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**Country Report Lithuania 2015**

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# CONTENTS

<a href="#">Executive summary</a>	1
<a href="#">1. Scene setter: economic situation and outlook</a>	3
<a href="#">2. Structural issues</a>	10
<a href="#">2.1. Taxation, fiscal framework and long-term fiscal sustainability</a>	11
<a href="#">2.2. Pensions and active ageing</a>	13
<a href="#">2.3. Banking, financial stability and access to finance</a>	15
<a href="#">2.4. Social and labour market policies</a>	17
<a href="#">2.5. Education and skills</a>	23
<a href="#">2.6. Business environment, innovation and state-owned enterprises</a>	25
<a href="#">2.7. Infrastructure and the environment</a>	29
<b><a href="#">AA. Overview Table</a></b>	<b>32</b>
<a href="#">AB. Standard Tables</a>	37

## LIST OF TABLES

<a href="#">1.1. Key economic, financial and social indicators - Lithuania</a>	7
<a href="#">1.2. Macroeconomic Imbalance Procedure (MIP) scoreboard indicators - Lithuania</a>	8
<a href="#">AB.1. Macroeconomic indicators</a>	35
<a href="#">AB.2. Financial market indicators</a>	36
<a href="#">AB.3. Labour market and social indicators</a>	37
<a href="#">AB.4. Taxation indicators</a>	38
<a href="#">AB.5. Expenditure on social protection benefits (% of GDP)</a>	39
<a href="#">AB.6. Green growth</a>	40
<a href="#">AB.7. Product market performance and policy indicators</a>	41

## LIST OF GRAPHS

<a href="#"><u>1.1. External and domestic demand, contributions to growth</u></a>	3
<a href="#"><u>1.2. Labour market</u></a>	3
<a href="#"><u>1.3. Working age population aged between 15 and 64 (2013=100)</u></a>	4
<a href="#"><u>1.4. Labour productivity (per person employed, 2005=100)</u></a>	4
<a href="#"><u>1.5. Break-down of potential growth</u></a>	4
<a href="#"><u>1.6. Breakdown of debt by sector, ESA 2010 (non-consolidated)</u></a>	5
<a href="#"><u>1.7. Non-performing loan ratio, and domestic credit growth</u></a>	5
<a href="#"><u>1.8. Energy import dependency</u></a>	6
<a href="#"><u>2.1.1. Tax burden as % of GDP (contribution)</u></a>	11
<a href="#"><u>2.2.1. Old-age dependency ratio</u></a>	13
<a href="#"><u>2.4.1. Change in total and working-age population (Index 100 = 2013)</u></a>	17
<a href="#"><u>2.4.2. Unemployment by skill level (%)</u></a>	18
<a href="#"><u>2.4.3. At risk of poverty and social exclusion (AROPE)</u></a>	19
<a href="#"><u>2.6.1. Business expenditure on R&amp;D (BERD) as % of GDP</u></a>	24

## LIST OF BOXES

<a href="#"><u>1.1. Economic surveillance process</u></a>	6
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## EXECUTIVE SUMMARY

**Despite increased external risks, Lithuania is expected to continue to achieve solid growth in the short term.** Lithuania showed remarkable adjustment capacity in the wake of the financial crisis. Its regained competitiveness has supported solid growth in recent years, which averaged around 3.3% per year from 2012 to 2014. This was initially led by exports, but domestic demand has now taken over as the main growth engine. It is expected that domestic demand growth will carry its momentum into 2015, largely driven by rising wages, falling unemployment and subdued inflation. For 2015, Lithuania's real GDP is expected to grow by 3.0%, according to the European Commission 2015 winter forecast. Unemployment is set to further continue its downward trend to 8.7% in 2015. However, despite the solid gains in employment, structural challenges persist, particularly demographic ones. As regard the external environment, growth in the EU is expected to remain weak and downside risks persist as geopolitical tensions between Russia and the EU mount.

This Country Report assesses Lithuania's economy against the background of the Commission's Annual Growth Survey which recommends three main pillars for the EU's economic and social policy in 2015: investment, structural reforms, and fiscal responsibility. In line with the Investment Plan for Europe, it also explores ways to maximise the impact of public resources and unlock private investment. The main observations and findings of the analysis are:

- **The tax system has not exploited the scope available for the use of growth friendly taxes.** Tax revenue is to a large extent dependent on indirect and labour taxation, while the percentage of revenue contributed by environmental or wealth taxation remains very low. There are some risks to the sustainability of the current pension system as it does not adequately take into account the effects of a shrinking and ageing population.
- **The working age population is shrinking rapidly, possibly slowing down potential growth.** Population decline is due to negative demographic developments but aggravated by net emigration and poor health outcomes as illustrated by low life expectancy and high morbidity rates. Coverage of active labour market policies remains low and focuses still too much on less effective measures. Young people still face some difficulties to integrate into the labour market.
- **The Lithuanian labour market has to a large extent proven its flexibility.** Nevertheless, the legislation on employment protection is outdated. High redundancy payments and long notification periods have led to weak enforcement and overall governance of labour relations. Social dialogue mechanisms are weak.
- **The population at risk of poverty and social exclusion in Lithuania remains high.** With more than 30% of its population being at risk, Lithuania ranks among the worst performers in the EU in this respect. Although the situation has improved somewhat in recent years, the poor overall situation raises concerns about the adequacy of the Lithuania's social measures.
- **Lithuania has enjoyed easy gains from catching-up thanks to relatively cheap, but qualified labour and the adaptation of existing technology. However, these are set to come to an end.** Skills shortages have emerged and are expected to become more acute in the future. In addition, the education and training on offer is not always relevant to the labour market which may negatively affect the quality of the labour force.
- **Private sector investment, in particular into research and innovation is low, which may have negative repercussions for long-term growth.** Lack of alternative financing sources hinders investment into riskier projects, as banks tend to be risk averse.
- **Lithuania will need to continue to work on ensuring security of energy supply and competition on its energy market. Several projects have been launched, and some have already been implemented, but more progress is needed. Energy-intensity in Lithuania is high making it one of the least energy-efficient countries in the EU.** Lithuania's high energy intensity continues to fuel energy imports, partially offsetting recent

efforts to boost energy security. In addition, Lithuania is likely to miss its Europe 2020 greenhouse gas emission targets.

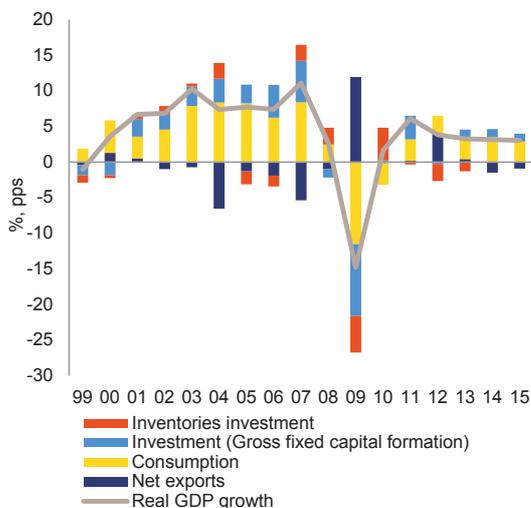
**Overall, Lithuania has made some progress in addressing the country-specific recommendations.** As regards the recommended strengthening of the budgetary strategy and review of the tax system, some minor revenue-increasing measures have been adopted. Lithuania has transposed the Fiscal Compact into national law, but its fiscal framework still has room for improvement: in particular, binding expenditure ceilings are yet to be implemented. Relatively minor measures have been adopted for the recommended comprehensive pension reform, but these fall short of addressing the medium-term challenge of pension system sustainability. On social protection and labour market policy, the government is considering a number of relevant policies but these have not yet been adopted. Initial steps have been taken to accelerate housing renovation in order to increase energy efficiency. Lithuania has made some progress on upgrading its energy infrastructure. It has opened the first liquefied natural gas terminal in the Baltic States, and its continuing efforts to improve its gas and electricity interconnections with its neighbouring states will further strengthen energy supply security. Finally, Lithuania has made substantial progress on reforming state-owned enterprises and has enacted respective legislation to ensure that the effects of the reform are lasting. Therefore, the reform of state-owned enterprises may be considered almost complete.

# 1. SCENE SETTER: ECONOMIC SITUATION AND OUTLOOK

## Growth, labour market, and inflation

After a major recession (with one of the sharpest declines in real GDP across the EU in 2009), the Lithuanian economy has returned to strong and steady growth path, with real GDP growing around 3% in recent years. Following an export-driven recovery, strong domestic demand took over as the main growth driver in the course of 2013 (Graph 1.1). Lithuania's real GDP growth rate is estimated to have reached 3.0% in 2014 and is expected to grow at a similar rate over the next years. Despite continued geopolitical uncertainty and the expected recession in Russia, private demand is forecast to remain strong as wage growth, and subdued inflation should strengthen household disposable income.

Graph 1.1: External and domestic demand, contributions to growth



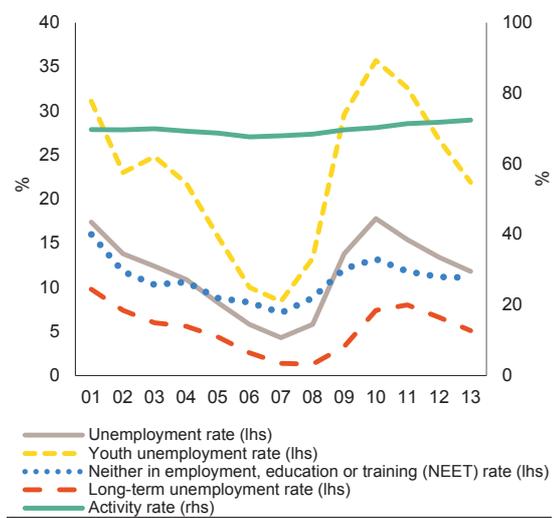
Source: European Commission

Private investment grew strongly in the first half of 2014, but seems to have slowed down in the second half of the year due to lower economic sentiment. It is expected to pick up in the course of 2015-16 as companies' capacity utilisation is at a historically high level. In addition, EU co-financed projects are expected to support public and private investment in the future.

Lithuania's labour market is recovering (Graph 1.2). The unemployment rate declined by around two percentage points every year in 2010-2014. This trend is expected to continue in 2015.

However, the country faces broader human capital development and skills supply challenges, as illustrated by Lithuania's relatively low performance on basic skills in the PISA survey. In addition, the labour market relevance of education and the low rate of adult learning remains a weakness.

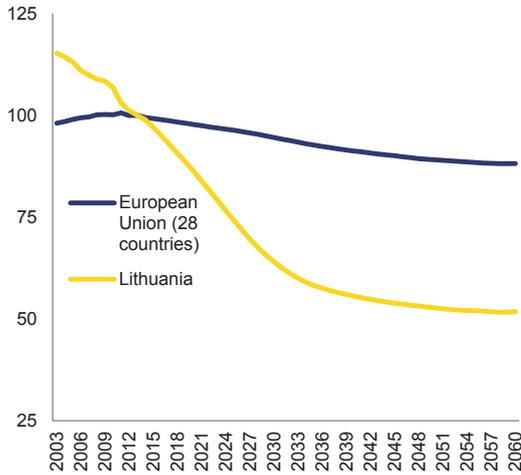
Graph 1.2: Labour market



Source: European Commission

Lithuania is the EU's fastest ageing country. Its working-age population is shrinking significantly, both because of negative natural growth and high and persistent emigration, especially of young people (Graph 1.3). If this steep fall in is not compensated by return migration or new immigration, it will jeopardise the availability of suitable labour resources and will challenge the sustainability of long-term economic growth prospects and social security systems especially the pension system.

Graph 1.3: Working age population aged between 15 and 64 (2013=100)



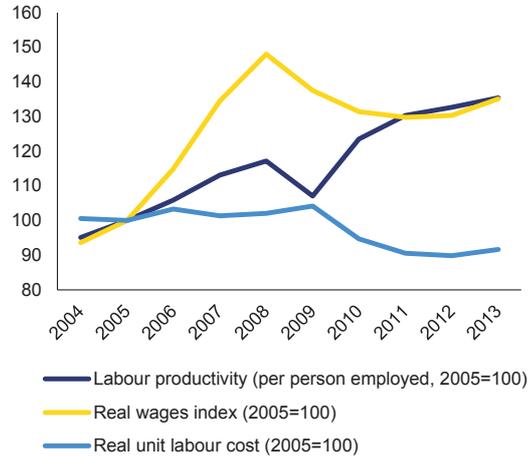
Source: European Commission

**Inflation as measured by the harmonised index of consumer prices (HICP) declined in the course of 2014.** The HICP index reached 0.2% in 2014 mainly due to low energy and food prices. Inflationary pressures are set to remain subdued in 2015. Continuing low oil prices are expected to dampen potential one-off effects resulting from Lithuania's accession to the euro area on 1 January 2015. Low oil prices are also expected to dampen higher prices in the service sector.

#### Labour productivity, wages and costs

**Favoured by falling unit labour costs (Graph 1.4), Lithuania has managed to achieve a remarkable recovery.** Looking ahead, however, a tighter labour market and slowing productivity growth are set to increase unit labour costs and thus weaken Lithuania's competitiveness.

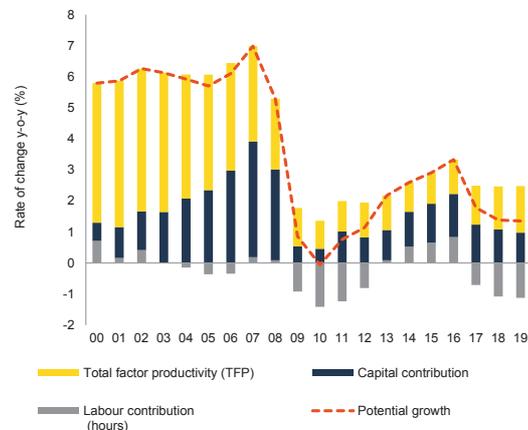
Graph 1.4: Labour productivity (per person employed, 2005=100)



Source: European Commission

**Total factor productivity growth and increasing capital growth rates fuelled Lithuania's catch up process, before the start of the crisis in 2009 (Graph 1.5).** Since then, growth rates have declined, and the shrinking working age population will put further downward pressure on potential growth. Against this backdrop, Lithuania faces the challenge of managing the transition from a low-cost, low-tech economy to a more skills- and innovation-intensive economy.

Graph 1.5: Break-down of potential growth



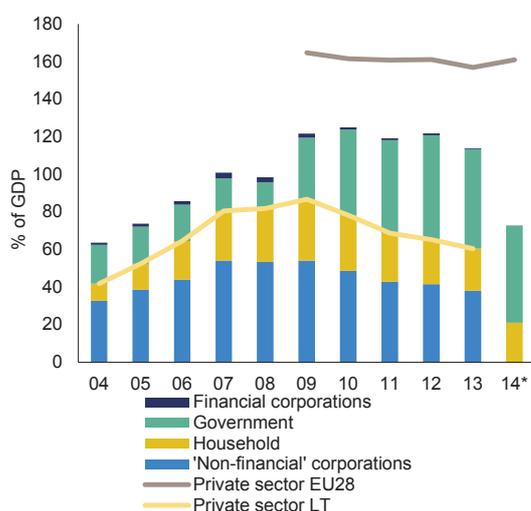
Source: European Commission

## Fiscal developments, financial sector and credit supply

### Tight fiscal room leaves Lithuania particularly vulnerable in case of adverse developments in the international economic environment.

Increasing resilience to external shocks and preventing the emergence of excessive imbalances remain important policy objectives. In addition, healthy public finances are required to allow automatic stabilisers to play their full role in mitigating possible economic shocks. The general budget deficit has declined steadily in the post-crisis period and is expected to be 1.2% of GDP in 2014, before reaching 0.9% in 2016. The structural deficit is expected to fall to 1.9% in 2014, and is expected to decline further to 1.7% in 2015 and to 1.2% of GDP in 2016. These developments should keep public debt at around 40% of GDP (Graph 1.6) over the coming years. However, the current level is more than twice as high as before the financial crisis, which shows that there is scope for further prudent fiscal policy generating additional fiscal space.

Graph 1.6: Breakdown of debt by sector, ESA 2010 (non-consolidated)



Note (1): \* indicates estimated figure using quarterly data.  
Source: European Commission

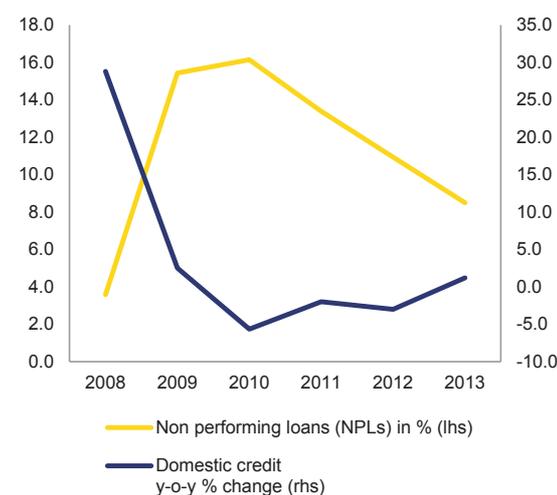
The tax structure relies heavily on indirect and labour taxes. In contrast, environmental and wealth taxes remain comparably low. Since fiscal consolidation measures based on expenditure cuts seem to be largely exhausted, further increasing the revenue side will become more

important going forward. Broadening and restructuring the tax system by shifting the tax burden away from labour, and in particular low-income earners, towards taxes that are less detrimental to growth, such as environmental or property taxes, could be an important factor in boosting future growth and employment.

The banking industry entered the banking union in a stable and well-capitalised state. The Lithuanian financial sector continues to be stable, and shows improving banking soundness indicators. The average capital adequacy ratio for the banking sector increased over the course of 2014, while the average ratio of non-performing loans (NPLs) fell further (Graph 1.7).

Credit growth remained sluggish in 2014, and is set to remain subdued in 2015 (Graph 1.7). The main barriers to further credit growth include an ongoing deleveraging process of the private sector (Graph 1.6) and tightened financing requirements. This is to be of particular importance for SMEs, since financial institutions seem to be focusing on larger and lower-risk corporations.

Graph 1.7: Non-performing loan ratio, and domestic credit growth



Source: ECB

## Investment, innovation, business environment and energy

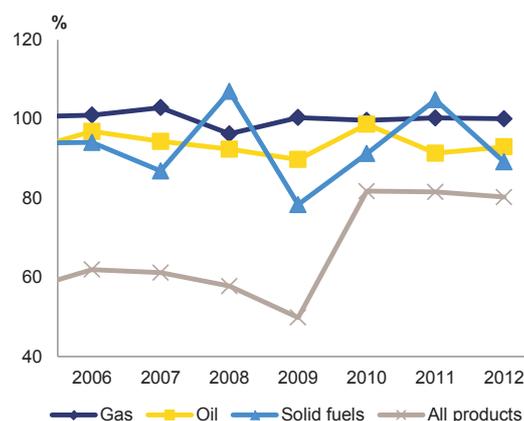
Investments below the European average raise concerns on the sustainability of achieved productivity gains. Investment spending in

Lithuania increased considerably until 2007, partially fuelled by a property boom. However, since then investment has fallen steadily and is now below the EU average in percentage of GDP terms. Reviving investments remains crucial for maintaining competitiveness gains and further catching up.

**Lithuania has scope to improve its innovation performance.** Despite an increase in R&D intensity since 2010, Lithuania currently spends about 0.95% of its GDP on R&D, putting it well below its Europe 2020 target of 1.9%. Half of the R&D target is planned to come from business investments, but that is continuing to decline. As a result, Lithuania is set to remain a poor R&D performer. This trend complicates Lithuania's efforts in moving up the value chain, and may affect the country's long-term growth prospects.

**Lithuania's economy relies heavily on energy imports and its energy efficiency is low.** Since the closure of its nuclear power plant in 2009, the country has imported almost all of its energy needs from non-EU countries. It is therefore exposed to considerable energy supply risks (Graph 1.8). Moreover, Lithuania's economy continues to suffer from high levels of energy intensity, with housing and industry showing values well above the EU average.

Graph 1.8: Energy import dependency



Source: European Commission

#### Poverty and social exclusion

**Poverty and the provision of a subsistence income to those most in need remain areas of concern.** Despite the fall in the share of people at risk of poverty or social exclusion since the crisis, the overall level of 30.8% of Lithuania's population remains high. The most vulnerable social groups are children, old age pensioners and the disabled. Income inequality is ranked among the highest in the EU.

#### Box 1.1: Economic surveillance process

The Commission's Annual Growth Survey, adopted in November 2014, started the 2015 European Semester, proposing that the EU pursue an integrated approach to economic policy built around three main pillars: boosting investment, accelerating structural reforms and pursuing responsible growth-friendly fiscal consolidation. The Annual Growth Survey also presented the process of streamlining the European Semester to increase the effectiveness of economic policy coordination at the EU level through greater accountability and by encouraging greater ownership by all actors.

This Country Report includes an assessment of progress towards the implementation of the 2014 Country-Specific Recommendations adopted by the Council in July 2014. The Country-Specific Recommendations for Lithuania concerned its budgetary strategy and tax system, a comprehensive pension system reform, social protection and labour market policies, poverty, a reform of state-owned enterprises, and energy.

Table 1.1: Key economic, financial and social indicators - Lithuania

	2008	2009	2010	2011	2012	2013	Forecast		
							2014	2015	2016
Real GDP (year-on-year)	2.6	-14.8	1.6	6.1	3.8	3.3	3.0	3.0	3.4
Private consumption (year-on-year)	3.9	-17.4	-3.4	4.6	3.6	4.2	5.0	4.0	4.3
Public consumption (year-on-year)	0.1	-1.4	-3.5	0.3	1.2	1.8	2.2	2.2	2.4
Gross fixed capital formation (year-on-year)	-4.2	-38.7	1.4	19.4	-1.6	7.0	7.0	5.6	6.1
Exports of goods and services (year-on-year)	13.4	-12.8	18.9	14.9	12.2	9.4	3.1	3.4	6.4
Imports of goods and services (year-on-year)	12.2	-28.0	18.7	14.2	6.6	9.0	4.6	4.6	7.7
Output gap	6.3	-10.2	-8.7	-3.8	-1.2	-0.1	0.4	0.6	0.7
Contribution to GDP growth:									
Domestic demand (year-on-year)	1.3	-21.6	-2.8	6.3	2.2	4.2	4.8	3.9	4.3
Inventories (year-on-year)	2.3	-5.1	4.6	-0.4	-2.4	-1.3	-0.6	0.0	0.0
Net exports (year-on-year)	-1.0	11.9	-0.2	0.2	4.0	0.4	-1.2	-0.9	-0.9
Current account balance BoP (% of GDP)	-44.8	7.2	-1.1	-13.3	-4.1	5.5	.	.	.
Trade balance (% of GDP), BoP	-39.9	-5.8	-6.5	-8.8	3.0	4.3	.	.	.
Terms of trade of goods and services (year-on-year)	3.6	-3.8	0.1	-1.1	-0.7	0.1	0.4	2.2	0.7
Net international investment position (% of GDP)	-178.0	-201.7	-191.3	-180.2	-183.1	-160.1	.	.	.
Net external debt (% of GDP)	35.2*	37.0*	35.4*	32.2*	33.6*	28.0*	.	.	.
Gross external debt (% of GDP)	249.6	299.2	296.1	276.7	268.7	240.6	.	.	.
Export performance vs. advanced countries (5 years %)	58.2*	41.9	28.8	41.4	48.2	30.8	.	.	.
Export market share, goods and services (%)	0.1	0.1	0.1	0.2	0.2	0.2	.	.	.
Savings rate of households (Net saving as percentage of net private credit flow (consolidated, % of GDP)	-5.1	0.2	3.4	0.0	-2.3	-1.4	.	.	.
Private credit flow (consolidated, % of GDP)	10.4	-9.4	-6.0	-1.0	0.6	-0.2	.	.	.
Private sector debt, consolidated (% of GDP)	76.8	83.4	74.7	64.8	61.2	56.4	.	.	.
Deflated house price index (year-on-year)	-1.7	-32.9	-8.6	2.3	-3.2	0.1	.	.	.
Residential investment (% of GDP)	3.4	3.3	2.1	2.0	1.9	2.2	.	.	.
Total Financial Sector Liabilities, non-consolidated (year-on-year)	5.6	-3.9	-2.3	-0.2	0.9	-0.4	.	.	.
Tier 1 ratio (1)	10.8	8.5	8.9	11.8	12.0	9.3	.	.	.
Overall solvency ratio (2)	11.6	12.9	14.8	14.2	15.7	17.5	.	.	.
Gross total doubtful and non-performing loans (% of total debt)	3.6	15.4	16.1	13.4	10.9	8.5	.	.	.
Employment, persons (year-on-year)	-1.7	-7.7	-5.4	0.5	1.8	1.3	2.5	1.2	1.2
Unemployment rate	5.8	13.8	17.8	15.4	13.4	11.8	9.5	8.7	7.9
Long-term unemployment rate (% of active population)	1.3	3.3	7.4	8.0	6.6	5.1	.	.	.
Youth unemployment rate (% of active population in the same activity rate (15-64 years)	13.3	29.6	35.7	32.6	26.7	21.9	18.3	.	.
Activity rate (15-64 years)	68.4	69.6	70.2	71.4	71.8	72.4	.	.	.
Young people not in employment, education or training (% of total population)	8.8	12.1	13.2	11.8	11.2	11.1	.	.	.
People at-risk poverty or social exclusion (% total population)	27.6	29.6	34.0	33.1	32.5	30.8	.	.	.
At-risk poverty rate (% of total population)	20.0	20.3	20.5	19.2	18.6	20.6	.	.	.
Severe material deprivation rate (% of total population)	12.3	15.6	19.9	19.0	19.8	16.0	.	.	.
Persons living in households with very low work intensity (% of total population)	5.1	7.2	9.5	12.7	11.4	11.0	.	.	.
GDP deflator (year-on-year)	9.7	-3.3	2.3	5.2	2.7	1.6	1.4	2.9	2.4
Harmonised index of consumer prices (year-on-year)	11.1	4.2	1.2	4.1	3.2	1.2	0.2	0.4	1.6
Nominal compensation per employee (year-on-year)	14.1	-9.3	-0.1	6.3	4.2	5.0	3.7	5.0	5.5
Labour Productivity (real, person employed, year-on-year)	4.0	-7.7	7.3	5.6	2.0	1.9	.	.	.
Unit labour costs (whole economy, year-on-year)	9.7	-1.7	-6.9	0.7	2.2	3.0	3.1	3.1	3.2
Real unit labour costs (year-on-year)	0.0	1.7	-9.0	-4.2	-0.5	1.4	1.7	0.3	0.8
REER (ULC, year-on-year)	4.7	-2.0	-8.3	0.2	-1.9	2.6	2.2	1.0	2.0
REER (HICP, year-on-year)	7.3	4.4	-3.3	1.0	-0.7	0.7	0.7	-0.4	0.0
General government balance (% of GDP)	-3.3	-9.3	-6.9	-9.0	-3.2	-2.6	-1.2	-1.4	-0.9
Structural budget balance (% of GDP)	.	.	-3.3	-3.7	-2.7	-2.2	-1.9	-1.7	-1.2
General government gross debt (% of GDP)	15.4	29.0	36.3	37.3	39.9	39.0	41.1	41.8	37.3

(1) domestic banking groups and stand-alone banks.

(2) domestic banking groups and stand alone banks, foreign (EU and non-EU) controlled subsidiaries and foreign (EU and non-EU) controlled branches.

(\*) Indicates BPM5 and/or ESA95

Source: European Commission, ECB

Table 1.2: **Macroeconomic Imbalance Procedure (MIP) scoreboard indicators - Lithuania**

		Thresholds	2008	2009	2010	2011	2012	2013
Current Account Balance (% of GDP)	3 year average	-4%/6%	<i>-12.7</i>	<i>-7.9</i>	-3.7	-0.7	-1.8	-1.2
	p.m.: level year	-	-13.0	2.1	-0.3	-3.8	-1.2	1.6
Net international investment position (% of GDP)		-35%	<i>-51.5</i>	<i>-58.4</i>	<i>-55.4</i>	<i>-52.2</i>	<i>-53.0</i>	<i>-46.4</i>
External imbalances and competitiveness	Real effective exchange rate (REER) (42 industrial countries - HICP deflator)	% change (3 years)	±5% & ±11%	8.9	<i>16.6</i>	7.2	1.7	-6.7
	p.m.: % year-on-year change	-	6.0	6.8	-5.3	0.5	-2.0	0.9
Export Market shares	% change (5 years)	-6%	<i>39.9</i>	<i>22.4</i>	<i>13.7</i>	<i>24.5</i>	<i>29.0</i>	<i>22.1</i>
	p.m.: % year-on-year change	-	<i>17.1</i>	<i>-10.9</i>	4.4	13.5	6.1	8.9
Nominal unit labour costs (ULC)	% change (3 years)	9% & 12%	<i>28.8</i>	<i>13.0</i>	0.3	-7.9	-4.3	6.0
	p.m.: % year-on-year change	-	9.7	-1.7	-6.9	0.7	2.2	3.0
Deflated House Prices (% year-on-year change)		6%	-1.7	-32.8	-8.6	2.4	-3.2	0.2
Private Sector Credit Flow as % of GDP, consolidated		14%	10.3	-9.4	-5.9	-1.0	0.6	-0.2
Private Sector Debt as % of GDP, consolidated		133%	76.7	83.3	74.6	64.8	61.2	56.4
General Government Sector Debt as % of GDP		60%	15.4	29.0	36.3	37.3	39.9	39.0
Internal imbalances	Unemployment Rate	3-year average	10%	5.3	8.0	<i>12.5</i>	<i>15.7</i>	<i>15.5</i>
	p.m.: level year	-	5.8	13.8	17.8	15.4	13.4	11.8
Total Financial Sector Liabilities (% year-on-year change)		16.5%	4.3	-4.5	-0.7	2.1	0.4	-1.8

(1) Figures highlighted are the ones falling outside the threshold established by EC Alert Mechanism Report. For real effective exchange rate (REER) and unit labour costs (ULC), the second threshold concerns non-Euro Area Member States.

(2) Figures in italic are according to the old standards (ESA95/BPM5).

(3) Export market shares data: the total world export is based on the 5th edition of the Balance of Payments Manual (BPM5).

**Source:** European Commission

## 2. STRUCTURAL ISSUES



## 2.1. TAXATION, FISCAL FRAMEWORK AND LONG-TERM FISCAL SUSTAINABILITY

Preventing the emergence of excessive fiscal imbalances, ensuring sustainable and healthy public finances, and finding the right balance between fiscal revenue and expenditure measures remain important policy objectives. This is because they reduce the vulnerability of an economy to adverse shocks, which can impede growth.

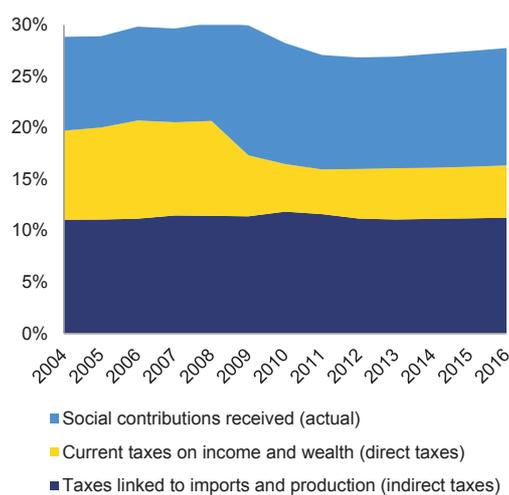
### Taxation

**Increasing tax revenues contribute to strengthening fiscal buffers, which remain important safeguards given Lithuania's vulnerability to adverse international economic shocks.** Lithuania's tax-to-GDP ratio remains one of the lowest in the EU. Lithuania relies to an equal extent on indirect taxes (11.4% of GDP) and social security contributions (11.0% of GDP), while direct taxes accounted for just 4.9% of GDP, the lowest proportion in any EU country (Graph 2.1.1). Recurrent property taxation and environmental taxes contribute little to overall tax revenue. Revenues from environmental taxation, as a percentage of GDP, stood at 1.7%, below the EU average of 2.4% in 2012 <sup>(1)</sup>. In particular, Lithuania along with Estonia are the only two Member States without any form of private passenger car taxation or road-use tax for private passenger vehicles. Moreover, excise duties on motor fuel, petrol and diesel are among the lowest in EU. Lithuania applies low excise rates for diesel used as propellant and zero rates to liquefied petroleum gas and natural gas used as heating fuel. The overall implicit tax rate on energy is the 4<sup>th</sup> lowest of the EU-28.

**Rebalancing taxation to alleviate the tax burden on low income earners may have beneficial effects for domestic consumption and economic growth.** The tax wedge for single low-wage earners in Lithuania is relatively high <sup>(2)</sup>, which may be a disincentive for the low-skilled to search

for employment, and could even encourage more undeclared work.

Graph 2.1.1: Tax burden as % of GDP (contribution)



Source: European Commission

**Lithuania continues to face challenges in terms of tax compliance, in particular regarding indirect taxation.** An EU-wide study indicates that there is a high level of non-compliance and non-collection of value added tax (VAT) in Lithuania <sup>(3)</sup>. In 2012, the VAT gap (i.e. the difference between the legal VAT revenue projections and the actual revenues) stood at 36% which was more than twice the EU average of 16% and it is the third largest in the EU. Reviewing the tax system, and increasing those taxes that are least detrimental to growth, and improving tax compliance were identified as challenges in the 2014 European Semester.

**Only minor changes to the tax system were introduced in 2014, and the overall progress in moving to a growth friendly tax system was limited.** The immovable residential property tax has changed from 2015, with a broadening of the tax base, and a reduction in the tax rate from 1 to 0.5%. Looking at green taxes, Lithuania has adopted a landfill tax on waste to be introduced in 2016. Even though, Lithuania is not on track to achieve its greenhouse gas emissions target by

<sup>(1)</sup> See Hogg et al., 2014, Study on Environmental Fiscal Reform Potential in 12 EU Member States.

<sup>(2)</sup> In 2013, 37.8% for a single person earning 50% of the average wage (EU-28 average 34.0%) (Source: Eurostat). In 2014, the tax burden on low-income earners was reduced by around one percentage point through an increase in the PIT allowance; but it remains above the EU-28 average.

<sup>(3)</sup> 2012 Update Report to the Study to quantify and analyse the VAT Gap in the EU-27 Member States, TAXUD/2013/DE/321.

2020, it has not considered introducing vehicle taxation nor reviewing its energy taxation (in particular rates of transport fuels), which could be reconsidered in view of the overall fall of fuel prices.

**There is still scope to improve VAT collection, focusing on trading activities prone to tax avoidance and fraud** <sup>(4)</sup>. Tax compliance was mentioned in a 2014 Council recommendation and Lithuania has started to implement a strategy for improved tax collection for 2014-17, which includes, for example, taking into account the taxpayers' risk profiles. It is, however, still too early to assess its impact.

#### Fiscal framework

**So far Lithuania's medium-term budgetary framework is non-binding.** In particular multiannual revenue and expenditure targets have often changed as the budgetary framework made no clear connection between medium term targets and annual budgets. Further strengthening adherence to multiannual targets and refining well-defined and transparent revenue and expenditure rules are crucial in effectively steering government size, preventing procyclical spending, and constraining the use of windfall revenues. Strengthening the fiscal framework was also recommended by the Council in 2014. Amendments to laws governing the national budget, which aim to transpose inter alia Council Directive 2011/85/EU on the requirements for budgetary frameworks, and to achieve a balanced or surplus position over the cycle, were in full force for the first time for the 2014 budget planning and execution process. These amendments extend the government's accountability for the implementation of multiannual fiscal targets.

**Lithuania advanced in complementing its fiscal framework in 2014, but doubts remain.** In November 2014, the country transposed the rules of the Fiscal Compact into a constitutional law and two additional laws amending existing legislation

This package, which entered into force from 2015, places the structural budget-balance rule at constitutional level, and is intended to strengthen the binding character of the medium-term framework. However, the rule does not appear to be clearly centred on compliance with the medium term objective and its adjustment path. In this respect, it is not unequivocally anchored to the EU fiscal framework. The credibility of the new fiscal framework is also weakened by loosely defined escape clauses, in particular in the event of a negative output gap. The budgetary cycle in 2015 will be the first test of the new fiscal framework and its effectiveness.

**Lithuania has given its National Audit Office the task of setting up an independent fiscal council.** The fiscal council is set up as an entity within the National Audit Office, and it is up to the Office to ensure the council's independence and autonomy. However, the *de facto* independence of the council's work and funding has still to be ensured. This is of particular relevance given that there are no additional regulations formally ensuring the independence of the fiscal council within the existing National Audit Office.

#### Long-term fiscal sustainability

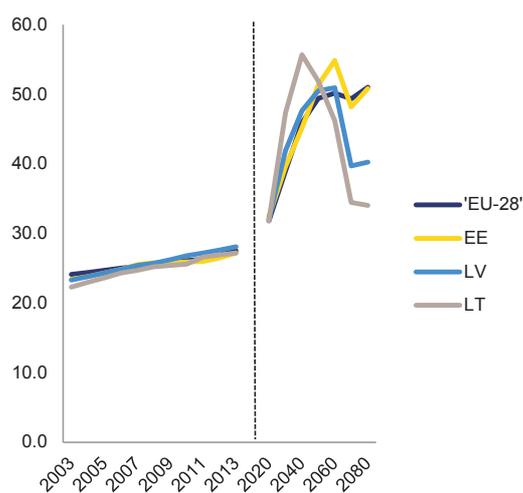
**The budgetary impact of population ageing poses a challenge to long-term fiscal sustainability in Lithuania, in particular in the area of pensions.** The pension system was also one of the challenges identified for Lithuania in the 2014 European Semester. The government intends to revise its 'social model', which would also include a proposal on comprehensive pension system reforms. However, Lithuania has not so far taken any decisive legislative measures. Lithuania's government debt is expected to amount to 41.1% of GDP in 2014, and is expected to rise to 41.8% in 2015, and then fall to 37.3% in 2016. After that, debt is projected to stay nearly unchanged for the next ten years. However, full implementation of measures announced in the 2014 convergence programme would reduce it below 30% of GDP by 2025.

<sup>(4)</sup> See also the recent European Commission report on VAT collection and control procedures, COM(2014) 69 final. Moreover, Lithuania is currently developing models to estimate the VAT gap.

## 2.2. PENSIONS AND ACTIVE AGEING

**Pension systems that are fair for all generations form an integral part of a financially sustainable economic and social model.** Adverse demographic developments and persistently high emigration rates (in particular emigration by young people) undermine the long-term fiscal sustainability of Lithuania's pension system <sup>(5)</sup>. Since 2001 Lithuania's population shrank from 3.5 million to 2.97 million and EUROSTAT expect it to fall further to below 2 million by 2040. Spending on pensions is expected to rise over the next 50 years. Lithuania is one of the fastest ageing EU countries and is expected to experience a doubling its old-age dependency ratio by 2040 (Graph 2.2.1) <sup>(6)</sup>.

Graph 2.2.1: Old-age dependency ratio



Source: European Commission

**Present pension benefit levels are very close to the at-risk-of-poverty threshold <sup>(7)</sup>, with no indexation.** The low average pension and the absence of indexation casts doubts on current pension adequacy and is one major cause of the

<sup>(5)</sup> Statistics Lithuania reports that 728700 people emigrated from Lithuania between 1990 and 2011. Young people (aged 20 to 34) account for more than 50% of that figure. (Source: OECD, 2013, *Coping with Emigration in Baltic and East European Countries*, OECD Publishing).

<sup>(6)</sup> Source: The 2012 Ageing Report and Eurostat.

<sup>(7)</sup> In 2013, the at-risk-of-poverty threshold for a single person was EUR 234 per month and the average old-age social insurance pension was EUR 246 per month. The at-risk-of-poverty rate is considerably higher for older women (aged 65 years and over) (23.9%) than for men (10.9%), (2013).

sharp increase in poverty among the population older than 65 years.

The employment rate of older workers (aged 55 to 64) exceeds the EU average (53.4% vs 50.2% in 2013, increasing since 2011) thanks to a high proportion of elderly women (51.2% in Lithuania vs 43.3% in the EU as a whole). This may partially reflect the strong incentives to continue to work, given the perceived inadequacy of pensions.

**As regards the employability of older workers;** under the Law on Support for Employment, which has been amended in September 2014, employers may receive larger financial incentives for nominating experienced employees (aged above 50) to act as tutors for newly employed staff (aged under 29). In 2015, Lithuania has started work on a Programme for Active Ageing. This is expected to begin in 2016 and is intended to run for four years. The challenge will be to promote adult learning and adapt the working environment to the needs and requirements of older staff, at both national and company level.

The recently implemented reform of the prefunded second pillar of the pension system will only contribute to the sustainability and adequacy of the pension system when it begins to mature two to three decades from now, and only for those who have used the tax subsidy scheme to add voluntary contributions (primarily medium to high income earners). In the meantime, the reform may result in additional risks to pension adequacy and sustainability, in particular against the backdrop that public resources are shifted from the first to the second pillar (e.g. in order to provide tax subsidies for voluntary contributions) <sup>(8)</sup>.

Minor changes to the legislation, including for pension calculations for foreigners, carers, people with disabilities and orphans, plus the reversal of pension reductions implemented in 2010-11, cannot be considered comprehensive pension reform. Moreover, insufficient action has been taken as regards the diversification of risks in pension funds. Recently, the government has announced that it intends to present a comprehensive pension reform in the second

<sup>(8)</sup> European Social Partnership Network (ESPN) PAR-2015 Pensions Country Profile.

quarter of 2015. This announced reform programme includes, for instance, pension indexation rules, and a rise in the pensionable age after 2026.

**So far, Lithuania has not taken any decisive action towards a comprehensive pension system reform, which can improve its long-term sustainability and ensure the adequacy of the pensions in payment. Overall, the challenges for Lithuania's pension system remain.**

## 2.3. BANKING, FINANCIAL STABILITY AND ACCESS TO FINANCE

**Lithuania's banks entered the banking union financially sound. However, credit growth remained sluggish as a result of subdued demand and strict lending conditions.** High capital adequacy ratios for the three largest banks were confirmed by the outcome of the ECB Comprehensive Assessment published in October 2014. Five Scandinavian banks dominate the Lithuanian banking sector with a market share of around 90% of total assets. Following the closure of two domestic banks (Snoras, Ukio) and several credit unions in 2012/13, two domestic banks (Siauliu, Medicinos) and the remaining credit unions control the rest of the market. Private sector deposits continued to rise in 2014, but overall credit remained flat despite an increase in mortgage lending and consumer credit. The most common barriers to obtaining credit are reportedly tight financing requirements, lack of collateral and the high cost of obtaining finance (interest rates, guarantee fees, administrative costs, etc.)<sup>(9)</sup>.

**Lithuanian banks have been relatively successful in resolving their non-performing-loans. They have been supported in this by their parent banks and by the regulatory facilitation fostered by the Bank of Lithuania.** Bank profitability, was restored relatively quickly after the financial crisis, but has remained below the pre-crisis levels. Return on equity rose to 8.9% by early 2014, mainly because of improved efficiency and non-interest income. The return on assets was at 1%, as compared with the EU average of 0.1%.

**The new funding model based on local savings prevailed.** Following the crisis, the sharp reduction in external financing, mainly in form of loans from the parent banks, was offset by high growth in domestic deposits, which now account for about 70% of banks' total liabilities of banks<sup>(10)</sup>. The proportion of foreign retail deposits is low (about 2% of total liabilities). They are

diversified geographically and do not pose significant risk.

**Lithuania has facilitated access to credit by extending the range of movable assets that can be used as collateral.** In addition, many companies still have sufficient reserves to finance investment without needing to obtain credit. The main banks, however, continue to focus their business on large companies and major economic centres with lower risk profiles. This is to the detriment of smaller companies which may experience difficulties getting credit.

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<sup>(9)</sup> Lithuania ranked above average in the latest Commission SME access to finance (SMAF) index. The index includes sub-indices on access to debt and equity. In the latest ECB/Commission SME access to finance survey (April-September 2014) access to finance was ranked as the second most pressing problem facing Lithuanian companies.

<sup>(10)</sup> As a consequence of this, the loan-to-deposit ratio fell from nearly 200% in 2008 to 115% in 2014. The local liquidity ratio of 41% (30% is the minimum requirement) confirms that there is a good level of liquidity in the banking sector.

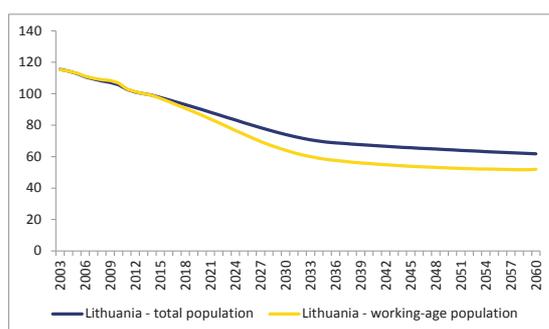


## 2.4. SOCIAL AND LABOUR MARKET POLICIES

**In Lithuania, social protection and labour market challenges are closely intertwined.** Despite the continuous improvement of the economic situation, inequality and poverty reduction remain major challenges for Lithuania.

**The steady decline in the working-age population poses a strong risk to social security sustainability in particular the pension system, but also poses a risk of slower potential growth if labour market participation does not increase further (Graph 2.4.1).** Lithuania is projected to lose a third of its population by 2040 due to negative natural growth and persistent emigration, especially of young people.

Graph 2.4.1: **Change in total and working-age population (Index 100 = 2013)**



Source: European Commission

**This is further aggravated by poor health outcomes, in particular high mortality rates mainly driven by avoidable deaths from treatable and preventable diseases.** The age-specific death rate at working age (i.e. 20 to 65 years) is the highest in the EU, giving rise to an estimated additional 4.5% reduction in Lithuania's workforce, as compared with the EU average. Despite recent reforms and a number of interrelated strategic documents, the challenge remains to design a more efficient health care system which shifts more resources from costly inpatient treatments to primary care, day treatment and nursing care. Early prevention remains a crucial issue in this context <sup>(11)</sup>.

<sup>(11)</sup> For instance consumption of alcoholic beverages and tobacco products per person 15+ increased between 2010-2013. Lithuanian Health Information Centre <http://sic.hi.lt/data/la2013.pdf>

### Labour market participation

**The sharp decline of the working age population accentuates the need to promote employment of those facing difficulties to enter or re-enter the labour market.** Three major issues emerge as regards labour market and regulation: 1) young people facing difficulties to integrate into the labour market 2) weak active labour market policies, and 3) outdated employment protection legislation with weak overall enforcement.

### Youth unemployment

**Securing a smooth school-to-work transition for youth and outreach to young people who are 'Neither in Employment, Education or Training' (NEETs) thus remains a priority.** Youth unemployment amounts to 16.4% in the third quarter of 2014, while the NEET rate is stable at around 11% since 2011. Most young unemployed, registered in the Public Employment Services, have no vocational qualifications or work experience <sup>(12)</sup>. Roughly one third of NEETs is not registered as unemployed. Thus, to succeed in the outreach to unregistered NEETs will be one of the main challenges of the Youth Guarantee delivery.

**The Youth Guarantee scheme has started to address unemployment.** Although it is too early to assess its effectiveness, the Youth Guarantee is progressing <sup>(13)</sup>. It uses a broad network of partnerships with key stakeholders, but that is not yet fully operational <sup>(14)</sup>.

**The outreach to young NEETs not registered with the public employment service remains a challenge.** Supporting measures (such as voluntary work opportunities or generic competences training), which focus particularly on young people from disadvantaged backgrounds and

<sup>(12)</sup> 52% of young unemployed registered in July 2014 had no qualifications, 42% had no work experience (source: National Public Employment Service data)

<sup>(13)</sup> According to the Public Employment Service estimations, in January-November 2014, 57.5% of registered young unemployed under 29 year old received an offer under the YG within 4 months from the day of their registration with Public Employment Service.

<sup>(14)</sup> Youth job centres are planned to be available in all municipalities by 2016 and a system to identify NEETs not registered in Public Employment Service is planned for 2015-2018.

ensure a clear focus on skills in demand are currently lacking. Lithuania has adopted an amendment to the Law on the Support for Employment which introduces measures for young people to acquire skills in the workplace in the form of a 'voluntary practice' scheme. The scheme has a maximum duration of four months, and is based on bilateral agreements with employers. It is too early to assess the take-up of this measure and whether the quality of training outcomes is ensured.

### Active labour market policies

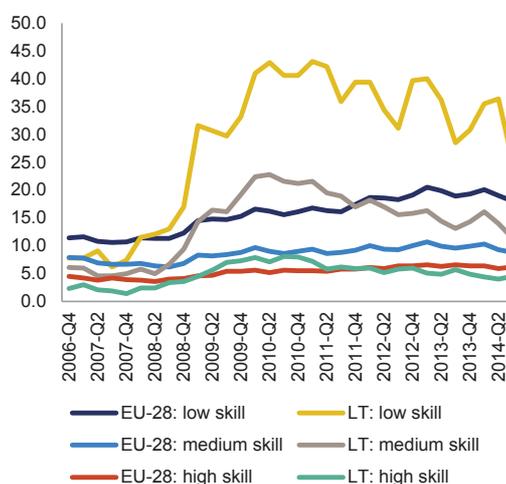
**In view of the need to foster employment of those facing difficulties to enter the labour market, active labour market policies (ALMP) remain weak.** Expenditure on ALMP is among the lowest in the EU. Its coverage is low <sup>(15)</sup>, and the low effectiveness of certain ALMP measures indicates a need for better designing ALMPs.

Despite their effectiveness, the coverage of vocational training and support for the acquisition of professional skills of unemployed fell. At the same time, expenditure and coverage of subsidized employment, however, rose significantly. The share of public work schemes is slowly falling, but they remain a widely used ALMP measure. The outcomes of these measures however remain modest, in particular as regards sustainable labour market integration.

In addition Lithuania still features one of the highest unemployment rates for the low-skilled in the EU.

<sup>(15)</sup> Coverage of ALMPs in the three quarters of 2014 increased to 27.2%, still below the national target for 2014 (30.5%) (Source: National data, ESF annual examination meeting)

Graph 2.4.2: Unemployment by skill level (%)



Source: European Commission

National data indicate that measures often focus on those unemployed who are easier to integrate back into employment, leaving low skilled unemployed behind. This poses a risk of cementing their unemployment spell. In addition, the 'incentives' <sup>(16)</sup> proposed to employers for providing vocational training to low-skilled or long-term unemployed are mostly of a short-term nature, This may limit unemployed people's chances for a longer-lasting inclusion into the labour market.

### Employment protection legislation

**Improving labour relations and employment protection legislation remain key challenges.** Employment protection legislation (EPL) conditions in Lithuania are considered strict due to relatively high redundancy payments (up to six average monthly wages), a long notification period, and restrictions to dismissal of employees. However, these regulations are not always enforced in practice <sup>(17)</sup>. Lithuania is among countries where the perception of a high share of undeclared work, notably envelope wages

<sup>(16)</sup> The adopted Law on Support of Employment includes a new safeguard for vocational training actions. The obligation to keep trained people in job position afterwards was reduced from twelve to six months in the case of people originating from more vulnerable groups.

<sup>(17)</sup> Between 2010 and 2013 only some 8-9% of total dismissed women and 5-6% of total dismissed men received redundancy payments.

persists.<sup>(18)</sup> Moreover, Lithuania's labour relations are characterised by weak social dialogue mechanisms. The lack of sector level bargaining agreements seems to hinder the application of work practices that facilitate a good balance between flexibility and security aspects.<sup>(19)</sup>

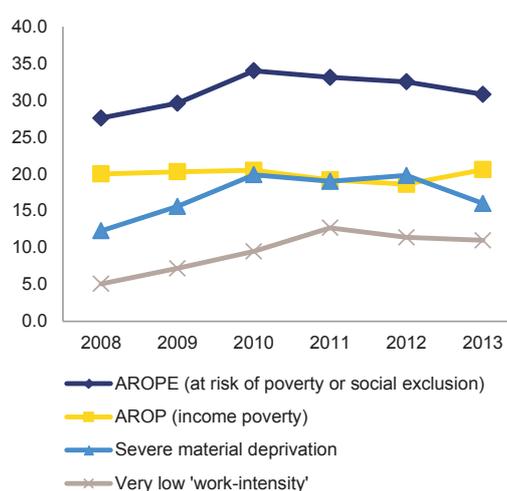
**Some labour market reforms in the field of labour regulations have been implemented, while others are ongoing.** Amendments to the Labour Code, the Law on the Legal Status of Aliens <sup>(20)</sup>, and the Law on Support for Employment <sup>(21)</sup> were adopted in order to reduce the administrative burden for businesses. Research is being carried out on how to design a 'new Lithuanian social model'. Experts are expected to propose a comprehensive package for the regulation of labour relations and job creation, the development of a more sustainable and transparent state social insurance system and reducing poverty and social exclusion. The package still needs to be discussed with the social partners and presented to the Lithuania's Parliament in the coming months. Therefore it is too early for the Commission to assess this proposal. Given the importance of the reform, the challenge will be to secure the adoption of the full package, which includes flexibility and security parts, its financing and to involve all social partners in its design.

### Poverty reduction and activation

**Despite the continuous improvement of the economic situation, inequality and poverty reduction remain major challenges.** The median income has increased and is now close to the maximum reached before the crisis, but it is still the third lowest in the EU in 2013. However,

income inequalities are among the highest in the EU <sup>(22)</sup>, and can have negative impact on the human capital development and economic growth <sup>(23)</sup>. In spite of a fall since the crisis, the share of the population at-risk-of-poverty or social exclusion remained above 30% in 2013 (the 6th highest in the EU, while the average is 24.5%). The high share of severely materially deprived people (16% in 2013, EY average 9.6%) is of particular concern, as well as the deterioration of the at-risk-of-poverty rate <sup>(24)</sup>. Moreover, there is a high risk of poverty and social exclusion for persons with disabilities (42.2%) <sup>(25)</sup>.

Graph 2.4.3: **At risk of poverty and social exclusion (AROPE)**



Source: European Commission

**Some measures were taken to reduce poverty, but they do seem to be insufficient to tackle the rising share of the population at-risk-of-**

<sup>(18)</sup> A recent employer survey showed a share of 17% (albeit declining trend) for undeclared payments ("envelope wages") in Lithuania. See <http://www.sseriga.edu/en/centres/csb/shadow-economy-index-for-baltics/>. In another survey, the share of respondents in Lithuania who reported to have performed undeclared work was the fifth highest in the EU. Special Eurobarometer 402: UdW in the European Union, 2013.

<sup>(19)</sup> <http://www.worker-participation.eu/National-Industrial-Relations/Countries/Lithuania/Collective-Bargaining>

<sup>(20)</sup> Simplification of the conditions for the employment of highly qualified third country workers in understaffed professions in Lithuania

<sup>(21)</sup> The support for skills acquisition by concluding bilateral agreements and introduction of voluntary internship agreements

<sup>(22)</sup> The Gini coefficient increased compared to 2012 and is the 3rd highest in the EU in 2013. The Gini index measures the extent to which the distribution of income or consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution.

<sup>(23)</sup> Cingano, F. (2014), "Trends in Income Inequality and its Impact on Economic Growth", OECD Social, Employment and Migration Working Papers, No. 163, OECD Publishing. DOI: 10.1787/5jxrjncwv6j-en

<sup>(24)</sup> For children (from 20.8% in 2012 to 26.9% in 2013), for unemployed persons (from 54.4% in 2012 to 61% in 2013), for elderly people (from 18.7% in 2012 to 19.4% in 2013), in work poverty (from 7.7% in 2012 to 9.2% in 2013).

<sup>(25)</sup> This is high notably for persons with severe disabilities in the age group 16-64 (65.9%); it is the second highest in EU and increased from 2011 (62.3%), EU SILC 2012.

**poverty.** As a result of the rise in the minimum monthly wage and the restoration of unemployment benefits to pre-crisis level, income for low income earners has increased slightly. The Action Plan for Enhancing Social Inclusion in 2014-20 was a first positive step, but it does not identify the main target groups or fix a budget. It is therefore unclear how the targets will be achieved. Reforms have to a large extent focused on fighting abuse, rather than improving coverage and adequacy. A progressive reduction of social benefits for long-term beneficiaries (i.e. for more than 12 months) of working age has been introduced. More responsibility and autonomy has been given to municipalities in the provision of cash social assistance. The reform resulted in a significant fall in social benefits expenditure and in the number of recipients (by 25% in the first quarter 2014 compared to the year before). The main drivers of this fall need to be clarified. It could be due to a better targeting of beneficiaries, or to the improved economic situation of those most in need. This fall could however also be due to a more restricted access to social assistance, given that, from 2015, municipalities can reinvest the savings into other municipal programmes (mainly into programmes in the social field). They will also have the responsibility to provide compensation for heating costs, drinking water costs and hot water cost, for poor residents as an independent municipal function.

### ***Benefits and activation***

**Unemployment benefits represent one of the aspects of the security part of labour regulation. Overall, the coverage and adequacy of unemployment benefits in Lithuania remains among the lowest in the EU.** <sup>(26)</sup> Lithuania allocates approximately 0.4% of GDP to the funding of unemployment benefits. The unemployment benefits are paid to approximately 20% of total unemployed people which are registered with the public employment service. The relative coverage is showing an increasing trend supported by the decline in registered unemployed. The temporary ceiling on

unemployment benefit was lifted (January 2015) resulting in a better reflection of benefits with respect to contributions paid. Nevertheless, this improvement of maximum unemployment benefit from EUR 188 to EUR 302 will have limited impact on adequacy as it affects mostly the better paid employees. More generally, total expenditure on social protection in Lithuania is only half the EU average and falling.

**The activation of social assistance beneficiaries through employment or efficient active labour market policy measures is still limited.** The obligation to be registered with the public employment service in order to be eligible for social assistance may facilitate access to activation measures. However, the link between activation and the reduction of cash social assistance is still a challenge <sup>(27)</sup>. The reduction in cash social benefits is not linked to increasing opportunities, made by the public employment service, to take part in effective ALMP measures, training or employment. About a third of all registered social beneficiaries are involved in 'socially useful activities' carried out by municipalities. However, there is no evidence that this leads to any improvement in their employability. In addition, recipients are not adequately insured while carrying out such work.

Against the projections of a declining working age population and rising old-age dependency ratio Lithuania faces the challenge to find a better balance between a sustainable mobility of work force and emigration, and to bring the full labour force potential to the labour market.

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<sup>(26)</sup> Esser I., Ferrarini T., Nelson K., Palme J., Sjöberg O. (2013) Unemployment Benefits in EU Member States. Employment, Social Affairs & Inclusion, European Commission. July 2013.

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<sup>(27)</sup> The municipalities have the right, but not the obligation, to keep the previous level of cash social benefits even if the beneficiary was not offered any ALMP measure or employment.

## 2.5. EDUCATION AND SKILLS

Lithuania is scoring very well on its Europe 2020 education targets <sup>(28)</sup>, however the challenge to ensure sufficient skills supply in the future in the context of shrinking working age population remains.

**Schools have an above-average rate of low achievers in basic skills <sup>(29)</sup>.** The most important factors contributing to low school outcomes are the quality of teaching and the limited use of new innovative teaching methods and information and communication technologies (ICT). The latter is partially due to high average age of teachers. Moreover, there is likely to be a shortage of teachers in the next 10-15 years <sup>(30)</sup>. This is because young people are not being attracted to the teaching profession due to its perceived low prestige and limited career opportunities. The participation rate in early childhood education and care (ECEC) - usually an effective tool for preventing low school outcomes – is well below the EU average <sup>(31)</sup>. The quality of provision remains a challenge as well <sup>(32)</sup>.

**Ensuring the labour market relevance of education and training is crucial, in view of future skills supply.** Employers in Lithuania report problems of skills shortages <sup>(33)</sup>. There are notably challenges related to quality and attractiveness of vocational education and training,

as only 28.4% of all pupils in secondary education follow vocational courses. The number and quality of apprenticeships and work based learning is still insufficient. A skills/qualifications monitoring and forecasting system has not yet been developed.. Adult participation in lifelong learning is one of the lowest in the EU <sup>(34)</sup>, due to insufficient financing. Moreover, there is a lack of appropriate guidance and incentives <sup>(35)</sup>.

**The government has launched and adopted several plans, but these have not yet been implemented.** The government plans to offer targeted assistance to primary and secondary schools, and to encourage the development of multifunctional education centres. These centres would bring together schools and early childhood education facilities. A national system for evaluating students' learning outcomes at different age levels has almost been completed. Lithuania has put in place an action plan and a number of ongoing projects seek to improve access to early childhood education and to secure its financing until 2016. Specific actions are planned to improve the quality of vocational education and training, to promote quality apprenticeships and work based learning.<sup>(36)</sup> and to improve skills governance<sup>(37)</sup>. These measures, however, still need to be fully implemented. Finally, the law on non-formal education and lifelong learning was amended establishing principles for the recognition of non-formal learning and self-learning, and clarifying the objectives of adult learning.

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<sup>(28)</sup> Regarding Tertiary education attainment rate and early school leaving rate

<sup>(29)</sup> According to the OECD's PISA 2012 survey, the proportion of low-achieving 15-year-olds in Lithuania is 21.2% in reading (EU average: 17.8%) and 26.0% in mathematics (EU average: 22.1%).

<sup>(30)</sup> Development of Education in Lithuania 2013.

<sup>(31)</sup> For children between four years of age and the start of compulsory schooling the figures stands at 84.8% (EU average: 93.9% in 2012). The participation rate of children from disadvantaged families is 23.6 percentage point lower. In Lithuania 15-year-old students who have attended ECEC for more than one year tend to achieve better results than those who attended ECEC for a year or less (PISA 2012).

<sup>(32)</sup> Lithuanian Education Employees Trade Union indicates three main problematic areas in ECEC: staff, shortage of funding and lack of social dialogue [http://www.lsdps.lt/index.php?option=com\\_content&view=article&id=1827:i-peciukonien-privalome-pagaliau-ilsti-ielio&catid=75:padaliniiu-veikla&Itemid=162](http://www.lsdps.lt/index.php?option=com_content&view=article&id=1827:i-peciukonien-privalome-pagaliau-ilsti-ielio&catid=75:padaliniiu-veikla&Itemid=162)

<sup>(33)</sup> In 2013, about 40% of the members of the Lithuanian Confederation of Industrialists stated that they were facing a shortage of suitable skills were unable to employ more workers to fill vacant jobs. Some of these problems may however relate to unattractive working conditions and lack of appropriate human resources policies

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<sup>(34)</sup> 5.6% in 2013 compared to the EU average of 10.5%

<sup>(35)</sup> There is a lack of sustainable financing mechanisms and career guidance for adults, curricula are inflexible and not adapted to adult needs, and there is no system to assess and recognise skills acquired through non-formal or informal learning.

<sup>(36)</sup> The approved vocational education and training development action plan (2014-16) includes measures to fund apprenticeship initiatives and work-based learning, improve qualifications of in-company trainers, support apprentices' mobility, invest into modernising practical training facilities and update vocational education and training curricula. Lithuania will also take part in the country review by the European Centre for the Development of Vocation Training (CEDEFOP). This will result in a roadmap for apprenticeship measures in 2015.

<sup>(37)</sup> A "professional qualifications map" which is to provide Education institutions with information on graduates' employability is being tested but has not yet completed.



## 2.6. BUSINESS ENVIRONMENT, INNOVATION AND STATE-OWNED ENTERPRISES

Lithuania has a relatively straightforward and manageable business environment that is conducive to starting, running and expanding a business. However, its innovation environment could benefit from better funding, an adequate legal framework and a focused strategy in order to attract investment that is beneficiary to long-term growth.

### Business environment and administrative capacity

**Lithuania made progress towards improving its business environment in 2014, but surveys indicate that the efficiency and transparency of the public administration could become a concern.** Lithuania is ranked 24th (10th in the EU) in the latest World Bank *Doing Business Report* <sup>(38)</sup>, and has maintained or advanced its position in several sub-categories. However, on the public administration efficiency front, Lithuania's performance has been considerably weaker.

In 2014, Lithuania adopted several measures to reduce the administrative burden for businesses. These efforts are reflected in Lithuania's improved rankings in several *Doing Business* ranking subcategories, in particular 'Starting a Business' and 'Dealing with Construction Permits'. On the other hand, insolvency process in Lithuania is slow and inefficient and getting electricity is expensive. These remain areas of concern as Lithuania ranks well below the top performers in these subcategories. In view of the above, the government has adopted a special protocol providing for improvements in areas such as construction permits, getting electricity, paying taxes, trading across borders, protecting minority investors and resolving insolvency. These measures are expected to be implemented by the end of 2015. A draft law under preparation will adjust the definition of SME so that a greater number of firms can receive aid from the EU's structural funds.

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<sup>(38)</sup> The World Bank's *Doing Business* project, launched in 2002, looks at domestic small and medium-sized companies and measures the regulations applying to them through their life cycle.

**Although some progress was made in 2014 the efficiency of the public administration is still compromised by weak institutions and a lack of transparency.** While the government has had moderate success in improving the effectiveness of public governance and setting up anti-corruption institutions in recent years <sup>(39)</sup>, the Lithuanian public remains sceptical about its achievements in fighting corruption <sup>(40)</sup>. Public procurement and the healthcare sector as areas of particular concern. While the introduction of e-procurement practice in 2014 marks a notable progress; nonetheless, prevention policies within local contracting authorities remain inadequate <sup>(41)</sup>. A reform proposed in November 2014 aims to tighten requirements for public procurement bidders, but the impact of the reform has yet to be seen. Public procurement in healthcare sector is particularly vulnerable to corruption. The government's plan to increase the transparency within the decision-making process as regards reimbursements for medicines would be a step in the right direction. Informal payments to doctors also continue to pose a challenge. Thus, although Lithuania has put in place a thorough legal framework to fight corruption, the challenge is to apply its provisions in practice, in particular by ensuring that anti-corruption institutions have the capacity to operate effectively.

### State-owned enterprises

**The Lithuanian authorities have been undertaking a far-reaching reform of state-owned enterprises since 2010.** The reform encompasses 140 entities with a combined asset value of around 25 % of GDP. It aims to increase the quality and efficiency of governance and it involves both legislative and organisational changes and the introduction of performance targets.

In 2014, Lithuania completed the separation of the commercial and non-commercial functions by

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<sup>(39)</sup> Lithuania ranks 20<sup>th</sup> among the EU countries in both 'Government effectiveness' and 'Control of corruption' - indices compiled by the World Bank. This places Lithuania below average in the EU; yet considerably better than EU's worst performers.

<sup>(40)</sup> In a 2013 Eurobarometer survey 29% of Lithuanians acknowledged they had been asked for bribes in exchange for public services, the highest level within the EU.

<sup>(41)</sup> 2014 *EU Anti-corruption Report* annex on Lithuania

implementing their disclosure in annual reports and advanced the professionalization of boards. Concerning implementation, the only outstanding issue remains the appointment of independent board members in the remaining economically relevant SOEs as required by the national law on State and Municipal Enterprises by the end of September 2015. Once this is done, the reform of state-owned enterprises may be considered fully implemented. Going forward ensuring compliance with the reform as well as monitoring its effectiveness remain important to ensure a lasting effect.

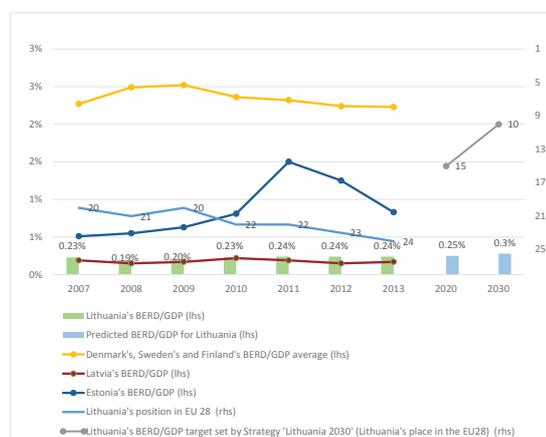
### Research and Innovation

**The Lithuanian economy has potential to boost its productivity through higher investment in research and development (R&D), which will support future competitiveness.** Lithuania's labour productivity stands at around 75% of the EU average. To tap its full potential, the challenge is to move up the large manufacturing sector the technology ladder <sup>(42)</sup>, and to make it more competitive in the medium-to-high technology sectors. This requires higher investment in R&D.

**Currently, Lithuania's research and innovation (R&I) system is rather underdeveloped.** It has a low level of private R&I investment (Graph 2.6.1), and does not provide sufficient incentives for business R&I and public-private cooperations.

<sup>(42)</sup> The manufacturing sector produces 21 % of GDP, as compared with the EU average of just over 15 % of GDP.

Graph 2.6.1: **Business expenditure on R&D (BERD) as % of GDP**



(1) The 2013 and 2020 forecasts assume that the rate of change will remain the same as in 2007-13.

Source: European Commission

**The impact of the Lithuania's policies on the cooperation between science and businesses is well below the average <sup>(43)</sup>.** This seems to be due to the lack of a proper legal base for the successful commercial exploitation of research outcomes and the insufficiently competitive science base <sup>(44)</sup>. Bureaucratic complexities at the institutional level make it difficult for R&D teams in universities to take part in industrial projects <sup>(45)</sup>. Business-science cooperation is often formal, focused on meeting eligibility criteria for public funding programmes rather than structural and long-lasting. In 2014, the government adopted new guidelines for the procurement of innovative products by

<sup>(43)</sup> Despite innovation vouchers, industrial PhDs and consultancy support for technology transfer, public-private co-operation (e.g. the public-private co-publications per million population remain low. Lithuania ranks 24th in the EU, with a total of 10 in 2011 as compared with EU average of 23).

<sup>(44)</sup> The average performance of Lithuania as measured by the fraction of Lithuanian scientific publications within the 10% most cited publications worldwide was 6.2% in 2009 compared to an EU average of 10.98%.

<sup>(45)</sup> Despite the establishment of the so-called 'Valleys' (partnerships integrating higher education, research and businesses around scientific and technological areas), science and technology parks and open access centres, cooperation between industry and research organisations remains low and success stories relating to the transfer of technology and the commercialisation of public R&D are very rare. Moreover, the existing legal framework does not allow for private businesses to become stakeholders in the newly constructed "open access" research infrastructures and does not promote the effective use, management and financing of large research infrastructures.

public administrations. The impact of these new measures has yet to be seen.

In addition, Lithuania seems to be using EU funding to replace rather than complement R&I funding from national sources. As a consequence, the country's science base and the potential to use its scientific developments to leverage economic activity are relatively weak.

**Despite a large number of strategic policy documents, different measures and public programmes, a coherent strategy on how to ensure knowledge transfer is missing.** Instead, scattered strategies and programmes focus on separate elements, leading to fragmentation<sup>(46)</sup> and a lack of success. In addition, there is a lack a focus on human resources training. Policy appears to be skewed towards infrastructure investment to the detriment of intangible R&I capacity-building measures. Improving the country's innovation output will require not just developing a business environment conducive to investment but also improving the skills base in higher education and offering the right incentives to researchers in the public sector in order to involve them in knowledge transfer and the commercial exploitation of research.

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<sup>(46)</sup> E.g. Lithuania's 'clusters' approach is not coordinated with its 'valleys' approach, as these fall under the responsibility of different departments



## 2.7. INFRASTRUCTURE AND THE ENVIRONMENT

Adequate infrastructure is the backbone of modern economies. Effective systems for sustainable energy, information and communication technologies (ICT) and resource optimization lay the foundation for boosting economic growth, social uplift and ecological sustainability in the short-to-medium term.

### Energy infrastructure

**Lithuania remains vulnerable in terms of energy supply security, and there is a lack of competition in some parts of the domestic energy sector.** Following the closure of Lithuania's last nuclear power plant in 2009 the country imports almost three quarters of its total energy needs. The domestic electricity market has been fully deregulated, but customers have, so far, been reluctant to switch suppliers. As a result, the gas retail market remains highly concentrated with the two leading suppliers capturing 98% of the market. Diversifying energy sources, promoting the interconnectivity of electricity and gas networks with European partners, and strengthening competition in the energy sector were also part of a Council recommendation in 2014.

**Lithuania has made some progress in improving Lithuania's energy infrastructure network. If Lithuania continues to work on this, it will strengthen its energy supply security further.** In November 2014, a liquefied natural gas (LNG) terminal in the Port of Klaipeda became operational with an annual total capacity of 4 billion cubic meters of natural gas<sup>(47)</sup>. In addition, two electricity interconnectors ('Nordbalt' with Sweden, and 'LitPolLink' with Poland) are expected to be commissioned in 2015. Both projects are of vital importance in linking the Baltic electricity grid with continental Europe. Two important gas interconnectors linking Lithuania with Poland and Latvia are scheduled to be commissioned in 2019 and 2020, respectively. The acceleration of these projects would allow Lithuania to achieve its energy supply security earlier and could result in additional suppliers

<sup>(47)</sup> In 2014 the Lithuanian company Litgas concluded a five-year contract with Norwegian Statoil for the yearly delivery of 0.5 billion cubic meters of liquefied natural gas.

entering the Lithuanian market. In 2014, the Commission decided to co-finance four energy infrastructure projects of direct importance to Lithuania with grants of approximately EUR 334 million under the Connecting Europe Facility programme.

### Energy efficiency

**Further improving Lithuania's energy efficiency reduces long-term energy costs, and strengthens energy security.** With an energy intensity more than twice the EU average, Lithuania is one of the eight most energy-intensive economies in the EU<sup>(48)</sup>. Energy intensity is particularly high in residential housing and industry. Final energy consumption in Lithuania rose constantly between 2005 and 2013, and the trend has not been reversed since then<sup>(49)</sup>. As a result, Lithuania is not currently on track to meet its national energy efficiency target.

**In 2014, Lithuania stepped up measures to improve the energy efficiency of buildings** in line with a Council recommendation. After legislative changes and the introduction of a new financing scheme in 2013, the modernisation of multi-apartment buildings accelerated in 2014, albeit from a low level<sup>(50)</sup>. Nevertheless, the challenge of improved energy efficiency in buildings still remains, given that 96% of multifamily buildings in Lithuania (more than 34 000 houses) were built before 1993 and most of them still have a very poor level of energy efficiency. In this context, there is further scope for energy efficiency improvements by fully implementing the existing provisions of EU law. This involves, in particular, introducing individual metering and billing, which may empower citizens, including those living in multifamily buildings, to

<sup>(48)</sup> The Lithuanian energy intensity was 266.6 (kg of oil equivalent per 1000 EUR) in comparison with the EU average of 141.6 in 2013. Source: Eurostat 2014

<sup>(49)</sup> In 2013, final energy consumption in the residential sector stood at 31% (well above EU average of 27%), while it amounted to 33% in the transport sector (1% above EU average of 32%). Energy consumption for the manufacturing industry stood at 21% which is slightly less than EU average of 25%.

<sup>(50)</sup> The most recent available information on the JESSICA holding fund, the respective funding instrument used, shows that the number of approved projects has reached 2728, while 746 multi-apartment buildings have been modernised in 2014.

take more control over their energy consumption and bills.

**No measures were taken to reduce the energy intensity of the transport sector and there is scope to increase the proportion of energy from renewable sources, which is below 5%.** The public transport system remains underdeveloped and excise duties on motor fuel are close to the minimum level set by the EU Energy Taxation Directive.

#### Transport and information and communication

**The transport infrastructure in Lithuania remains underdeveloped. On the other hand, the ICT network is in good shape.** Only 7 % of rail tracks are electrified, and the country lacks a north-south rail connection. Moreover, obstacles to the efficient functioning of the internal rail market persist, and competition in the rail sector is limited, even though the railways have in theory been opened up to competition. There is further scope to enhance road safety as the number of road fatalities remains one of the highest in the EU.

**Lithuania's coverage of household broadband connections is large and high speed connectivity widely available** <sup>(51)</sup>. While the population has a high level of ICT skills overall <sup>(52)</sup>, its take-up (in terms of internet subscriptions) seems to be somewhat limited as only 65.4% of households have a subscription (EU average 78.3%) and 25% of the population having never used the internet. Promoting and strengthening the digital economy seems to represent a fruitful avenue for further economic growth. It could also further improve the quality of services provided, increase competition,

<sup>(51)</sup> 97.1% for fixed broadband coverage of households (EU average of 97.2%); and with 91% for rural areas slightly above the EU average. Next-generation access (i.e. a connection capable of providing a download speed of at least 30 Mbps) is available to 97% of households. As a result, Lithuania enjoys the 4<sup>th</sup> most comprehensive coverage in Europe.

<sup>(52)</sup> 34.7% of Lithuanians have obtained ICT skills through formal education as compared with the average EU figure of 27.5%). Lithuanians are on average as skilled as the EU average user in terms of computer skills and better skilled in using the internet (where the percentages of those with medium and high internet skills are 59.2% as compared with 46.6% for the EU as a whole).

create more consumer choice and open up new sources of employment growth <sup>(53)</sup>.

**Overall connectivity in Lithuania's transport infrastructure may be boosted by speeding up the planning and implementation of the Rail Baltic European-gauge railway infrastructure project.** This is a high priority pre-identified project under the Connecting Europe Facility and would finally connect the Baltic States to a trans-European network. In 2014 a joint venture was created and tasked with preparing and implementing the project. If completed on schedule by mid-2020, the project would provide a strong stimulus for economic growth and for reducing greenhouse gas emissions through a modal shift towards rail in freight and passenger transport.

#### Environment

**Lithuania has scope to improve incentives to encourage public and private actors to use natural resources responsibly.** Lithuania is behind on its Europe 2020 commitments on several environmental indicators, such as greenhouse gas emissions in non-emissions trading scheme sectors, preventing and reducing the generation of waste, and increasing re-use and recycling <sup>(54)</sup>.

**A first step has been taken to improve waste management, while more investment is needed to achieve the recycling target of 50% by 2020** <sup>(55)</sup>. In November 2014, the way was cleared to introduce a landfill tax in 2016, which could encourage resource efficiency in waste management and divert waste from landfill <sup>(56)</sup>. However, there is further scope to improve waste

<sup>(53)</sup> As regards the five main drivers of the digital economy, Lithuania ranks seventh out of 28 Member States in the use of internet, 8<sup>th</sup> in connectivity, 9<sup>th</sup> in the integration of digital technologies by business, 15<sup>th</sup> in human capital, and 16<sup>th</sup> in digital public services.

<sup>(54)</sup> 77% of municipal waste was landfilled in 2012 (EU average: 33%), while only 18% was recycled (EU average: 27%).

<sup>(55)</sup> Moreover, more targeted investments in incineration or mechanical biological treatment plants could go hand in hand, and not hinder, Lithuania's progress in fulfilling its recycling targets.

<sup>(56)</sup> The Law on Pollution Tax has been amended foreseeing the introduction of a landfill tax in 2016 with a progressive increase from 21.72 to 44.89 EUR/t until 2020.

management practises, particularly by developing separate collection, sorting, recycling and composting.

## ANNEX A

### Overview Table

Commitments	Summary assessment <sup>(57)</sup>
<b>2014 Country specific recommendations (CSRs)</b>	
<p><b>CSR 1:</b> Reinforce the budgetary measures for 2014 in the light of expenditure growth exceeding the benchmark and the emerging gap of 0.3% of GDP in terms of structural effort based on the Commission services 2014 spring forecast, pointing to a risk of significant deviation relative to the preventive arm of the Stability and Growth Pact requirements. In 2015, strengthen the budgetary strategy to ensure the required adjustment of 0.5% of GDP towards the medium term objective. Thereafter ensure that the medium term objective is adhered to. Complement the budgetary strategy with a further strengthened fiscal framework, in particular by ensuring binding expenditure ceilings when setting the medium term framework. Further review the tax system and consider increasing those taxes that are least detrimental to growth, such as recurrent property and environmental taxation, while continuing to improve tax compliance.</p>	<p>Lithuania has made <b>some progress</b> in addressing CSR 1 of the Council recommendation (this overall assessment of CSR1 excludes an assessment of compliance with the Stability and Growth Pact):</p> <ul style="list-style-type: none"> <li>• <b>Some progress</b> in strengthening the fiscal framework was made in 2014 as Lithuania transposed the Fiscal Compact into national law. However, the structurally balanced budget rule does not appear clearly centred on compliance with the medium-term objective and its adjustment path. In this respect, it is not unequivocally anchored to the EU fiscal framework. The credibility of the new fiscal framework is also weakened by loosely defined escape clauses, in particular in the event of a negative output gap.</li> <li>• <b>Limited progress</b> in reviewing the tax system and improving tax compliance. Minor amendments have been made to property tax and landfill tax on waste has been introduced. A tax compliance strategy has been adopted.</li> </ul>
<p><b>CSR 2:</b> Adopt and implement legislation on a comprehensive pension system reform. In particular, align the statutory retirement age with life expectancy, restrict access to early retirement, establish clear rules for the indexation of pensions, and promote the use of complementary savings schemes. Underpin pension reform with measures that promote the employability of older workers.</p>	<p>Lithuania has made <b>limited progress</b> in addressing CSR 2:</p> <ul style="list-style-type: none"> <li>• <b>Limited progress</b> in implementing a comprehensive pension system. The statutory retirement age is being increased gradually until 2026. However, at present the pension system does not have a model that takes into account the life-expectancy indicator and there are no clear rules for indexation of pensions. The government intends to address comprehensive pension reform as part of a wider social model approach but this remains to be consolidated and is not yet adopted.</li> <li>• <b>Some progress</b> in promoting the employability</li> </ul>

<sup>(57)</sup> The following categories are used to assess progress in implementing the 2014 CSRs of the Council Recommendation: No progress: The Member State (MS) has neither announced nor adopted any measures to address the CSR. This category also applies if the MS has commissioned a study group to evaluate possible measures. Limited progress: The MS has announced some measures to address the CSR, but these measures appear insufficient and/or their adoption/implementation is at risk. Some progress: The MS has announced or adopted measures to address the CSR. These measures are promising, but not all of them have been implemented yet and implementation is not certain in all cases. Substantial progress: The MS has adopted measures, most of which have been implemented. These measures go a long way in addressing the CSR. Fully addressed: The MS has adopted and implemented measures that address the CSR appropriately.

	<p>of older workers. Lithuania introduced financial support measures, but a comprehensive active ageing strategy is still missing.</p> <ul style="list-style-type: none"> <li>• Lithuanian pension scheme contains penalties for early retirement, and the share of people choosing early retirement is very low.</li> </ul>
<p><b>CSR3:</b> Better target active labour market policy measures to the low-skilled and long-term unemployed. Improve coverage and adequacy of unemployment benefits and link them to activation. Address persistent skills mismatches by improving the labour-market relevance of education inter alia based on skills forecast systems and promote life-long learning. In order to increase the employability of young people, prioritise offering quality apprenticeships, other forms of work with the private sector. Review the appropriateness of labour legislation, in particular with regard to the framework for labour contracts and for working social partners.</p>	<p>Lithuania has made <b>limited progress</b> in addressing CSR3:</p> <ul style="list-style-type: none"> <li>• Limited progress on targeting of active labour market policy measures: the coverage is still low, still too much emphasis on ALMP measures that are less effective to provide sustainable employment</li> <li>• Limited progress on coverage and adequacy of unemployment benefits and link to activation.</li> <li>• Some progress has been made on labour market relevance of education as several policy decisions were taken, directed at improved VET governance and strengthened cooperation with the private sector notably to offer more work based learning.</li> <li>• Some progress on addressing employability of young people. Delivery of Youth Guarantee started, with improved partnerships but too early to assess effectiveness. Still need to provide more apprenticeships and increase their quality.</li> <li>• Limited progress on labour legislation. A number of legal acts has been amended but with limited effects.. Government intends to address labour regulation as part of a wider social model but this remains to be consolidated and is not yet adopted. However the objective to combine in a single package the measures ensuring more flexibility to labour relations but also more security seems to go in the right direction.</li> </ul>
<p><b>CSR 4:</b> Ensure adequate coverage of those most in need and continue to strengthen the links between cash social assistance and activation measures.</p>	<p>Lithuania has made <b>no progress</b> in addressing CSR 4:</p> <ul style="list-style-type: none"> <li>• The measures taken seem insufficient to tackle the increase of "at risk of poverty" share of the population. The progressive reduction of social benefits to long term beneficiaries could reduce</li> </ul>

	<p>the coverage of those most in need if they cannot find a job. The reform of cash social assistance - and the improved economic situation - resulted in a strong decrease of the expenditure and of the number of recipients. However the situation of those leaving the scheme is unclear.</p> <ul style="list-style-type: none"> <li>• The reduction of the cash social benefits has no direct link to the offer of effective ALPM measures, employment or training. The activation of social assistance beneficiaries is limited. About one third of all registered social beneficiaries are involved in "socially useful activities" of municipalities (max 40 hours / month) but there is no evidence that it leads to any improvement of the employability of the beneficiaries. In addition the recipient is not assured during the activity.</li> </ul>
<p><b>CSR 5:</b> Complete the implementation of the reform of state-owned enterprises as planned; in particular by finalising the separation of commercial and non-commercial activities, further professionalising executive boards and closely monitoring compliance with the requirements of the reform.</p>	<p>Lithuania has made <b>substantial progress</b> in addressing CSR 5:</p> <ul style="list-style-type: none"> <li>• The government completed the separation of commercial and non-commercial activities, which are now disclosed in annual reports.</li> <li>• It has passed the law which identified the remaining economically relevant SOEs, which have to appoint independent board members by the end September 2015.</li> <li>• It can therefore be expected that the CSR might be fully implemented by that time.</li> </ul>
<p><b>CSR 6:</b> Step up measures to improve the energy efficiency of buildings, through a rapid implementation of the holding fund. Continue the development of cross-border connections to neighbouring Member States for both electricity and gas to diversify energy sources and promote competition through improved integration of the Baltic energy markets.</p>	<p>Lithuania has made <b>some progress</b> in addressing CSR 6:</p> <ul style="list-style-type: none"> <li>• Some progress in improving the energy efficiency of buildings. After changing the funding model for housing renovation, applications as well as renovations picked-up in 2014, albeit from a low-level.</li> <li>• Some progress on diversifying energy sources. The Klaipeda LNG terminal was finalised and became operational in December 2014, while work on cross-border interconnectors continued as scheduled.</li> </ul>

<b>Europe 2020 (national targets and progress)</b>	
Employment rate target: 72.8%	<p>In 2014, the employment rate was 69.9 %, and hence slightly above EU average (average of first three quarters).</p> <p>The employment rate stood at 68.5 % (2013), close to the EU average (68.4 %).</p>
R&D target: 1.9%	<p>In 2013, limited progress was observed in meeting the R&amp;D intensity target. R&amp;D intensity reached 0.9 % of GDP, of which 0.24 % came from business investment.</p>
<p>Greenhouse gas (GHG) emissions target:</p> <p>+15% compared to 2005 emissions, ETS (Emissions Trading System) emissions are not covered by this national target</p>	<p>Progress is limited since the target still might be missed. According to the latest national projections submitted to the Commission, and when existing measures are taken into account, the target is expected to be missed by a margin of 2 pp: +17 % in 2020 compared to 2005. Greenhouse gas emissions from sectors not covered by the Emissions Trading Scheme fell by -4 pp between 2005 and 2013.</p>
<p>Renewable energy target: 23 %</p> <p>Share of renewable energy in transport sector: 10 %</p>	<p>The proportion of energy produced from renewable sources in Lithuania reached 23.1% in 2013, (provisional 2013 data Eur'Observ'ER) and Lithuania has already reached its 2020 RES target.</p> <p>Measures should be taken to advance towards the binding 10% RES target in transport. In 2012, renewable energy contributed 4.8 % of total energy consumed..</p>
<p>Energy efficiency: 17% reduction in final energy use compared to 2009 level (reduction of 740 ktoe) This implies reaching a 2020 level of 6.49 Mtoe of primary and 4.28 Mtoe of final energy consumption.</p>	<p>Lithuania notified the Commission of the policy measures it plans to adopt to implement Article 7 of the Energy Efficiency Directive (2012/27/EU).</p> <p>Greater energy savings and energy efficiency improvements would follow if the energy efficiency Directive 2012/27 was fully transposed at national level, which is not the case despite the June 2014 deadline.</p>
Early school leaving target: <9%	<p>EU and national targets have already been met. The early school leaving rate was 7.4 % in 2011, 6.5 % in 2012, and 6.3 % in 2013, below the national target of 9 % and the EU average (12.7 % in 2012). Some progress has been made over the past year. Significant disparities between girls and boys and rural and urban areas remain.</p>

Tertiary education target: 48.7%	EU and national targets have already been met. The rate of tertiary education attainment was 45.7 % in 2011, 48.7 % in 2012, and 51.3 % in 2013, above the EU average (35.7 % in 2012).
Risk of poverty or social exclusion target: 814000	<p>In 2013, there were 917,000 people at risk of poverty or social exclusion (30.8 % of the total population). In 2012, the same number stood at 975,000 (32,5%).</p> <p>The number of people at risk of poverty or social exclusion is still above the pre-crisis level (28.7 %). In 2010, when the national target was set, and at that time 1,109,000 people (33.4 %) were at risk of poverty or social exclusion.</p>

## ANNEX B

### Standard Tables

Table AB.1: **Macroeconomic indicators**

	1996-2000	2001-2005	2006-2010	2011	2012	2013	2014	2015	2016
<b>Core indicators</b>									
GDP growth rate	4.7	7.8	1.6	6.1	3.8	3.3	3.0	3.0	3.4
Output gap <sup>1</sup>	n.a.	-0.1	0.3	-3.8	-1.2	-0.1	0.4	0.6	0.7
HICP (annual % change)	8.6	0.9	5.2	4.1	3.2	1.2	0.2	0.4	1.6
Domestic demand (annual % change) <sup>2</sup>	6.2	9.1	0.9	5.8	-0.2	2.9	4.3	4.0	4.3
Unemployment rate (% of labour force) <sup>3</sup>	11.7	12.6	9.5	15.4	13.4	11.8	9.5	8.7	7.9
Gross fixed capital formation (% of GDP)	21.9	21.9	23.1	18.4	17.3	18.2	19.1	19.4	20.0
Gross national saving (% of GDP)	12.6	15.1	15.7	17.4	17.4	19.7	19.5	20.8	20.7
<b>General government (% of GDP)</b>									
Net lending (+) or net borrowing (-)	n.a.	n.a.	-4.2	-9.0	-3.2	-2.6	-1.2	-1.4	-0.9
Gross debt	n.a.	20.8	23.1	37.3	39.9	39.0	41.1	41.8	37.3
Net financial assets	27.3	7.7	1.5	-19.0	-24.8	n.a.	n.a.	n.a.	n.a.
Total revenue	n.a.	n.a.	34.8	33.5	33.0	32.8	34.3	32.8	32.7
Total expenditure	n.a.	n.a.	39.0	42.5	36.1	35.5	35.5	34.2	33.6
<i>of which: Interest</i>	n.a.	n.a.	1.0	1.8	2.0	1.8	1.8	1.6	1.5
<b>Corporations (% of GDP)</b>									
Net lending (+) or net borrowing (-)	-6.3	-4.0	0.5	5.0	6.6	8.2	n.a.	n.a.	n.a.
Net financial assets; non-financial corporations	-88.8	-85.9	-98.3	-84.8	-79.3	n.a.	n.a.	n.a.	n.a.
Net financial assets; financial corporations	-2.3	-2.0	1.1	0.7	0.9	n.a.	n.a.	n.a.	n.a.
Gross capital formation	15.7	14.6	15.0	13.6	12.0	11.6	n.a.	n.a.	n.a.
Gross operating surplus	24.1	32.4	33.6	38.6	38.6	38.7	n.a.	n.a.	n.a.
<b>Households and NPISH (% of GDP)</b>									
Net lending (+) or net borrowing (-)	1.7	-0.2	-1.4	-0.8	-2.2	-2.5	n.a.	n.a.	n.a.
Net financial assets	39.0	42.7	39.0	47.3	47.0	n.a.	n.a.	n.a.	n.a.
Gross wages and salaries	31.4	31.7	34.2	31.6	30.9	31.0	n.a.	n.a.	n.a.
Net property income	11.5	18.1	13.9	15.7	16.0	15.8	n.a.	n.a.	n.a.
Current transfers received	11.1	11.5	15.5	16.1	14.1	15.0	n.a.	n.a.	n.a.
Gross saving	2.4	3.0	1.5	2.4	0.9	1.4	n.a.	n.a.	n.a.
<b>Rest of the world (% of GDP)</b>									
Net lending (+) or net borrowing (-)	-9.3	-6.0	-5.2	-1.3	1.1	3.6	4.5	4.0	3.2
Net financial assets	25.4	38.1	57.4	57.1	57.3	n.a.	n.a.	n.a.	n.a.
Net exports of goods and services	-9.4	-6.3	-7.7	-2.6	0.9	1.3	0.4	1.2	0.9
Net primary income from the rest of the world	-1.9	-1.6	-1.7	-3.7	-3.0	-2.7	-2.3	-2.3	-2.5
Net capital transactions	0.0	0.5	2.7	3.2	2.9	3.0	4.3	3.0	2.7
Tradable sector	53.4	55.8	52.5	56.4	58.1	57.6	n.a.	n.a.	n.a.
Non-tradable sector	35.3	34.1	37.5	33.7	32.3	32.9	n.a.	n.a.	n.a.
<i>of which: Building and construction sector</i>	6.4	6.2	8.0	5.8	5.4	5.9	n.a.	n.a.	n.a.

Notes:

<sup>1</sup> The output gap constitutes the gap between the actual and potential gross domestic product at 2010 market prices

<sup>2</sup> The indicator of domestic demand includes stocks.

<sup>3</sup> Unemployed persons are all those who were not employed, had actively sought work and were ready to begin working immediately or within two weeks. The labour force is the total number of people employed and unemployed. The unemployment rate covers the age group 15-74.

**Source:** European Commission 2015 winter forecast; Commission calculations.

Table AB.2: **Financial market indicators**

	2009	2010	2011	2012	2013	2014
Total assets of the banking sector (% of GDP) <sup>1)</sup>	98.2	92.6	79.8	74.1	69.4	68.8
Share of assets of the five largest banks (% of total assets)	80.5	78.8	84.7	83.6	87.1	n.a.
Foreign ownership of banking system (% of total assets)	83.4	79.6	73.5	72.0	72.7	n.a.
Financial soundness indicators:						
- non-performing loans (% of total loans) <sup>2)3)</sup>	24.0	23.3	18.8	14.8	11.6	9.9
- capital adequacy ratio (%) <sup>2)</sup>	12.9	14.8	14.2	15.7	17.6	20.4
- return on equity (%) <sup>2)4)</sup>	-59.6	-4.6	17.5	8.9	10.1	5.8
Bank loans to the private sector (year-on-year % change) <sup>1)</sup>	-8.5	-6.5	-1.1	2.3	-0.9	-0.9
Lending for house purchase (year-on-year % change) <sup>1)</sup>	-0.2	-0.8	0.2	-0.8	0.7	2.1
Loan to deposit ratio <sup>1)</sup>	169.4	145.8	133.7	126.0	116.0	107.7
Central Bank liquidity as % of liabilities <sup>5)</sup>	0.0	0.0	0.0	0.0	0.0	0.0
Private debt (% of GDP)	83.4	74.7	64.8	61.2	56.4	n.a.
Gross external debt (% of GDP) <sup>6)</sup>						
- public	20.3	29.0	29.4	35.7	33.0	32.6
- private	23.2	21.3	20.2	18.3	17.9	17.1
Long-term interest rate spread versus Bund (basis points)*	1078.2	282.3	255.2	333.6	226.2	162.9
Credit default swap spreads for sovereign securities (5-year)*	482.5	259.5	234.5	203.1	107.5	100.9

## Notes:

1) Latest data November 2014.

2) Latest data Q2 2014.

3) Data on non-impaired loans overdue more than 60 days plus impaired loans.

4) After extraordinary items and taxes. Compiled according to the FSI compilation guide and therefore may differ from the national definition.

5) Latest data September 2014.

6) Latest data June 2014. Monetary authorities, monetary and financial institutions are not included.

\* Measured in basis points.

**Source:** IMF (financial soundness indicators), Commission (long-term interest rates), World Bank (gross external debt) and ECB (all other indicators).

Table AB.3: **Taxation indicators**

	2002	2006	2008	2010	2011	2012
<b>Total tax revenues</b> (incl. actual compulsory social contributions, % of GDP)	29.1	30.0	30.7	28.5	27.4	27.2
<b>Breakdown by economic function</b> (% of GDP) <sup>1</sup>						
Consumption	11.6	10.8	11.3	11.4	11.2	10.8
of which:						
- VAT	7.3	7.6	8.0	7.9	7.9	7.7
- excise duties on tobacco and alcohol	1.2	1.3	1.5	1.5	1.4	1.3
- energy	2.0	1.6	1.5	1.8	1.6	1.6
- other (residual)	1.1	0.3	0.4	0.3	0.3	0.3
Labour employed	14.6	14.4	14.5	13.1	12.5	12.5
Labour non-employed	0.1	0.2	0.3	0.3	0.2	0.1
Capital and business income	2.0	4.1	4.1	3.2	2.9	3.2
Stocks of capital/wealth	0.8	0.6	0.5	0.6	0.6	0.6
<i>p.m.</i> Environmental taxes <sup>2</sup>	2.8	1.8	1.6	1.8	1.7	1.7
<b>VAT efficiency</b> <sup>3</sup>						
Actual VAT revenues as % of theoretical revenues at standard rate	52.3	55.0	57.9	48.8	51.1	49.8

## Notes:

1. Tax revenues are broken down by economic function, i.e. according to whether taxes are raised on consumption, labour or capital. See European Commission (2014), Taxation trends in the European Union, for a more detailed explanation.

2. This category comprises taxes on energy, transport and pollution and resources included in taxes on consumption and capital.

3. VAT efficiency is measured via the VAT revenue ratio. It is defined as the ratio between the actual VAT revenue collected and the revenue that would be raised if VAT was applied at the standard rate to all final (domestic) consumption expenditures, which is an imperfect measure of the theoretical pure VAT base. A low ratio can indicate a reduction of the tax base due to large exemptions or the application of reduced rates to a wide range of goods and services ('policy gap') or a failure to collect all tax due to e.g. fraud ('collection gap'). It should be noted that the relative scale of cross-border shopping (including trade in financial services) compared to domestic consumption also influences the value of the ratio, notably for smaller economies. For a more detailed discussion, see European Commission (2012), Tax Reforms in EU Member States, and OECD (2014), Consumption tax trends.

Source: European Commission

Table AB.4: Labour market and social indicators

	2008	2009	2010	2011	2012	2013	2014
Employment rate (% of population aged 20-64)	72.0	67.0	64.3	66.9	68.5	69.9	71.7
Employment growth (% change from previous year)	-1.3	-7.7	-5.3	0.5	1.8	1.3	2.1
Employment rate of women (% of female population aged 20-64)	68.7	67.2	65.0	66.6	67.9	68.6	70.5
Employment rate of men (% of male population aged 20-64)	75.6	66.8	63.5	67.2	69.1	71.2	72.9
Employment rate of older workers (% of population aged 55-64)	53.0	51.2	48.3	50.2	51.7	53.4	56.2
Part-time employment (% of total employment, age 15 years and over)	6.8	8.3	8.2	8.9	9.5	9.0	9.0
Part-time employment of women (% of women employment, age 15 years and over)	8.7	9.5	9.4	10.5	11.3	10.8	11.2
Part-time employment of men (% of men employment, age 15 years and over)	4.9	6.9	6.8	7.1	7.5	7.1	6.8
Fixed term employment (% of employees with a fixed term contract, age 15 years and over)	2.4	2.3	2.4	2.7	2.6	2.7	2.8
Transitions from temporary to permanent employment	65.5	62.2	46.3	54.8	16.1	n.a.	n.a.
Unemployment rate <sup>1</sup> (% of labour force, age group 15-74)	5.8	13.8	17.8	15.4	13.4	11.8	10.4
Long-term unemployment rate <sup>2</sup> (% of labour force)	1.3	3.3	7.4	8.0	6.6	5.1	4.8
Youth unemployment rate (% of youth labour force aged 15-24)	13.3	29.6	35.7	32.6	26.7	21.9	18.3
Youth NEET rate (% of population aged 15-24)	8.8	12.1	13.2	11.8	11.2	11.1	n.a.
Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training)	7.5	8.7	7.9	7.4	6.5	6.3	n.a.
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	39.9	40.4	43.8	45.7	48.6	51.3	n.a.
Formal childcare (from 1 to 29 hours; % over the population aged less than 3 years)	1.0	1.0	2.0	1.0	3.0	n.a.	n.a.
Formal childcare (30 hours or over; % over the population aged less than 3 years)	8.0	9.0	11.0	6.0	5.0	n.a.	n.a.
Labour productivity per person employed (annual % change)	4.0	-7.7	7.3	5.6	2.0	1.9	0.5
Hours worked per person employed (annual % change)	1.6	-3.7	1.1	-1.3	-0.1	-0.9	1.0
Labour productivity per hour worked (annual % change; constant prices)	2.4	-4.2	6.1	7.1	2.1	2.8	-0.5
Compensation per employee (annual % change; constant prices)	4.0	-6.2	-2.4	1.1	1.5	3.3	2.2
Nominal unit labour cost growth (annual % change)	10.4	-1.5	-7.0	0.7	1.9	3.8	n.a.
Real unit labour cost growth (annual % change)	0.7	2.0	-9.1	-4.4	-0.7	2.1	n.a.

(1) Unemployed persons are all those who were not employed, but had actively sought work and were ready to begin working immediately or within two weeks. The labour force is the total number of people employed and unemployed.

(2) Long-term unemployed are persons who have been unemployed for at least 12 months. Data on the unemployment rate of 2014 includes the last release by Eurostat in early February 2015.

Source: European Commission (EU Labour Force Survey and European National Accounts).

Table AB.5: Expenditure on social protection benefits (% of GDP)

	2007	2008	2009	2010	2011	2012
Sickness/healthcare	4.3	4.6	5.5	4.8	4.5	4.3
Invalidity	1.4	1.6	2.1	1.8	1.6	1.5
Old age and survivors	6.5	6.9	9.0	8.0	7.2	7.3
Family/children	1.2	1.8	2.8	2.2	1.7	1.4
Unemployment	0.4	0.4	0.9	0.8	0.6	0.4
Housing and social exclusion n.e.c.	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	14.0	15.6	20.6	18.3	16.3	15.7
of which: means-tested benefits	0.2	0.3	0.5	1.0	1.0	0.9
<b>Social inclusion indicators</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
People at risk of poverty or social exclusion <sup>1</sup> (% of total population)	27.6	29.6	34.0	33.1	32.5	30.8
Children at risk of poverty or social exclusion (% of people aged 0-17)	29.4	30.8	35.8	34.6	31.9	35.4
Elderly at risk of poverty or social exclusion (% of people aged 65+)	38.1	35.3	29.8	30.9	35.7	31.7
At-risk-of-poverty rate <sup>2</sup> (% of total population)	20.0	20.3	20.5	19.2	18.6	20.6
Severe material deprivation rate <sup>3</sup> (% of total population)	12.3	15.6	19.9	19.0	19.8	16.0
Proportion of people living in low work intensity households <sup>4</sup> (% of people aged 0-59)	5.1	7.2	9.5	12.7	11.4	11.0
In-work at-risk-of-poverty rate (% of persons employed)	9.3	10.3	12.6	9.5	7.6	9.1
Impact of social transfers (excluding pensions) on reducing poverty	26.5	29.0	34.5	36.4	34.5	32.0
Poverty thresholds, expressed in national currency at constant prices <sup>5</sup>	8163.0	8308.5	6817.5	6448.5	6964.5	7313.5
Gross disposable income (households)	71514.0	66155.0	66687.0	69740.0	72364.0	n.a.
Relative median poverty risk gap (60% of median equivalised income, age: total)	25.7	23.8	32.6	29.0	22.6	24.8
Inequality of income distribution (S80/S20 income quintile share ratio)	5.9	6.4	7.3	5.8	5.3	6.1

(1) People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in households with zero or very low work intensity (LWI).

(2) At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60% of the national equivalised median income.

(3) Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.

(4) People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20% of their total work-time potential in the previous 12 months.

(5) For EE, CY, MT, SI and SK, thresholds in nominal values in euros; harmonised index of consumer prices (HICP) = 100 in 2006 (2007 survey refers to 2006 incomes).

(6) 2014 data refer to the average of the first three quarters.

**Source:** For expenditure for social protection benefits ESSPROS; for social inclusion EU-SILC.

Table AB.6: Product market performance and policy indicators

	2004-08	2009	2010	2011	2012	2013	2014
Labour productivity <sup>1</sup> in total economy (annual growth in %)	n.a.	-7.7	7.3	5.6	2.0	1.9	n.a.
Labour productivity <sup>1</sup> in manufacturing (annual growth in %)	n.a.	-2.0	18.4	8.4	2.2	5.1	n.a.
Labour productivity <sup>1</sup> in electricity, gas (annual growth in %)	n.a.	14.1	14.8	-5.6	-1.3	7.6	n.a.
Labour productivity <sup>1</sup> in the construction sector (annual growth in %)	n.a.	-25.9	22.3	21.6	-10.1	-0.2	n.a.
Labour productivity <sup>1</sup> in the wholesale and retail sector (annual growth in %)	n.a.	-14.7	4.0	9.7	7.1	1.4	n.a.
Labour productivity <sup>1</sup> in the information and communication sector (annual growth in %)	n.a.	6.3	5.5	-16.7	-7.2	18.0	n.a.
Patent intensity in manufacturing <sup>2</sup> (EPO patent applications divided by gross value added of the sector)	n.a.	0.0	0.0	0.0	n.a.	n.a.	n.a.
<b>Policy indicators</b>	<b>2004-08</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Enforcing contracts <sup>3</sup> (days)	210	300	300	300	300	300	300
Time to start a business <sup>3</sup> (days)	26.0	26	22	22	20	7	4
R&D expenditure (% of GDP)	0.8	0.8	0.8	0.9	0.9	1.0	n.a.
Total public expenditure on education (% of GDP)	4.9	5.6	5.4	5.2	n.a.	n.a.	n.a.
(Index: 0=not regulated; 6=most regulated)	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Product market regulation <sup>4</sup> , overall	n.a.	n.a.	n.a.	n.a.	n.a.	1.52	n.a.
Product market regulation <sup>4</sup> , retail	n.a.	n.a.	n.a.	n.a.	n.a.	1.11	n.a.
Product market regulation <sup>4</sup> , professional services	n.a.	n.a.	n.a.	n.a.	n.a.	1.85	n.a.
Product market regulation <sup>4</sup> , network industries <sup>5</sup>	n.a.	n.a.	n.a.	n.a.	n.a.	2.02	n.a.

**Source:** European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators).

Table AB.7: **Green growth**

<b>Green growth performance</b>		<b>2003-2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Macroeconomic</b>							
Energy intensity	kgoe / €	0.43	0.36	0.39	0.31	0.30	0.29
Carbon intensity	kg / €	1.11	0.98	0.94	0.96	0.93	0.89
Resource intensity (reciprocal of resource productivity)	kg / €	1.96	2.03	1.60	1.74	1.78	n.a.
Waste intensity	kg / €	n.a.	0.25	n.a.	0.25	n.a.	0.23
Energy balance of trade	% GDP	-2.2	-5.8	-4.2	-7.2	-7.7	-7.6
Energy weight in HICP	%	13.6	13.4	12.5	13.6	15.3	16.4
Difference between energy price change and inflation	%	2.0	9.1	12.0	6.4	6.9	3.8
Ratio of environmental taxes to labour taxes	ratio	15.6%	11.1%	13.6%	13.9%	13.4%	13.2%
Ratio of environmental taxes to total taxes	ratio	7.8%	5.4%	6.7%	6.5%	6.2%	6.1%
<b>Sectoral</b>							
Industry energy intensity	kgoe / €	0.21	0.18	0.18	0.18	0.18	0.18
Share of energy-intensive industries in the economy	% GDP	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Electricity prices for medium-sized industrial users**	€ / kWh	n.a.	0.08	0.09	0.10	0.10	0.11
Gas prices for medium-sized industrial users***	€ / kWh	n.a.	0.04	0.03	0.03	0.04	0.05
Public R&D for energy	% GDP	n.a.	0.02	0.02	0.02	0.02	0.01
Public R&D for the environment	% GDP	n.a.	0.03	0.02	0.00	0.00	0.00
Recycling rate of municipal waste	ratio	2.6%	8.5%	8.5%	12.8%	20.4%	20.4%
Share of GHG emissions covered by ETS*	%	n.a.	24.5	28.3	30.3	25.9	26.4
Transport energy intensity	kgoe / €	0.81	0.77	0.68	0.63	0.59	0.57
Transport carbon intensity	kg / €	2.45	2.25	2.01	1.85	1.73	1.63
<b>Security of energy supply</b>							
Energy import dependency	%	54.1	57.8	49.9	81.8	81.6	80.3
Diversification of oil import sources	HHI	0.85	0.85	0.89	0.87	0.78	0.75
Diversification of energy mix	HHI	n.a.	0.27	0.28	0.30	0.29	0.29
Renewable energy share of energy mix	%	9.9	11.0	12.4	15.7	15.1	16.4

Country-specific notes:

2013 is not included in the table due to lack of data.

General explanation of the table items:

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2000 prices)

Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)

Carbon intensity: Greenhouse gas emissions (in kg CO<sub>2</sub> equivalents) divided by GDP (in EUR)

Resource intensity: Domestic material consumption (in kg) divided by GDP (in EUR)

Waste intensity: waste (in kg) divided by GDP (in EUR)

Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP

Energy weight in HICP: the proportion of "energy" items in the consumption basket used for the construction of the HICP

Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change)

Environmental taxes over labour or total taxes: from DG TAXUD's database 'Taxation trends in the European Union'

Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2005 EUR)

Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP

Electricity and gas prices for medium-sized industrial users: consumption band 500–2000MWh and 10000–100000 GJ; figures excl. VAT.

Recycling rate of municipal waste: ratio of recycled municipal waste to total municipal waste

Public R&D for energy or for the environment: government spending on R&D (GBAORD) for these categories as % of GDP

Proportion of GHG emissions covered by ETS: based on greenhouse gas emissions (excl LULUCF) as reported by Member States to the European Environment Agency

Transport energy intensity: final energy consumption of transport activity (kgoe) divided by transport industry gross value added (in 2005 EUR)

Transport carbon intensity: greenhouse gas emissions in transport activity divided by gross value added of the transport sector

Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels

Diversification of oil import sources: Herfindahl index (HHI), calculated as the sum of the squared market shares of countries of origin

Diversification of the energy mix: Herfindahl index over natural gas, total petrol products, nuclear heat, renewable energies and solid fuels

Renewable energy share of energy mix: %-share of gross inland energy consumption, expressed in tonne oil equivalents

\* European Commission and European Environment Agency

\*\* For 2007 average of S1 & S2 for DE, HR, LU, NL, FI, SE & UK. Other countries only have S2.

\*\*\* For 2007 average of S1 & S2 for HR, IT, NL, FI, SE & UK. Other countries only have S2.

**Source:** European Commission unless indicated otherwise; European Commission calculations .

