policies, could be performed by the establishment of an independent institution similar to the productivity commissions of Australia and New Zealand. Such an institution may be

especially worthwhile in Lithuania given the importance of achieving productivity gains for the country's future income convergence.

Bankruptcy procedures are relatively time consuming and recovery rates are low

Costly and time consuming insolvency procedures can slow the movement of resources between lower productivity firms and better performing ones (Adalet McGowan et al., 2015). Such procedures may also deter entrepreneurship and experimentation by businesses with new risky technologies, having negative consequences for within-firm productivity. In the past decade there have been ongoing reforms in Lithuania to simplify bankruptcy procedures. These have included simplifying insolvency laws and reducing the timeframe for decisions on appeal. Nevertheless, it remains relatively time consuming to close a business in Lithuania. According to the World Bank *Doing Business* indicators, finalising an insolvency procedure took 2.3 years on average, relative to 1.8 years in the OECD.

The recovery rate for investors in the event of insolvency is low; 43 cents per dollar in Lithuania compared with 71 cents in the average OECD country (World Bank, 2015). While less punishing bankruptcy laws can be beneficial for encouraging entrepreneurship and the reallocation process, there may be unintended consequences that stifle firm growth. In particular, lower recovery rates for creditors may reduce access to finance for firms.

Access to finance is a constraint for some productive firms

Around 16% of the Lithuanian firms responding to BEEPS cited access to finance as a major or very severe obstacle to their operations in 2013. This was higher than in Estonia (5%) and about the same as in Latvia (15%). Across countries, access to finance can be an obstacle for the growth of young firms, slowing the reallocation process, as they often have an unproven track record and limited internal funds or physical collateral. This is more often the case in countries, such as Lithuania, where the financial system is heavily bank-based.

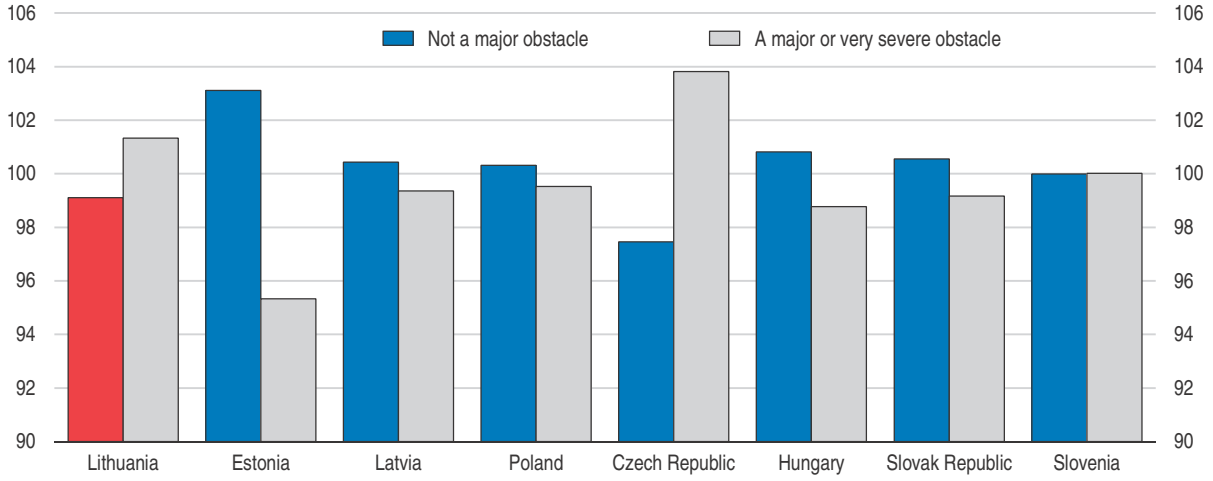
Financial constraints are especially concerning if more productive firms are unable to gain access to funding. The BEEPS data suggests that this may be the case in Lithuania. Unlike in the other Baltic countries, the Lithuanian firms that cited access to finance as a major or very severe obstacle to their operations in 2013 were generally those with higher levels of labour productivity (Figure 1.9). These firms also tended to be smaller as measured by the number of full-time employees, suggesting that poor access to finance may constrain resources being reallocated to some small high-potential Lithuanian firms.

In many countries, the financing gap for young firms is bridged by venture capital funds that overcome information asymmetries by investigating and monitoring firm performance (OECD, 2011). However, the venture capital market is in its infancy in Lithuania with businesses reporting greater availability of such funding in the other Baltic countries (World Economic Forum, 2014). There have been advances, such as through the JEREMIE initiative, whereby EU structural funds have been used to establish five venture capital funds. These venture capital funds are designed to finance the main stages of firm development (i.e. seed, start-up, later-stage venture and growth) and focus on businesses that have their principal location in Lithuania (Leichteris et al., 2015).

As much as possible, government support of equity investments in high-potential young firms should be done in partnership with the private sector (Wilson, 2014). Such an arrangement is likely to be more successful in fostering a sustainable venture capital sector and will help avoid the common pitfalls of government "picking winners". An example is

Figure 1.9. **Some productive Lithuanian firms face difficulty accessing finance**

Productivity level in 2013 (Index 100 = country average), by whether access to finance is an obstacle



Note: Calculations are based on 218 firm responses for Lithuania, 241 for Estonia, 269 for Latvia, 382 for Poland, 211 for Czech Republic, 190 for Hungary, 171 for Slovak Republic and 241 for Slovenia. Productivity is calculated as total sales per full-time employee. The survey is taken from a stratified random sample where the dimensions of the strata are firm size, business sector and geographic region within the country.

Source: OECD calculations, based on EBRD-World Bank *Business Environment and Enterprise Performance Survey 2013*.

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the Baltic Innovation Fund, which is a fund-of-funds that is partly financed by each of the Baltic country governments. The Fund invests in existing private equity and venture capital funds that then finance high potential Baltic firms.

Expanding the Lithuanian equity market could also improve financing conditions for some companies. Of the Baltic exchanges, the market capitalisation of the Nasdaq Vilnius is the largest. The adoption of the euro appears to have heightened investor interest in the Vilnius exchange, as it has enabled diversification with lower currency risk. Further development of the equity market may allow for new platforms such as an alternative investment market similar to those currently operating in the UK and Italy for smaller growing companies with lower listing values. These alternative platforms have services designed to help small companies become listed and a lighter regulatory environment more suited to their characteristics. Some other countries, such as Austria and Germany, have recently adjusted regulatory settings in order to promote equity-based crowdfunding of young businesses. Under such an arrangement, a modest amount of external finance is raised from small contributions by a large number of investors through a web platform, typically to finance a specific project (OECD, 2015d). Nevertheless, the scale of finance through this channel is limited, meaning that other sources of seed and early stage financing should be fostered in conjunction.

Labour markets are flexible but skill mismatch is high

Estimates of Lithuania's structural unemployment rate, at 10-12%, are high by international standards. As well as the existence of a sizeable informal economy, high structural unemployment reflects problems with the allocation of labour resources. Significant occupational mismatches exist, with 31% of workers employed in a field not related to their study compared with 23% on average in the EU (IMF, 2015a). Such disconnects between the qualification and skill profile of labour and the demands of

industry have been found to be associated with lower firm productivity (Adalet McGowen and Andrews, 2015).

The share of the working age population with tertiary education in Lithuania is well above the EU average. However, value added shares by industry (Figure 1.3, Panel A) and revealed comparative advantage (Saboniene et al., 2013) highlight traditional sectors, which generally have a larger share of jobs without specific skills requirements, as Lithuania's major industries. A study by the Research and Higher Education Monitoring and Analysis Centre (MOSTA) found that 36% of employed bachelor graduates in 2013 held positions that did not require a higher education qualification. Substantial policy advances have been made that aim to develop the knowledge economy in Lithuania (discussed further below). Regardless, providing better information to students about the qualification requirements of different jobs is important. As are further efforts to ensure the education system teaches the skills needed by employers. For meeting both these objectives, the planned "qualifications map" – which uses registry and social insurance data to highlight the links between graduate fields and employment – should be utilised.

High structural unemployment may also reflect uncertainty relating to labour market regulations. As discussed further in Chapter 2, the labour code is rigid for both regular and temporary workers, but is in some aspects weakly enforced. As a result, labour reallocation is swift in practice. This is highlighted by the relatively large contribution of shifts in labour resources across sectors to recent aggregate productivity growth (Figure 1.2) and the substantial fluctuations in employment observed during the financial crisis (Earle et al., 2015). However, gaps between legislation and practices create legal uncertainty for firms and insecurity for workers. This may undermine Lithuania's attractiveness for FDI, as foreign firms are less aware of national practices. The anticipated reform of the labour code (discussed in Chapter 2) should help reduce such uncertainty by more closely aligning the legislation with current practices.

Promoting within-firm productivity growth through education and innovation

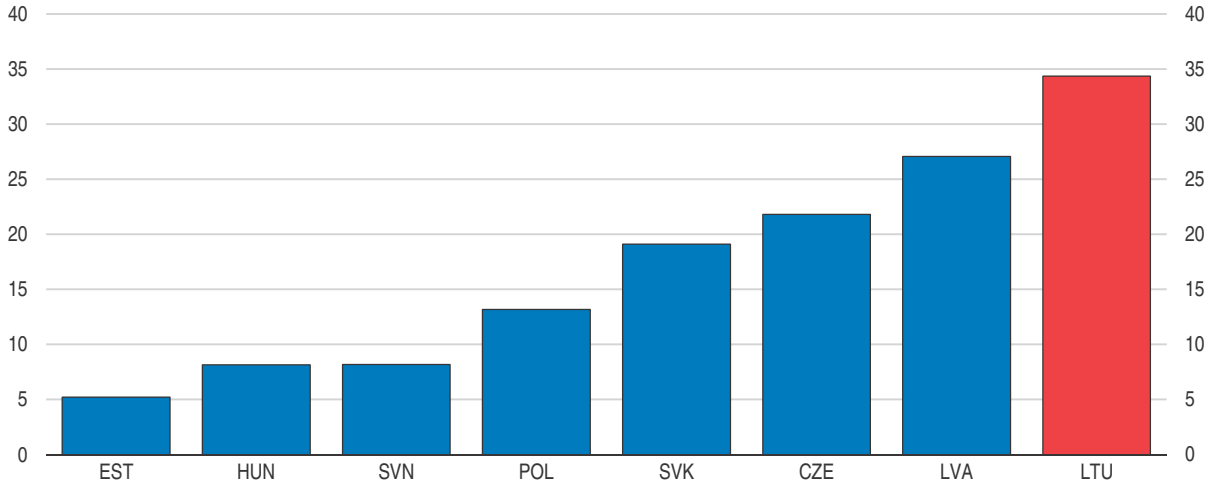
Figure 1.2 suggests that much of Lithuania's measured labour productivity growth during the past decade has owed to within-firm productivity improvements. Gains in organisational efficiency can be enabled by advances in the stock of human capital (de la Fuente, 2011), not least through the positive influence it can have on firm innovation (Youl Lee et al., 2010). One of the primary ways that Lithuania has managed to "catch up" with more advanced economies is by firms implementing new technologies and organisational practices from entities at the productivity frontier, whether they be domestic or foreign. New cross-country evidence suggests that the pace of diffusion from the global technological frontier has generally slowed since 2000 (Adalet McGowan et al., 2015). Promoting the ability of Lithuanian businesses to absorb and implement new ideas and practices is a priority going forward. In particular, government policies that support advances in Lithuania's human and intellectual capital resources will be critical for further developing firm's absorptive capacity.

Basic skills are poor and workplace learning is underdeveloped

Relative to other comparable countries, a high proportion of Lithuanian firms cite an inadequately educated workforce as a significant obstacle to their operations (Figure 1.10). Furthermore, over 40% of businesses surveyed in the first half of 2015 for Lithuania's *Investor Confidence Index* characterised the availability of qualified labour as insufficient.

Figure 1.10. **Lithuanian industry finds the education of the labour force inadequate**

% of firms citing an inadequately educated workforce as a major or very severe obstacle to operations, 2013



Note: Calculations are based on 259 firm responses for Lithuania, 329 for Latvia, 243 for Czech Republic, 267 for Slovak Republic, 516 for Poland, 269 for Slovenia, 307 for Hungary and 268 for Estonia.
Source: OECD calculations, based on EBRD-World Bank *Business Environment and Enterprise Performance Survey 2013*.
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Human capital improvements are important for Lithuania's future productivity growth as they will reflect in worker performance and the ability of management to organise production processes efficiently. For example, Bloom et al. (2013) estimate that managerial quality explains half the productivity gap between the United States and countries such as Italy and Portugal.

Part of the explanation for insufficiently skilled labour in Lithuania may be large emigrant outflows in recent years. The number of high skilled Lithuanian workers that emigrated to OECD countries in the decade to 2011 constituted more than 8% of Lithuania's domestic tertiary-educated population (Figure 1.11). There can be benefits to a country from emigration such as remittances and the potential for migrants to return with new skills. However, combined with a rapidly ageing population, the pace of skilled emigration makes it more pressing that the Lithuanians entering the domestic labour force have sufficient skills.

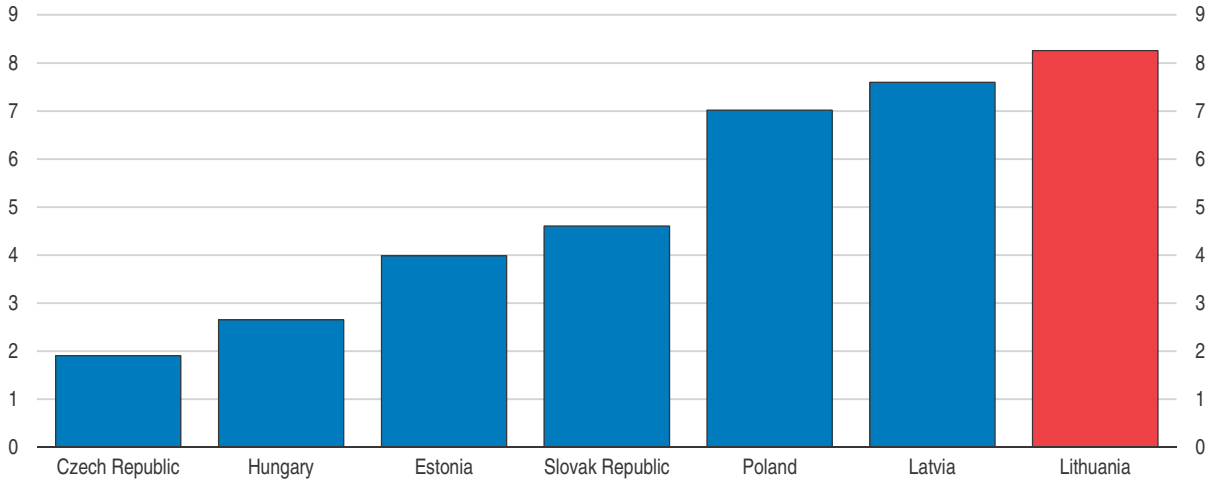
Post-secondary education

As noted earlier, the incidence of tertiary education in Lithuania is high. In 2014, 53% of Lithuanians aged 30-34 were tertiary educated compared with 38% across the EU. Nevertheless, firms report inadequate technical skills of graduates as a key factor behind labour shortages (European Parliament, 2015) and the extent of well-qualified managers in Lithuanian firms is modest (Figure 1.12). This reflects both failings in the skills being taught in the education system and the fact that lifelong learning participation rates are low (see Chapter 2for further discussion). In 2015, the proportion of 25 to 64 year-olds participating in education and training in Lithuania was around half the EU average (European Commission, 2014a).

No Lithuanian university was ranked in the top 400 universities published by the *Times Higher Education World University Rankings 2014-15*. This contrasts with some of the smaller OECD economies such as Finland and Denmark that have seven and five universities in the

Figure 1.11. **High skilled emigration has depleted Lithuania's pool of human capital**

High skilled emigrants to OECD at 2010-11 that moved in the past 10 years, % of domestic high skilled 15+ population

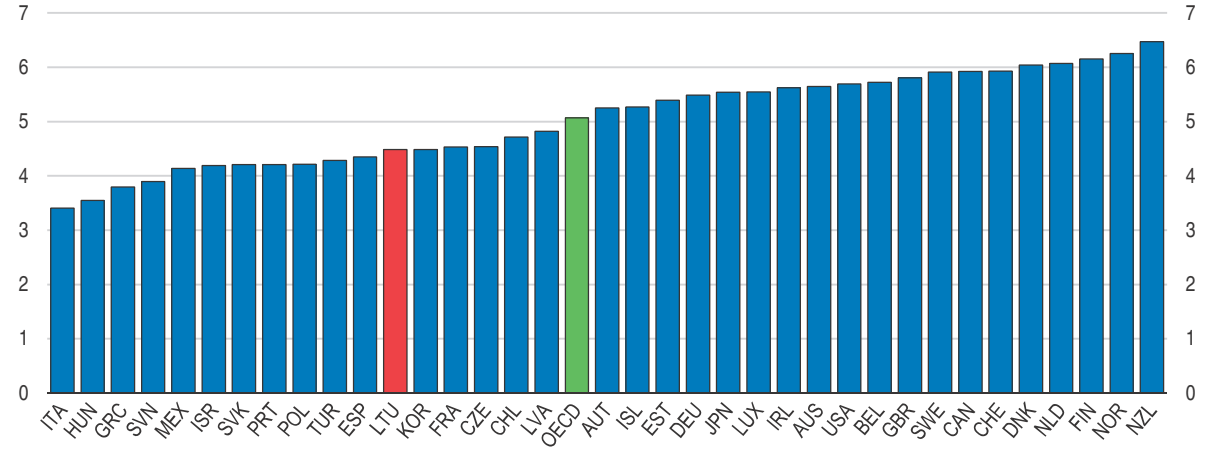


Note: High skilled workers are defined as those with tertiary education.
Source: Calculations based on OECD *Database on Immigrants in OECD Countries* (DIOC) 2010/11 and Eurostat data.

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Figure 1.12. **Qualified professional managers are less common in Lithuania than in the OECD**

Reliance on professional management (value), 2014-15



Note: The score is derived from the answers of business leaders to the question: "In your country, who holds senior management positions? (1 = usually relatives or friends without regard to merit; 7 = mostly professional managers chosen for merit and qualifications)".
Source: World Economic Forum Global Competitiveness Index.

StatLink http://dx.doi.org/10.1787/888933339014

top 400 respectively. Scope for improvement in the quality of Lithuanian universities was highlighted by a MOSTA study in 2015 that found that the short-run returns to university education were low relative to other forms of education (MOSTA, 2015). Higher education expenditure by the government (as a percent of GDP) is in line with many OECD countries, but the system may benefit from some rationalisation: there are 14 state universities and 13 state colleges in Lithuania which, on a per capita basis, is relatively high (Mitchell, 2014). In this process, there may also be scope for increased specialisation by institutions.

Government reforms have improved the responsiveness of universities to student demand, but differences in course fees may contribute to skill mismatch. In 2009, the

government replaced direct funding for institutions with the provision of education vouchers to the best-performing students. This sought to foster a competitive funding environment and ensure institutions were more responsive to student needs. Nevertheless, roughly half the full-time students do not receive vouchers but pay full tuition fees. The fact that such fees for social sciences courses are relatively low has been blamed for an oversupply of social sciences graduates (IMF, 2015b). Indeed, the estimated returns to such courses are the lowest among the fields of study offered by Lithuanian universities and colleges (MOSTA, 2015). Greater efforts to communicate to students the labour market outcomes of graduates by field of study may be needed.

More work-based training that teaches practical skills is necessary given the difficulties faced by firms in finding adequately-skilled workers. The Lithuanian government has prioritised reform of vocational education and training (VET), which is largely school-based and has low enrolment rates. Only 29% of students in upper secondary education in 2013 were enrolled in vocationally-oriented programmes compared with 50% on average in the EU (OECD, 2015c). A recent initiative has been the establishment of sectoral practical training centres, which are modern training facilities that can be used by VET students along with higher education students and members of industry. The government is aiming to double the proportion of work-based learning in higher education and in-company training/apprenticeships that VET institutions provide by 2020. As highlighted in the recent OECD *Policy Note on Youth in Lithuania* (OECD, 2015c), complementary measures that further encourage participation by businesses may also be needed. These could include direct subsidies to participating firms. In most countries with well-functioning VET systems, the future employers of VET graduates as well as social partners play an important role in school governance and curriculum development. Such systems often emphasise a strong foundation in basic and transferable skills (like numeracy and literacy) in the VET programme (OECD, 2012a).

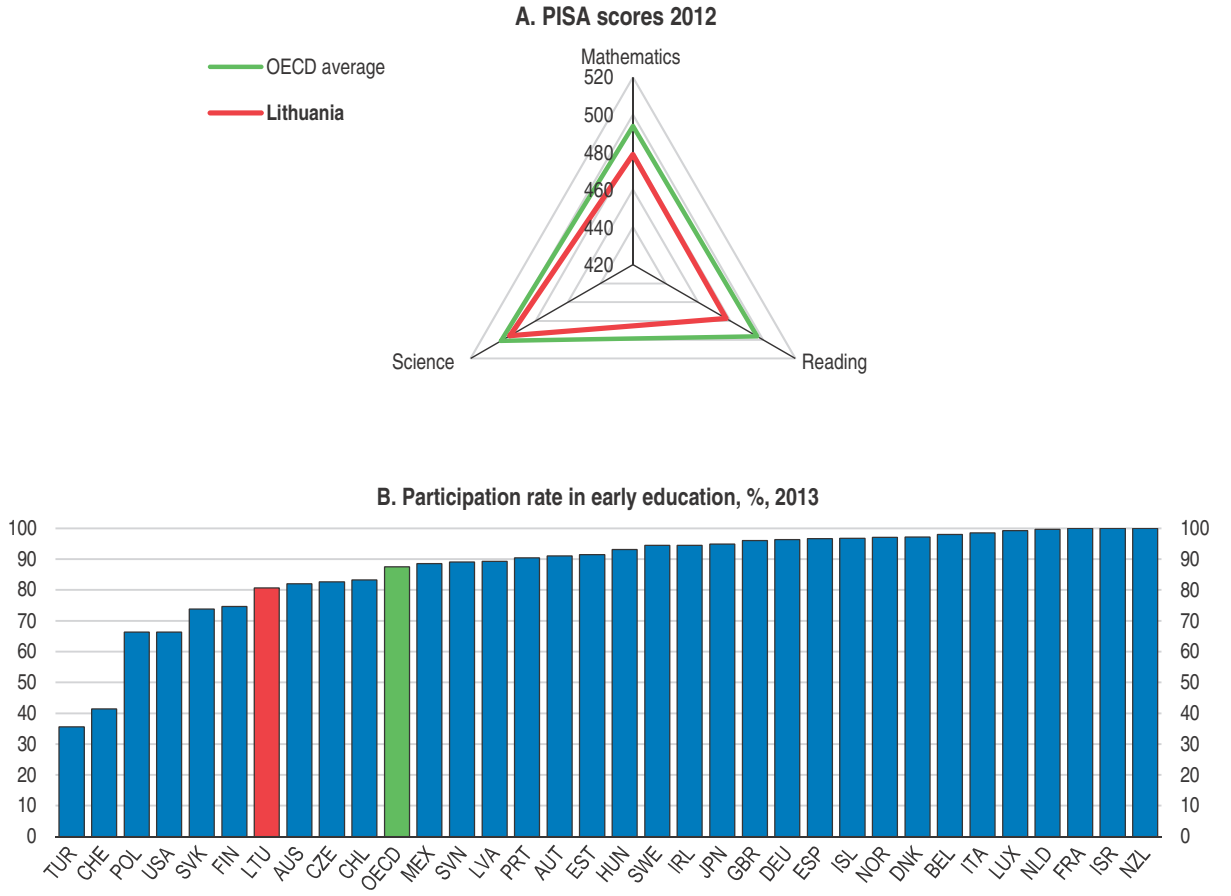
Secondary and early childhood education

The inadequate skills of the labour force may also reflect deficiencies in the education system at early ages. Lithuanian secondary students participating in the most recent wave of the Programme for International Student Assessment in 2012 (PISA; Figure 1.13, Panel A) scored particularly poorly for reading and mathematics compared with students in OECD countries. Low participation in early childhood education in Lithuania, especially in rural areas (Figure 1.13, Panel B; Poviliūnas, 2014), may contribute to students' future poor test scores. Furthermore, there is scope for improvement in the quality of the school system.

Talented graduates may be discouraged from becoming teachers because teacher salaries are low. Indeed, young teachers are scarce in Lithuania compared with other EU countries (European Commission, 2013). Past empirical work suggests that up to one-third of the variation in PISA scores between OECD countries can be explained by differences in teacher salaries (Ali, 2009). In general, teacher salaries are relatively low in the Baltics (Figure 1.14, Panel A). In Lithuania they are in line with GDP per capita, while they are around 20% higher than GDP per capita in the average OECD country.

For countries with low teacher salaries, performance-based pay scales have been found to benefit student performance (OECD, 2012b). Such mechanisms help preserve incentives and may be particularly useful in countries where budget constraints limit a broad-based salary increase. Teacher performance has typically not been a criterion for setting base salary and supplementary payments in Lithuania (OECD, 2013b). Nonetheless,

Figure 1.13. **Poor basic skills partly reflect low participation in early childhood education**



Source: OECD (2015), *Education at a Glance 2015*, Indicator C2; Eurostat *Education Indicators Database*; OECD, *PISA 2012 Database*.

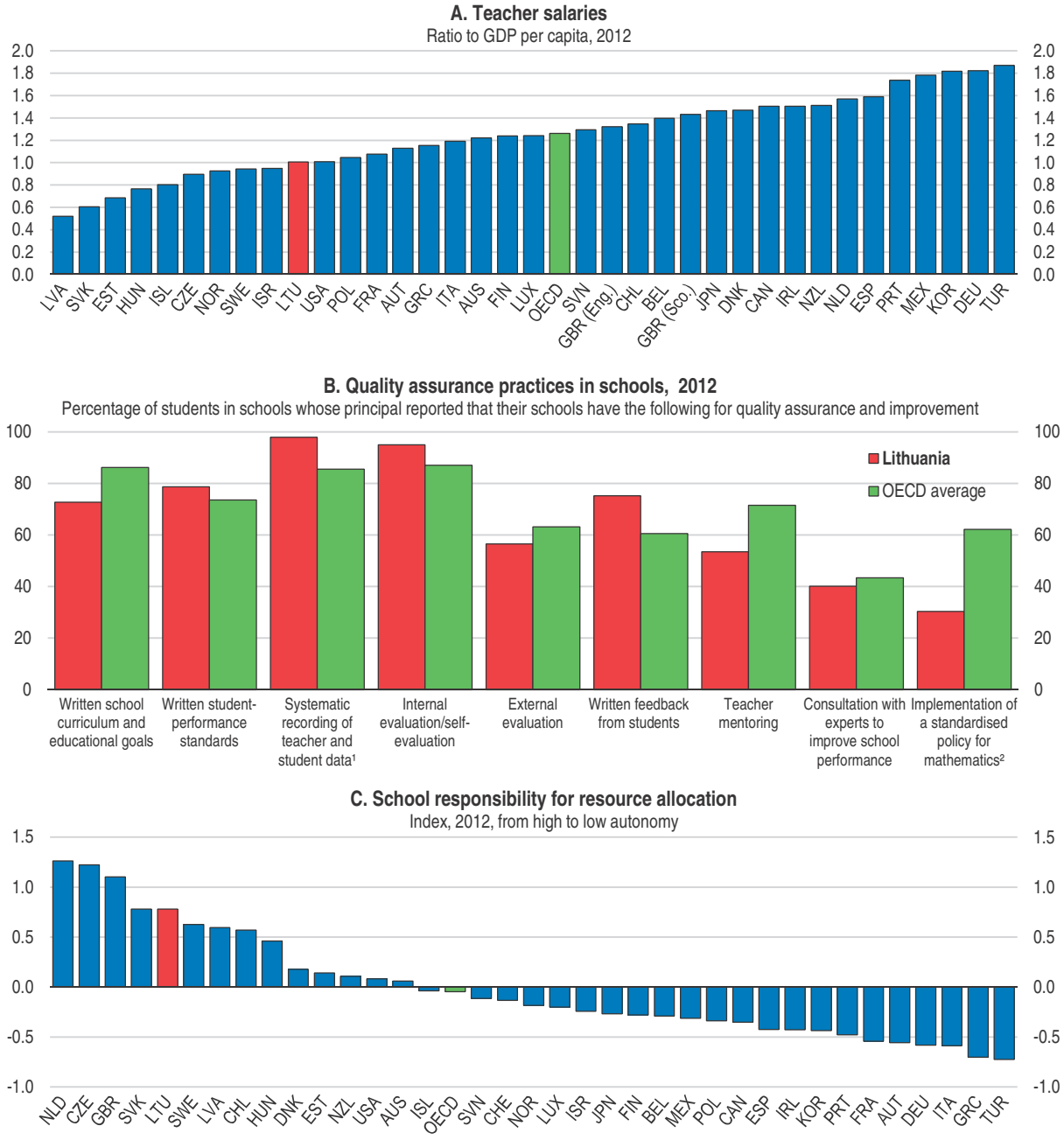
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it can be difficult to evaluate the impact of an individual teacher on students' results. A system based on the evaluation of good practices or group performance (i.e. A grade level team) may be more beneficial for encouraging teamwork and teacher training.

There is also scope to improve the professional development of Lithuanian teachers. While most Lithuanian schools collect data to monitor student and teacher progress and seek written feedback from students, mentoring programmes for teachers are relatively uncommon (Figure 1.14, Panel B). Furthermore, in relation to mathematics courses, school principals report that it is not common for senior staff to observe lessons to monitor the practices of teachers (OECD, 2013b). Mentoring and development programmes that help young teachers develop their skills in motivating students to learn, classroom management and assessing student work, can benefit teaching quality and combat early dropout from the profession (OECD, 2009).

External evaluations of Lithuanian schools should be undertaken more frequently. Schools have a relatively high level of autonomy in making decisions about salaries, recruitment and budget allocations (Figure 1.14, Panel C). This is positive given such autonomy allows more tailored educational offerings that reflect student needs. However, in 2012, school principals reported that external evaluations in Lithuania were less common than in the OECD (Figure 1.14, Panel B) and in subsequent years their frequency appears to

Figure 1.14. **Teacher salaries are low and there is scope for improving quality assurance**



Note: The ratios in Panel A are calculated as a simple average of those for lower and upper secondary education.
1. Including teacher and student attendance and graduation rates, test results and professional development of teachers.
2. Such as a school curriculum with shared instructional materials accompanied by staff development and training.
Source: OECD *PISA 2012*, OECD *Education at a Glance 2013*, PISA system-level data collection in 2013.

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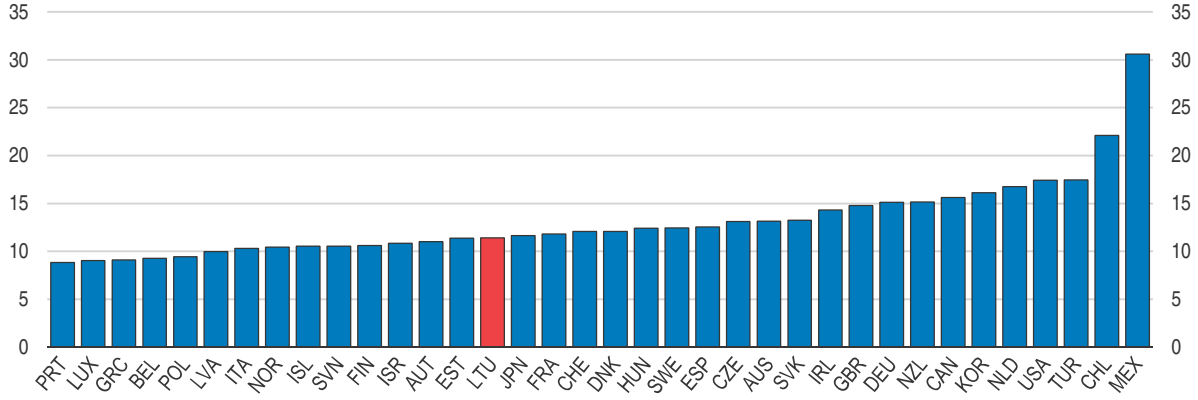
have declined (OECD, 2016b). As such, the role of the school inspectorate or other external review body could be boosted to ensure schools are more regularly evaluated.

The costs involved in further improving educational quality may be partly offset by efficiency gains in the system. A decline in Lithuania's school-aged population has prompted the government to consolidate schools. However, the student-teacher ratio is

still fairly low compared with most OECD countries (Figure 1.15). Furthermore, population projections by the United Nations suggest that the school-age population will fall by over 20% between 2010 and 2030, assuming constant fertility (United Nations, 2015). Some further consolidation of schools may enable cost savings and facilitate better co-ordination of curricula and teaching standards. However, this should be accompanied by measures such as improved transport infrastructure that ensure educational opportunities for students, especially those in rural areas, are not reduced.

Figure 1.15. **The student-teacher ratio is relatively low and likely to further decline**

Student-teacher ratio, 2012



Source: OECD *PISA 2012*.

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Innovation intensity is low despite a number of supportive government policy measures

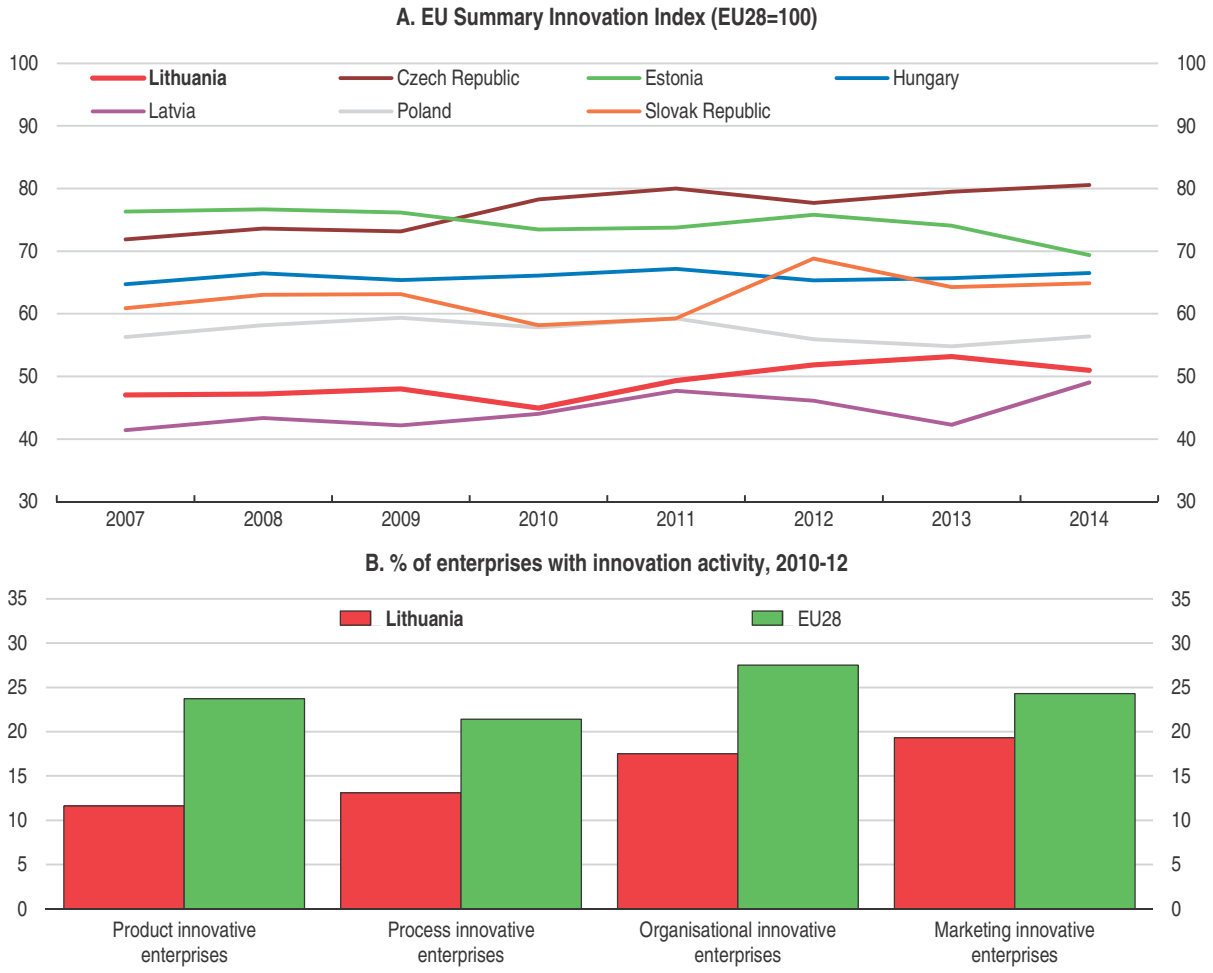
Advances in productivity can also be fostered through the implementation of firm-level innovations which will, in turn, be influenced by the policy environment. Measures include many of the structural policies already discussed but also innovation-specific policies.

Lithuanian firms report relatively low levels of innovation. The EU Summary Innovation Index for Lithuania was around half the EU average in 2014 and below most comparable countries (Figure 1.16, Panel A). The most recent EU *Community Innovation Survey* found that just 32.9% of Lithuanian enterprises undertook innovation activity in the 2010-12 period compared with 48.9% on average across the EU (Eurostat, 2015). Compared with the average EU business, Lithuanian firms reported particularly weak product and organisational innovation activity (Figure 1.16, Panel B). Part of the problem may be that businesses in Lithuania suffer from poor capacity to absorb new foreign ideas and technologies (Angelis et al., 2014). A recent survey suggests that over 80% of Lithuanian Small and Medium Enterprises (SMEs) can be classified as having "low-absorptive capacity"; that is, they underperform in knowledge and technology transfer activities (Leichteris et al., 2015).

Innovation-specific policies

Relatively weak innovation performance coincides with low business research & development (R&D) intensity in Lithuanian firms (Figure 1.17, Panel B). Past cross-country analysis has highlighted the importance of R&D for enhancing the absorptive capacity of the economy (Griffiths et al., 2004). Compared with other countries, a higher proportion of R&D in Lithuania is undertaken by the higher education and government sector. Much of

Figure 1.16. **Firm level innovation in Lithuania is low**



Note: The *Summary Innovation Index* in Panel A is a composite indicator obtained by an aggregation of 25 innovation indicators. In Panel B, a *product innovation* is the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. A *process innovation* is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software. An *organisational innovation* is the implementation of a new organisation method in the firm's business practices, workplace organisation or external relations. A *marketing innovation* is the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing.
Source: European Commission (2015b), Eurostat (2015).

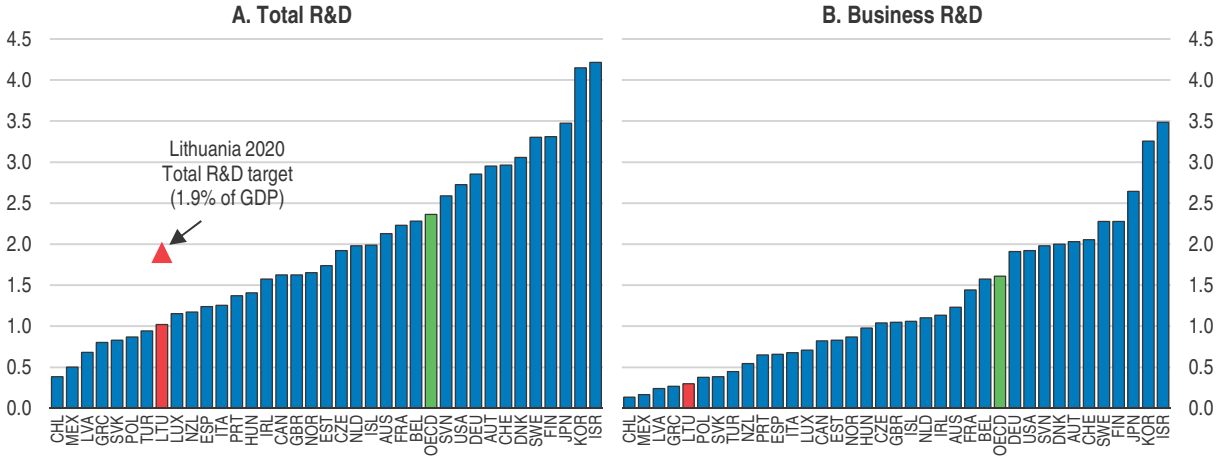
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this focuses on basic research which is critical for innovation but can take many years before it is applied commercially (Sheehan and Wyckoff, 2003).

The Lithuanian government has set a national R&D target for 2020 at 1.9% of GDP, aiming for half to be contributed by the business sector. Achieving this objective may be challenging given that firms already report a shortage of researchers (Angelis et al., 2014), due in part to Lithuania's elevated high skill emigration rate and the significant administrative burden associated with hiring some foreign specialists (Box 1.2). Indeed, the share of researchers working in the business enterprise sector in Lithuania was 12% in 2012. This was lower than in the other Baltic countries and markedly lower than in some OECD members such as France (60%) and the Netherlands (68%). Any improvement in the availability of researchers should complement the policy measures already in place to encourage business R&D.

Figure 1.17. **Business R&D intensity is very low**

% of GDP, 2013 or last available year



Source: OECD *Main Science and Technology Indicators* and Eurostat *Statistics on Research and Development Database*.

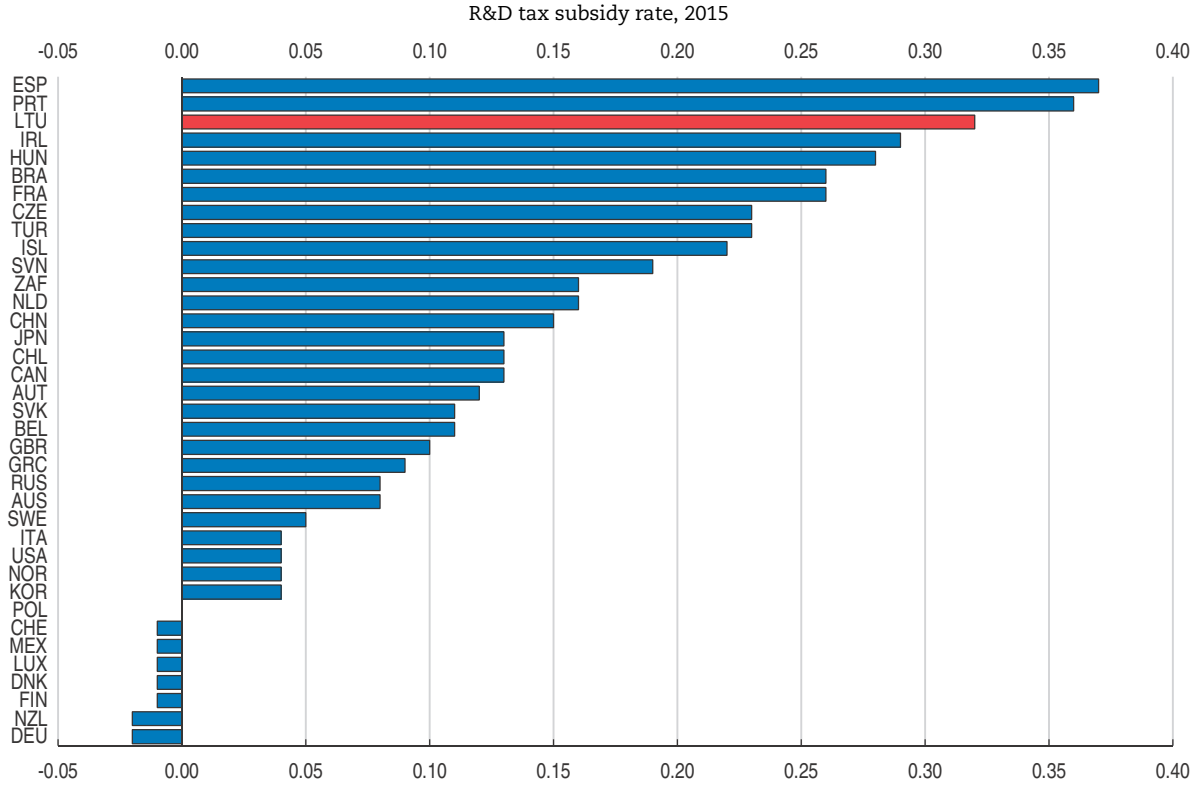
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Along with an accelerated depreciation allowance for some R&D capital, since 2008 companies have been able to deduct 300% of R&D expenditures from taxable income. This is generous compared with such tax incentives in OECD countries (Figure 1.18). Nevertheless, the utilisation of R&D tax incentives by Lithuanian businesses remains low even though it has increased in recent years (European Commission, 2015c). Poor research capacity at the firm level and a relatively large number of firms operating in the informal economy may be partial explanations for low utilisation. However, poor understanding about the tax incentives also appears to be a problem. A recent survey of Lithuanian businesses found that two-thirds of the respondents were unaware that a tax deduction for R&D expenditures existed (Deloitte, 2015). Of those that were aware, a commonly cited deterrent to applying for incentives was uncertainty relating to the definition of eligible R&D. Upon request by a firm, the agency for Science, Innovation and Technology (MITA) is able to verify whether activities can be classified as R&D. Along with the existence of R&D tax incentives, this service should be better communicated to firms.

While R&D tax incentives can encourage business R&D expenditures, they may favour incumbents at the expense of young firms. This is because the implicit subsidy rate of such measures increases with firm profitability and young firms are often in a loss position in the early years of an R&D project (Adalet McGowan et al., 2015). While the R&D tax deduction can be carried-over to future years, the value of future claims for young loss-making firms is lower than the value of present claims for profitable firms due to time-discounting. To ensure that this does not create a barrier to firm entry or growth, other measures such as government R&D grant and loan schemes, which are often particularly important for young innovative firms, should continue to play a prominent role in the innovation policy mix.

To complement the various supply-side policies, the Lithuanian government is also developing demand side measures to support innovation. Such measures can be useful in creating a market for innovations that address particular environmental and societal challenges (e.g. healthcare and pollution reduction). Innovative pre-commercial public procurement is one such measure. In this case, a public contracting authority, for the

Figure 1.18. **Tax incentives for R&D are generous in Lithuania**



Note: The index is for large profitable firms. The tax subsidy rate is calculated as (*1 – B-index*), where the B-index is a measure of the before-tax income needed to break even on 1 dollar of R&D outlays (Warda, 2001). A decline in the B-index reflects an increase in R&D tax generosity. The calculation of the measure for Lithuania is based on the 300% deduction of R&D expenses, a 15% corporate tax rate, 2 year straight line depreciation and no expenditure ceiling for the tax advantage. The value for Lithuania is calculated based on these parameters, whereas published numbers from the below source are used for all other countries presented in the figure.
Source: OECD *Science, Technology and Industry Scoreboard 2015*, OECD calculations

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purpose of purchasing goods, services or works, introduces into the procurement terms criteria that require innovative solutions. While the government's procurement-related objectives under the Strategy of the Development and Improvement of the Lithuanian Public Procurement System for 2009-13 were not met (Leichteris et al., 2015), public institutions such as the Ministry of Economy and MITA are currently reforming the regulatory and legal framework to be more conducive to such innovative public procurement practices. Legislation providing guidelines for pre-commercial public procurement was adopted by the government in July 2015 and a draft law is being considered that provides advantages in the bidding process for innovative suppliers. The design of further policy initiatives in this area must ensure that there is not undue favouritism to large firms that are well-connected to the government and that technology lock-in is avoided. To counter such unintended consequences, some OECD countries have put in place incentives for the participation of young firms in the bidding process and improved the transparency of the procurement framework (OECD, 2014b).

Improving science-industry collaboration in the innovation process

An ongoing challenge for innovation is to promote collaboration between research institutions and commercially-oriented firms. The public good properties of knowledge

justify a role for public policy in encouraging this nexus. In the 2004-12 period, less than 10% of Lithuanian businesses considered partnering with public research institutes in the innovation process (Leichteris et al., 2015). Poor science-industry collaboration has motivated various policy measures including innovation vouchers for SMEs to buy industrial or applied R&D from selected public research institutions.

The government has also established five integrated science, studies and business centres ("valleys") in Lithuania's three largest cities (Vilnius, Kaunas and Klaipeda). These focus on high-tech sectors that align with the smart specialisation priority areas of the government (Box 1.3). The initiative is beneficial for encouraging knowledge spillovers and the commercialisation of new concepts. However, there are concerns that spending is too focused on physical infrastructure with insufficient support for professional innovation services (Paliokaite, 2014). More broadly, a country such as Lithuania with a lagging productivity level should ensure that public funding is not too concentrated on frontier technology innovation at the expense of promoting incremental innovation and the absorption of new foreign technologies and best practices.

Box 1.3. **Lithuania's integrated science, studies and business centres**

Partly financed by EU structural funds, the establishment of Lithuania's science, studies and business centres followed a long period of underinvestment in the country's research infrastructure. With the project initiated in 2007 and amended in 2014, the "valleys" focus on achieving a number of science and innovation policy objectives including strengthening knowledge capacity and encouraging co-operation between various entities important to the innovation process. Five valleys were established, with each specialising in knowledge areas corresponding with the broad smart specialisation priority areas announced by the government as an ex ante condition for the use of the 2014-20 EU Structural Funds. The specialisations were designed to reflect the comparative advantages of each region:

- **Santara and Sauletekis Valleys (Vilnius)** – *Knowledge areas:* biotechnologies, innovative medicine, biopharmacy, ecosystems, ICT, laser and light technologies, nanotechnologies, semiconductors and electronics and civil engineering.
- **Nemunas and Santaka Valleys (Kaunas)** – *Knowledge areas:* agro biotechnologies, bioenergy and forestry, food technologies, safety and wellness, sustainable chemistry and pharmacy, mechatronics, future energy and ICT.
- **Maritime Valley (Klaipéda)** – *Knowledge areas:* maritime technologies and maritime environment.

All resources in the valleys are open access. The infrastructure of the valleys includes science laboratories and business incubators as well as complementary service partners (e.g. venture capital funds).

Source: Leichteris et al., 2015.

Nine science and technology parks have been established to promote the absorptive capacity of businesses and their exposure to new knowledge from universities and research institutions. These areas offer complementary infrastructure for the establishment of innovative businesses and promote collaboration between scientists, businesses and students. The recently operational Kaunas Science and Technology Park is one of the largest such areas in the Baltic countries. Nevertheless, the number of science

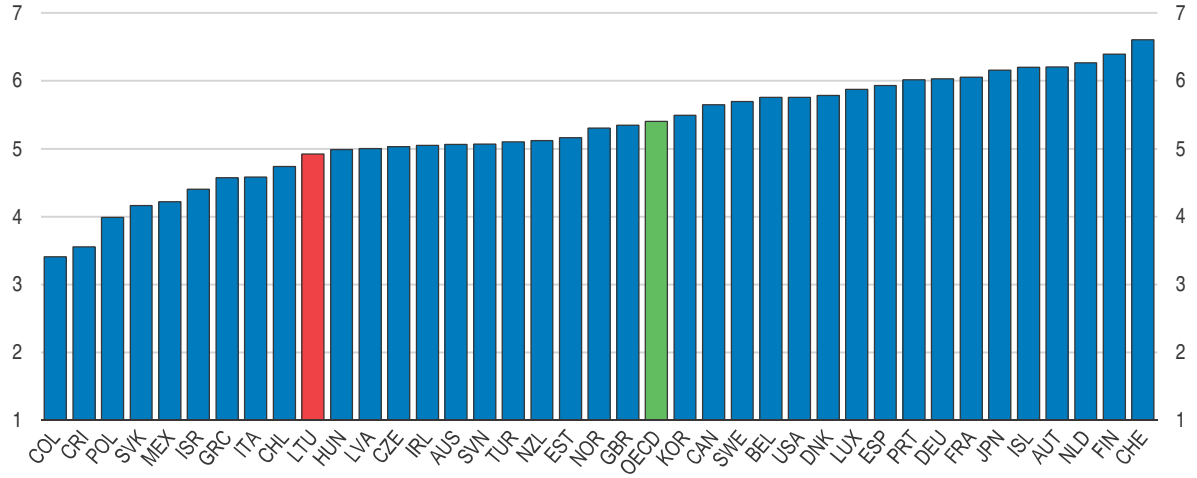
parks in Lithuania is high compared with other countries and fragmentation may reduce the potential scale of knowledge spillovers (Leichteris et al., 2015). This may be exacerbated by the fact that many of the beneficial activities undertaken in science and technology parks are also encouraged in the valleys and 46 business clusters that have been created.

Infrastructure has improved but continued investment is needed

Well-developed physical infrastructure is critical for the efficiency of many businesses (Yeaple and Golub, 2007). Lithuania's infrastructure is being steadily updated, partly through the use of EU funding. In 2014, Lithuania was the leading country for the absorption of EU structural funds. While some infrastructure is well developed, such as the broadband network (Fibre to the Home Council Europe, 2015), businesses judge Lithuania's infrastructure overall to be below the OECD average (Figure 1.19). Improvements in the quality of infrastructure will benefit within-firm labour productivity, not least because such improvements are positively associated with a country's participation in GVCs (Kowalski et al., 2015). It will also have a beneficial impact on the efficiency of resource allocation.

Figure 1.19. **The quality of Lithuanian infrastructure could be improved**

Quality of overall infrastructure score, 2014-15



Note: The score is based on the assessment of business leaders operating in the country to the question: *how would you assess general infrastructure (e.g. transport, telephony and energy) in your country? [1 = extremely underdeveloped – among the worst in the world; 7 = extensive and efficient – among the best in the world].*

Source: World Economic Forum Global Competitiveness Index dataset.

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Transport infrastructure

There are persistent issues with the railway system. Some narrow gauge rail tracks still exist (a hangover from the Soviet period), limiting interoperability with the European gauge railway network. Furthermore, over half of Lithuania's railway network does not have double tracks, reducing the potential for trains to overtake and causing problems with trains travelling in opposite directions. As well as economic consequences, an inefficient rail network can reduce energy efficiency which has environmental impacts. Adding to this, the degree of electrification of the railway network in Lithuania is substantially lower than the EU average. Rail infrastructure will be boosted by the completion of the Rail Baltica project which will run through Kaunas and connect Finland, Poland, Germany and the Baltic States.

Water transport has benefitted from a sequence of recent port investments, but there is scope to further increase the use of inland waterway transport. The expansion of the capacity of the Klaipeda port enabled cargo volumes to rise by one third between 2007 and 2014. However, the use of inland waterway transport remains low: the proportion of total inland freight transport by water is less than 1% compared with over 5% on average in the EU. Any initiatives to further develop inland waterways could reduce costs and environmental damages given that this form of freight transport tends to be relatively energy efficient.

Energy infrastructure

Connection to the electricity network has become less of an impediment to business operations. In 2013, over one third of Lithuanian firms responding to BEEPS reported electricity as either a major or very severe obstacle to their operations, which was high compared with the other Baltic countries. Such obstacles can create a barrier to firm entry and potentially deter FDI. However, new measures including stricter enforcement of the legal time period for connection works appear to have improved the ease of getting an electricity connection. From a year earlier, the time it took to obtain electricity connection fell from 135 days to 95 days in Lithuania in 2015 (World Bank, 2015).

A risk to business conditions is Lithuania's high vulnerability to disruptions in electricity supply. Until 2010, Lithuania's Ignalina Nuclear Power Station was the main source of electricity. However, following the closure of the plant, reliance on imported electricity from Latvia and Kaliningrad increased substantially. This was partly due to poor connectivity with the main electricity networks in continental Europe and Scandinavia (Miliauskaitė, 2012). Several infrastructure projects that will diversify the sources of electricity supply have been undertaken. These include the NordBalt electricity transmission line between Klaipeda and Nybro (Sweden) and the LitPol link with Poland that commenced operation at the end of 2015.

Lithuania should continue to improve integration with the European gas market to reduce potential disturbances to business operation from disruptions to gas supply. Until recently, Russia was the sole supplier of gas to Lithuania. However, the completion of the Klaipeda liquefied natural gas (LNG) terminal at the end of 2014 began to diversify the sources of Lithuania's gas. The announcement of the Gas Interconnector Poland-Lithuania project is very welcome, as completion will connect the gas networks of all the Baltic countries with that of the EU.

Recommendations for boosting productivity

Continuing to improve the efficiency of resource allocation

- Ensure that the ownership and regulatory functions of state-owned enterprises are not performed by the same government ministry.
- Increase the proportion of independent non-executive board members of state-owned enterprises.

Recommendations for boosting productivity *(cont.)*

- Promote new forms of business financing and ensure that innovation policies support young innovative firms. Reform bankruptcy procedures to reduce the time it takes to close a business.
- Monitor the impact of preferential corporate tax treatment of small firms for any unintended consequences.
- Further reduce regulatory barriers to the employment of non-EU workers.

Promoting within-firm productivity growth

- Attract higher-performing graduates to the teaching profession by paying higher wages and investing in teacher development.
- Promote greater participation in pre-primary education.
- Further increase the role of workplace training and cooperation with employers in the education system, especially in the context of vocational education and training programmes.
- Undertake further consolidation of institutions in the school and university system whilst ensuring that educational opportunities are not impaired.
- Provide better information to students regarding the qualification requirements for jobs.
- Promote innovation and firm's absorptive capacity by improving awareness of the existence of R&D tax incentives.
- Ensure that the tender process for innovative public procurement contracts is open to all firms and does not favour large firms that are well-connected to the government.

Improving infrastructure

- Fully integrate Lithuania's electricity, rail and gas network with the rest of Europe.

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ANNEX A1

As presented in Figure 1.2, labour productivity growth can be decomposed into contributions from three distinct components (European Commission, 2003; Molnar and Chalaux, 2015). Firstly, a within-sector effect ("within effect"), which measures the impact of productivity growth within each sector of the economy assuming that sector labour shares are unchanged. Secondly, a shift effect ("shift effect"), which results from the movement of labour resources between sectors, assuming productivity levels in each sector are unchanged. Finally, a cross-term ("Cross-term"), which reflects changes in the labour share and the productivity level in each sector. In Lithuania's case, the latter term is negative when an increase in productivity growth is exhibited in shrinking sectors, which may reflect structural adjustment. In the analysis that follows, the within effect and shift effect are the primary focus. The decomposition is as follows:

$$\overbrace{\frac{\Delta LP_t}{LP_{t-1}}}^{\text{LP growth}} = \overbrace{\sum_i \frac{\Delta LP_{it}}{LP_{it-1}} \frac{Y_{it-1}}{Y_{t-1}}}^{\text{within effect}} + \overbrace{\sum_i \frac{LP_{it-1}}{LP_{t-1}} \left(\frac{L_{it}}{L_t} - \frac{L_{it-1}}{L_{t-1}}\right)}^{\text{shift effect}} + \overbrace{\sum_i \frac{1}{LP_{t-1}} (\Delta LP_{it}) \Delta \left(\frac{L_{it}}{L_t}\right)}^{\text{cross-term}} \quad [1]$$

where *LP* reflects the level of labour productivity in industry *i* at time *t*, *L* is the number of hours worked and Y is output.

Reductions in regulatory costs for businesses may foster productivity-enhancing resource allocation by promoting the entry of new firms into areas of the economy where returns are the highest. This can either happen by labour resources moving between firms within the same industry (i.e. captured by the "within effect") or between firms in different industries (i.e. the "shift effect"). Of course, some sectors of the economy are more conducive to firm entry than others. For example, there can be "naturally" high entry barriers in the form of high capital intensity or technological complexity of production in some sectors (Andrews and Cingano, 2013). This differential impact can be used in a regression analysis to identify if there has been any influence of the reduction in regulatory costs for starting a business in Lithuania on labour productivity growth. More specifically, the following equation is estimated:

$$X_{i,t} = \Delta Policy_t * Exposure_i + \mu_i + \mu_t + \varepsilon_{i,t} \quad [2]$$

The dependent variable, X, is aggregate labour productivity growth. However, in order to identify the particular channel through which productivity is effected, separate regressions are also run with the dependent variable being the within effect and the shift effect outlined in equation [1].

Any impacts of policy are identified through the coefficient on the interaction term $Policy_t{}^*Exposure_i$ which reflects whether policy changes (at the country level) had a larger impact on industries that are particularly exposed to such policies. As in past work

(Andrews and Cingano, 2013), the level of industry exposure to policies that impact resource reallocation is proxied by a measure of within-industry firm turnover in the US (as it is assumed to be the closest to a "frictionless" economy) taken from Bartelsman et al., (2004). The time period considered is 2006-13.

The policy measures used in the regression analysis are taken from the World Bank *Doing Business* indicators. The overall ease of starting a business is an aggregate that summarises policy settings across a number of policy dimensions. Three of these are taken as the policy indicators in the subsequent regressions; the cost to start a business, the number of procedures to start a business and the time it takes to start a business. The variable "*manufacturing*year*" is a time-varying dummy for industries that belong to the broad manufacturing sector. The estimated coefficient on this variable highlights whether productivity growth has been identifiably stronger in the broad manufacturing sector over this time period (as highlighted in Figure 1.3, Panel B).

The results of the regression analysis are presented in the below table. They suggest that recent policy changes in Lithuania to improve the business climate have benefitted resource reallocation both within industries and between industries. To summarise the main findings:

- Policy changes in Lithuania that have increased the ease of starting a business have had a positive effect on labour productivity growth (Column 1). This impact may have arisen through beneficial resource allocation within industries or increased firm productivity due to the reduction in administrative costs. Specifically, policy measures that have reduced the number of procedures needed to start a business (Columns 3 and 7) and the time it takes to start a business (Columns 4 and 8) are associated with higher productivity growth.
- Policy changes that have reduced the cost of starting a business (Column 10) have led to productivity-enhancing shifts in resources between industries (although the impact on aggregate productivity growth is not identified).

Table A1. **The estimated effect of policy changes on productivity growth**

Dependent variable	(1) LP growth	(2) LP growth	(3) LP growth	(4) LP growth	(5) Within effect	(6) Within effect	(7) Within effect	(8) Within effect	(9) Shift effect	(10) Shift effect	(11) Shift effect	(12) Shift effect
*manufacturing*year*	0.0271	0.0456*	0.0221	0.0743*	-0.0003	0.0133	-0.0076	0.0499	0.0299*	0.0344	0.0317*	0.0264
	(1.57)	(1.86)	(1.24)	(1.96)	(0.01)	(0.4)	(0.3)	(1.56)	(1.8)	(1.43)	(1.9)	(1.00)
Δ overall ease of starting a *business*exposure*	0.0266*				0.0309**				-0.0047			
	(2.05)				(2.38)				(0.32)			
Δ cost to start a *business*exposure*		-0.0076				0.0129				-0.0201*		
		(0.78)				(0.91)				(1.93)		
Δ number of procedures to start a *business*exposure*			-0.0381*				-0.0470**				0.0086	
			(1.92)				(2.32)				(0.46)	
Δ time to start a *business*exposure*				-0.0176*				-0.0179***				0.0004
				(1.98)				(3.63)				(0.05)
Constant	-33.15	-55.77*	-27.03	-90.96*	0.44	-16.19	9.42	-60.99	-36.55*	-42.09*	-38.86*	-32.29
	(1.57)	(1.86)	(1.24)	(1.96)	(0.01)	(0.42)	(0.27)	(1.56)	(1.80)	(1.43)	(1.9)	(1.00)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	184	184	184	184	184	184	184	184	184	184	184	184
R-squared	0.16	0.14	0.16	0.16	0.19	0.15	0.19	0.18	0.06	0.07	0.06	0.06
Number of NACEDivision	23	23	23	23	23	23	23	23	23	23	23	23
F	3.02	2.61	2.96	2.65	6.94	5.14	6.56	6.63	2.4	2.99	2.45	1.72

* p < 0.10; ** p < 0.05m; *** p < 0.01.

Note: t-statistics in parentheses. The regressions include industry and year fixed effects and standard errors clustered at the industry level.

Chapter 2

Growing together: Making the convergence process more inclusive

Although Lithuania's growth has been impressive, inequality is high, the risk of poverty is one of the highest of European countries, and life expectancy is comparatively low and strongly dependent on socio-economic background. The low job satisfaction reduces well-being and feeds high emigration. Labour market, social and health policies can all contribute to improve both well-being and growth. Priorities include providing more and better jobs for all, especially for the low-skilled, by making work pay while keeping the labour costs under control. More accessible and adequate income support combined with more ambitious job-search support and training programmes would better-integrate out-of-work individuals into the labour market. Strengthening equity, effectiveness and sustainability of health policies is also instrumental to inclusiveness.

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

Lithuania's convergence process, mainly driven by a catching-up of productivity (Chapter 1), has been impressive: GDP per capita rose from one third to two thirds of the OECD average level between 1995 and 2014 (Chapter 1). This was accompanied by a rise in living standards reflecting better job opportunities, education and health. The employment rate, at almost 66%, is now 7 percentage points above the rate observed in 2001 and is above the European average. Educational attainment is one of the highest in the world, with half of the population having a tertiary level of education. Life expectancy has increased by five years since 1995.

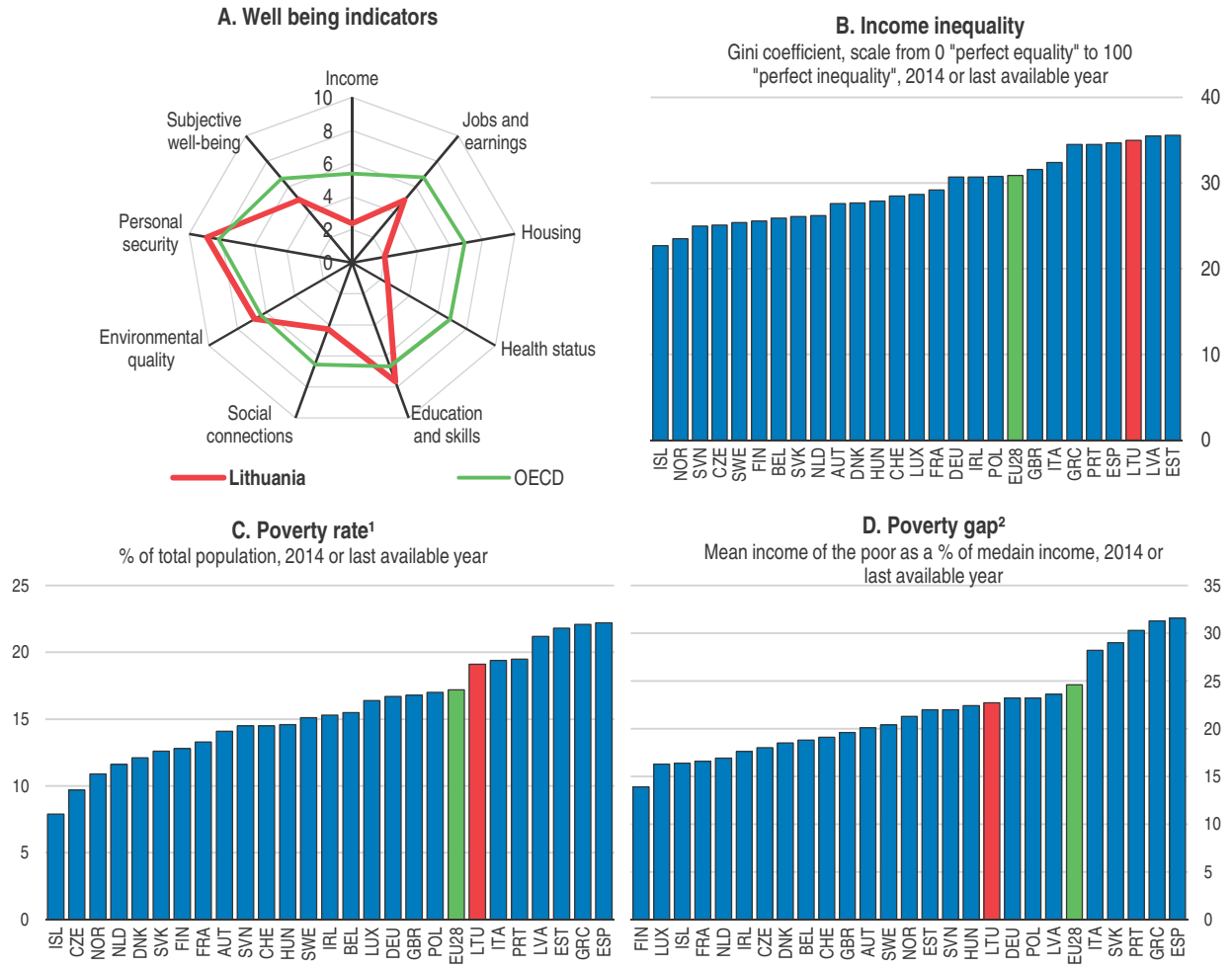
However, despite the significant contribution of transfers to reduce it, inequality is high and the risk of poverty is one of the highest of European countries. Poverty appears to be deep-rooted as indicated by the low income of the poor, which is on average 23% below the poverty line. Well-being indicators suggest that getting closer to the average OECD standards will require specific efforts in the areas of the labour market, housing and health (Figure 2.1) and this is confirmed by a recent study pointing to health and the economic situation as the two main determinants of low levels of well-being (Degutis and Urbonavičius, 2013). Child poverty and individuals' health status remain strongly dependent on socio-economic background and there is a risk of a vicious circle linking socio-economic backgrounds, economic opportunities and life expectancy.

High inequality and poverty could even undermine the sustainability of the convergence process, as seen by the recent work of the OECD regarding the negative impact of inequality on growth (Causa et al., 2014; OECD, 2015d). The main mechanism through which inequality affects growth is by undermining education outcomes for children from poor socio-economic backgrounds, lowering social mobility and hampering skills development. Moreover, international experience suggests that the impact of inequality on growth stems from the gap between the bottom 40% with the rest of society, not just the poorest 10% (Cingano, 2014). This suggests the need for a multi-pronged approach going beyond anti-poverty programmes.

Against that background, this chapter discusses potential win-win structural policies that could be implemented in Lithuania to deliver both higher growth and stronger inclusiveness in the future. We focus especially on the labour market, social assistance and health policies which are complementary for simultaneously strengthening labour participation and well-being. The main messages from the chapter are the following:

- Good-quality employment is the principal route out of poverty. Further promoting labour market institutions that are conducive to strong job creation, higher employability for the most vulnerable and better job satisfaction are therefore instrumental to promote inclusiveness. Taking measures to further reduce the tax wedge on the low-skilled and to promote lifelong learning will all help in this regard. Establishing an independent commission of experts would help setting the right level of the minimum wage as a higher minimum wage would reduce wage inequality but if set too high it would reduce the employment of low-skilled.

Figure 2.1. **There is room to make Lithuania more inclusive**



Note: The well-being performance of Lithuania is based on a preliminary assessment considering the available information, reduced compared to the OECD average. The OECD dimensions scores have been adjusted to mirror the reduced indicators' coverage of Lithuania.

1. The share of persons with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income (after social transfers).
2. Difference between the at-risk-of-poverty threshold (set at 60 % of the national median equivalised disposable income after social transfers) and the median equivalised disposable income of persons below the same at-risk-of-poverty threshold, expressed as a percentage of the at-risk-of-poverty threshold.

Source: Eurostat *Population and Social Conditions Database*; OECD *Better Life Initiative 2015*.

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- The risk of unemployment is, however, inherent in a decentralised labour market and is even larger in an economy like Lithuania's, where economic volatility and the convergence process mean labour is frequently displaced. Against this background, reforming the social model in line with a flexicurity approach, as envisaged by the authorities, appears appropriate. However, to be effective and to reduce the risk that job loss leads to poverty, a reform package of the labour market should couple a relaxation of strict employment protection with adequate unemployment benefits and effective active labour market programmes. Those policies require greater resources but they would potentially lead to higher fiscal revenue as labour market outcomes improve.

- Along with people at risk of being temporarily unemployed, there will always be vulnerable individuals with lower job prospects. Adapting the social assistance system to ensure that it provides adequate incentives and it is well-co-ordinated with the unemployment insurance system is critical. The current social assistance system is the main social protection in Lithuania, but it should be made more effective at alleviating poverty and as a pathway to employment.
- Good health is a prerequisite for the labour market and social policies to be effective at increasing labour force participation and productivity. International experience suggests in particular that better health raises employment, and that unemployment tends to weaken health (Barnay, 2014). Health policies thus appear integral to an inclusive growth strategy in Lithuania. In particular, prevention policies and healthy lifestyle, especially through lower alcohol and tobacco consumption which is comparatively high, can further contribute to reduce premature mortality and improve well-being in Lithuania.

Main findings

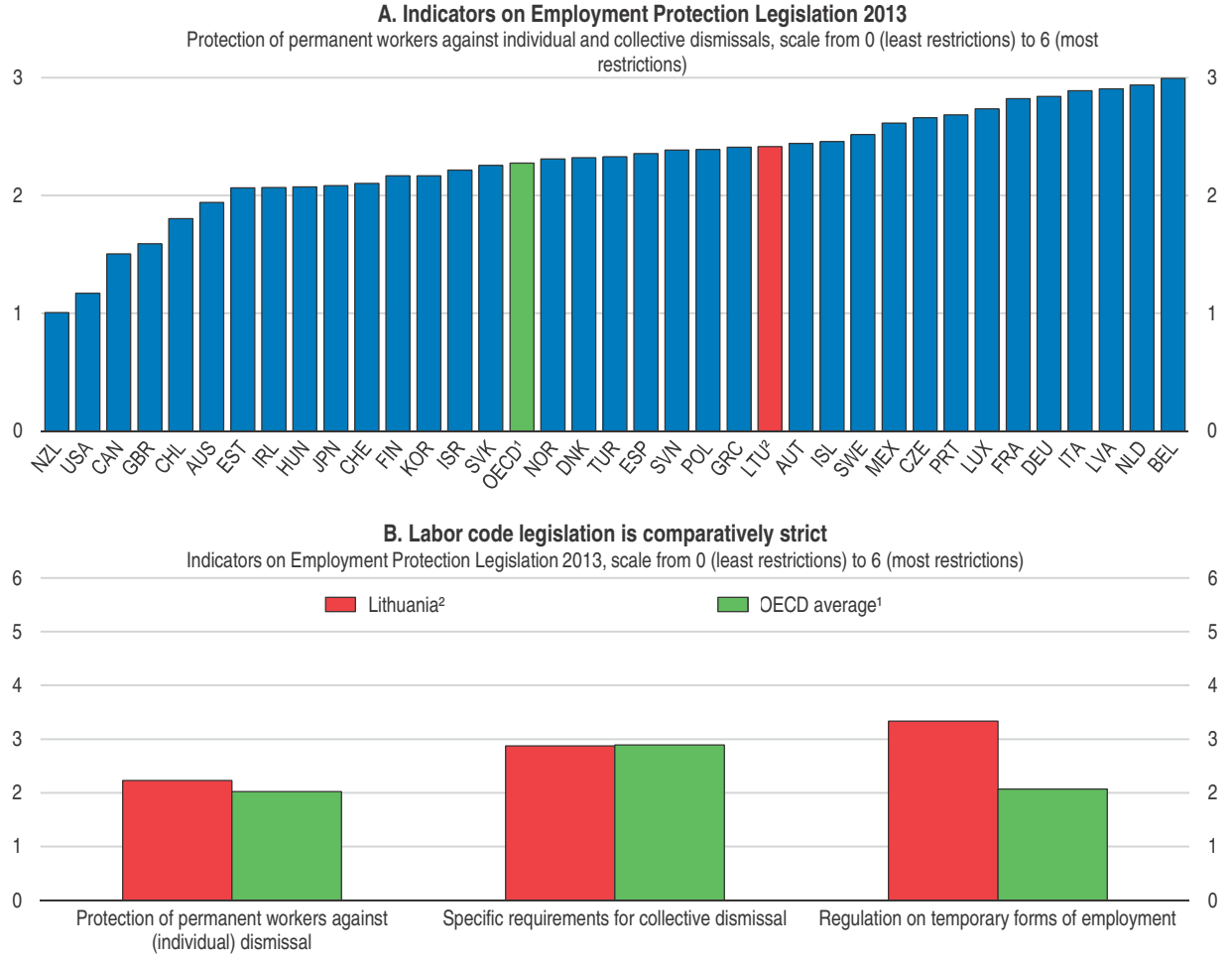
- The legislation on employment protection is strict but not well-enforced. This creates uncertainty for workers and for firms, and may undermine job creation.
- At already 50% of the median wage, the minimum wage is binding and room for further increases without undermining employability of low-skilled is limited.
- The comparatively high share of low wage earners among the high skilled suggests also that informal wage payments ("envelope wages") are common.
- The unemployment insurance system covers only a small share of the unemployed, does not shelter against poverty risk in the case of job loss, and provides insufficient financial support for effective job search.
- Public employment services are understaffed and re-employment programmes are too small to effectively tackle structural unemployment.
- Relatively poor working conditions and underdevelopment of lifelong learning result in poor career prospects for workers and fuel emigration and informality.
- The social assistance system does not sufficiently alleviate poverty risk.
- Disincentives to take a job are comparatively high for social assistance benefit recipients not eligible for in-work benefits and for large families.
- Co-operation between municipalities and public employment services to provide adequate programmes for social assistance recipients is underdeveloped.
- Sanctions on social assistance recipients are too strict and contribute to poverty risks and social exclusion for the most vulnerable.
- Life expectancy is low and strongly dependent on socio-economic background.
- There is still room for restructuring the hospital network, reducing the reliance on hospitalisation and promoting further primary care services.

Promoting more and better jobs for an inclusive labour market

Establishing a legislative framework conducive to job creation and job mobility

A starting point to promote an inclusive labour market is to establish institutions that are conducive to job creation, because being employed is the principal route for reducing the risk of poverty and social exclusion (Whiteford and Adema, 2007; OECD, 2015d; IFC, 2013). Against this background, comparatively strict labour market legislation in Lithuania may create a barrier to job creation as the catching-up process and the vulnerability to external shocks in a small open economy require quick adaptability to economic changes (Figure 2.2). For instance, the recovery from the last financial crisis required a substantial reallocation of resources, implying that large numbers of destroyed jobs in the housing sector combined with the expansion and entry of new firms in the rest of the economy. In that context, strict employment protection legislation can hamper the ability of firms to respond to new opportunities and reduce the incentive to hire new workers (Venn, 2009). It can also hamper productivity and income growth by inhibiting the reallocation of resources to the most

Figure 2.2. **Employment protection legislation is stricter than the average of OECD countries**



1. OECD unweighted average.
2. Data refer to 2015.

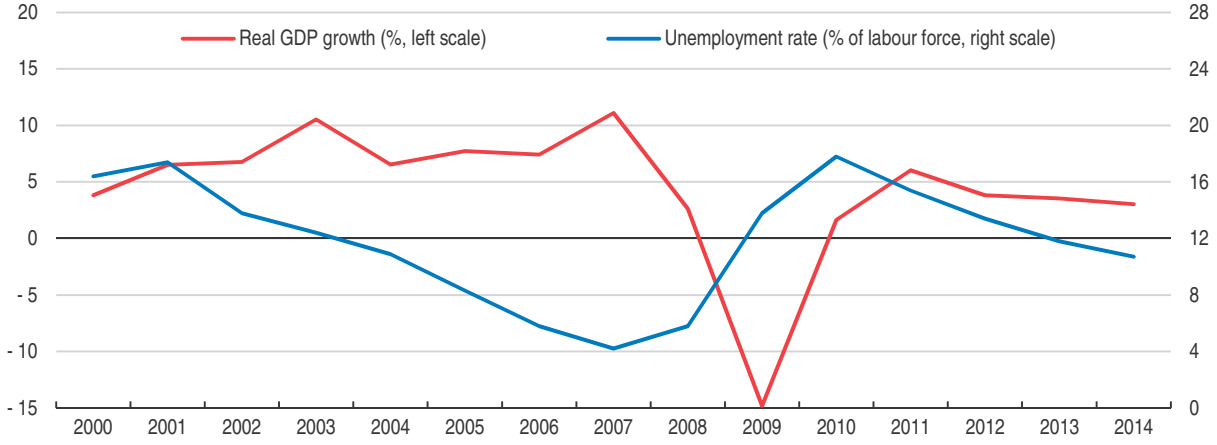
Source: OECD *Employment Protection Database*, 2013 update.

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dynamic sectors (Andrews and Cingano, 2014). Strict employment legislation may also generate incentives to hire workers informally (OECD, 2008). The government has already started to look at the problem. Legislation on temporary work arrangements was changed in 2013 to make it easier to establish such contracts. A "new social model", under discussion in the Parliament (see Assessment and Recommendations Annex 1), includes provisions to reform the labour code in order to ease both permanent and temporary contracts, in particular with regard to the rules on individual dismissal and the use of temporary employment.

The overall impact of the labour code reform on job creation in Lithuania is uncertain, however, as labour regulations are currently not well enforced. For instance, while the law is particularly restrictive regarding redundancy payments, which may amount to as much as six month's wages, in practice, only 8% to 9% of dismissed women and 5% to 6% of dismissed men received any redundancy payment, and most of these work in the public sector (European Commission, 2015a). Job destruction during the last financial crisis provides indirect evidence of weak barriers to hiring and firing (Earle, 2014). The relationship between GDP and unemployment changes in Lithuania (so-called Okun's law) is estimated at 0.49 for Lithuania which is similar to the United States (IMF, 2014; Figure 2.3).

Figure 2.3. **The labour market is in practice flexible**



Source: OECD *Economic Outlook 98 Database*; *Statistics Lithuania Database*.

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A reform that would align legislation more closely with practices and ensure the enforcement of the law is desirable. International experience suggests that ensuring transparent and effective dismissal rules is in the interest of all parties (Venn, 2009). In the current situation, the strict employment law generates judicial uncertainty without reaching its objective: to protect workers and to strengthen employers' incentives to internalise the social costs of excessive labour turnover such as lower investment in staff training (Wasmer, 2002; Amable and Gatti, 2004). While the new labour code will entitle workers to lower level of redundancy payment in case of dismissal, workers could be better protected if this reform was accompanied by provisions that ensure the enforcement of the law. International experience suggests that in countries where the definition of unfair dismissal is narrower, workers are usually compensated while this is not the case when the definition is large or the amount set is high (OECD, 2013a). Reducing judicial uncertainty may also boost the attractiveness of Lithuania for FDI as foreign firms are less aware of work practices and are adverse to uncertainty. Small firms would also benefit from the reform because they generally have less

capability to deal with complex legislation, in particular because they don't have a specialised human resources department and because the cost of a dismissed worker accounts for a higher share of the wage bill (OECD, 2015a). This aspect is particularly important in Lithuania where there is a large number of small firms; about 90% of firms have 10 employees or less (see Chapter 1). The new draft labour code includes specific provisions to reduce the strictness of the legislation for smaller firms, in line with the practices in many OECD countries (Venn, 2009). Such size-dependent policies need close attention however, as they come with the risk of offering firms an incentive to stay small or to underreport workers.

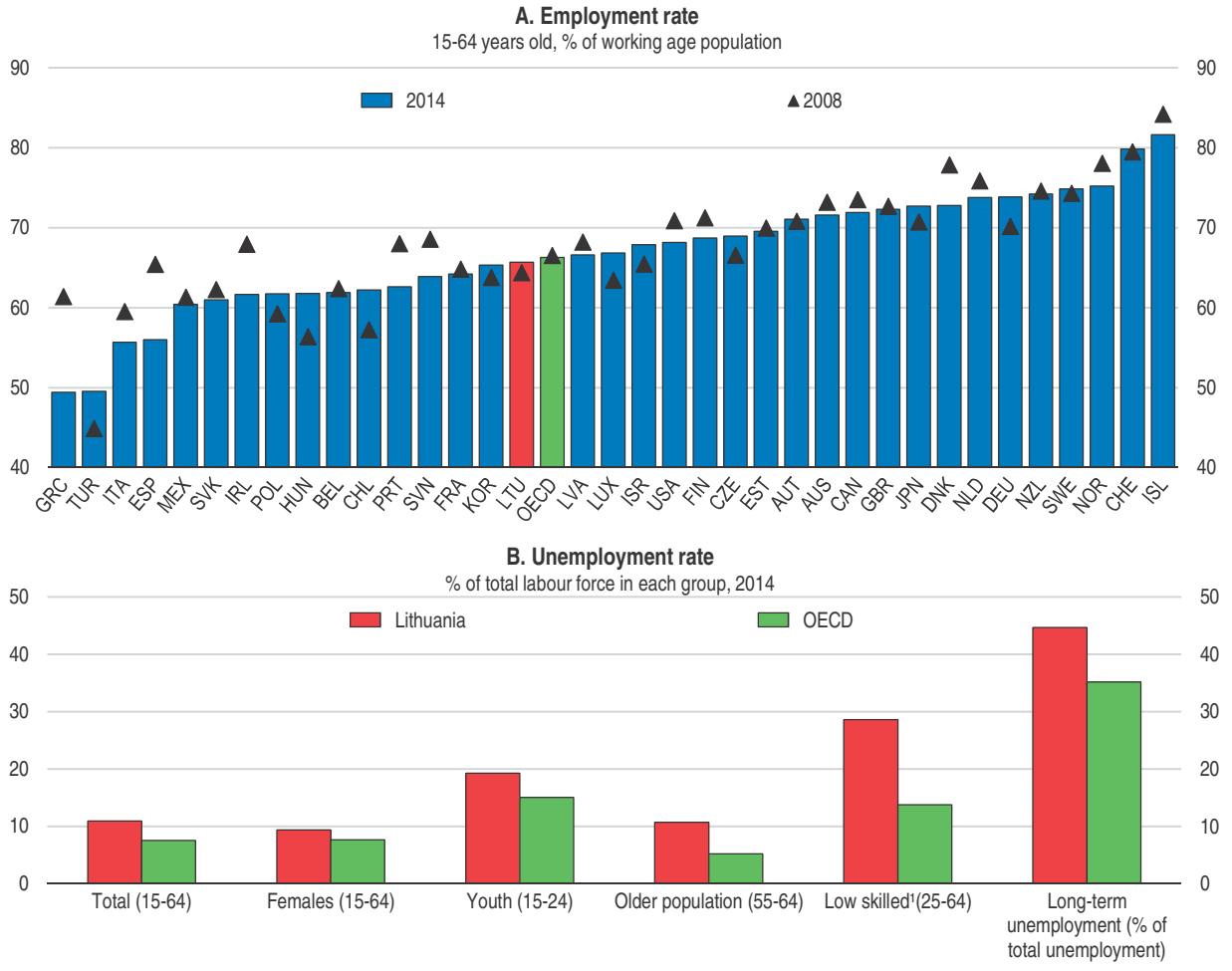
Providing more job opportunities for the low-skilled

Providing more job opportunities, in particular for the most vulnerable workers, is instrumental to an inclusive labour market. The economy has quickly recovered from the last financial crisis which is reflected notably in an unemployment rate below 9% in 2015, after having peaked at 18% in 2010, and a higher employment rate (Figure 2.4, Panel A). Several measures targeted at the youth have been successful in improving labour market outcomes, including the promotion of training, wage subsidies and the establishment of a "youth guarantee" which ensures that all youth under 29 get a good-quality offer for a job, training or continued education within four months of leaving education or entering unemployment (OECD, 2015a). Youth unemployment was reduced to 19.3% following a post-crisis peak of 35.7%. However, some groups have not yet fully recovered from the global financial crisis and the unemployment rates of low-skilled and seniors remain high (Figure 2.4, Panel B). The employment rate of the low-skilled is the second-lowest rate in Europe and requires particular attention.

Reduced tax wedge targeted at low-paid jobs can help boost labour demand by reducing the labour cost for low-skilled workers in line with the level of their productivity (Figure 2.5). International experience suggests that a reduction of the labour tax wedge can significantly reduce unemployment (Giannella et al., 2008; Duval et al., 2007); a reduction by 10 percentage points can reduce the level of structural unemployment by 2 to 4 percentage points on average (Ebeke and Everaert, 2014). Lowering employer social security contributions could in particular help as they account for 58% of the tax wedge in Lithuania compared to 39% on average in OECD countries. Several OECD countries established social security contribution exemptions or reductions for low-paid jobs while maintening the entitlements of workers. However, targeting requires reliable information on wages and such policy may come with undesirable effects in Lithuania due to the use of "envelop wages", i.e. informal wage payments (Eurobarometer, 2014; Schneider, 2015; Talis and Arnis, 2014). Progress in reducing envelop wages is hence instrumental to restraining the budgetary costs of earning-related policy measures. In the current situation, other criteria are needed to make sure such schemes are not becoming a subsidy to under-reporting earnings. An option is to limit exemptions to employers hiring low-skilled workers that were previously unemployed or inactive. Such an option is already available in Lithuania as part of active labour market policies and could be refined to further reach the most vulnerable (discussed below).

Poor labour market outcomes for low-skilled workers is also reflected in the large share of low-wage earners and high earnings inequality (Figure 2.6, Panels A and B). To tackle wage inequalities, the minimum wage was increased (following a four-year freeze) by close to 30% between 2012 and 2015 and by 7% in January 2016. This took it to the absolute level in Estonia and Latvia. While the minimum wage remains low by international comparison, fuelling emigration and undermining the incentive to take-up a job (Table 2.1; Gataulinas and

Figure 2.4. **The labour market recovered from the crisis but some groups remain vulnerable**



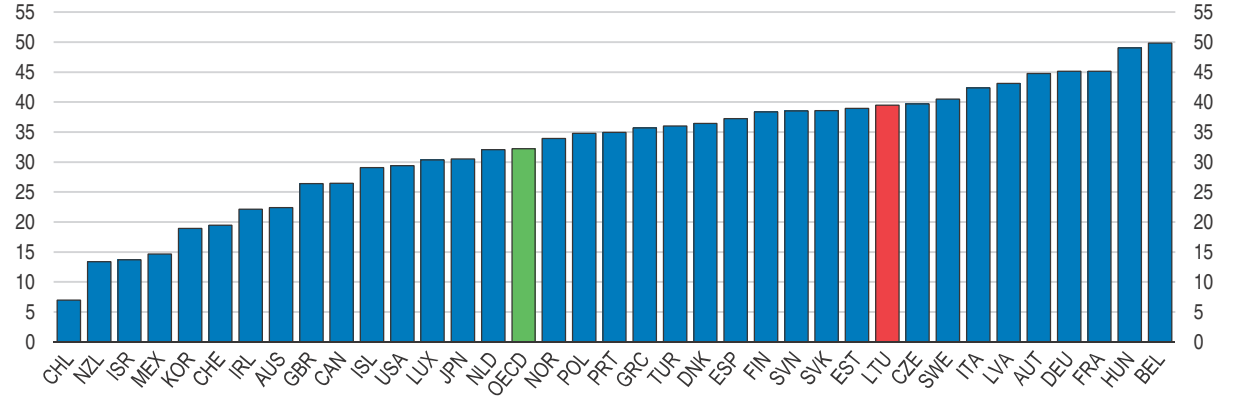
1. 2013 data for OECD (unweighted average).

Source: OECD *Labour Market Statistics*; OECD *Education at a Glance Database*; Eurostat *LFS Main Indicators Database*.

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Figure 2.5. **There is room to reduce the tax wedge**

Average tax wedge on labour, % of labour cost, 2014,[1] single person at 67% of average earnings, no child



1. 2013 data for Latvia and Lithuania.

Source: European Commission, *Tax and Benefits Database*; OECD, *Tax-Benefit Models*.

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Zabarauskaite, 2014), it amounts to half the domestic median wage, which is about the average observed in OECD countries (Figure 2.6, Panel C). This suggests that room to further use it to reduce labour market inequalities is limited. Such a policy may risk reducing the employability of the low-skilled and new entrants. In that case, the positive effect on

Figure 2.6. **Wage inequality is high but the minimum wage is binding**



1. Low-wage earners are defined as those employees earning two thirds or less of the national median gross hourly earnings.
Source: OECD *Earnings Distribution Database*; Eurostat database.

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Table 2.1. **The level of the minimum income benefit is low**

SSI	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Minimum Income (in EUR)	39.1	39.1	47.8	59.4	82.5	101.4	101.4	101.4	101.4	101.4
Poverty line at 60% median income in EUR, per month	102.9	126.7	163.8	205.6	235.8	201.5	192.9	216.9	234.9	241.2
Ratio, %	38.0	30.9	29.2	28.9	35.0	50.3	52.6	46.8	43.2	42.0

Note: Poverty line calculated each year at 60% of the median equivalised income.
Source: SSI based on Resolution of the Government of Lithuanian Repub lic "Dėl valstybės remiamų pajamų dydžio patvirtinimo"; OECD calculation.

income of low-paid earners may be offset at the aggregate level by lower employability of the low-skilled. To reduce this risk, the minimum wage level should be reviewed on a regular basis by an independent expert commission like those existing in Australia, France and the UK. The decision to raise wages is made by the Tripartite Council of the Republic of Lithuania. International experience suggests that ensuring the transparency of decisions through public consultation and the publication of recommendations is beneficial for business activities as it reduces uncertainty by making decisions more predictable (Immervoll, 2015).

Increasing take-home pay for low wage earners by reducing their taxes is an alternative way to reduce labour market inequalities without hurting the employability of the low-skilled. Personal income tax in Lithuania is calculated on an individual basis using a flat tax rate. However, a general tax allowance that decreases with income and specific allowances for individuals raising children and people with disabilities makes the system slightly progressive at the bottom of the distribution (Navicke, 2015). Increases in the general tax allowance and the tax allowance for residents raising a child in January 2014 have also contributed to slightly more progressivity, in particular as large families are more represented at the bottom of the distribution. However, the contribution of taxes to reduce inequalities remains modest (IMF, 2015) and comes with comparatively high fiscal costs because universal tax allowances also support families with high income. Better targeting of such tax allowances would be less costly and make a further contribution to reduce inequalities. Such a reform has already been undertaken for family benefits through the replacement of universal children's benefits with means-tested benefits, which reduced the number of recipients from 550 000 to 150 000 between 2009 and 2012 (Poviliunas, 2014). Going forward, an in-depth analysis of the Lithuanian tax system is needed to assess if the advantages of introducing a progressive tax system in terms of inclusiveness could offset some of its drawbacks (e.g. the risks of wages being underreported or lower attractiveness for FDI). For instance, the Slovak Republic which had a flat tax system in place for 10 years undertook such a reform in 2013 by adding a second tax bracket.

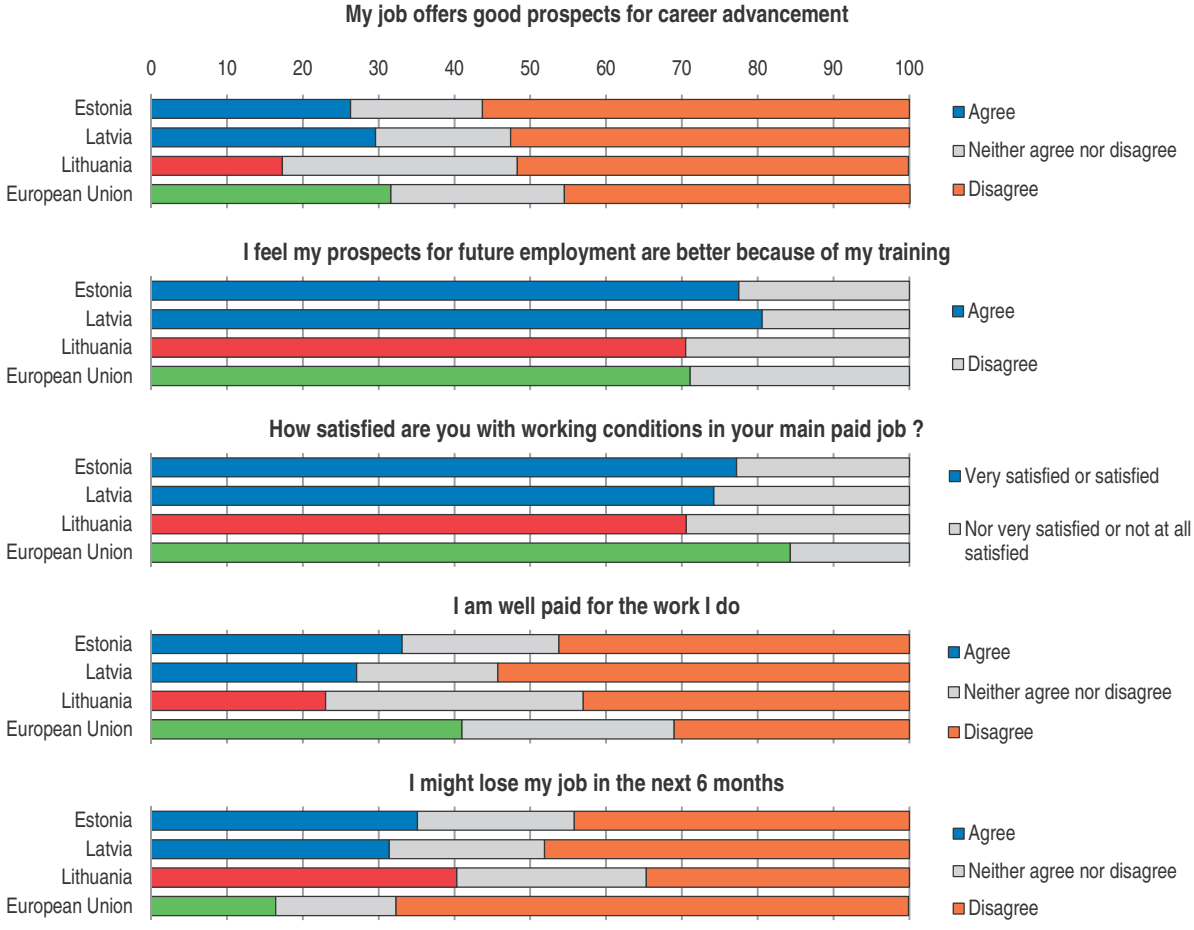
In-work benefits schemes targeted at low-paid jobs also provide room to boost net incomes at the bottom of the distribution while keeping labour costs under control. They could be particularly effective in countries such as Lithuania where earning inequalities are high (Immervoll and Pearson, 2009). In addition, because of the desirable effects on incentives to work, it is a cost-effective instrument, compared to other type of transfers. However, as mentioned above, to reduce the risks related to underreporting of wages, those measures should specifically be designed for jobless individuals who take a job. The most effective options are discussed below in the context of out-of-work policies (see Box 2.4 below).

Offering better career prospects for all

Along with more jobs, providing workers the opportunities to advance to better jobs over their careers would make the labour market more inclusive. Recent OECD studies point to the importance of job quality and highlight that there is no trade-off between job quantity and job quality (OECD, 2014a). According to the European Survey on Working Conditions, which assesses the quality of jobs, 30% of Lithuanians are not satisfied with their working conditions. This is significantly higher than the average of European Union countries. In particular, there is a perception in Lithuania of low job security, low wages and weak career prospects (Figure 2.7, European Commission, 2013). On the positive side, almost three-quarters of Lithuanians assess positively the impact of training on their career, which is as high as the European average. This suggests that the weak participation in training is more a source of concern than its quality. They also report better social relationships than their peers in European countries, had notably more supportive colleagues, benefitted from better management when setting professional targets and enjoyed a better work-life balance (Eurofund, 2012).

Figure 2.7. **Lithuanians are dissatisfied by their working conditions**

% of answers, 2010



Source: Eurofund, *European Working Conditions Survey 2010.*

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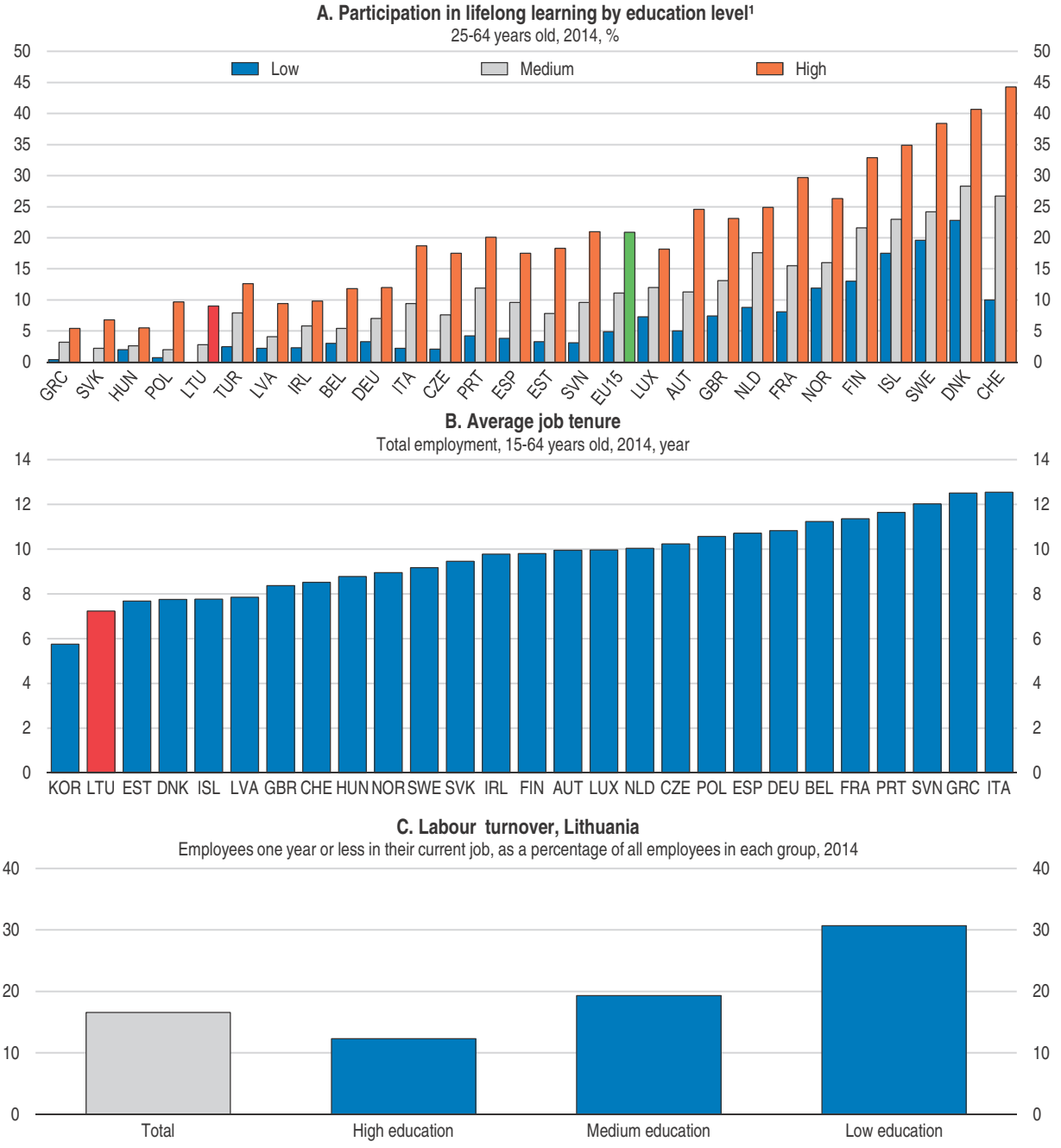
Promoting the participation of workers in lifelong learning is instrumental in improving their working conditions in the medium-long term. Underinvestment in skills reduces productivity and opportunities for career advancement (OECD, 2014a; Bassanini et al., 2005). Only 5% of workers are engaged in training activities, which is half the level observed on average in the EU (Figure 2.8). Low average job tenure reduces further incentives to invest in skills because when labour turnover is excessive, firms may fear losing trained workers to competitors and workers may hesitate to invest in skills that are specific to the firm and useless for the next job (Wasmer, 2002). This may be the case especially for low-skilled workers characterised by high job turnover and may require specific provisions to provide adequate incentives for firms and workers to invest in skills. Plans to entitle workers to 5-10 days of training per year and to establish a new apprenticeship contract are welcome. Considering the current plan to promote the use of fixed-term contracts, specific attention should be given to avoid creating a dual labour market, as observed in some OECD countries where such contracts are largely used (OECD, 2015d). One possibility could be to create training rights for such workers. Along the same lines, tackling informality will also help in reducing dualism in the labour market and contribute to improved prospects for better jobs; non-formal jobs are associated with poor working conditions, no training and no insurance coverage (OECD, 2004; OECD, 2008).

An educational system that provides the right mix of skills for youth is an important determinant of good career prospects. The comparatively large share of seniors with low-paying jobs (see Figure 2.6, Panel B) may be related to skills mismatch and suggests that educational mismatch can have long-lasting consequences on careers. Firms report significant skills shortages and mismatches, suggesting that the educational system is not yet fully aligned with business needs. Providing more on-the-job training and apprenticeships in secondary and tertiary education will help ensure a better matching (Chapter 1). An in-depth review of the education system will also provide a better understanding of the sources of skills mismatch in Lithuania.

Providing career guidance to workers could also help them to move toward more productive and rewarding jobs. The Lithuanian public employment services (PES) currently provide guidance services to workers. However, the lack of resources discussed below generates tensions between this "medium-long term approach" activity related to lifelong learning and sustained employability, and other objectives of PES to get the unemployed working as quickly as possible (OECD, 2015b). In addition, the most vulnerable groups may have little incentive to participate as it is on a voluntary basis. To the extent that more resources are available in the future, the authorities could implement pilot programmes to strengthen training courses for low-income workers with the focus on strengthening their job stability.

Providing better career prospects and better working conditions would contribute to making Lithuania a more attractive place to live and to reducing emigration flows, which has affected 23% of the population since 1995 (Figure 2.9; Sipavičienė and Stankūnienė, 2013; Arslan et al., 2014). The main determinants for leaving Lithuania are economic. The majority of emigrants are young and are looking for better job opportunities abroad, in particular as average earnings in Lithuania are about four times lower than in the average European country (Eurostat dataset). The contributing factors driving emigration are various and include high unemployment, poor working conditions, along with dissatisfaction with the education system and attractive job options abroad, in particular for youth who were not employed for more than one year who represent the majority of

Figure 2.8. **Low-skilled workers underinvest in skills and experience high turnover**



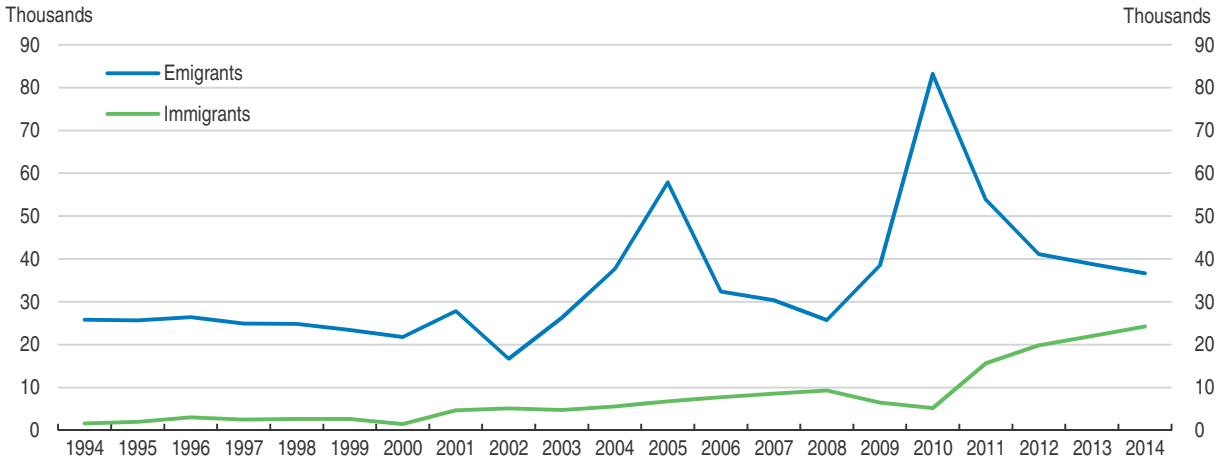
1. Based on ISCED 2011 levels: low corresponds to less than primary, primary and lower secondary education (levels 0-2), medium corresponds to upper secondary and post-secondary non-tertiary education (levels 3 and 4), high corresponds to tertiary education (levels 5-8).

Source: Eurostat *Education and Training Database*; OECD *Labour Force Statistics*; *Statistics Lithuania*, *Labour Force Survey* data.

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emigrants (OECD, 2015a). At the same time, according to a recent survey of Lithuanians registered in PES, 60% of the respondents looking for a job abroad would prefer to stay in Lithuania (Gataulinas and Zabarauskaite, 2014). Together with a recent increase in return migration, this suggests some leverage for the authorities to make Lithuania an attractive place to live and work.

Figure 2.9. **Emigration is high and widespread among the population**



Source: Statistics Lithuania.

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Providing more effective support to the unemployed

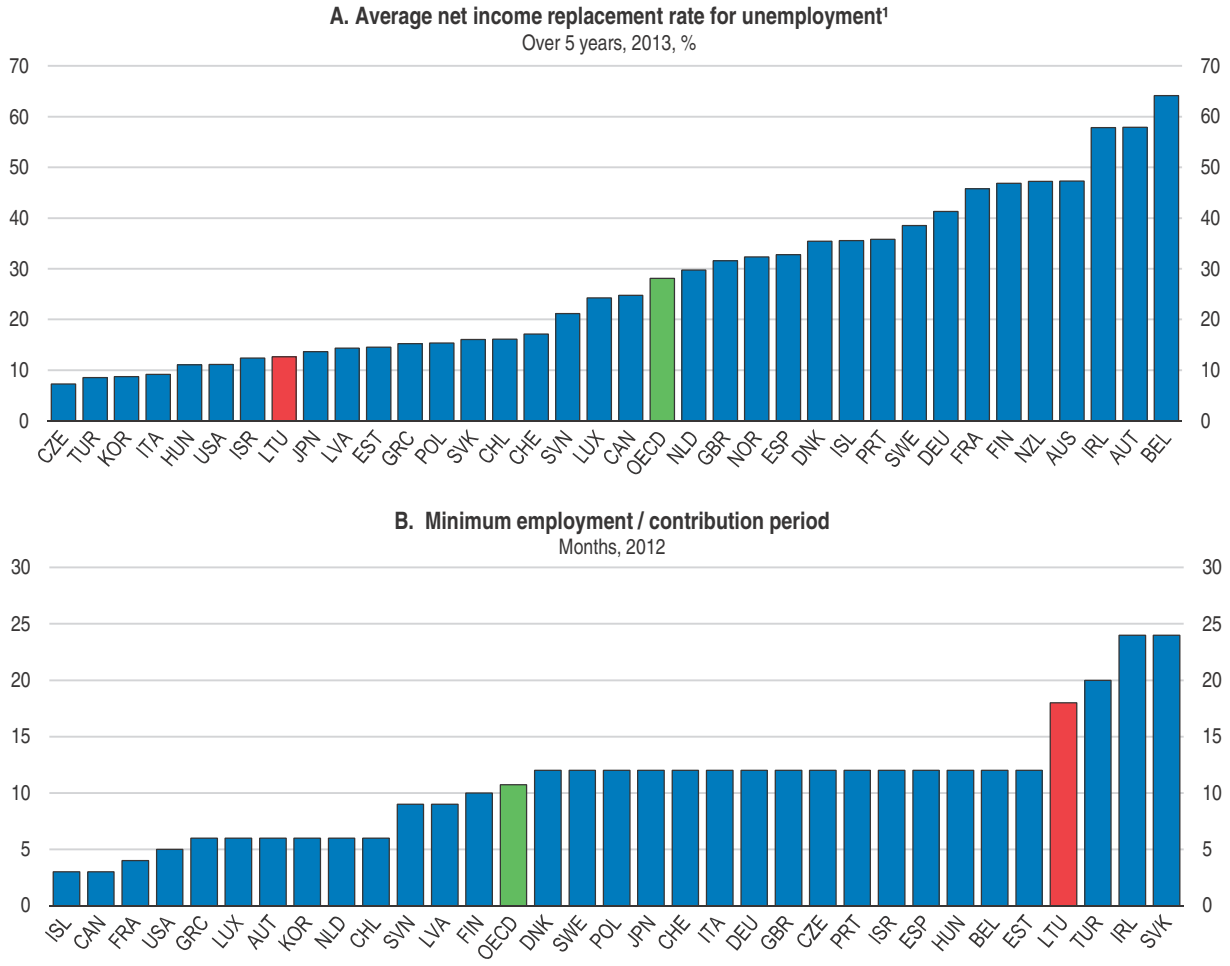
Strengthening temporary income support

Weak income security in the event of job loss combined with a flexible labour market contributes to income inequality and vulnerability to poverty. The share of households that falls below the poverty risk threshold (measured at 60% of the median wage) in the case of job loss is estimated at 40% (Lazutka et al., 2013). This high risk of poverty is, in part, explained by the fact that Lithuania has a very restrictive unemployment insurance benefit system compared with OECD countries (Lagenbusher, 2015). It combines strict eligibility criteria, implying a long minimum contribution period, low duration and a low level of benefits (OECD, 2015a, Figure 2.10):

- Unemployment benefits provide a minimum level of resources during unemployment. The net replacement rate for low-paid earners, calculated over a five year period, is on average at 13% compared with 28% in the OECD. The picture is similar when looking at initial replacement rate (see Assessment and Recommendations).
- The benefits are also only weakly linked with previous earnings, and the initial replacement rate is estimated at less than 25% for high-paid workers earning more than 600 euros (2 100 litas) (Lazutka et al., 2013). The weak earnings link can reduce the incentive to work in the formal sector and lead to envelope wages to the extent that workers do not have a specific reward from higher contributions (OECD, 2008).
- The coverage of the system is narrow, with less than 18% of the unemployed entitled to unemployment benefits (OECD, SOCR Database). Youth or people with interrupted careers in particular encounter more difficulty accessing benefits.

Increasing the generosity of benefits and the coverage, as is being considered by the authorities, would improve the labour market and reduce the risk of poverty. First, the low level of benefits increases the incentive to look for a job but could also increase skills mismatch if the unemployed, because of financial constraints, have to accept the first job offer and cannot devote sufficient time to job search and preparation. This can result in lower stability in labour market reintegration (Wulfgram and Fervers, 2013; Tatsiramos, 2009). This may be the case in Lithuania where the level of benefits is too low to cover the

Figure 2.10. **The unemployment insurance system is underdeveloped**



1. Simple average of the net replacement rates for four family types do not qualify for cash housing assistance or social assistance "top up" and two earnings levels at 67% and 100% of the average wage.

Source: OECD *Tax-Benefit Models*, *www.oecd.org/els/social/workincentives*; Carcillo et al. (2015), "NEET Youth in the Aftermath of the Crisis: Challenges and Policies", OECD *Social, Employment and Migration Working Papers*, No. 164.

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cost of job search. Second, the payment of adequate benefits, when combined with effective monitoring of job search, could also increase the incentive to take a job in the formal sector in order to benefit from the income security that is associated with formal jobs (OECD, 2004). This is an important element in a country where informal activity is estimated between 18% and 28% of GDP (see Assessment and Recommendations). Finally, better coverage would make the unemployed more readily reachable for public employment services. Increasing coverage could, for instance, be achieved by shortening the required length of contribution. International experience suggests that programmes targeted at groups not entitled to unemployment benefits have limited impact due to the associated difficulties of maintaining regular contacts and the fact that opportunity costs of sanctions are lower with a lower level of benefits (OECD, 2015b). Against that background, planned reforms to increase the level and the coverage of unemployment benefits are welcome (Box 2.1; Avram et al., 2015).

Box 2.1. **Unemployment benefits: main characteristics and planned reforms**

Unemployment insurance benefits are paid to unemployed persons registered with a regional labour exchange who have not received from the labour exchange any job offer in line with their professional or occupational qualifications and health status or any active labour market measures.

Current unemployment insurance system

- The duration of the unemployment insurance benefit depends on the number of years for which unemployment insurance contributions had been paid before registration with the labour exchange. The duration of support is at least six months for unemployment insurance contributions of less than 25 years, and a maximum of nine months for a contribution of 35 years and over.
- The level of unemployment insurance benefits consists of two parts – a fixed part and a variable part.
  - The fixed part of the unemployment insurance benefit is the amount of income eligible for state-supported income which is the reference for social benefits (set at EUR 102 since 2008).
  - The variable part of the unemployment insurance benefit is equal to 40% of the former insured earnings and is reduced by 50% after three months.
  - The unemployment insurance benefit paid during each of the above periods may not exceed EUR 300.
- The required length of the contribution to unemployment insurance is 24 months during the previous 36 months.

Main planned changes to the unemployment insurance system

- The constant part of unemployment benefits will be computed based on a minimum monthly wage (at 30%). This would strengthen the link between labour market insurance and wage developments. Currently, the level of the state-supported income is the basis for social assistance and is determined by political decision.
- The variable part of the benefits will increase: it will be equal to 50% of former earnings during the first three months of an unemployment spell and then be gradually reduced to 40% between the fourth and sixth month, and to 30% between the seventh and ninth month.
- The duration of unemployment insurance would be nine months.
- The eligibility rights will also be extended by reducing the required length of the period of contribution to unemployment insurance to 12 months during the last 24 months.
- The benefit ceiling is set at 75% of the average wage.

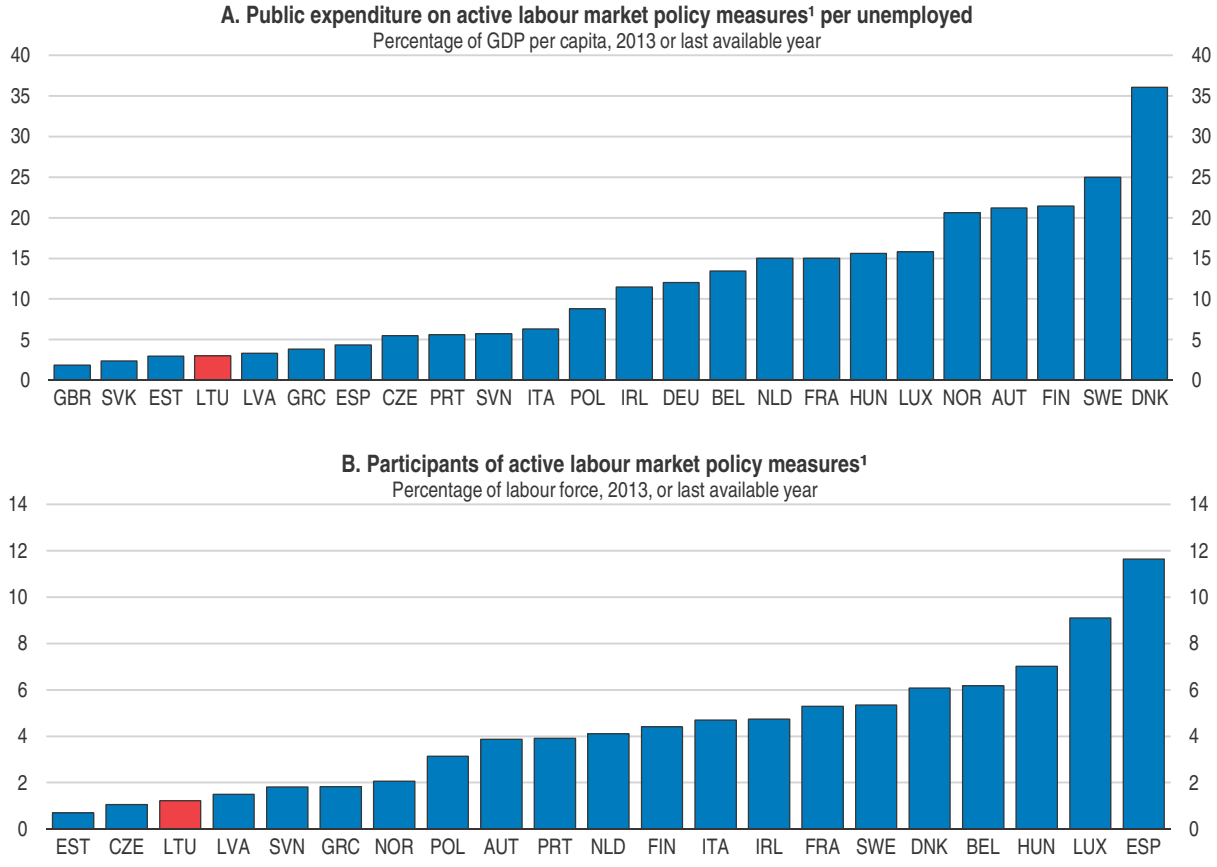
Source: Ministry for Social Security and Labour.

Strengthening public employment services

Reform of the social model according to flexicurity principles requires effective employment support policies. This is the third side of the flexicurity triangle, along with flexibility and income security. Effective employment services are instrumental in keeping spending under control and critical in helping the most vulnerable groups in the labour market get jobs. In particular, long-term unemployed account for 45% of the unemployed, which suggests that a large share of unemployed will not reintegrate into the labour

market as growth accelerates but require specific attention to tackle the barriers to their employability. Low-skilled men who benefited from many job opportunities associated with the housing boom require specific attention as they were particularly hurt by the recession and may be more discouraged given the mismatch of their skills with the needs of the labour market. This is a source of concern given the high level of structural unemployment at around 10-12% (Ebeke and Everaert, 2014). Spending in active labour market programmes does not meet the challenges as it amounts on average to only half the resources devoted by other OECD countries (Figure 2.11, Panel A). In addition, investment in that area has been reduced compared to the pre-crisis period (OECD, 2015a). This results in low participation in labour market programmes (Figure 2.11, Panel B). Significantly, raising investment in ALMPs and PES is key for Lithuania and should be viewed as an investment with long term returns as recent studies highlight that some programmes can be even self-financing in the long term (Brown and Koetti, 2012).

Figure 2.11. **Active labour market measures are insufficient**



1. ALMP measures (categories 2-7) cover training, employment incentives, supported employment and rehabilitation, direct job creation and start-up incentives.

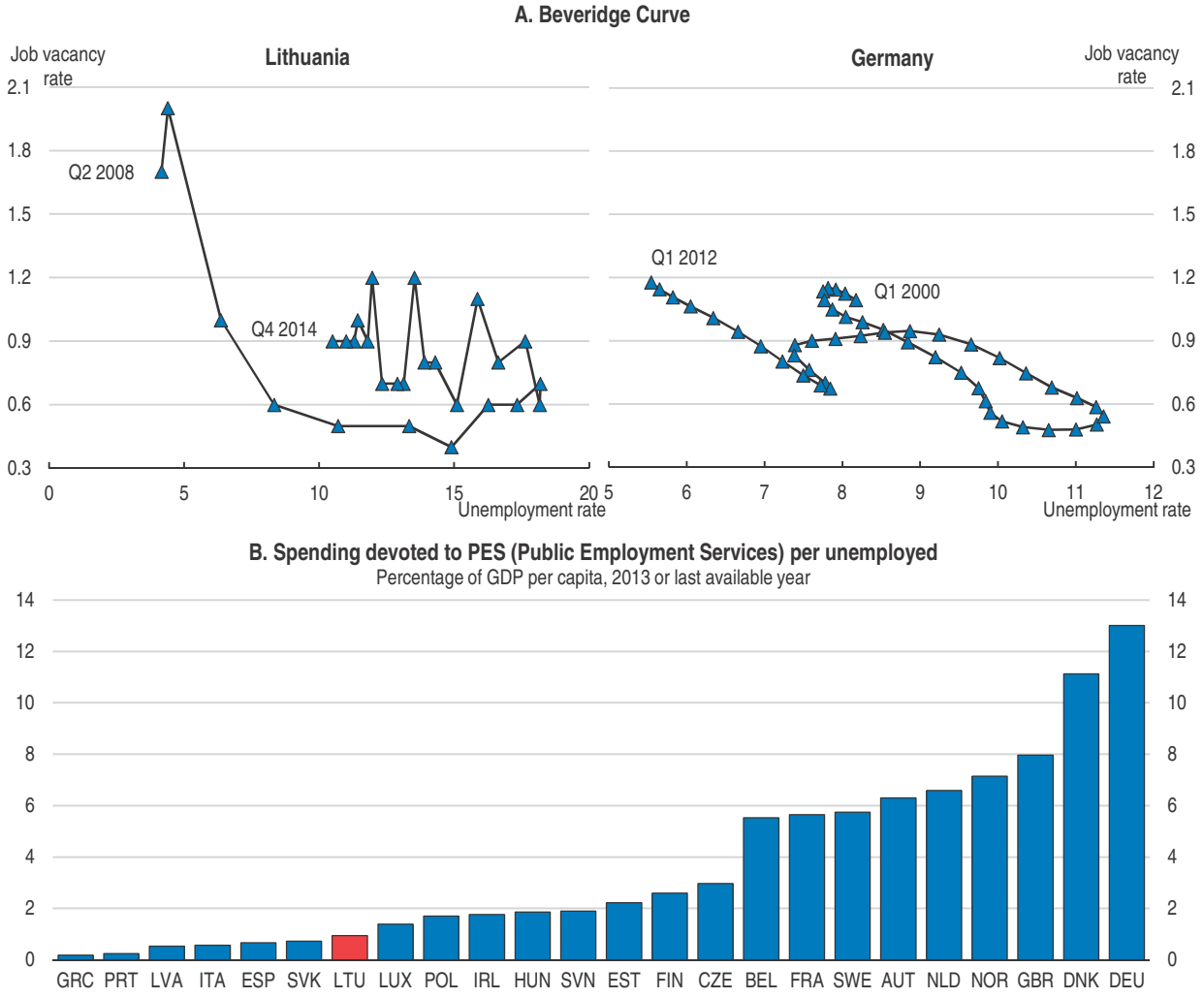
Source: European Commission, *Labour Market Policies Database* and OECD *Economic Outlook 98 Database*.

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Public employment services are understaffed. The caseload of officers dealing directly with jobseekers increased from 141 in 2008 to 300 in 2013 (European Commission, 2014). Such a caseload does not allow an officer to offer personalised services, such as individual interviews and updated action plans over the unemployment spell, although this has

proved critical for increasing outflows from unemployment and improving the matching between job seekers and jobs (OECD, 2015b; Card et al., 2015). Germany's experience suggests that the cost of additional workers (the caseloads in 14 PES services was reduced to an average of one officer per 80 job seekers) may be offset by reduced expenditures for benefits due to lower skill mismatches and a decline in unemployment periods longer than 10 months (OECD, 2015b; OECD, 2012; Figure 2.12).

Figure 2.12. **Public Employment Services don't have the capacities to tackle high skills mismatch**



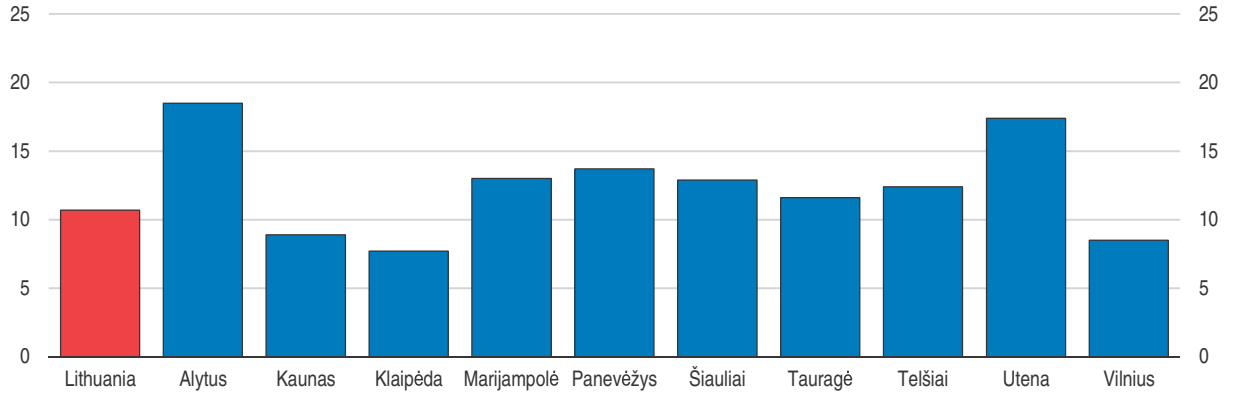
Source: OECD calculations based on data from *Statistics Lithuania*; OECD *Employment Outlook* 2014, Figure 1.6; European Commission, *Labour Market Policies Database*; OECD *Economic Outlook 98 Database*.

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High regional disparities in unemployment add to the challenge, and risk providing unequal support to the unemployed depending on the labour market situation at the local level. Regional disparities in unemployment are reflected by a difference of 10 percentage points between the most dynamic and the lagging regions. The unemployment rate varies between 7.7% in Klaipeda county and 18.5% in Alytus county (Figure 2.13). Strengthening the capacities and resources of PES in rural areas is therefore critical. Some interesting experiences have been noted, for instance in the Kaunas region where specialists were gathered in a

Figure 2.13. **Regional disparities in unemployment are high**

Unemployment rate by county, % of labour force, 2014



Source: Statistics Lithuania.

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taskforce working in remote areas ("Mobile groups") whose goal was to identify the main drivers of unemployment and to stimulate regional mobility of job seekers (OECD, 2015a).

On the positive side, Lithuanian PES has been very effective at developing e-services. Providing information on job vacancies and jobseekers' profiles is a critical part of the matching process. And recent tools such as an online vacancies database, Facebook profiling and counselling through Skype may help. The former covers three quarters of job openings; this is an important achievement in line with best practices, for instance in Germany where 50% of all vacancies are reported in PES (OECD, 2015a).

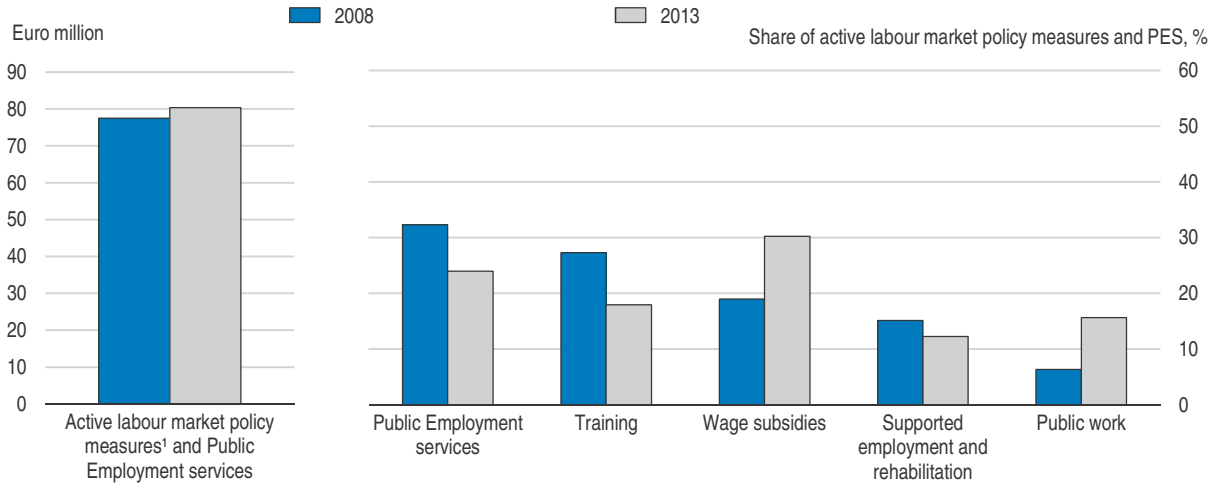
Promoting the most effective employment support programmes

Spending on ALMPs should be further regularly monitored and evaluated in order to target resources on the most effective programmes. To increase their effectiveness, international experience suggests that programmes should be tailored in line with country-specific characteristics. This requires strengthening a culture of evaluation based on the implementation of regular ex-post studies and pilot projects. Comparison with international best practices already suggests some directions for reforms.

Wage subsidies are the most important ALMP programmes in Lithuania (Figure 2.14). They are an important tool to promote the employability of low-skilled workers in the short term by bringing their labour cost in line with their productivity level. International experience suggests that they are effective at bringing people into the labour market, but they may have only short term effects and come with large deadweight losses, i.e. when hiring would have occurred without the subsidy (Kluve, 2010; Boone and van Ours, 2004). The cost effectiveness of wage subsidy programmes could be improved and potential deadweight losses reduced for instance by targeting wage subsidies to the most vulnerable youth rather than youth in general like in the programme "Support for the first job".

Training and re-training programmes help adapting the skills of workers and jobseekers to the needs of the labour market and to technical change. Evidence, however, is mixed on the effectiveness of such programmes to improve labour market outcomes. Training may reduce unemployment outflows in the short term as individuals engaged in such programmes reduce job-search activities, but in the medium-long term, effects have been found to be positive in particular on the quality and stability of the job found (Card

Figure 2.14. **Distribution of spending by active labour market policy measure and services**



1. ALMP measures (categories 2-7) cover training, wage subsidies, supported employment and rehabilitation, public work and start-up incentives.

Source: European Commission, *Labour Market Policies Database*.

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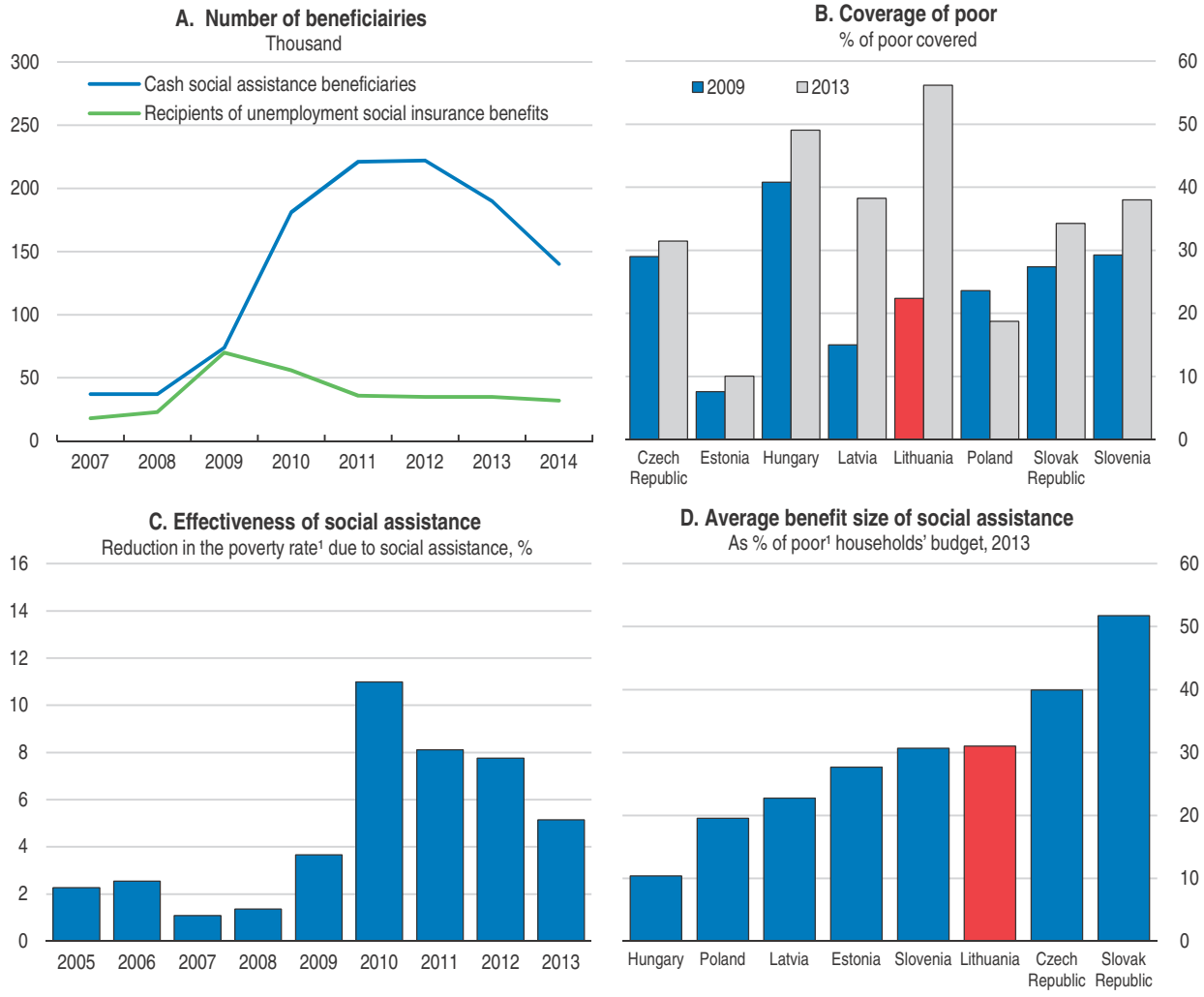
et al., 2015; Wulfgram and Fervers, 2013). Training programmes account for 24% of ALMP spending compared to 41% on average in the European countries and even 75% in Germany for instance. A new voucher programme, implemented in 2012, will further promote training activities thanks to greater flexibility, allowing the trainee and the employer to choose the training provider. The efficiency of the new training programme is high; 90% of people following vocational education found a job within six months, compared with 53% before (EC, 2014). However, care should be taken to avoid a selection bias resulting in low support for the unemployed who are most in need. Progress has been made in this area: long-term unemployed accounted for 20% of participants in training in 2013, compared with 9% in 2012 (NRP, 2014).

Public works programmes contribute to alleviating the poverty of individuals with poor employability and to maintaining social inclusion by providing income equivalent to the minimum wage, which is higher than social assistance. However, evidence suggests that their effect on employability for a regular job is limited (Card et al., 2010; OECD, 2009). Nevertheless, such programmes proved particularly useful during the last crisis, when job creation was low. In good times, such a programme maintains a link with the labour market for the most vulnerable and is rightly targeted at the long term unemployed (58%) and the jobless older than 50 (NRP, 2014). Mixed evidence regarding their potential effect in the long term suggests there is scope to reduce them further in favour of programmes that increase employability, such as training.

Making social assistance more effective at reducing poverty and at returning to work

With an underdeveloped unemployment insurance system, social assistance is a key component of the social protection system in Lithuania. Following the 2009 global financial crisis, the number of social assistance recipients increased significantly, to 5% of the population in 2014 after a peak at 6.7% in 2012. At the same time, the number of unemployment benefit recipients remained broadly constant, at about 3½ per cent and half the poor are still not covered by social assistance (see Figure 2.15, Panel A). The level of

Figure 2.15. **There is room for providing further protection against poverty**



1. Poverty line calculated each year at 60% of the median equivalised income.
Sources: Ministry of Social Security and Labour; Avram (2013) *update*, based on EU-SILC data; Lazutka (2014a) for Panel A.

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social assistance benefits constitutes another challenge: at less than half the poverty line (measured at 60% of the median income), it is currently insufficient to alleviate poverty. This situation suggests room for better designing support for out-of-work individuals. A reform of the social assistance system, therefore, appears complementary to the reform of the social model currently being debated in Lithuania. In particular, extending the coverage of the unemployment benefit system, as planned, would provide room for better support to the most vulnerable. This section provides directions for additional reforms that could complement the implementation of the flexicurity model in Lithuania.

Strengthening minimum income scheme

During the crisis, the social assistance system was effective in providing a last-resort buffer as reflected in the better coverage and the higher contribution of benefits to support consumption of the recipients and lower leakage of the benefits to non-poor:

- Eligibility for, and the level of, social assistance benefits are determined by the level of income compared to the Social Income Support (SSI), which sets the maximum level of

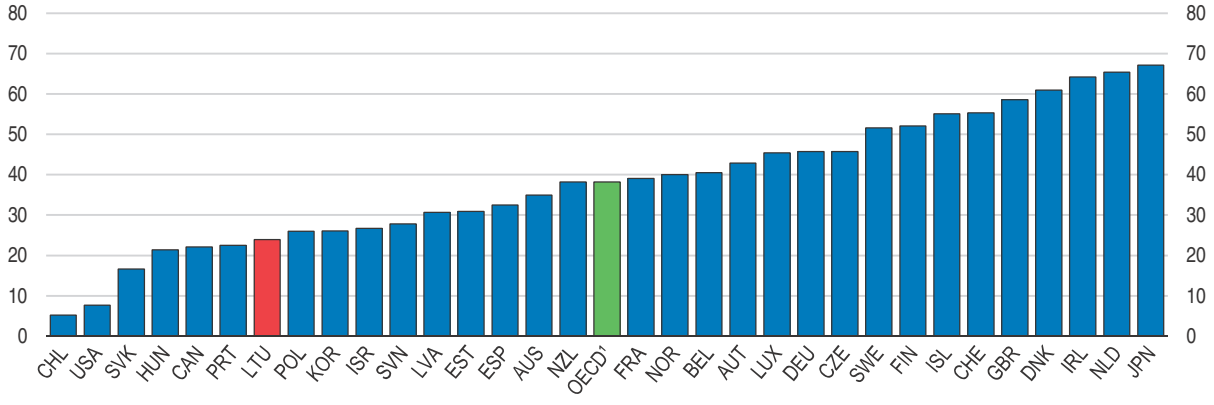
benefit (Box 2.2 below). Increase in the coverage since the crisis has been driven by the increase in the level of SSI just prior to the crisis, combined with the fact that the crisis has pushed more poor below the minimum income threshold below which individuals are eligible (see Table 2.1; Figure 2.15, Panel B).

- Similarly, the contribution of social assistance benefits to reduce the poverty gap has increased as the median income of the poor declined: from 9% of the gap on average between 2004 and 2008 to almost 21% in 2012. Social assistance benefits have made an important contribution to support the subsistence needs of the poor: benefits accounted for less than 20% of the poor budget on average between 2004 and 2008, and constituted more than 30% in 2012 after peaking at 40% of the budget in 2009 (Figure 2.15, Panels C and D).
- The efficiency of the system has also improved. Leakage of support to non-poor has been reduced from 50% in 2005 to 30% in 2012 (Avram, 2013).

However, the social assistance system does not provide a sufficient level of income to significantly alleviate poverty. The maximum level of benefits is 24% of median income, compared with 40% on average in OECD countries (Figure 2.16). This is below the absolute poverty threshold estimated just before the crisis by Zabarauskaite (2008), which according to the latest estimates by Lazutka (2015), covers only food expenses. In addition, the benefits fell over time for long term recipients (Box 2.2). This decline is unusual by international comparison as minimum income benefits are typically designed to meet some subsistence needs, which do not depend on the receipt duration. The lack of indexation of benefits adds to the challenge, because the fixed level of state-supported income since 2009 implies a falling support in real terms, though so far this effect has been limited by subdued inflation. All in all, there is scope for increasing the level of benefits accompanied by stronger employment support programmes.

Figure 2.16. **The level of minimum income is comparatively low**

Net minimum income value in % of median household income, 2013



Note: Data for single person, no child, qualifies for cash housing assistance.
1. OECD median.
Source: OECD, *Tax-Benefit Models*.

StatLink http://dx.doi.org/10.1787/888933339175

Box 2.2. **Main characteristics of the social assistance programme**

A social assistance benefit is means-tested and paid if the value of the property does not exceed that of the average set for the residential area and if the monthly income is below the level of state-supported income (SSI). Additional conditions on wealth are also set.

Box 2.2. **Main characteristics of the social assistance programme** *(cont.)*

The social assistance benefit for the poor is equal to 100% of the difference between the state-supported income per person per month and the actual income of a family (persons living together), 80% of the difference for the second member and 70% for third and any additional family member. Before 2012, 90% of the SSI income was applied for all members of the family.

Since 2012, the social benefit has been reduced for those beneficiaries who are entitled to it for periods longer than 12 months. There is a 20% reduction if the social benefit is paid 12-24 months; a 30% reduction for 24-36 months; a 40% reduction for 36-48 months, and a 50% reduction for 48-60 months.

The social benefit is not paid for a period of 24 months if the person was entitled to the benefit for more than 60 months (except social benefits paid for children, as well as adult children who study according to the general education curriculum and within the period of completion of the general education curriculum until 1 September of the same year).

Benefits recipients have to register at the local public employment service.

Social assistance system is administrated and funded by municipalities since 2015.

The administration of the municipality has the right to refrain from reducing the amount of the social benefit, provided that the local labor exchange office of Lithuania or the national employment service of another state does not offer a job or participate in the active labor market policy measures during the period when the social benefit was being provided.

Workfare programmes have been established and require social assistance benefit recipients to work for the municipality (40 hours per month).

In-work benefits were introduced: they are 50% of previous benefits for six months after long-term unemployment.

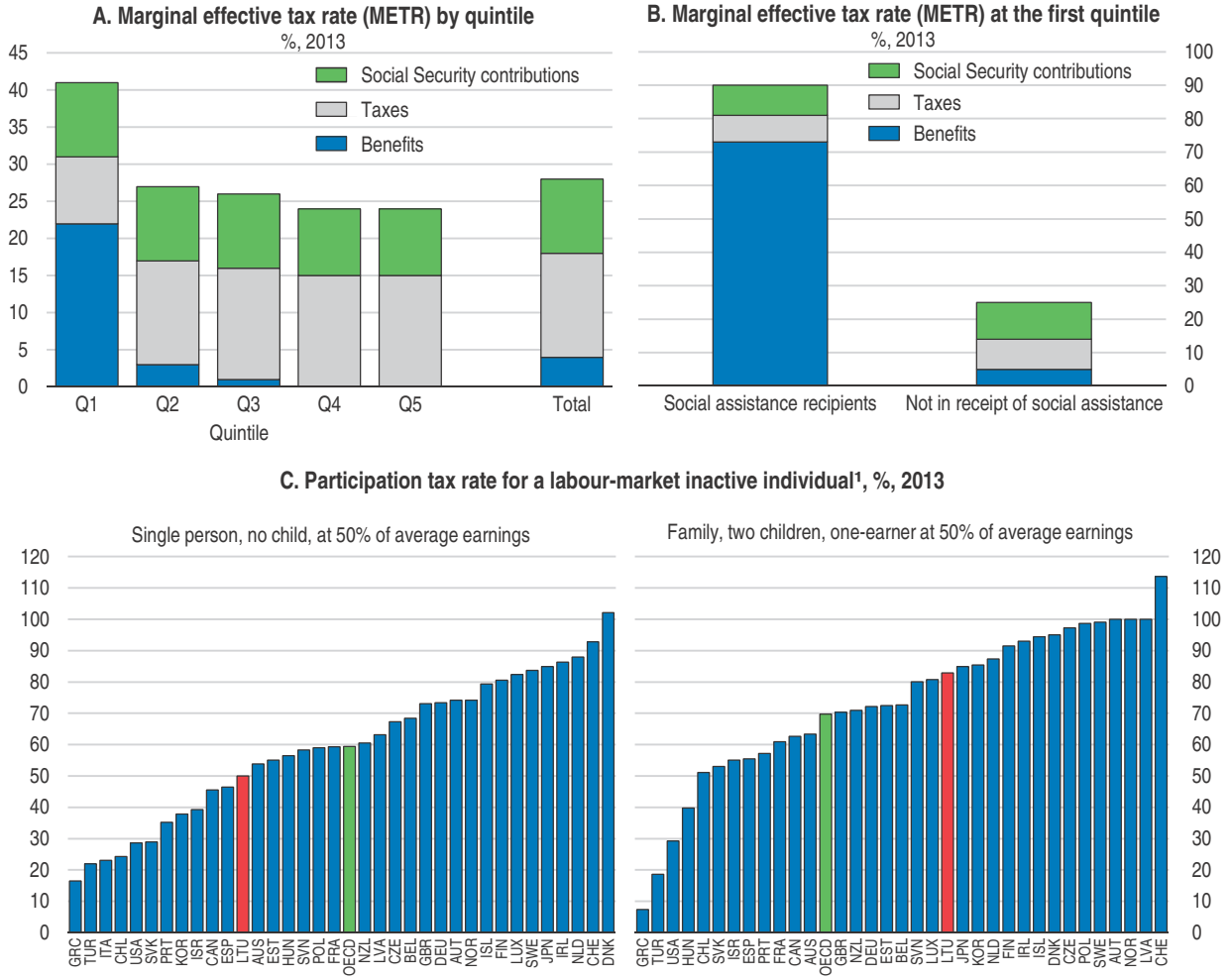
Source: Lazutka (2014b), and Ministry of Social Security and Labour (2015).

Improving financial incentives to take a job

Increasing the level of benefits to better protect the poor should not undermine the financial incentives to seek a job. The low level of benefits in Lithuania generates substantial financial incentives to work. However, the full withdrawal of benefits upon taking a job generates financial disincentives. This is in practice equivalent to taxation at 100% of the additional income up to the level of benefits previously received. This effect is strong in Lithuania where the effective taxation at the bottom of the distribution has been found to be higher than for other quintiles (Figure 2.17; Navicke, 2015, Latzuka and Poviliunas, 2010). In addition, an automatic withdrawal of benefits combined with a low level of support may also generate incentives to complement social assistance support by income drawn from non-formal activity. The establishment of in-work benefits for long-term unemployed recipients of social assistance has contributed to reducing those perverse effects (Box 2.3). However, the duration of the in-work benefit is limited to six months and it covers only social assistance recipients who were previously long-term unemployed. Extending the duration and the coverage of in-work benefits should be considered by the authorities as long as it is accompanied by strong job search and re-employment programmes.

The risk of entering an inactivity trap also depends on the size of the family (Figure 2.17, Panels C and D). This is due to the comparatively generous equivalence scales

Figure 2.17. **The financial incentives to take a job are lower at the bottom of the income distribution and for large families**



1. Average effective tax rates measure the extent to which taxes and benefits reduce the financial gain of moving into work. The estimates here relate to the situation of a person who is not entitled to unemployment benefits (e.g. because they entitlements have expired). Instead, social assistance and other means-tested benefits are assumed to be available subject to relevant income conditions. Where receipt of such assistance is subject to activity tests (such as active job-search or being "available" for work), these requirements are assumed to be met in the out of work situation. Cash housing benefits are calculated assuming private market rent, plus other charges, amounting to 20% of the full-time wage for all family types. The percentage of AW relates to the earnings from full-time employment of the individual moving into work.

Source: Navicke, 2015; OECD, *Tax-Benefit Models*.

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Box 2.3. **Making work pay – In-work benefits schemes in OECD countries**

Objective

In-work benefits strengthen incentives to work by widening the income gap between working and non-working. They are typically targeted to low income groups and therefore have to be phased-out at higher earnings level. They may reduce the incentive for recipients to work more hours and move to higher paid jobs. However, the positive effect on the extensive margin (taking up a job) is typically found to be higher than the potential negative effect on the intensive margin (reducing the hours worked). Furthermore, such benefits may reduce the incentive to underreport wages.

Box 2.3. **Making work pay – In-work benefits schemes in OECD countries** *(cont.)*

In-work benefits may have important distributional effects by reducing in-work poverty and inequality. This is particularly effective when wages inequality is high because targeting is easier. Because of the desirable effects on incentives to work, it is a cost-effective instrument, compared to other types of income transfers.

Design

In-work benefits can take several forms including a lump-sum payment, wage related transfers or a tax credit. Different designs exist depending on the objective, reducing the poverty at the family level while increasing incentives to work or increasing mainly the incentives to work for inactive or unemployed individuals.

The amount and phase-out criteria have a strong effect on behavior:

- In-work benefits associated with additional earning income can provide incentives to take up a job for complementary earning but results in a disincentive to work longer hours.
- Steep phase out may imply that working more does not pay; for instance the net income of a German single parent has been found to be similar if she earns 15% or 60% of the average wage.

The duration varies depending on the objective:

- Transitional benefits paid for a limited period after being hired (e.g. Australia, Belgium and Canada). They aim to increase the transition to employment.
- Permanent benefits can be paid, as long as the recipient meets the eligibility conditions (e.g. Belgium, Finland, Germany, France, United Kingdom). They can take different forms such as a tax concession, social security contribution exemptions or a refundable tax credit. Compared to transitory benefits, they have more pronounced effects on in-work poverty and distribution.

Size of the potential effect

A 1% change in the income gap between working and non-working is on average found to increase participation by 0.2%. This elasticity is found to be higher for women and lone parents, estimated to be between 0.3 and 1. The presence of children for women and being low educated increases also the elasticity. This elasticity needs however to be taken with caution as it relies on studies covering a period of strong labour market outcomes (Immervoll and Pearson, 2009).

Previous estimates were even higher. Initial studies at the OECD level showed that reducing the METR by 20% raises the probability to move from unemployment to employment by 10%. The strongest effect was found for second earners (OECD, 2005).

The potential effect is higher when the wage level is low.

Source: Immervoll and Pearson (2009), Immervoll and Scarpetta (2012).

for family members: while the support for single individuals is insufficient at 24% of median income, support for a married couple with two children reaches 42% of median income (OECD, SCOR database). As a result, moving from inactivity to a job at two-thirds of the average wage could generate a loss up to 83% of the additional income for the family while this loss is only 50% for singles (Table 2.2). Several options are possible to reduce this effect without undermining support for large families which could risk increasing inequalities. First, an increase in the level of the basic benefit, as discussed above, could be

Table 2.2. **The financial incentive to take a job depends on family status**

Panel A. Monthly amounts of the cash social assistance benefit for households with no other resource of living

Family type	Euros
Single person	101
Single parent, 1 child	182
Single parent, 2 children	253
Couple without children	182
Couple with 1 child	253
Couple with 2 children	324
Couple with 3 children	395

Panel B. Average effective tax rate when taking a job at 67% of the average wage

	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple
		No children			2 children	
Lithuania	**50**	**75**	**18**	**64**	**83**	**41**
OECD Average	59	68	26	59	69	35

1. Average effective tax rates measure the extent to which taxes and benefits reduce the financial gain of moving into work.
2. Person not entitled to unemployment benefit but entitled to social assurance.

Source: Latzutka, 2014b; OECD, *Wages and Benefits*.

accompanied by a flatter scale for the family (Avram et al., 2015). Second, in-work benefits could be designed to favour the second earner who is generally more sensitive to financial incentives to the extent that childcare facilities are provided (Immervoll and Pearson, 2009; OECD, 2005; de Boer et al. 2015).

Redesigning employment support policies for the most vulnerable

All social assistance recipients able to work have to register in their local labour exchange office, and this is also mandatory to benefit from public health insurance coverage, which adds another strong incentive. However, PES are responsible for ALMPs and municipalities for social assistance benefits. Stronger co-operation between PES staff and social welfare officers in municipalities would improve effectiveness of return to work programmes, especially for people with significant or multiple employment barriers who may require intensive and well-co-ordinated support. Such partnerships, developed for instance in Ireland, Finland and Switzerland, have proven to be effective (OECD, 2013b). International experience suggests that a multi-disciplinary working team is the best response to social exclusion, involving a social welfare officer, health specialist, psychologists and employment counsellors. Recent experience in Norway combining financial support and strong re-employment programmes for individuals at high risk of social exclusion in the context of the Qualification Programme, even though expensive, is interesting as it has increased the employment rate of hard-to-employ participants by 18% (OECD, 2015b).

Workfare programmes have been established to tackle the dependency of social assistance recipients on benefits and to fight fraud as workers in the informal sector should have difficulties combining their activity with municipalities' requirements (Lazutka, 2014a). Workfare programmes are targeted at long-term unemployed, non-paid and mandatory for those assigned to this programme by municipalities. As many as one-third of social assistance recipients are involved in such programmes (EC, 2015a). However,

international experience suggests that their effectiveness in improving the employability of recipients is limited (Crisp and Fletcher, 2008). Municipalities should hence rather focus in co-operation with PES on engaging recipients in productivity-enhancing programmes.

The sanctions on social assistance recipients who fail to comply with requirements appear strict in Lithuania, but severe sanctions may exclude the most in need. In Lithuania, all of the sanctions against claimants imply either suspension for at least three months or termination of benefits (Table 2.3). This is severe in comparison with other OECD countries, where a reduction of the benefit is applied or, at worst, a suspension until compliance is met. Along the same lines, a failure of social assistance recipients to attend an interview would result in a termination of benefits for six months in Lithuania, but only a suspension in many other OECD countries. This suggests some room to design more balanced sanctions in line with international evidence indicating that the mere threat of relatively minor sanctions can be effective at ensuring compliance with relevant eligibility criteria (Immervoll, 2009). Drop-out of vulnerable recipients is not desirable. Imposing a strong conditionality in terms of job search on the most vulnerable who are not able to work may only lead to a reduction in those applying for benefits, making them even more vulnerable to poverty and social exclusion. Those individuals need further support through the availability of social workers and in some cases, mandatory participation in programmes that increase their employability (Box 2.4).

Box 2.4. **Strategies for strengthening return to work of social assistance recipients**

Encouraging self-sufficiency while providing adequate assistance

- Attaching conditions to benefit recipient helps reduce benefit dependency and avoids a vicious circle of weak work incentives and low employability. However, strict eligibility conditions may lead some individuals to leave the system without being employed. This comes with several risks:
  - deeper poverty especially when social assistance plays a role of last resort income provider;
  - lower effectiveness of employment-oriented policies due to reduced access to integration measures;
  - stronger exclusion of the most in need who are willing but not able to comply with requirements.
- The notions of individual responsibility and mutual obligations are controversial when individuals face serious challenges to find paid work. A danger is to apply sanctions for not complying with work requirements to individuals who are not ready to work. International experience suggests a strong need to account for clients' circumstances.

Designing effective re-employment programmes

- Ensuring strong service capacities is key as social assistance recipients are less likely (compared to the unemployed) to succeed in an independent job search activity.
- Job search requirements backed by moderate sanctions have proven to be effective at promoting transitions to work. For instance, in the Netherlands, temporary sanctions up to 20% of the benefit in Rotterdam resulted in doubling transition rates from welfare to work.

Box 2.4. **Strategies for strengthening return to work of social assistance recipients** *(cont.)*

- People who are not ready to work should be engaged in programmes that increase their employability. Mandatory time-intensive counselling in Denmark and Norway have reduced barriers to employment without generating a lock-in effect given the initial weak employability of participants.
- Effects of workfare programmes are mixed. In Germany the effect of "one euro job" is found to be weak for long term employability. By contrast, the UK New deal for young people which was based on employment in the private sector was more successful.

Source: Immervoll, 2009b.

Table 2.3. **Sanctions against social assistance recipients who fail to meet requirements**

Missed requirement	Sanction	Duration
Failure to report change of household composition or change of income	Suspension for adults	3 months
Failure to attend work readiness interviews or training courses, to accept referrals to active labour market programmes, to accept referrals to job offers[1]	Termination	3 months
Received information from public controlling agencies about unreported work and/or unreported income	Suspension for adults	6 months
Failure to use all opportunities to collect income from all possible sources (e.g. alimony from parent living separately, other social benefits from social protection system)	Suspension for adults	Until requirement will be met
Failure to participate in useful for community (some kind of public work without remuneration) activities organised by municipality	Suspension f or adults	Until requirement will be met

1. However, The municipality can assess the reasons for non-compliance individually and suspend the sanction.
Source: Lazutka, 2014a, Ministry of Social Security and Labour.

The decentralisation of social assistance, begun in 2012, gave municipalities full responsibility for administrating social assistance and allocating funds. Since 2015, municipalities have also responsibilities of funding this programme. This has been accompanied by a substantial decline in the number of assistance recipients. The large differences among municipalities in the take-up of social assistance benefits by the poor, even after adjusting for labour market and demographic differences, suggests differences in the way the poor are covered despite what stated the law (Lazutka, 2014a). While decentralisation makes the system more responsive to local conditions, care should be taken that equal access to social assistance is provided. One way to ensure that no one is left behind is to establish a transparent and efficient appeals process. This would help to provide evidence on the frequency of unjustified sanctions, and on the differences in capabilities among municipalities to treat complex cases (Immervoll, 2009). Further analysis behind the decline of social assistance recipient is needed. The current monitoring of social assistance receipt patterns and benefit duration would help to provide a better understanding of the profile of social assistance recipients and benefit spells in each municipality.

Ensuring longer and healthier life for all

Better health and higher life expectancy for all Lithuanians would directly contribute to well-being, labour utilisation and inclusiveness. International experience suggests that this is a two-way causal relationship: health raises employment, but unemployment tends

to worsen health (Barnay, 2014). Along those lines, health policies appear integral to an inclusive growth strategy in Lithuania. The priorities are to strengthen equity, effectiveness and sustainability.

Life expectancy is low

Lithuania's health care system has undergone big transformations. It has moved from a fully centralised to a decentralised system that provides full coverage of the population (Box 2.5). Life expectancy has increased by almost five years since 1995 and child mortality is five times lower than in 1995. The authorities have managed to bring the proportion of Lithuanians reporting unmet needs for medical care down from 7% in 2005 to 3.2% in 2012, which was below the EU average of 3.6%. The occurrence of accidents at work is also significantly below the EU average, at 1% compared with 3% respectively.

Box 2.5. **Main characteristics of the health care system funding**

Late 1990s, Lithuania moved away from a system mainly funded through local and state budget to one funded by the National Health Insurance Fund (NHIF).

In 2012, the funding of the healthcare system was mainly based on social security contribution (58%), followed by out-of-pocket payments (32%), general government spending (9%) and private insurance (1%).

All residents and employed non-permanent residents must pay a health contribution (6% of taxable income for employees and 9% for the self-employed), plus there is a 9% payroll tax paid by employers.

The state covers vulnerable groups (children, elderly, disabled, unemployed, maternity leave), which account for about 60% of the population, resulting in a universal coverage system.

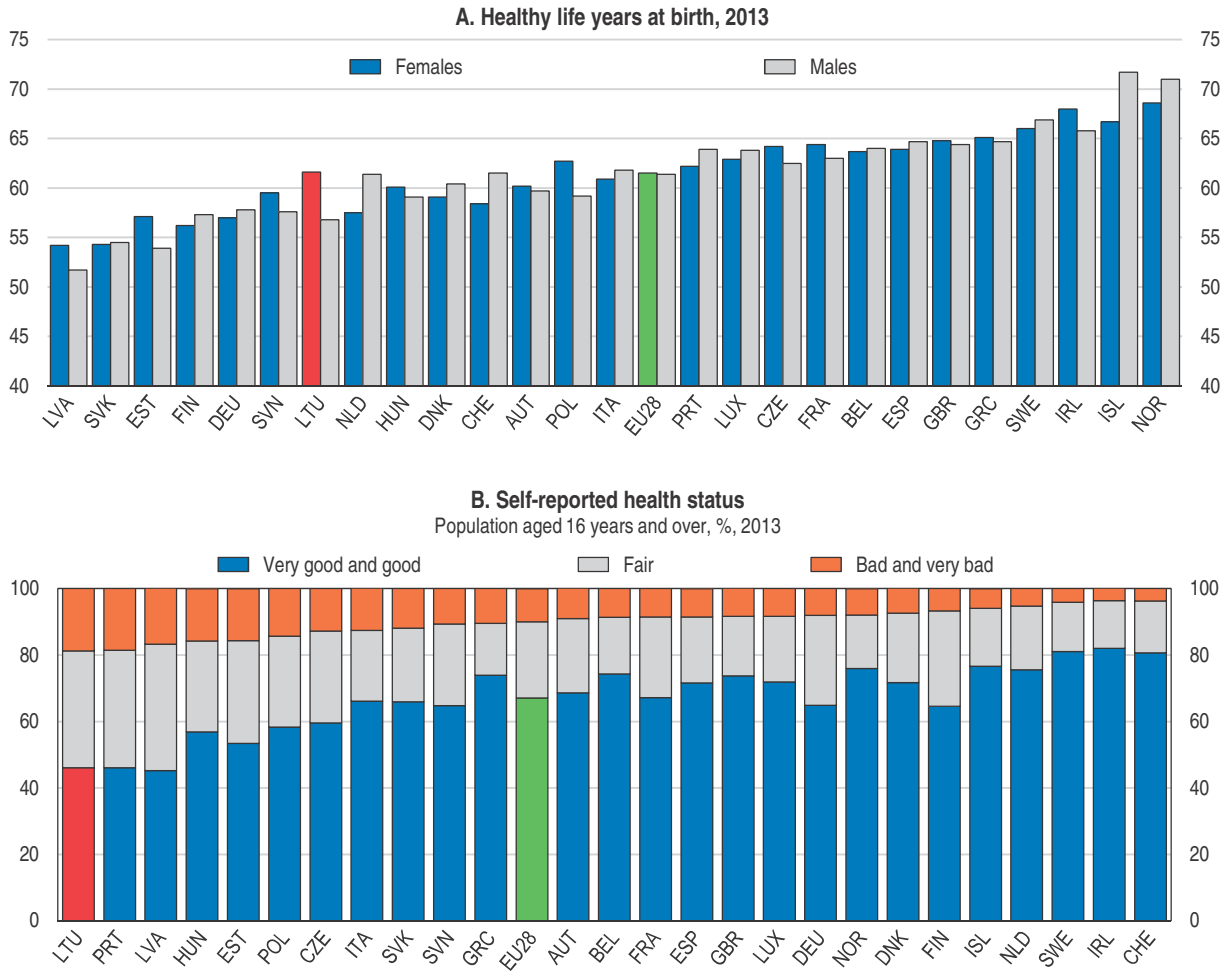
Source: Murauskiene et al., 2013; OECD, 2014c.

Despite significant progress, important challenges remain. Health issues appear to be a major source of dissatisfaction for Lithuanians when assessing their well-being (see Figure 2.1). Life expectancy remains low at 74 years compared with 80 on average in OECD countries. The gender gap is the largest in the EU, with a life expectancy for men at 69 years compared with 78 in OECD countries. Poor health outcomes have a direct impact on labour utilisation as one-fourth of Lithuanians report health-related limitations to their usual activities (OECD, 2014c). Along the same line, healthy life expectancy at birth is comparatively low for men, while women perform similarly to the European average (Figure 2.18, Panel A). Unhealthy lifestyles contribute to poor health outcomes: one-third of men smoke daily which is 10 percentage points above the OECD average and the consumption of alcohol per capita is above all OECD countries (OECD, 2015e). Overall, less than half of Lithuanians report having good or very good health status compared with more than two-thirds of Europeans on average (Figure 2.18, Panel B).

Improving the sustainability of the healthcare system

Along with the ability of the healthcare system to improve health status, the sustainability of the system in the long run is also an important issue for Lithuania, as in other OECD countries (Pisu, 2014). The ageing of the Lithuanian population adds to the

Figure 2.18. **Health indicators suggest large scope for progress**



Source: Eurostat *Heath Statistics Database*.

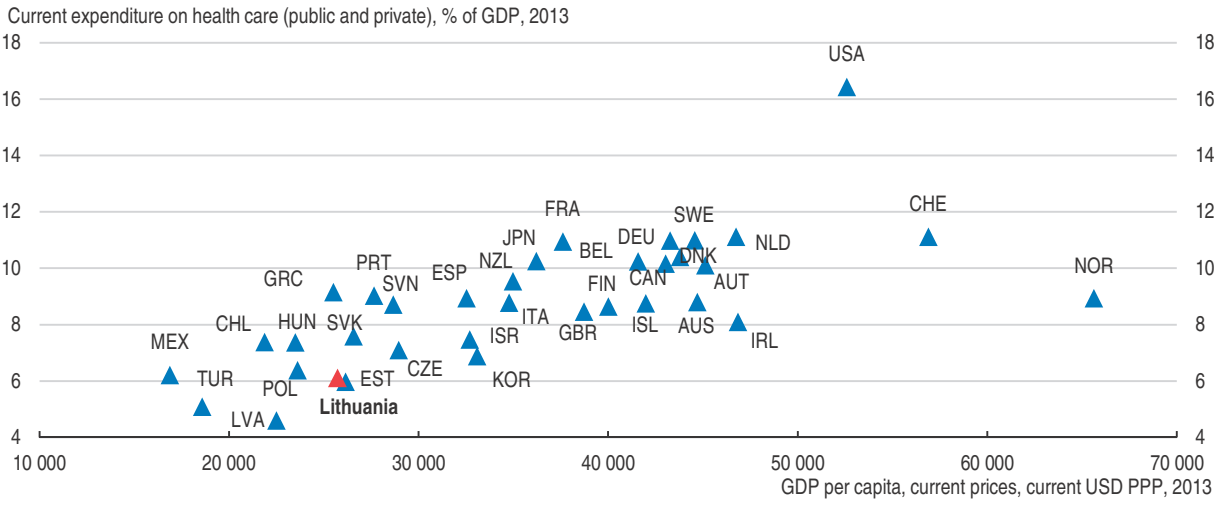
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problem: according to the European Commission, public expenditures related to health care and long term care will increase by 1.8 to 4.5 percentage points of GDP by 2060 (depending on the risk scenario; European Commission, 2015b). Efficiency should therefore be improved, while keeping an ambitious target for life expectancy and avoiding short-term savings that could have high costs in the medium-long term.

Lithuanian spending on health care rose to 6.7% of GDP in 2012 from 5.8% in 2005. This is similar to regional peers but low compared with most OECD countries (Figure 2.19). Important steps have already been taken to raise the efficiency of Lithuania's comparatively limited health care spending, including through the promotion of primary care, the streamlining of the hospital network and the improvement of governance:

- Since 2001, general practitioners have increasingly helped avoid unnecessary hospitalisation by acting as gatekeepers. As in other OECD countries, medical technology has reduced the need for hospitalisation and has led to introduction of day care and day surgery. EU funds have been notably used to promote those technologies (Murauskiene et al., 2013).

Figure 2.19. **Spending in health care is low but in line with peers**



Source: OECD *National Accounts Statistics*; OECD *Health Statistics*.

StatLink http://dx.doi.org/10.1787/888933339204

- The streamlining of the hospital network has contributed to more efficiency and safety for patients. A reform implemented in 2010-11 requires regional hospitals in particular to meet two basic criteria: ensuring the implementation of more than 1 100 major surgeries and more than 300 childbirths. The number of hospitals was reduced from 8.8 beds per 1 000 inhabitants in 2000 to 7.3 in 2012. Savings made by the reorganisation of inpatient care have been used to strengthen outpatient alternatives in both primary and secondary care which increased by 30% since 2005, partly financed by EU Structural Funds (Stamati and Baeten, 2014).
- Since 2012, the financing method for hospitals is based on diagnostic-related group (DRG), which has contributed to improving cost efficiency in the hospital network as patients within each category are clinically similar and are expected to use the same level of hospital resources.
- Municipal level spending on nursing and long-term care increased during the crisis, and more geriatric services for the elderly population were introduced in 2010. Specific attention was focused on the elderly with the creation of an integrated system of diagnostic, health care, and social services, which also covered surgical operations and dental care (Stamati and Baeten, 2014).

There is still scope for further consolidating the hospital network. The density of hospital beds, estimated at 7.3 beds per 1 000 inhabitants in 2012, remains higher than the European average at 5.2 beds. The number of hospitals is also comparatively high, at 3.5 hospitals for 100 000 inhabitants compared with 2.7 on average in Europe (WHO database). Since 2015, the authorities have launched the fourth stage of consolidating the hospital network. Measures to ensure equal access to health over the territory should be complementary, with a special attention to rural areas characterised by lower life expectancy (see below). There is also scope for further promoting day care. For instance, 80% of cataract surgeries are performed in day care on average in European countries, with many countries close to 100%. In Lithuania, the number of day care cataract surgeries is closer to 20% (OECD, 2014c).

Improving the provision of health facilities and the quality of services requires further governance reforms to strengthen the accountability of healthcare providers and hospitals (World Bank, 2009). The authorities have made significant progress in implementing strategic planning, streamlining existing strategic plans and improving the quality of monitoring and evaluation systems. There is room to further promote the notion of open government, including by making more visible the results of policy actions, by further involving stakeholders and patients, and by further promoting the use of e-technologies in the healthcare sector (OECD, 2015c). Steps have been taken to strengthen the accountability of healthcare providers and hospitals by making information on performance publicly available. For instance, information about waiting times in hospitals has been made public and since 2012 a set of health quality assessment indicators has been collected (Medaiskis and Jankauskiene, 2013). However, an annual ranking of hospitals is not published on a regular basis. There is also scope for further promoting the use of the newly established e-health infrastructure to make it an effective instrument of communication among health care. Promoting the use of electronic records could in particular be a win-win policy that improves the quality of care while controlling spending as it helps co-ordination between providers, reduces the duplication of tests and allows more control over a potential harmful combination of drugs. While short-term costs constitute barriers to their utilisation, the authorities could look at the experience of Belgium and Denmark which provided incentives to doctors. More importantly, implementing such tools requires the capacity to ensure the security and privacy of patients. Specific attention should be given to those issues.

Strengthening primary care and prevention policies

Primary care could make a stronger contribution to reduce amenable mortality, or death that could be avoided by early diagnosis. Primary care services are the first point of contact with the health system for many patients. Lithuania's healthcare system during the Soviet period was based on a centralised, highly regulated and hospital-oriented system (*Semashko* organisational model). Since 1995, general practice (GP) and development of prevention services have been promoted. Since 2001, patients are required to register with GPs who act as gatekeepers and co-ordinators for access to health care (Murauskiene et al., 2013). Those measures have resulted in an increase in the number of family physicians from 5 per 10 000 inhabitants in 2000 to 9 per 10 000 inhabitants in 2012. The development of the primary care network has also contributed to reduce waiting times: about 90% of healthcare centres kept waiting times for consultation below 10 working days (Stamati and Baeten, 2014). The quality performance pay system also provides incentives to physicians to follow prevention policy. About 12% of physicians' earnings are bonuses paid based on indicators such as child care coverage, cancer prevention, and the number of patients visited once a year for a check-up (Jurgutis et al., 2011). However, the culture of prevention needs to be developed further. Despite progress, the Lithuanian healthcare system still relies too much on hospital care (Murauskiene et al., 2013). This is indicated by a hospitalisation rate of 22% which is higher than peers and European countries.

The role of nurses in preventive health could also be stronger as practiced in Finland, the United Kingdom and Canada (OECD, 2014c). This has proven efficient at reducing waiting times for minor illnesses and health prevention. In Denmark and the UK, nurses can visit patients with minor health problems and prescribe drugs. Sweden and Denmark

have also created nurse-led clinics (Masseria et al., 2009). Some steps in that direction have already been taken in Lithuania. In 2010, home nursing services started treating patients with "special needs" by teaming family doctors with nurses and social care professionals.

Reducing inequality in access to healthcare

Reducing health inequality would significantly improve the well-being of the most vulnerable as well as their labour market participation. Sharp mortality differentials between various socio-economic backgrounds and difference in health status in Lithuania are a reflection of educational attainment and occupations (Jasilionis and Stankuniene, 2012). About 64% of men and 69% of women with university education assess their health as good compared with 51% of men and 40% of women with secondary education (Murauskiene et al., 2013). Individuals who are unemployed, inactive, and with an education below the lower secondary level, especially manual workers and farmers, are associated with a significantly higher mortality risk. A hypothetical exercise consisting of removing the mortality differential associated with differences in educational attainment suggests the change would mean avoiding 35% of male deaths. The effects are found to be even greater when looking at avoidable mortality linked to occupational group or activity status (Jasilionis and Stankuniene, 2012).

The causes of excess mortality of the lower educated are mainly cardiovascular diseases, infectious diseases and diseases of the respiratory system as well as often linked social pathologies (alcoholism, smoking, and violent deaths). This suggests the prevalence of unhealthy lifestyles (smoking and alcohol consumption), poor psychosocial conditions, and lack of access to modern medical treatment and prevention among the lower socioeconomic groups in Lithuania (Jasilionis and Stankuniene, 2012).

Excise taxes have proven to be an efficient tool to promote healthy behaviour. International experience suggests for instance that higher taxes have been an important anti-tobacco policy that is particularly effective among younger age groups, indicating that price signals play an important role in the smoking issue. The increase of excise tax on cigarettes, which is still below the European average, may contribute to tackle the problem of excessive tobacco consumption in Lithuania. However, the room for further increases of excise taxes on alcohol may be limited as it is already above the European average. In addition, the effectiveness of such a tax may be reduced by the proximity to Belarus and Russia (where alcohol is cheaper) and the associated black market for alcohol products.

The access to high-quality-services in rural areas is an important priority to reduce inequality in health care in Lithuania. Life expectancy is on average three years lower in rural areas, and 23 municipalities (out of 60) have mortality due to circulatory disease which is 20% above the national average (Ministry of Health).The population in rural areas tends to make fewer visits to physicians compared with urban areas (6.2 visits per year on average compared to 10.2 visits). This is likely related to the lower density of physicians which varies by a factor of 7 within Lithuania (Murauskiene, 2013) but also to lower health literacy. The authorities are aware of these issues and have taken some action:

- The Lithuania Health Programme 2014-25 includes the development of a monitoring system of health inequalities that will help target the at-risk population and the promotion of an integrated health policy involving health, education and social institutions. Specific actions are targeted at municipalities with the highest rate of premature mortality and population at-risk. Since January 2014, public healthcare

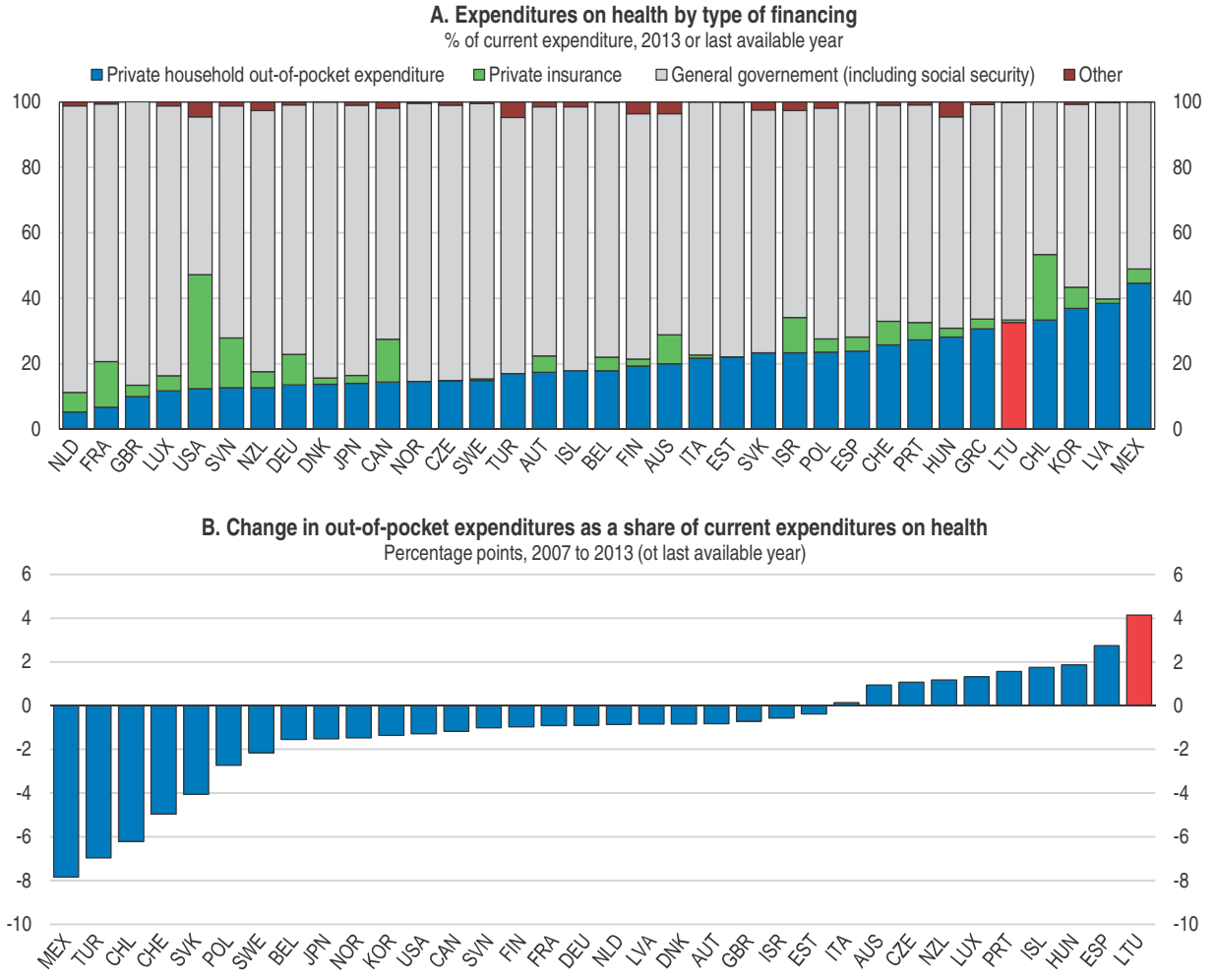
activities have been promoted in pre-school education, general education and VET. Public health policies were also adopted in 2002 and 42 municipal public health bureaus are now in charge of monitoring and promoting health status at the local level.

- Scarcity of some health equipment may also reduce access to quality healthcare services, especially when it is associated with large regional variation. For instance in 2010, Lithuania had 5 MRI Units per million inhabitants which is half the EU average (Murauskiene et al., 2013). EU funds have made an important contribution to improve the quality of healthcare services in rural areas and to the adoption of technologically advanced facilities and equipment. With an investment in capital of 1.5 billion euros between 2004 and 2013, EU funds have been the main source of investment in the healthcare sector (Ministry of Health) and have in particular allowed bringing the number of MRI and scanners per capita at the European average (OECD, 2014c).
- During the 1990s, municipalities became responsible for providing a substantial share of primary healthcare services through primary care centres, polyclinics and the administration of small- to-medium-sized hospitals (Medaiskis and Jankauskiene, 2013). Since 2011, a return to more centralisation has been experienced by reducing the responsibility given to counties in the administration of hospitals. This reform has likely contributed to improving the quality of healthcare as the 60 Lithuanian municipalities which vary from 5 000 to 500 000 don't always have the capacity to effectively govern these facilities (Murauskiene et al., 2013).

The high level of co-payments which is estimated at almost one-third of health care spending in Lithuania can also contribute to inequalities in health outcomes (Figure 2.20). Three-quarters of co-payments concern pharmaceutical expenditures. Pharmaceutical drugs are reimbursed for certain groups of the population (children, pensioners, disabled and for patients suffering from certain diseases), but others must pay the full cost, leading to large out-of-pocket payments. Several plans have been adopted since 2009 for reducing prices and improving accessibility. This has allowed the average price of a prescription to decrease by about 13% between 2009 and 2011. The price of generic alternatives was cut by 30% and 20 generics were included among reimbursable drugs (Stamati and Baeten, 2014). Measures to reduce pharmaceutical expenditures have involved all players in the pharmaceutical market and have included setting maximum mark-ups, unifying retail prices, more permissive conditions on imports, and prescribing the exact quantity of medical products. Despite such progress, Lithuania is still among the countries that experienced the highest increase in co-payments between 2007 and 2013 (Figure 2.20). Promoting further the use of generics could help reduce out-of-pocket payments (IMF, 2015).

Tackling corruption is another crucial area for promoting inclusive health in Lithuania. Recent studies reported that 35% to 50% of Lithuanians have paid a bribe in exchange for health care services (OECD, 2015c, Stepurko et al., 2015; Figure 2.21. Informal cash payments are sources of inequality because they reflect the failure to provide a standard quality of care for all. The median value of a payment is substantial, estimated to average the annual minimum wage per year (Stepurko et al., 2015). Informal payments are more developed in inpatient than outpatient care (Murauskiene et al., 2013). Tackling corruption in the health sector is among authorities' priorities and measures already taken have included changing behaviours by reducing tolerance to corruption and gifts; making the declaration of additional income/interest mandatory for doctors, dentists, pharmacy specialists and the establishment of a hot line to report informal payments.

Figure 2.20. **Out-of-pocket payments in health care are high and increasing**

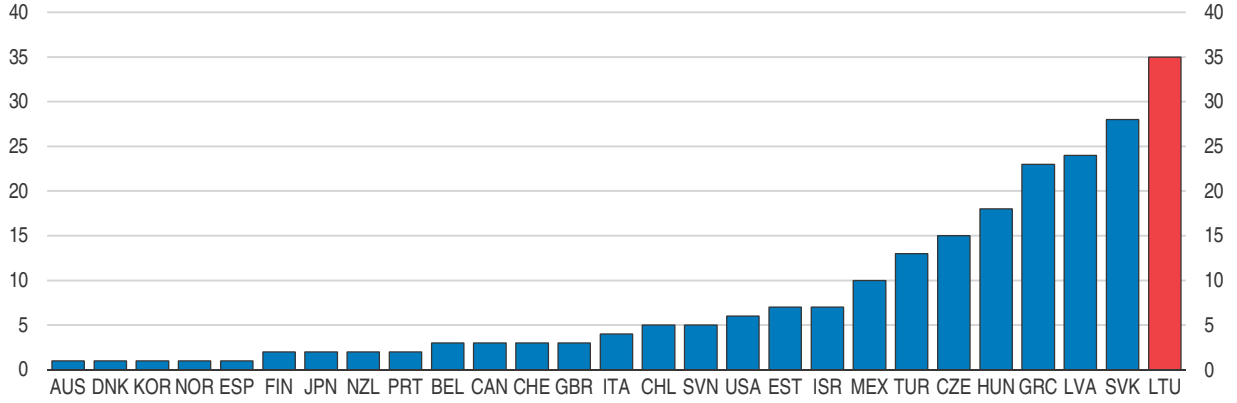


Source: OECD *Health Statistics*.

StatLink http://dx.doi.org/10.1787/888933339217

Figure 2.21. **A large share of Lithuanians report informal payments in the health sector**

People reporting having paid a bribe for medical and health services in the past 12 months, %



Source: Transparency International, Global Corruption Barometer 2013.

StatLink http://dx.doi.org/10.1787/888933339220

Recommendations for promoting inclusive growth

Promoting more and better jobs

- Improve inclusiveness by providing in-work benefits for low-paid jobs and increasing access to lifelong learning.
- Lower employer social security contribution on low-skilled workers while maintaining their entitlements.
- Ease the legislation on employment protection by reducing the restrictions existing on individual dismissal and on the use of temporary contracts, and ensure the enforcement of the law.

Providing adequate support to the unemployed

- Implement the plans in the "New Social Model" to reform labour regulations and temporary income support for the unemployed.
- Strengthen active labour market programmes and the capacities of public employment services to implement programmes to get people back to work, in particular training.

Making the social assistance more effective at reducing poverty

- Increase the income support to social assistance recipients while strengthening work incentives.
- Extend in-work benefits to a broader range of out-of-work individuals who take a job, in particular the second earners of large families and the social assistance recipients who are currently not eligible to in-work benefits.
- Strengthen the return to work of social assistance recipients by promoting joint programmes between PES and municipalities.
- Revise sanctions against claimants to make sure that recipients willing to comply but unable to do so are not further weakened.

Ensuring longer and healthier life for all

- Further promote healthy lifestyles and primary care services, especially in rural areas through general practitioners, greater role for nurses and the recently established network of public health bureaus.
- Increase health sector efficiency and effectiveness of health policy by continuing to merge hospitals and widening the scope for the newly established e-health infrastructure while fully respecting privacy concerns.

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