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BASIC STATISTICS OF LATVIA, 2016

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

LAND, PEOPLE AND ELECTORAL CYCLE

Population (million)	2.0		Population density per km^2	31.7	(37.2)
Under 15 (%)	15.8	(17.9)	Life expectancy (years, 2014)	74.3	(80.6)
Over 65 (%)	18.7	(16.6)	Men	69.1	(77.9)
Foreign-born (%, 2014)	13.0		Women	79.4	(83.3)
Latest 5-year average growth (%)	-0.4	(0.6)	Latest general election	October 2014	

ECONOMY

Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	27.7		Primary sector	3.2	(2.5)
In current prices (billion EUR)	25.0		Industry including construction	21.9	(26.7)
Latest 5-year average real growth (%)	2.7	(1.8)	Services	74.9	(70.8)
Per capita (000 USD PPP)	25.9	(41.9)			

GENERAL GOVERNMENT

Per cent of GDP

Expenditure	36.3	(40.9)	Gross financial debt	45.8	(109.0)
Revenue	36.4	(38.0)	Net financial debt	17.5	(70.0)

EXTERNAL ACCOUNTS

Exchange rate (EUR per USD)	0.904		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	0.495		Machinery and transport equipment	22.3	
In per cent of GDP			Manufactured goods	17.9	
Exports of goods and services	58.0	(53.9)	Crude materials, inedible, except fuels	13.0	
Imports of goods and services	57.4	(49.4)	Main imports (% of total merchandise imports)		
Current account balance	1.5	(0.3)	Machinery and transport equipment	27.9	
Net international investment position (2014)	-56.7		Manufactured goods	13.8	
			Chemicals and related products, n.e.s.	12.0	

LABOUR MARKET, SKILLS AND INNOVATION

Employment rate for 15-64 year-olds (%)	68.7	(67.0)	Unemployment rate, Labour Force Survey (age 15 and over) (%)	9.6	(6.3)
Men	70.0	(74.7)	Youth (age 15-24, %)	17.3	(13.0)
Women	67.6	(59.3)	Long-term unemployed (1 year and over, %)	4.0	(2.0)
Participation rate for 15-64 year-olds (%, 2015)	75.7	(71.3)	Tertiary educational attainment 25-64 year-olds (%, 2015)	31.6	(35.0)
Average hours worked per year (2015)	1 903	(1 766)	Gross domestic expenditure on R&D (% of GDP, 2015)	0.6	(2.4)

ENVIRONMENT

Total primary energy supply per capita (toe, 2015)	0.0	(4.1)	CO_2 emissions from fuel combustion per capita (tonnes, 2014)	3.3	(9.4)
Renewables (%, 2014)[b]	37.2	(9.6)	Water abstractions per capita (1 000 m^3, 2014)	0.1	
Exposure to air pollution (more than 10 μg/m^3 of $PM_{2.5}$, % of population, 2015)	50.2	(75.2)	Municipal waste per capita (tonnes, 2015)[c]	0.4	(0.5)

SOCIETY

Income inequality (Gini coefficient, 2013)	0.352	(0.311)	Education outcomes (PISA score, 2015)		
Relative poverty rate (%, 2013)	14.1	(11.1)	Reading	488	(493)
Median disposable household income (000 USD PPP, 2013)	10.4	(22.0)	Mathematics	482	(490)
Public and private spending (% of GDP)			Science	490	(493)
Health care (2015)	5.6	(9.0)	Share of women in parliament (%, 2015)	18.0	(28.3)
Pensions (2013)	7.7	(9.1)	Net official development assistance (% of GNI)	0.10	(0.39)
Education (primary, secondary, post sec. non tertiary, 2013)	3.1	(3.7)			

Better life index: *www.oecdbetterlifeindex.org*

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

b) 2015 for the OECD aggregate.

c) 2014 for the OECD aggregate.

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

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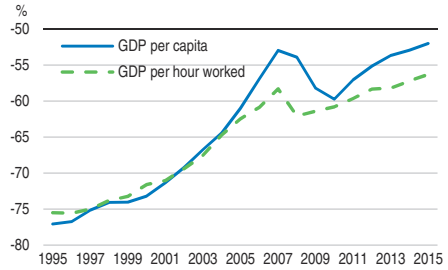
Executive summary

- *The Latvian Economy has grown robustly but not enough for strong convergence in living standards*
- *Boosting growth requires better export performance*
- *Better access to housing, jobs and health care would boost inclusive growth*

The Latvian Economy has grown robustly but not enough for strong convergence in living standards

The gap in GDP per capita remains large

Gap vis-à-vis the upper half of OECD countries[1]



1. Percentage gap with respect to the weighted average using population weights of the highest 17 OECD countries in terms of GDP per capita and GDP per hour worked (in constant 2010 PPPs).

Source: OECD (2017), OECD National Accounts Statistics and Productivity Statistics (database).

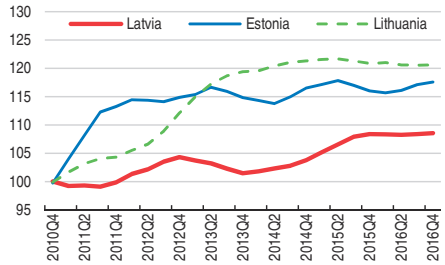
StatLink http://dx.doi.org/10.1787/888933582265

Latvia's economy has grown robustly in recent years on the back of a strong track record in implementing structural reforms, despite a challenging international environment. Rising wages have supported household consumption. After a severe setback in 2008-09, catch-up with higher income OECD countries may have resumed. Government finances are solid and financial market confidence in Latvia is strong. Private sector indebtedness is now lower than in many OECD economies. Unemployment has fallen but remains high, adding to poverty. Many young Latvians emigrate. Informal economic activity is still widespread. Improving access to housing, health care, education and training would improve economic opportunities for low-income households and requires additional government spending.

Boosting growth requires better export performance

Export performance is improving

Four-quarter moving average, index 2010 = 100



Note: Export performance is measured as the ratio of actual export volume to the country's export market.

Source: OECD (2017), OECD Economic Outlook: Statistics and Projections (database).

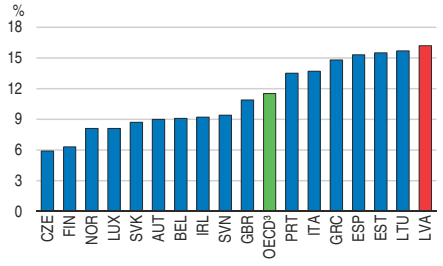
StatLink http://dx.doi.org/10.1787/888933582398

Export performance, including diversification of products and destinations, is improving, but Latvia's exports still rely heavily on low value-added, natural resource intensive products, reflecting in part skills shortages and weak innovation. Few Latvian firms participate in global value chains, although those which do have much higher productivity, employment and wages. Weak credit recovery from insolvent firms holds back access to credit for firms with growth potential. Skill mismatch and widespread informality prevent firms from moving up the global value chains.

Better access to housing, jobs and health care would boost inclusive growth

Poverty is high

Share of population with disposable income below the poverty line,[1] 2015 or latest year



1. The poverty line is half of median household income. Household income is adjusted to take into account household size.
2. Unweighted average.

Source: OECD (2017), OECD Social and Welfare Statistics (database).

StatLink http://dx.doi.org/10.1787/888933582284

High long-term unemployment, weak social safety nets and high labour taxes for workers on low pay contribute to widespread poverty. Unemployment is particularly high in Eastern regions of Latvia. Many low-income households are inadequately housed. Few Latvians live in rented housing, which reduces their mobility, and social housing is scarce, especially in the Riga area, where unemployment is low and good jobs more abundant. High out-of-pocket payments for health services limit access of low-income households to health services.

MAIN FINDINGS	KEY RECOMMENDATIONS
Using fiscal policy to support structural reform priorities	
High taxes on low wage incomes contribute to informality, high unemployment, poverty and the emigration of the young.	Reduce the labour tax wedge on low earnings. Raise more revenues from the taxation of real estate and energy. Broaden the base of business income taxation by removing tax exemptions.
The budgetary situation is strong and public debt is low.	Continue to comply with the European Union's fiscal rules and make full use of available fiscal space, including the flexibility mechanisms, to fund structural reforms.
Informal activity is widespread, holding back tax revenues, productivity and coverage of workers with social safety nets. Perceptions of weak governance and low trust in the government reduce willingness to pay tax.	Strengthen the budgetary independence of the Corruption Prevention and Combating Bureau (KNAB). Make better use of information and communication technology for tax law enforcement. Remove political influence in the appointment of judges.
Improving productivity and access to better economic opportunities for all	
Underskilled workers and low-skill workers have high unemployment and poverty risks.	Provide more generous grants for students attending vocational schools who are from low-income families.
Most university students receive no income support from the government and there is no support targeted to students from low-income households.	Expand grants for university students and target them to students from low-income families.
Weak loan recovery in insolvency procedures holds back bank credit.	Strengthen the specialisation of judges.
Innovation activity is weak. The productivity gap vis-à-vis high income countries is large. Integration in global value-added chains and inward foreign direct investment are low.	Increase government funding of programmes with strong evaluation results.
Infrastructure investment spending is high but the quality of infrastructure still falls short of standards in high-income countries.	Apply the same cost-benefit tests to large national projects as are applied to EU-funded projects.
Improve access to health services, housing and jobs	
Few households rent their homes. This reduces labour mobility and contributes to keeping unemployment high in some regions. There is little development of new housing for rent. Legal uncertainty and long legal procedures hold back the development of the private rented housing market. Housing conditions for low-income households are poor and low-cost housing falls short of demand, especially in the Riga metropolitan area.	Improve legal certainty in rental regulation and encourage out-of-court procedures. Simplify the administrative process for obtaining a building permit. Provide more funding for low-cost rented housing in areas of expanding employment. Expand the mobility programme, which provides temporary support for relocation and transport.
Health outcomes are poor and access to care is limited especially among low-income households. Budget restrictions result in rationing of care at the end of each year. Efficiency in health care provision is also held back by insufficient granularity in health service data.	Reduce out-of-pocket payments especially for the low-income population. Develop key service quality and performance indicators for health care providers at national, local and provider-level.
The metropolitan area of Riga is a key driver of growth and employment but lacks adequate governance.	Create a platform to co-ordinate policies of all municipalities where most residents commute to Riga.
High operating costs in the compulsory private pension system reduce net payouts, with no benefit to workers or the government.	Lower operating costs in the compulsory private pension system, for example by introducing a low-cost fund as the default choice.

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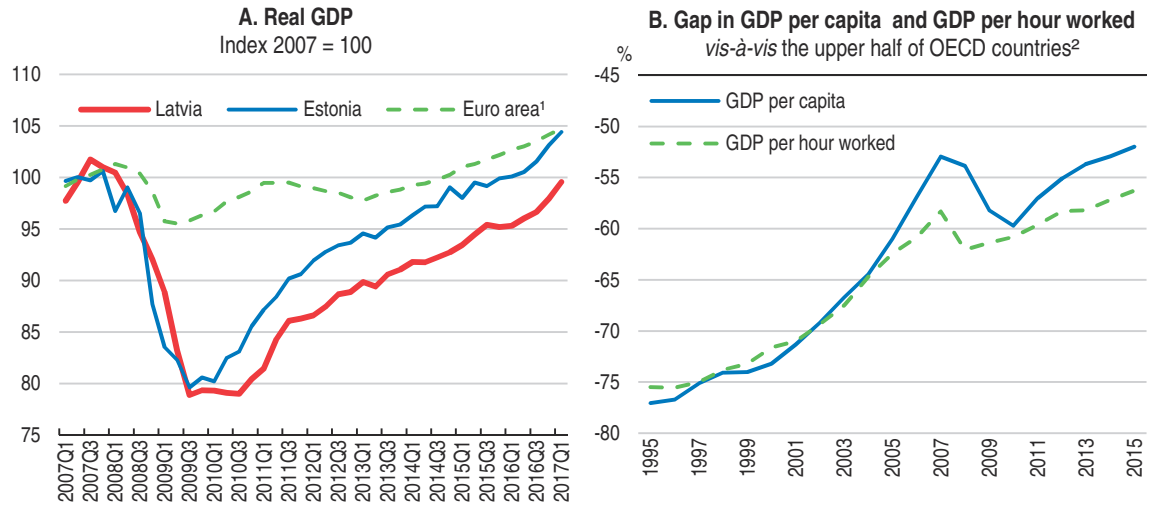
Assessment and recommendations

- *Income convergence may have resumed but growth needs to become more inclusive*
- *Fiscal policy to support pressing structural and social policy priorities*
- *Improving living standards requires boosting productivity and stronger integration in global value chains*
- *Improving access to housing and health care is key for more inclusive growth*
- *Environmental outcomes are good*

Income convergence may have resumed but growth needs to become more inclusive

Latvia's economy has grown robustly in recent years (Figure 1), although it suffered in the global recession and faces a challenging environment as exports to Russia have fallen. Latvian exporters have gained market share. Rising wages have supported growth in household consumption. The fiscal position is solid, with a balanced government budget in 2016 and government debt near 40% of GDP. Private sector indebtedness has fallen to relatively low levels. Modest government and private debt and a solid financial sector underpin strong financial market confidence. The Riga metropolitan area is a key driver of economic growth, hosting the country's nascent high-tech sectors, and contributes about 69% to national GDP.

Figure 1. **Growth has resumed**



1. Euro area countries which are OECD members.
2. Percentage gap with respect to the weighted average using population weights of the highest 17 OECD countries in terms of GDP per capita and GDP per hour worked (in constant 2010 PPPs).

Source: OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database), OECD (2017), *OECD National Accounts Statistics* (database) and *OECD Productivity Statistics* (database).

StatLink http://dx.doi.org/10.1787/888933582303

Recent progress on structural reform priorities can lay the base for invigorating growth and well-being. Latvia stands out as the country which has taken most action on structural reform priorities identified in OECD's Going for Growth (OECD, 2017a). The quality of education and training has improved and active labour market policies have been upgraded with EU funds. Administrative burdens to entrepreneurship have been reduced, the efficiency of the judiciary has been enhanced by consolidation of small district courts and efforts to boost tax revenue collection have born some fruit.

Despite these advances, the gap in income and productivity to high income OECD countries remains large. This gap also remains larger than in other Baltic countries or

Central European countries. Productivity growth has slowed since the crisis, in Latvia as elsewhere (OECD 2016g). Diversification of export products and destinations have improved, still participation in global value chains remains concentrated on low-value-added activities. Unemployment has fallen but remains above 8%, and the incidence of long-run unemployment is still high, despite the short duration of unemployment benefit entitlements, which contributes to high poverty. Informal economic activity is still widespread, weighing on productivity, poverty and on tax revenues. Large emigration, mostly of young Latvians, contributes to skill shortages. As data from the Latvian Statistical Office show, a third of Latvian emigrants were between 20 and 30 years old in 2015. Geographic disparities in growth, employment and wellbeing are large.

Latvians are less satisfied with their lives than the OECD average (Figure 2, Panel A) and in most of the dimensions of the OECD's Better Life Index, Latvia scores below the OECD average. An exception is educational attainment, as almost all Latvians are educated at least to upper secondary level. However, vocational education has not been sufficiently attractive and has therefore undergone substantial reforms recently. The areas of relative weakness highlighted by the Better Life Index point to little access to well-paid jobs, and problems in the health care system and the housing market. Poverty is among the highest in the OECD (Panel B). The availability of affordable quality housing is low, for instance, the share of households' housing spending in total expenditure (26%) is high, and higher than in other countries with similar income level, such as Estonia. Fifteen per cent of dwellings lack basic facilities. Life expectancy at birth in Latvia is 74 years, six years below the OECD average. The gap in health status between rich and poor households is large (Panel C). Income inequality is also high (Figure 3).

A high incidence of poverty and unequal access to quality housing, jobs, education, health and transport services pose risks for social cohesion. Indeed trust in public institutions is generally low, which also damps willingness to pay tax. Weaknesses in effective law enforcement are also likely to have contributed. The government has introduced a broad range of reform initiatives to strengthen the judicial system. Social conflict in the form of strike has remained rare and the government has made efforts to consult social partners with important reform projects such as recent education reforms and the recent tax reform (see below).

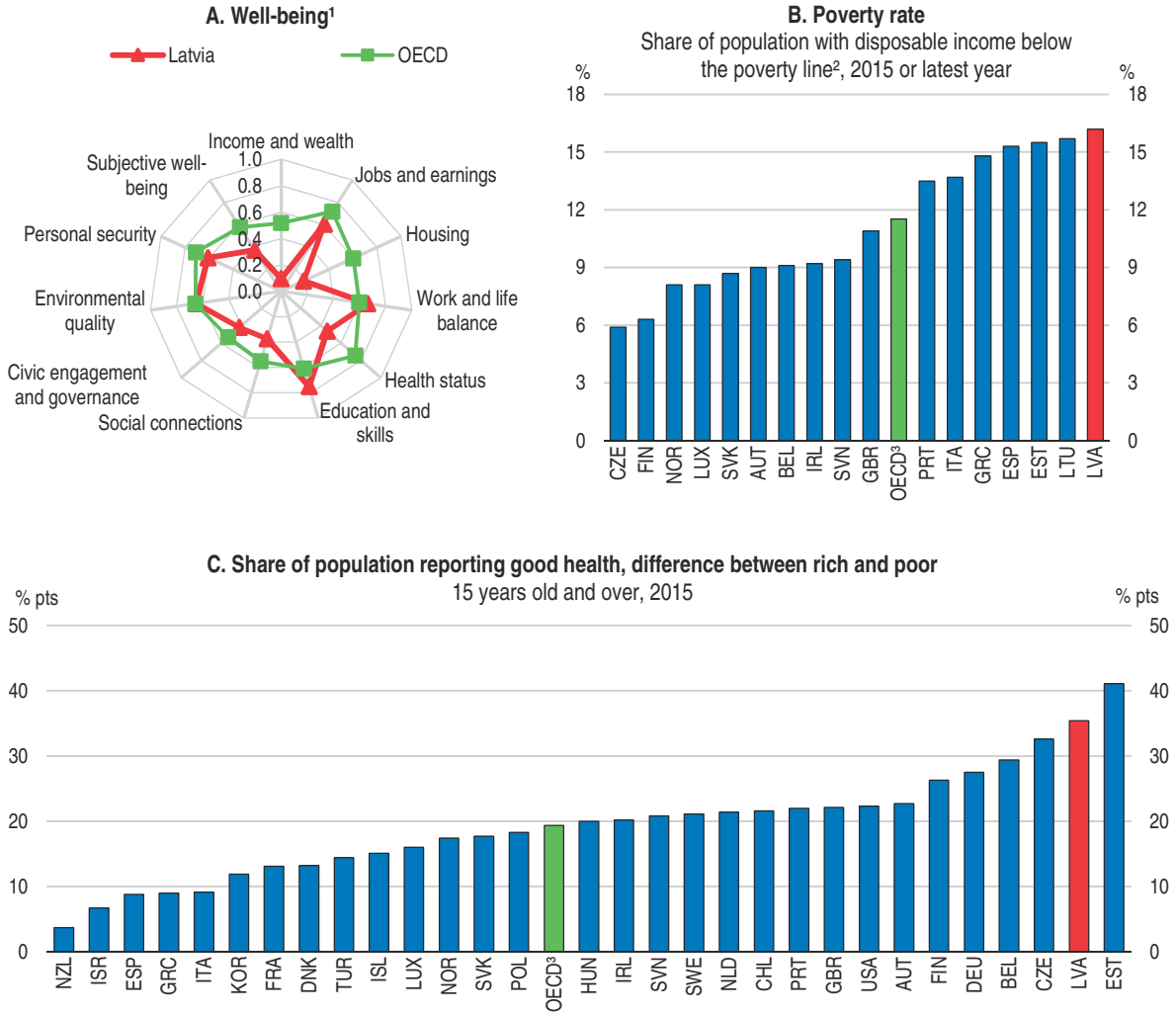
Against this background, the main policy messages from the Survey are:

- Latvia has recovered strongly from the global crisis. Greater integration in higher value added activities within global value-chains is key to build on this success and to continue improving living standards.
- Policies which encourage capital and labour to move to firms with high growth potential, for example, through better allocation of credit and mobility of workers, would support this process.
- Inclusive growth would benefit from improving access to jobs, better upskilling opportunities, improved healthcare and better transport, especially in rural areas.

Economic growth has been consumption-based while exports are still largely low value-added

Economic growth slowed in 2016 (Table 1), notwithstanding continued robust household consumption supported by strong real wage growth (Figure 4). Investment fell due to the delay in the disbursement of EU structural funds (Figure 5, Panel A), which also affected

Figure 2. **Housing, health and income are weak and poverty is high**



1. Each well-being dimension is measured by one to four indicators from the OECD Better Life Index database. Normalised indicators are averaged with equal weights. Indicators are normalised to range between 1 (best) and 0 according to the following formula: (indicator value – minimum value)/(maximum value – minimum value). "Civic engagement and governance" includes two indicators: stakeholder engagement for developing regulations and voter turnout. The former indicator for Latvia is a population-weighted OECD average due to lack of data.
2. The poverty line is half of median household income. Household income is adjusted to take into account household size.
3. Unweighted average.

Source: OECD (2017), *OECD Better Life Index – Edition 2016* and *OECD Social and Welfare Statistics* (database).

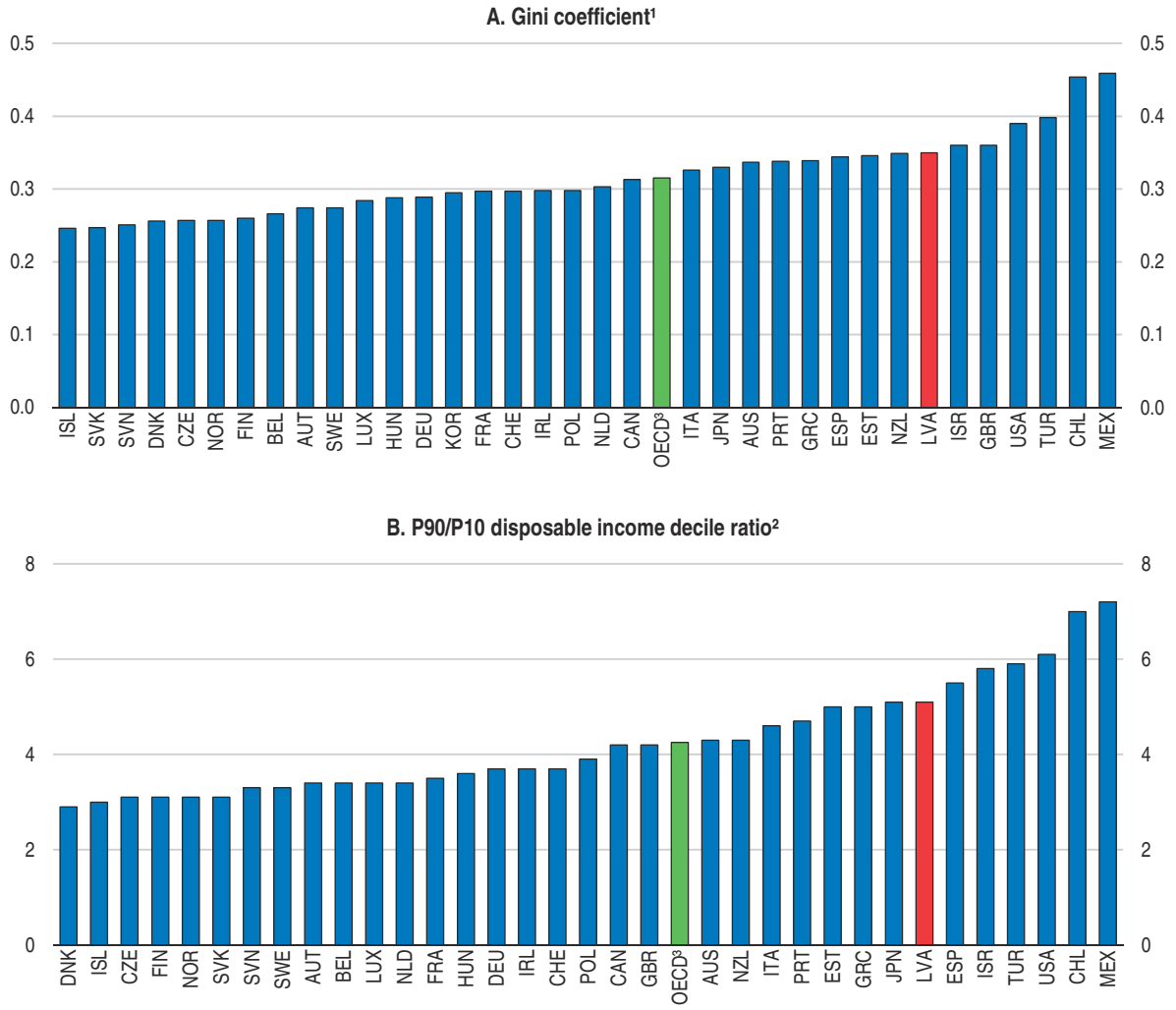
StatLink http://dx.doi.org/10.1787/888933582322

residential investment, but has recovered recently. Residential investment also fell because restrictions on residence permits for non-EU citizens were introduced in 2014. Exports to Russia were subdued reflecting the economic crisis there. As in other Baltic economies, exporters gained market shares (Figure 6). The unemployment rate has fallen but remains high (Figure 5, Panel B). Consumer price inflation remains low.

Latvian exports have diversified, contributing to gains in market shares. Latvia has increased exports to new markets to compensate for the drop in exports due to Russia's economic downturn and its ban on EU food product imports. The share of exports going to Russia remains the third largest after Lithuania and Estonia (Figure 7). Machinery as well as information and communication technology (ICT) and travel service exports have gained

Figure 3. **Income inequality is high**

Gini coefficient and gap of household disposable income between rich and poor, 2015 or latest year



1. It ranges from 0 (when everybody has identical incomes) to 1 (when all income goes to only one person).
2. The ratio of 10% of people with highest income to 10% of people with lowest income.
3. Unweighted average of the data shown.

Source: OECD (2017), *OECD Social and Welfare Statistics* (database).

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ground (Figure 8). Nonetheless, Latvia's goods exports still largely consists of raw materials and natural-resource-intensive products. Demand of these tends to grow little with rising incomes. In the medium-term the transit of exports from Russia is expected to continue declining but still contributes substantially to service export revenues.

Reflecting strong wage growth, Latvia's relative unit labour costs have increased since 2010, more so than in the other Baltic countries (Figure 9), which have gained more export market share. However, wage growth may have been overstated as underreporting of wages to tax authorities diminished. Also, Latvian export market shares have improved markedly since 2014. The depreciation of the Euro and the appreciation of the Ruble reversed the trend in late 2016 but may only have a temporary impact. Since Latvia's exports are concentrated on industries and activities with relatively small room for quality

Table 1. **Macroeconomic indicators and projections**

Annual percentage change, volume (2010 prices)

	2013 Current prices (billion EUR)	2014	2015	2016	2017	2018
Gross domestic product (GDP)	**22.8**	**2.1**	**2.7**	**2.0**	**4.3**	**3.7**
Private consumption	14.0	1.3	3.5	3.4	4.2	3.6
Government consumption	4.0	2.1	3.1	2.7	3.7	2.5
Gross fixed capital formation	5.3	0.1	-1.8	-11.7	17.4	9.0
Housing	0.5	9.7	-19.5	-11.1	10.0	4.3
Final domestic demand	23.4	1.1	2.2	0.1	6.6	4.5
Stockbuilding[1]	0.2	-1.0	0.2	3.0	-0.2	0.0
Total domestic demand	23.5	0.1	2.4	3.0	6.1	4.4
Exports of goods and services	13.7	3.9	2.6	2.8	5.5	4.5
Imports of goods and services	14.5	0.5	2.1	4.6	8.5	5.7
Net exports[1]	-0.7	2.0	0.3	-1.1	-1.7	-0.8
Other indicators (growth rates, unless specified)						
Potential GDP	. .	2.0	2.1	1.8	1.9	2.2
Output gap[2]	. .	-3.2	-2.6	-2.5	-0.1	1.3
Employment	. .	-1.0	1.3	-0.3	0.1	0.0
Unemployment rate	. .	10.8	9.9	9.6	8.6	8.3
GDP deflator	. .	1.6	0.4	0.7	2.2	2.2
Consumer price index (harmonised)	. .	0.7	0.3	0.2	2.7	2.3
Core consumer prices (harmonised)	. .	1.7	1.6	1.0	1.6	2.5
Household saving ratio, net[3]	. .	-14.7	-12.7	-10.5	-9.6	-6.7
Current account balance[4]	. .	-2.0	-0.8	1.5	-0.5	-1.3
General government fiscal balance[4]	. .	-1.6	-1.3	0.0	-0.5	-0.2
Underlying general government fiscal balance[2]	. .	-0.3	-0.3	0.9	-0.4	-0.7
Underlying government primary fiscal balance[2]	. .	0.7	0.8	1.8	0.4	0.2
General government gross debt (Maastricht)[4]	. .	40.9	36.5	40.1	39.5	38.7
General government net debt[4]	. .	16.1	18.0	17.5	16.9	16.1
Three-month money market rate, average	. .	0.2	0.0	-0.3	-0.3	-0.3
Ten-year government bond yield, average	. .	2.5	1.0	0.5	1.0	1.4

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

Source: OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database), September and Central Statistical Bureau of Latvia.

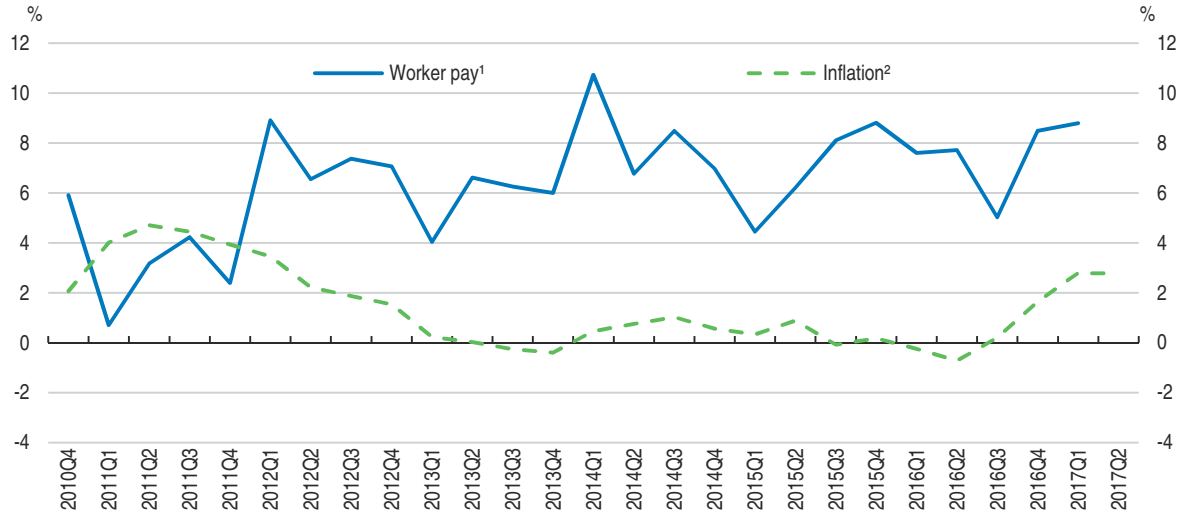
upgrading and product differentiation, further loss of cost competitiveness can undermine Latvia's export performance.

Wage growth is largely driven by skills shortages, in part on account of emigration, which remains high (Figure 10). Moreover, unemployment in the dynamic capital region is already very low, while mobility and skill barriers prevent the unemployed from other regions to take up jobs there. The minimum wage has risen.

GDP growth is projected to strengthen in 2017 (Table 1). Disbursement of EU funds picks up, boosting investment strongly. Household consumption is projected to remain robust on the back of sustained real wage growth. Exports will strengthen thanks to the gradual recovery in the main trading partners. The current account balance will diminish as strong consumption and investment increase imports, and is projected to move into a small deficit. Unemployment is projected to fall only slowly due to high structural unemployment. Inflation will remain low, although the impact of low energy prices fades.

Figure 4. **Wages are growing, inflation remains slow**

Year-on-year percentage change



1. Worker pay rate refers to average nominal labour compensation per employee.
2. Harmonised consumer price index (HICP).

Source: OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database).

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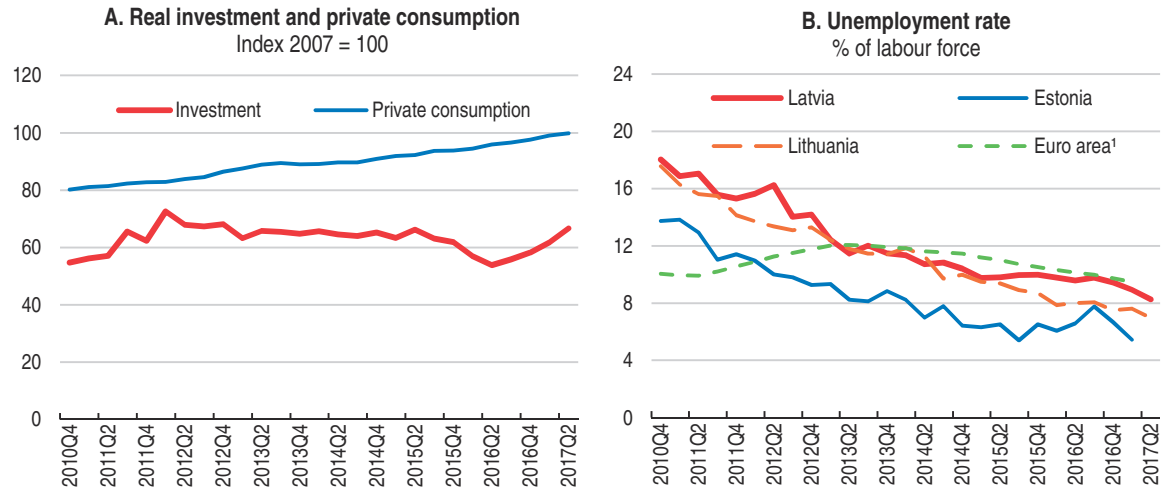
Figure 5. **Real investment has recovered recently and unemployment has fallen but remains high**



1. Euro area countries which are OECD members.

Source: OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database).

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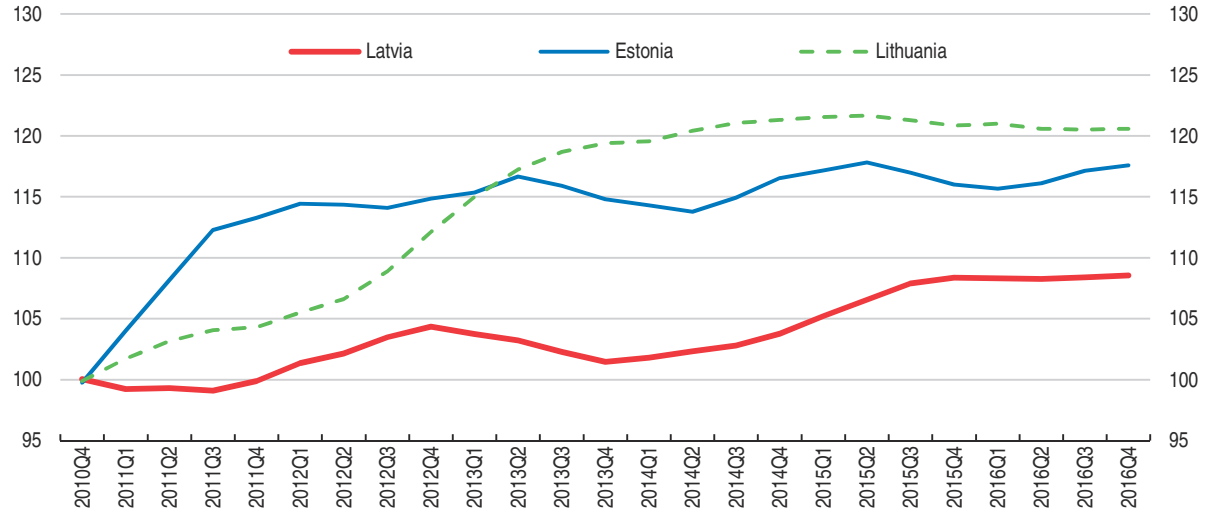
As a small open economy, Latvia is exposed to developments in its main trading partners, the European Union and Russia. While exports to the United Kingdom grew in 2016, the decision of the UK to leave the European Union may affect export prospects in the medium term, as the UK is an important trading partner. It may also lower Latvian emigrants' remittances, which amount to 0.8% of GDP. A further risk to the outlook is that financial market turbulence could reemerge in the euro area, which may also increase macroeconomic risks for Latvia. Such turbulence could tighten lending conditions throughout the euro area and reduce demand in Latvian export markets. Increased

Figure 6. **Export performance is improving**

Four-quarter moving average, index 2010 = 100



Note: Export performance is measured as the ratio of actual export volume to the country's export market.
Source: OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database).

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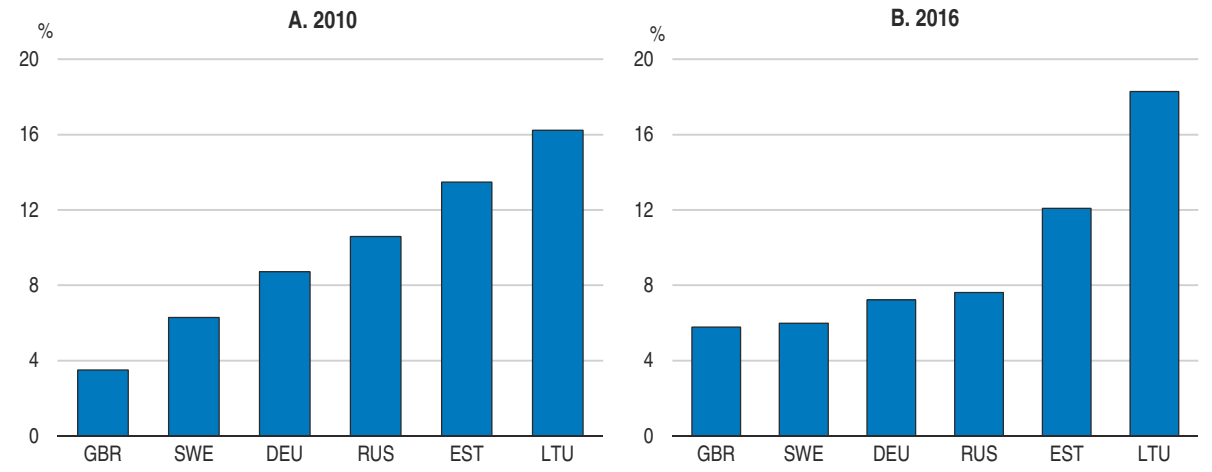
Figure 7. **The shares of most of the largest export destinations have declined**

% of total merchandise exports



Source: Central Statistical Bureau of Latvia.

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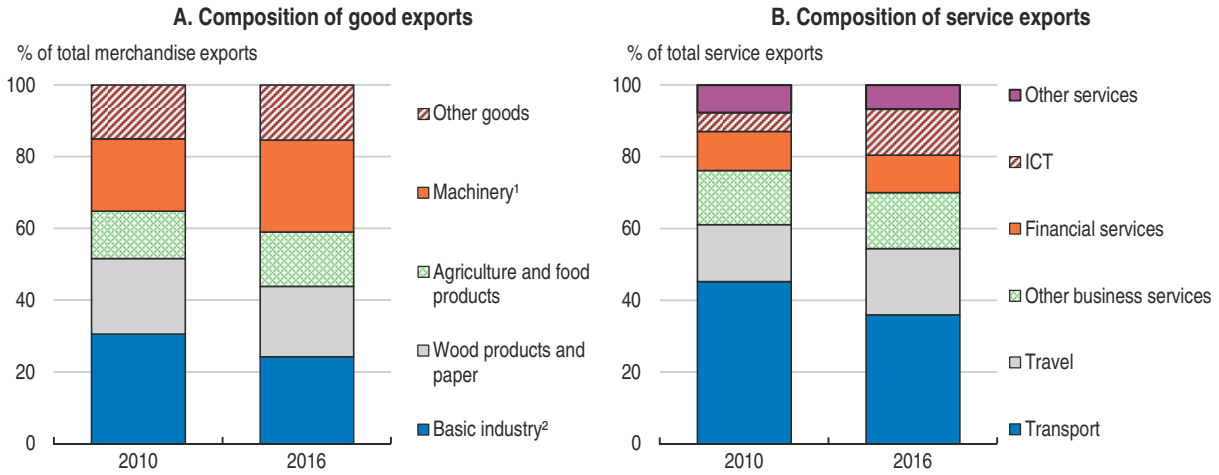
economic uncertainty may raise precautionary household saving, damping consumption, as limited social protection provides little insurance against income risks. Indeed, the Latvian economy has a track record of volatility in response to shocks, as documented in the 2015 *Economic Survey of Latvia* (OECD, 2015a). On the other hand, if Latvia implements structural reforms that boost inclusive growth at a faster pace, exports would grow more strongly and resilience could improve. Stronger economic recovery in Russia could also boost exports beyond the projected level. Steps to deepen European integration, including steps to complete the banking union within the European Monetary Union, could boost confidence. The decision of the United Kingdom to leave the European Union could boost

Figure 8. **Exports are still concentrated in resource-intensive goods and transport services**



1. Includes mechanical appliances; electrical equipment; transport vehicles; optical instruments and apparatus (inc. medical); clocks and watches; musical instruments.
2. Includes products of the chemical and allied industries; plastics and articles thereof; rubber and articles thereof; base metals and articles of base metals; and mineral products.

Source: OECD (2017), *OECD Statistics on International Trade in Services* (database) and Central Statistical Bureau of Latvia.

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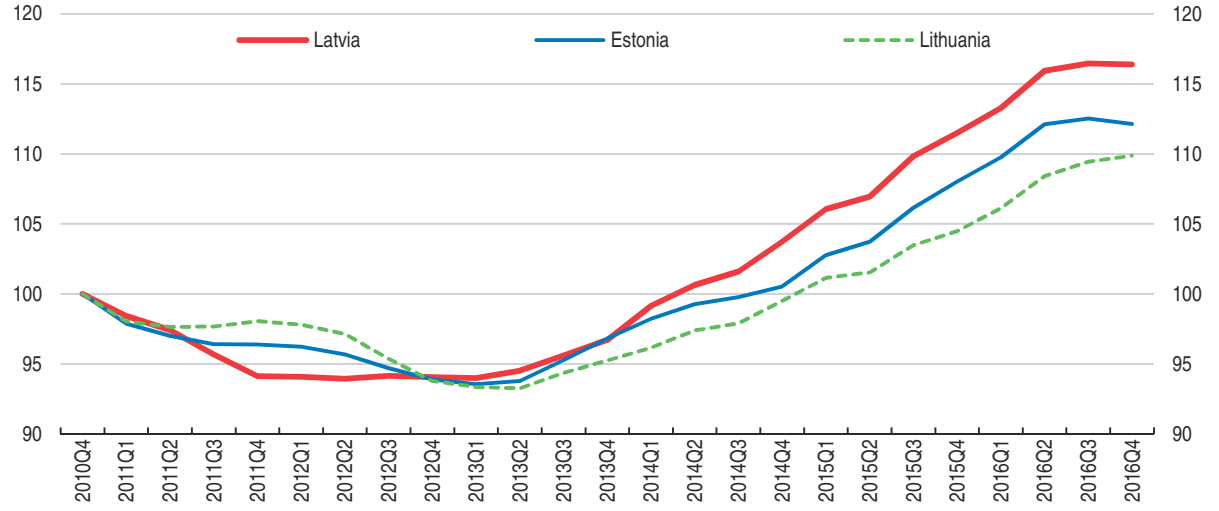
Figure 9. **Relative unit labour costs have risen**

OECD competitiveness indicator[1], four-quarter moving average, index 2010 =100



1. The competitiveness indicator is the ratio of own unit labour costs relative to those of trading partners. An increase corresponds to lower competitiveness.

Source: OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database).

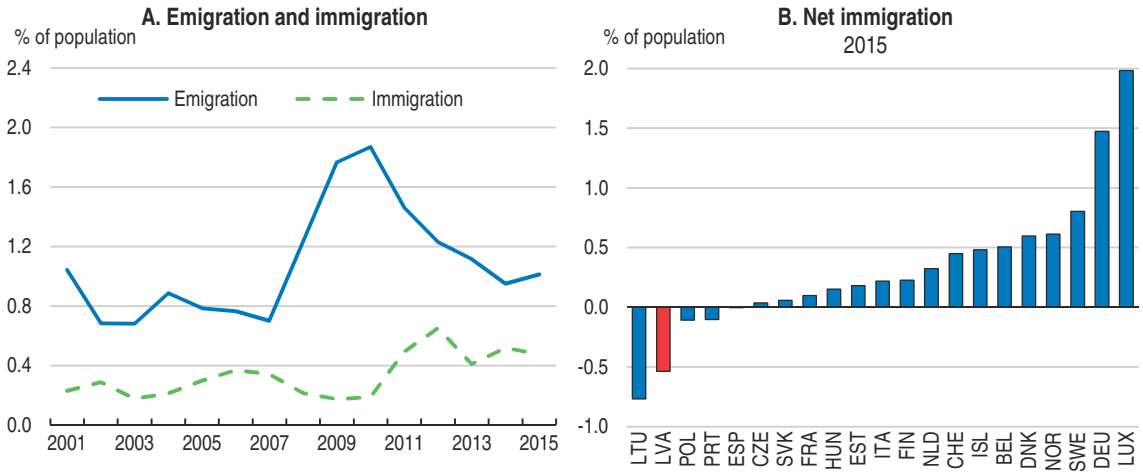
StatLink http://dx.doi.org/10.1787/888933582455

return migration to Latvia. Possible low-probability shocks which would completely alter the economic outlook if they materialise include the intensification of geopolitical risks related to Russia (Table 2).

High structural unemployment raises the risk of poverty

Big local differences in unemployment and vacancies contribute to high structural unemployment and poverty. Unemployment and poverty are much higher in the East of

Figure 10. **Emigration remains high**



Source: Eurostat and Central Statistical Bureau of Latvia.

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Table 2. **Low-probability shocks which could affect the Latvian economy**

Vulnerability	Possible outcome
Intensification of geopolitical risks related to Russia.	Geopolitical tension in Russia could jeopardise exports and investment. An immediate halt of the transit of Russian exports through Latvia would lower Latvian GDP by 3-4% according to estimates by the Bank of Latvia.

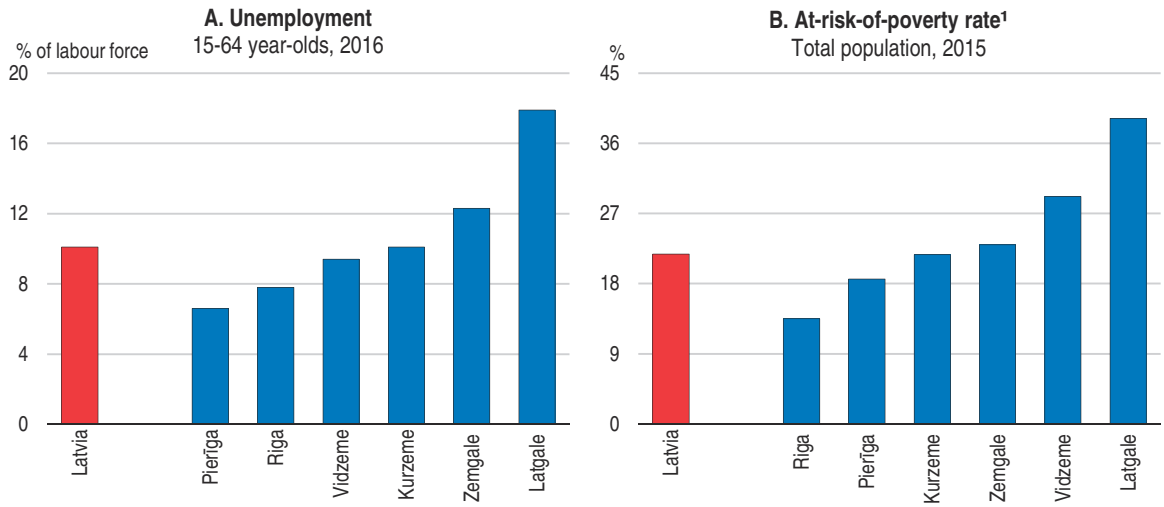
Latvia, particularly in the Latgale region, than in the Riga area (Pierriga and Riga, Figure 11). Seventy-two per cent of vacancies notified to the public employment service are in Riga. Forty-five per cent of the unemployed were unemployed for a year or longer in 2015, mostly in the Eastern rural areas. Unemployment benefits are reduced by a half after six months and expire after nine months. The large number of workers whose salaries are only partly declared to the tax authorities also reduces unemployment benefit entitlements in case of job loss. Income inequality is reflected in large local differences in personal income tax revenues (Figure 12).

The unemployment rate is almost five times higher for workers with low education attainment than for those with high attainment (Figure 13, Panel A). Older workers who were educated in the Soviet era have faced rapid depreciation of their skills and struggle to keep up with new labour market demands. The unemployment rate of workers aged between 55 and 64 is close to 10%, among the highest in OECD countries. Apart from the long-term unemployed, workers with low educational attainment and Latvians aged 65 and over, mostly pensioners, face the highest risk of poverty (Panel B). The hourly earnings gap between men and women, which amounts to 17% of male hourly earnings, also contributes to inequality.

Credit growth is subdued despite very supportive monetary policy

As elsewhere in the euro area, expansionary monetary policy has resulted in extremely low interest rates. Financial sector confidence is strong, as spreads vis-à-vis interest rates on German government debt have remained close to zero. Private sector indebtedness has fallen below levels in many OECD countries (Figure 14). Non-financial

Figure 11. **Poverty is high in regions with high unemployment rates**



1. Share of population with disposable income below 60% of median household income.
Source: Central Statistical Bureau of Latvia.

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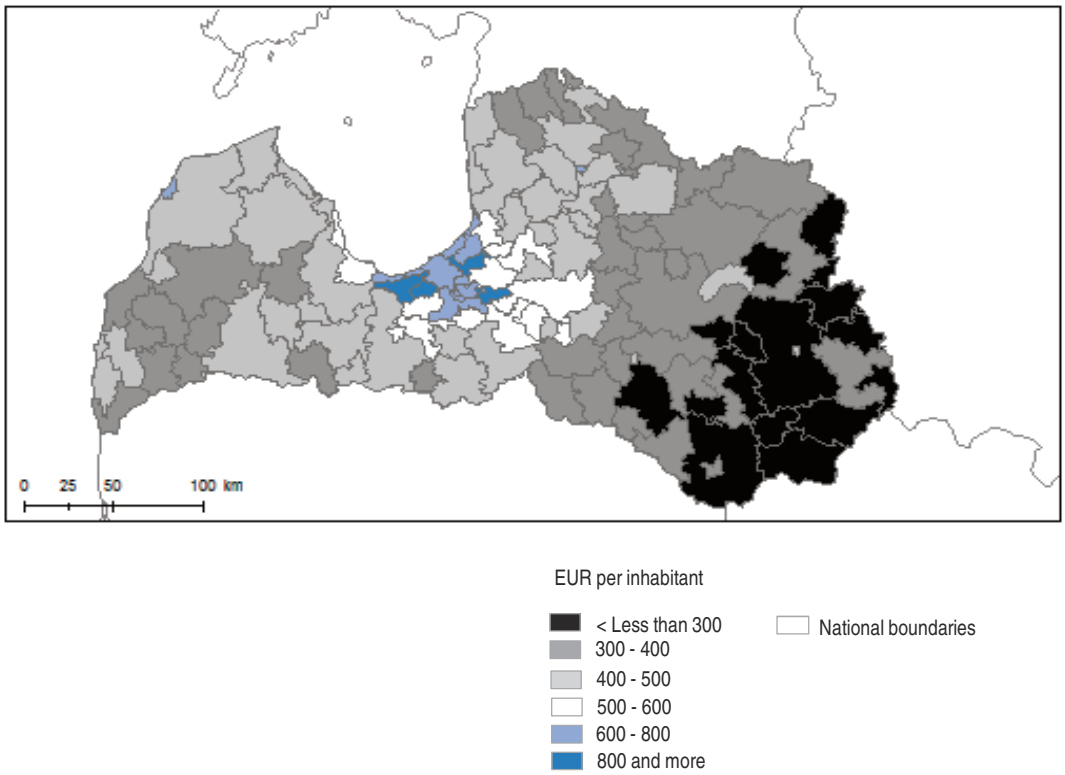
Figure 12. **Income tax revenues per inhabitant vary strongly**

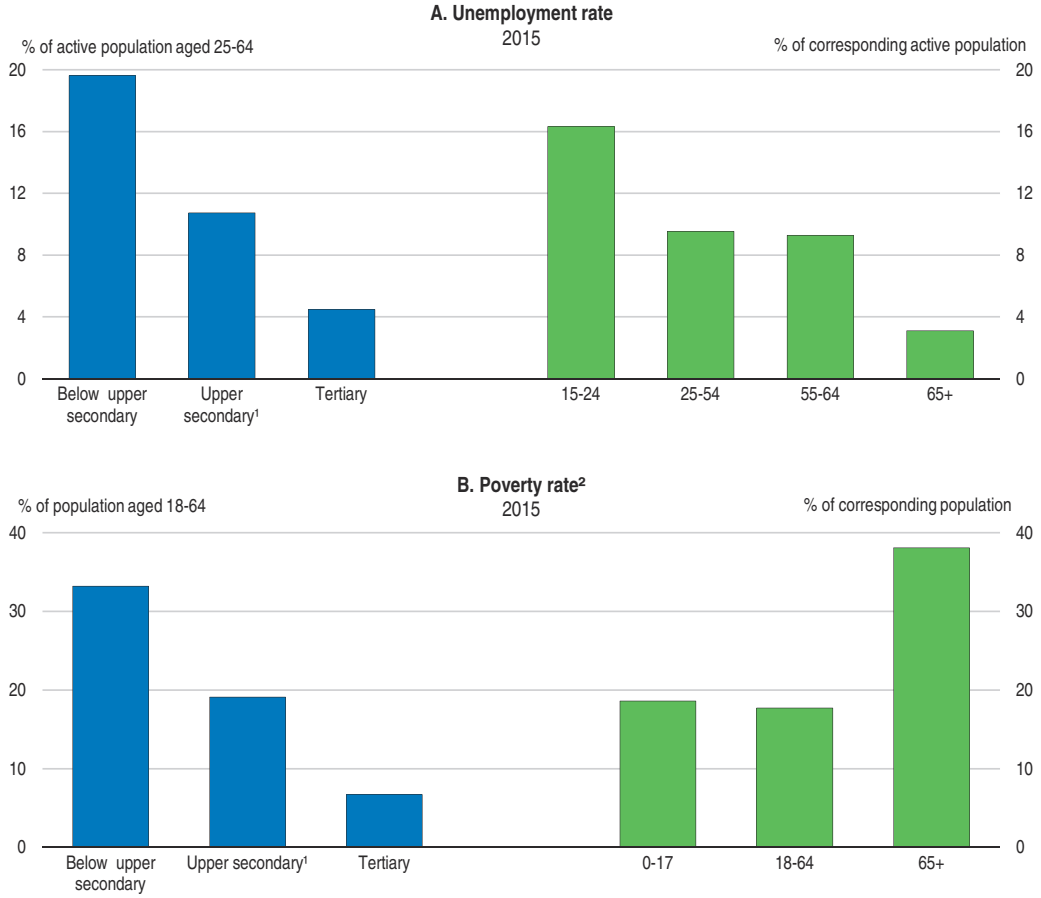
2015



Source: OECD calculations based on RDIM (2017), Regional development indicators (*www.raim.gov.lv*).

Figure 13. **Low-skilled and older workers face the highest risks of unemployment and poverty**

Unemployment and poverty rate by educational attainment and by age group



1. Includes post-secondary non-tertiary education.
2. Share of population with disposable income below 60% of median household income.

Source: OECD (2017), *OECD Education Statistics* (database), *OECD Labour Force Statistics* (database) and Central Statistical Bureau of Latvia.

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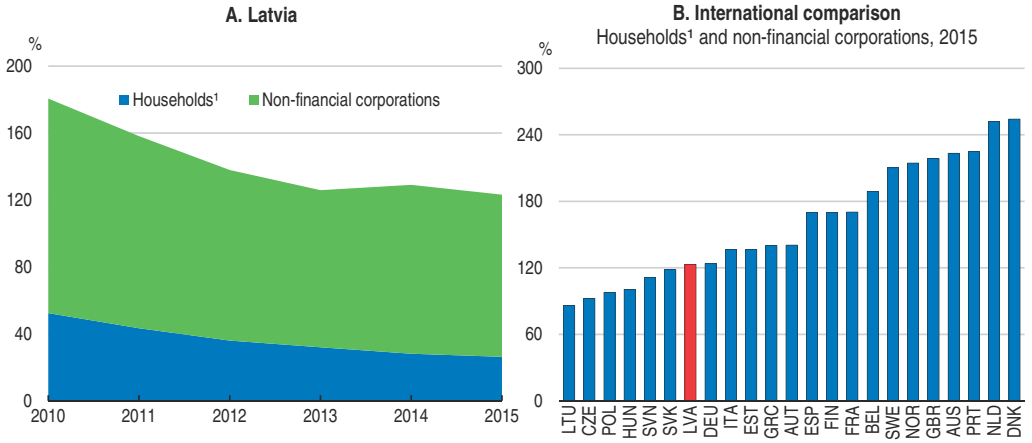
Figure 14. **Private debt is falling**

Debt as % of GDP



1. Includes non-profit institutions serving households.

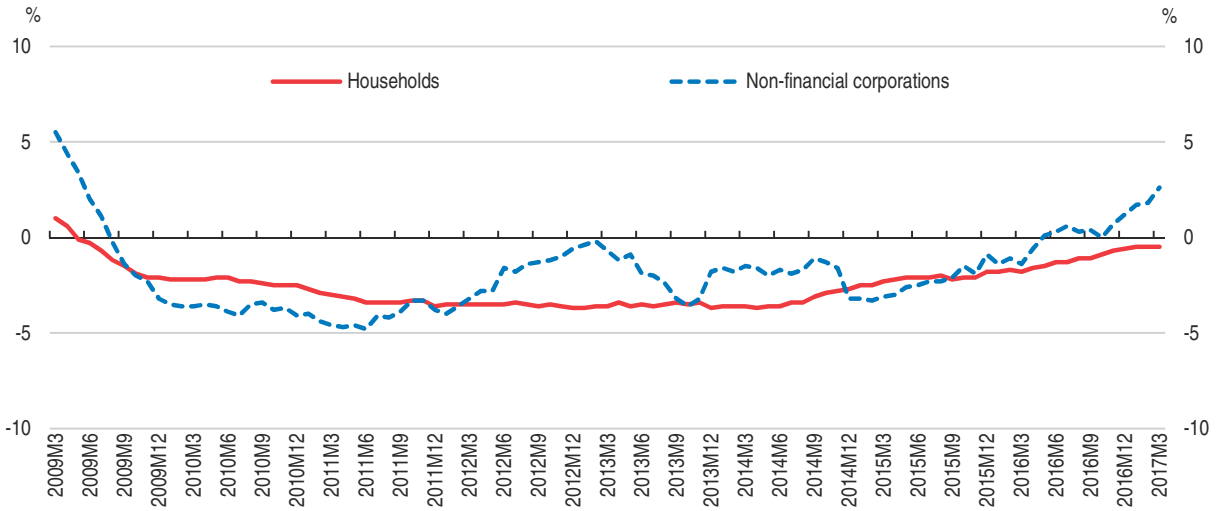
Source: OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database) and *OECD National Accounts Statistics* (database).

StatLink http://dx.doi.org/10.1787/888933582531

businesses deleveraged sharply in the aftermath of the crisis, as banks wrote off loans to non-viable firms and demand for loans was low. Nonetheless, lending to non-financial corporations has recovered only slowly while the decline of credit to households has levelled off (Figure 15). Bank lending surveys suggest that loan demand has increased, but banks have not eased their lending standards (Bank of Latvia, 2016a). Banks report that low equity, weak credit records of firms, a weak judiciary and informal economic activity prevent them from easing lending standards.

Figure 15. **Lending to the non-financial private sector is weak**

Year-on-year percentage change of credit stock



Note: Lending data are corrected to exclude one-off effects due to the withdrawal of credit institution's licences.
Source: Bank of Latvia.

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Although firms depend mainly on bank lending, alternative financing platforms are growing. Internet-based loan issuance has increased strongly, and is among the most developed in Europe, although the share in overall lending is still very small (KPMG, 2016). Including internet lending in prudential regulation, as planned, could strengthen financial intermediation and contain risks. Another welcome step is the creation of the Baltic Market through the merger of the stock exchanges of the three Baltic countries, which may help improve the capacity for Latvian firms to raise equity.

Latvia's banking sector is overall healthy and supervision is sound. Capital and liquidity ratios are comfortably above required levels (Table 3). The ratio of non-performing loans has fallen below the EU average and coverage of loan loss risk with provisioning is high. Profitability is strong. The three largest banks, of which two are owned by Scandinavian banks, are directly supervised by the ECB. Latvia benefits from the Single Resolution Mechanism (SRM), which provides an EU-wide framework for orderly resolution of large banks. The smaller Latvian banks are supervised by Latvia's Financial and Capital Market Commission (FCMC). Macro-prudential policies are implemented by the FCMC, which consults with the Bank of Latvia, and the Ministry of Finance. They form the Macroprudential Council, an advisory body. It can issue non-binding recommendations on the principle of "comply or explain".

House prices in Latvia have been rising in recent years, but broadly in line with incomes (Figure 16). Housing demand has been bolstered by lower down-payments.

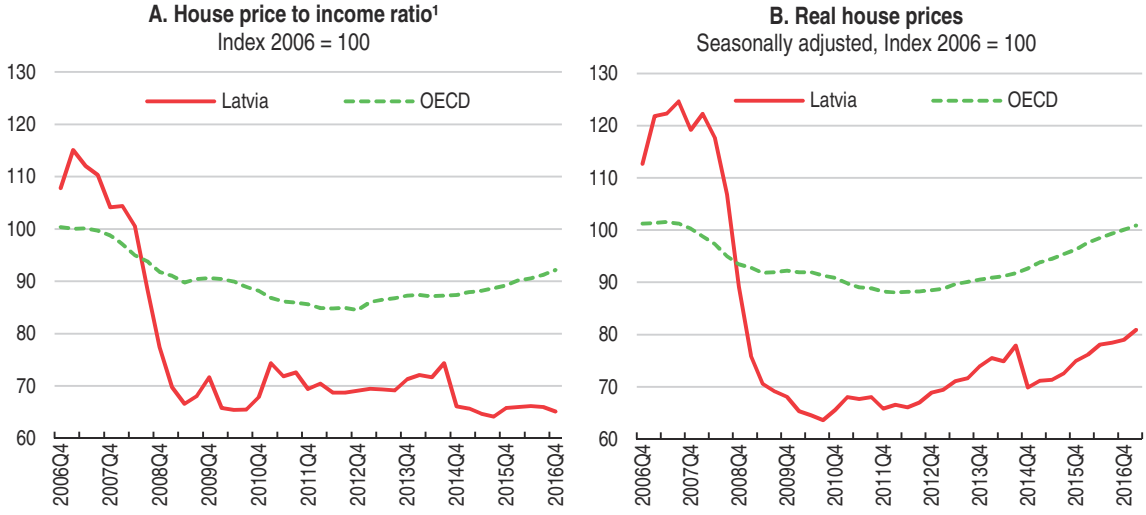
Table 3. **The Latvian banking sector is robust**

Selected prudential and performance indicators. Per cent, 2016 (latest available quarter)

	Latvia	EU average	Minimum requirements
Total capital adequacy ratio	21	18	11
Common equity Tier 1 ratio	18	14	8
Leverage ratio[b]	9		3[1]
Liquidity ratio[c]	61		30
NPL ratio[d]	4	5	
NPL coverage ratio[e]	89	44	
Loan to deposit ratio	71	122	
Return on equity[f]	14	6	

1. Proposed.
a) Sample average, end-June 2016, of major banks covering about 85% of the EU banking sector; see EBA (2016c).
b) Tier 1 capital/Total risk unweighted assets (%).
c) Liquid assets/current liabilities (with maturity up to 30 days), where Liquid assets = vault cash + claims on central banks and other credit institutions + debt securities of central governments and other liquid debt securities; and current liabilities – claim liabilities and liabilities with residual maturity not exceeding 30 days.
d) Past due (> 90 days) loans to total loans.
e) Non performing loans coverage ratio (provisions for principal amount of loans/past due > 90 days loans).
f) Annualised profit/loss for the reporting period to average equity (branches of foreign banks not included in the calculation).
Source: Financial and Capital Market Commission, Latvia; European Banking Authority.

Figure 16. **House price increases have been aligned with income growth**



1. The nominal house price is divided by the nominal disposable income per head.
Source: OECD (2017), *OECD Analytical House Price Statistics* (database).

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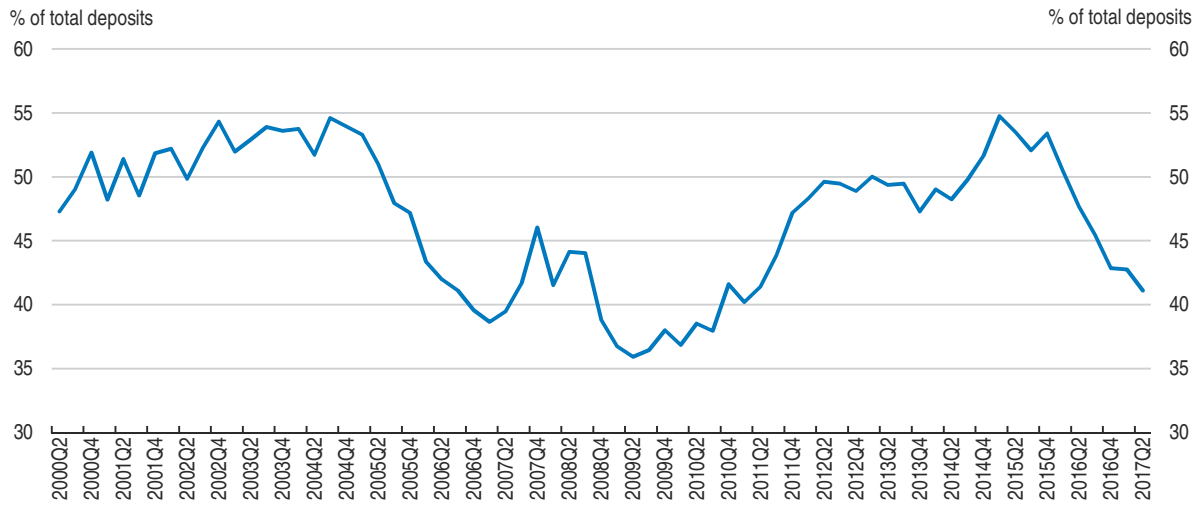
Lending to households is nonetheless moderate, suggesting low financial sector risks on this front. Low incomes of many Latvian households and tighter lending standards since the crisis have barred low-income households from purchasing new housing, while the private rented housing market is underdeveloped. Therefore, despite lower house prices, for low-and middle-income households quality housing is still difficult to afford (see below). A government programme providing loan guarantees for housing mortgages for families with children helps to some extent, but by increasing housing demand may also result in higher prices.

Foreign deposits at Latvian banks, mostly related to business links with Russia, amount to around 43% of total deposits end-2016. They have decreased since 2015 following the introduction of stricter anti-money laundering and counter-terrorism financing rules (Figure 17). These rules will be tightened further in 2017. Increasing uncertainty over geopolitical risks and weakening of CIS economies could trigger further withdrawals of foreign deposits. They could also weaken banks' profitability, as banks offering foreign deposits have claims in CIS countries, and eventually some of them might need to downscale their business. However, these banks are subject to more demanding capital and liquidity requirements, and stress tests by the Bank of Latvia suggest that they can withstand large withdrawals.

Figure 17. **The share of foreign deposits is large**



Source: Financial and Capital Market Commission.

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Fiscal policy to support pressing structural and social policy priorities

Latvia has a rigorous budgetary framework, underpinned by an independent fiscal council and transparent national fiscal rules defined in the Fiscal Discipline Law. The fiscal council performs regular monitoring of compliance with the requirements of the Fiscal Discipline Law and prepares an annual report which is submitted to the parliament together with the Medium-Term Budgetary Framework Draft Law. This institutional set-up should be an effective means of keeping public expenditure growth consistent with fiscal sustainability (Economic Survey of Latvia 2015, OECD, 2015a).

Latvia's budget planning is subject to structural budget balance rules to comply with the European Union's Stability and Growth Pact (SGP). The medium-term objective for the structural deficit consistent with the SGP is 1% of GDP. The government is making full use of allowed deviations on account of recent pension and healthcare reform, based on the SGP's flexibility mechanism, until 2019. In addition, national rules limit the structural deficit to 0.5% of GDP. These are currently not binding because the national authorities have currently estimated a lower structural deficit. Rigorous commitment to fiscal rules has kept Latvia's public debt near 40% of GDP, considerably lower than the limits set by the Fiscal Discipline Law (60%). Substantial reforms are ongoing to improve public sector efficiency (Table 4).

Table 4. **Implementation of recommendations to improve public sector efficiency**

Earlier OECD recommendations	Actions taken
Carry out co-ordinated and regular assessment of productivity challenges as an input for regulatory reform.	The government is envisaging setting up the National Productivity Board in 2018 to improve co-ordinated and regular assessment of productivity challenges. The European Commission, the OECD, as well as representatives from Latvian public administration, parliament, academia and social partners have been consulted to set up the board in the most effective manner.
Restore the funding of the State Audit Office to at least pre-crisis levels.	The grant to the State Audit Office has been increased in the 2017 Budget to EUR 5.9 million, still 11% lower than the 2008 level.
Reinforce regulatory impact assessments by reducing fast-tracking for the assessment of new regulation and establishing methods to select proposed regulations that require in-depth assessments.	Amendments to improve the *ex ante* regulatory impact assessment framework were developed in 2016. Approval by the Cabinet of Ministers is expected in 2017. A conceptual report proposing an *ex post* evaluation framework was approved in 2016. Two pilot projects are launched in 2017 to develop the evaluation methodology.
Introduce regular reporting on long-term spending trends and the adequacy of social programmes, such as pensions and healthcare.	Long -term social insurance budget projections are produced regularly and are used for political decision making, analysis and monitoring, ensuring the long term stability. The Ministry of Health has made estimates of health care funding for 2017-2023. The European Commission's Ageing Report to be published in 2018 will include such projections.
Ensure that local governments are sufficiently resourced and autonomous by increasing their tax revenues, reducing the share of earmarked revenues, and improving the equalisation system.	A new financial equalisation law strengthening the autonomy of local governments was introduced in 2016.
Modernise human resource management by further developing results-oriented pay.	Legislation in 2016 aims at reducing pay gaps between the public and the private sector. A pilot project to develop a new remuneration system will be evaluated by September 2017. Additional pay for key experts was introduced. Law amendments will be developed in 2017 in order to introduce additional measures to link remuneration with performance indicators and to reduce the pay gap. A comprehensive public administration senior manager development program was introduced in 2016. In 2017 the topic of the senior managers' development program is performance management.
Strengthen the transparency of public procurement by ensuring the independence of institutions in charge of combating corruption and by providing practical guidance on conflicts of interest.	An evaluation of the implementation of the Conflict of Interest Prevention Law is to be conducted in 2017. A working group has been set up by parliament. The Corruption Prevention and Combating Bureau (KNAB) provided training to government officials on the prevention of conflict of interest, ethics and internal control in 2016. The independence of the Corruption Prevention and Combating Bureau (KNAB) was strengthened in 2016 by limiting the Prime Minister's rights to control KNAB's decisions.

The long-term outlook is robust, as expected increases of ageing-related spending are modest, reflecting past reforms which reduced the generosity of government-paid pensions. However, poverty among pensioners is high and may rise as pension benefit replacement rates are projected to fall.

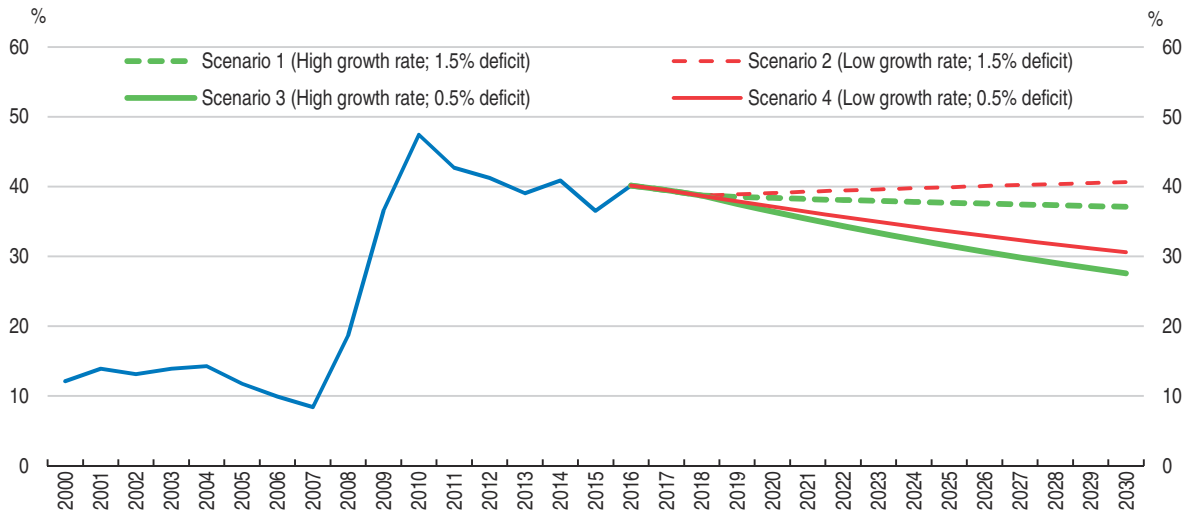
The fiscal stance is expected to be moderately expansionary in the near term. The 2017 budget foresees additional spending of 0.3% of GDP to improve access to health care. The government has also improved access to social assistance for families with children and has raised benefits for the third and subsequent children. Government investment is also expected to expand with the disbursement of new EU funds. These are welcome measures.

There is a case for making full use of available fiscal space under SGP rules, including the flexibility mechanisms to fund structural reforms, also beyond 2019. This could support policies which boost economic growth in an inclusive way. Assuming low nominal GDP growth of 3.5% per year, a deficit of 1.5% of GDP would keep the debt-to-GDP ratio broadly unchanged until 2030. Assuming higher nominal GDP growth of 4.5% per year, a

sustained government deficit of 1.5% would allow government debt to fall below 40% (Figure 18). The current low-interest environment offers a near-term window of opportunity to invest in economic and social infrastructure which boosts inclusive growth without raising the debt-to-GDP ratio (OECD, 2016h). Current macroeconomic conditions are consistent with higher government spending, as inflation and lending growth remain low. Moreover, a chapter on public sector efficiency in the 2015 *Economic Survey of Latvia* (OECD, 2015a) has not identified scope for substantial spending cuts, as government expenditure in Latvia is low. While social spending is not targeted to the poorest, it is low and largely consists of pension and unemployment benefits, which are universal entitlements.

Figure 18. **Public debt can be kept low even with a higher deficit**

General government debt as % of GDP, Maastricht definition



Note: GDP growth and government debt are assumed to follow the projections of Table 1 until 2018. Thereafter, nominal GDP is assumed to grow at 4.5% or 3.5%.

Source: Calculations based on OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database).

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The government plans to raise currently very-low level of means-tested social assistance benefits by 90%, to 20% of median income (94 euros per month for the first adult). On current plans municipalities would remain responsible for paying social assistance. The central government will support low income pensioners by increasing the minimum old-age pension commensurately. It will also raise pensions for pensioners with long insurance periods. Social assistance transfer spending is higher in poor municipalities while their tax revenues are lower. Therefore, higher social assistance payments may limit their capacity to fund other key social services for which they are responsible, such as childcare. Further progress in reducing informality is important to strengthen the effectiveness of the means-test, so as to ensure means-tested social assistance benefits are well-targeted to the poor.

A wide range of structural reform priorities is essential for boosting inclusive growth and these require more government funding. In particular out-of-pocket payments for health-care services should be reduced especially for the low-income population. Access to vocational education and training and to higher education as well as the funding of active labour market policies need to improve. Investment is also needed in road infrastructure.

Policies are needed to make more low-cost rented housing available in areas which provide good access to jobs. This is discussed in more detail below.

Tax reform could make growth more inclusive and raise more revenues

Parliament has approved a reform of personal and corporate income tax in the framework of a broad tax reform. It reduces the basic personal income tax rate from 23% to 20% for incomes up to 20 000 euros per year starting in 2018. It also raises the corporate tax rate from 15 to 20%. However, non-distributed corporate tax income will be fully tax-exempt, effectively turning the tax into a tax on distributed profits, as in neighbouring Estonia. Lower personal income taxes reduce the taxation of labour, which is welcome. However, in view of high poverty, targeting these tax reductions to low-wage workers may be preferable.

The corporate tax reform could encourage investment by boosting retained earnings, which is the main source of finance for business investment. However the current corporate tax rate is already low and accelerated depreciation allowances are generous. The reform could also reduce administrative costs to some extent (Staehr, 2014). In Estonia firms have responded to the tax system largely by accumulating cash rather than investing in fixed assets (Hazak 2009). There may perhaps have been some positive investment and productivity effects on individual firms (Masso et al., 2013), but no benefits to macroeconomic performance can be shown (Staehr, 2014).

The government estimates the tax reform package to have a cost of 0.6% of GDP in the budget when it is fully implemented by 2020, which would make it harder to address key spending priorities to improve access to health care and education. However revenue risks from the corporate income tax reform could be substantially bigger.

Steps to eliminate exemptions from business taxation could strengthen revenues and avoid unwanted disincentives for firms to grow. The micro enterprise tax system exempts small eligible firms from income tax and social security contributions. They pay a low turnover tax instead. The scheme encourages firms to remain small or to keep part of their activity in the informal sector to benefit from low taxation and harms inclusiveness. Young start-up firms financed with venture capital pay a low lump sum tax per worker, which is regressive. The employees in these start-up firms are not covered by unemployment or pension insurance. These tax breaks should be abolished. Any tax support for start-ups should be limited in time, to reduce disincentives to grow, and ensure full coverage with social security. There are also generous tax credits and exemptions for special economic zones, mostly in the port areas. However, these are subject to competition from similar arrangements in other countries of the region.

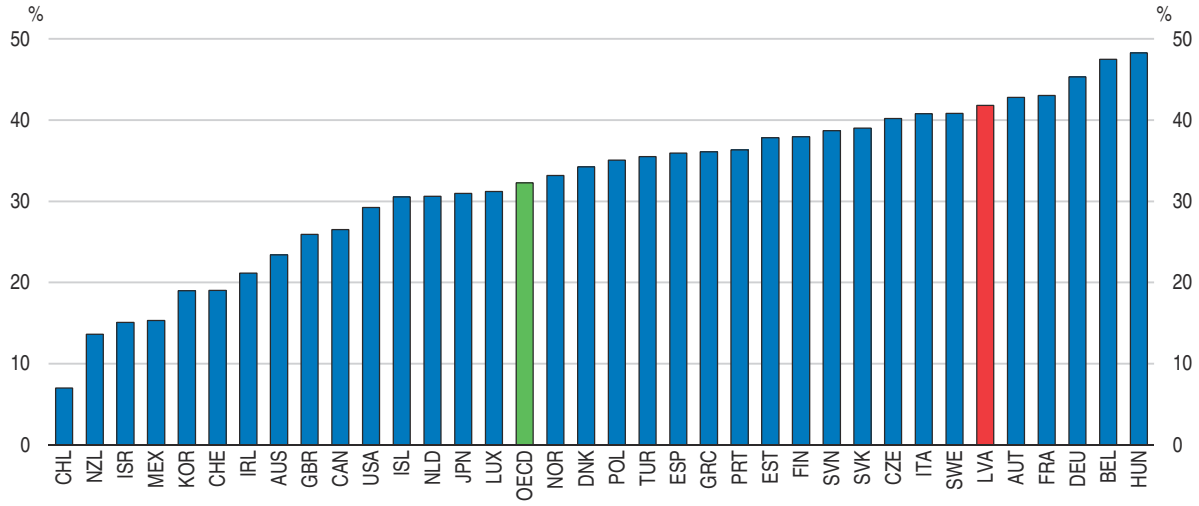
The government has taken steps to lower labour taxes on low-income earners and raised excise and environmental taxes, as recommended in the 2014 *Economic Survey of Latvia* (OECD, 2014a, Table 5). This is welcome. Indeed, the labour tax wedge is high, although Figure 19 does not include most recent reductions. Reducing the high labour tax wedge on low income earners (Figure 19) further could have particularly large benefits for Latvia: it could reduce unemployment and undeclared employment and could damp emigration of young workers, whose wages tend to be low. Recent legislation has increased the basic income tax allowance for low-income households. This tax allowance now diminishes as income rises. The solidarity tax levied on high salaries also introduces some

Table 5. **Implementation of recommendations on the tax system**

Earlier OECD recommendations	Actions taken
Decrease labour tax for low-income earners.	From 2016 a differential non-taxable minimum income allowance has been introduced with a higher tax-exempt level for low income (EUR 160 per month for lowest wages) The monthly allowance for dependents amount has been raised from EUR 165 to EUR 175.
Raise additional revenues by increasing property and environmentally related taxes. Increase energy tax rates, making them depend on their relative carbon content. Phase out environmentally harmful fuel subsidies.	In 2015 and 2016 the excise tax rates for alcohol, tobacco and several oil products were raised and the tax base was broadened. Excise tax rates will be raised gradually until 2018. Car and motorcycle taxes have been abolished in 2017 and replaced by the vehicle exploitation tax where rates are based on CO_2 emissions. The tax exemption for electricity expenditure has been abolished. Tax rates for extraction of natural resources in several categories of minerals and soil were increased by 25-29%. Taxes for the disposal of municipal waste have been increased for hazardous waste and production waste. Tax rates on activities emitting CO_2 and on goods harmful to the environment were increased.

Figure 19. **Taxes on low labour incomes are high**

% of total labour compensation, single person at 67% of average earnings without children, 2016



Note: Labour taxes include personal income tax and employee plus employer social security contributions and any payroll tax less cash transfers.
Source: OECD (2017), OECD Tax Statistics (database).

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progressivity in the personal income tax system, which is welcome in view of high income inequality. But workers have to claim the basic allowance, and low-income workers may fail to do so. Besides, personal income tax reductions are less effective in reducing taxation of workers on the lowest salaries, as they typically pay no or little income tax. By contrast, social security contributions must be paid from the first euro. Therefore, reducing social security contributions for low wage workers would be particularly effective in promoting formal employment of these workers, and would increase the inclusiveness of the tax system. In Colombia, reducing payroll contributions also resulted in a substantial increase of formal jobs in the short-run (Bernal, Eslava and Meléndez, 2015; Medina and Morales, 2016). In Latvia's notional defined contribution public pension system, pension payments are linked to contributions. Lower social security contributions should however not result in lower pension benefit entitlements, as pension income replacement rates are low. An

alternative option would be the introduction of an earned income tax credit for low-income households.

The tax reform foresees setting tax rates on capital income received by households (such as interest income) at 20%, at the same rate as other household income. This is welcome as capital income received by households (such as interest income) is currently taxed at lower rates than other household income. Low taxes on such income tend to favour high-income households, making the tax system less inclusive. Yet an inclusive tax system is important in view of high income inequality. There is scope to raise taxation of energy and real estate, including through approximating cadastral valuation to current market values. However given the high home ownership, even among low-income households, this could be accompanied by the introduction of a tax-exemption up to a suitable value ceiling. There is also scope to continue raising taxes on alcohol and tobacco further.

Encouraging firms and workers to fully declare their economic activity

Informal activities remain widespread. While it is difficult to capture the exact size of the informal sector, in 2015 it was estimated to amount to more than 20% of GDP in (Figure 20). The government has made considerable effort to improve tax collection by intensifying tax audits on individuals and firms operating in sectors where informal activity is widespread; introducing criminal sanctions against employers paying undeclared wages; strengthening controls, resources and co-ordination among relevant authorities (tax authorities, labour inspectors and customs); and raising fines and increasing personal liability of company board members. These steps helped increase tax revenues, which are estimated to have reached 31% of GDP in 2016, up from 29% in 2015 (Figure 21).

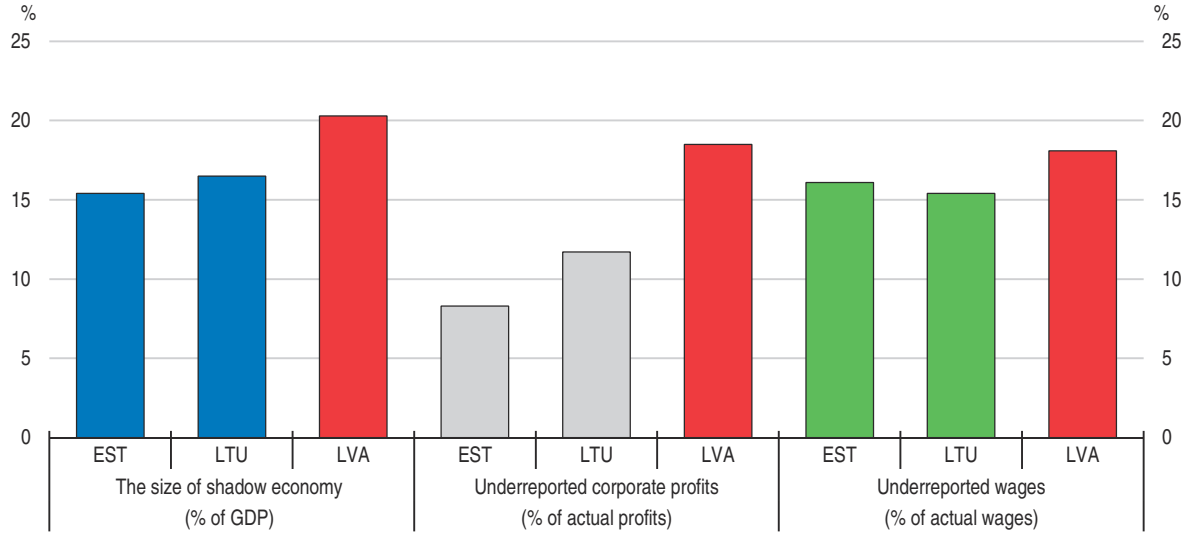
To provide essential social services and lower the tax burden on low income earners the government is aiming to raise tax revenue further. It is planning to make better use of ICT for tax law enforcement which is welcome. It plans to require electronic record keeping cash registers. The government also plans to combat tax evasion in electronic commerce and to enable electronic exchange of information between credit institutions and the tax authorities.

But more fundamental measures that strengthen the incentive for tax compliance by firms and workers are needed. Perceptions of weak governance undermine the willingness to pay tax. Surveys of company owners and managers shows that acceptance of informal activity is strongly related to their dissatisfaction with business legislation (Putnins and Sauka, 2016). In comparison with Estonia and Lithuania more Latvian businesses display lower trust in the government (Putnins and Sauka, 2016). Trust in public governance is also weak in the population at large (Figure 22). Greater trust in government helps improve tax morale (Daude et al., 2012). Torgler and Schneider (2007) show that better governance and more direct political participation possibilities for the population improve willingness to pay tax. Williams and Horodnic (2015) link the informal economy to low motivation to pay taxes and conclude that policies to reduce informality should focus on improving trust in government. This can be done by developing greater procedural justice, strengthening perceptions of impartial treatment of all citizens as well as broad and fair access to public services.

Reforms to improve public sector efficiency have included more steps to fight corruption of the Latvian Corruption Prevention and Combating Bureau (KNAB; Table 4 above). The KNAB's core budget increased in 2016 and 2017. This shows the commitment of Latvia to

Figure 20. **The size of the informal economy is large**

Estimated size of the informal economy and underreported corporate profits and wages, 2016



Note: The aggregate size of the informal economy is estimated from the firm-level information. Underreported corporate profits and wage payments by registered firms in the three Baltic countries are based on survey data.

Source: Putniņš, T. and A. Sauka (2017), "Shadow Economy Index for the Baltic Countries", *Stockholm School of Economics in Riga (SSE Riga)*.

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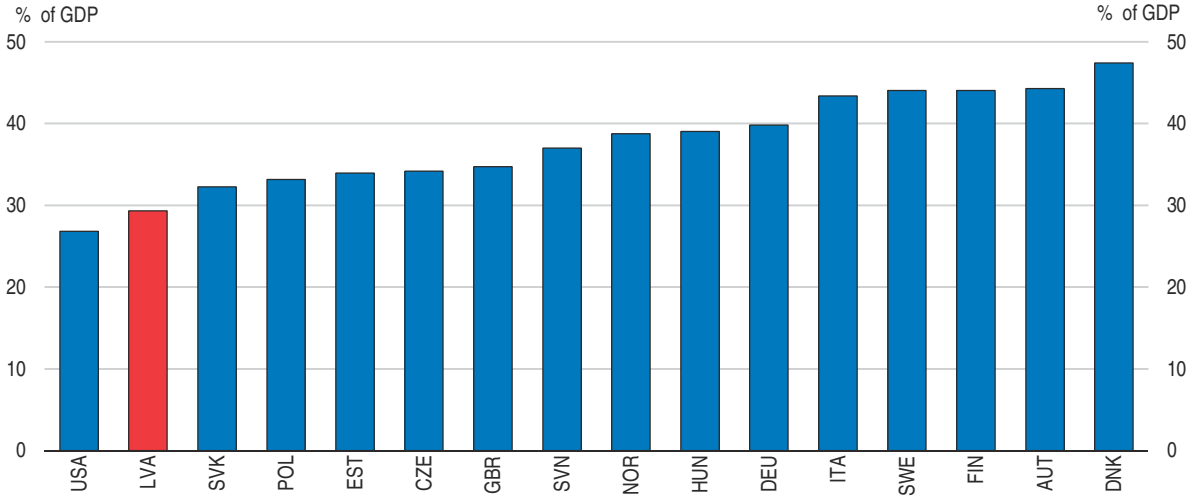
Figure 21. **Tax revenues are low**

2015



Source: OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database) and *OECD National Accounts Statistics* (database).

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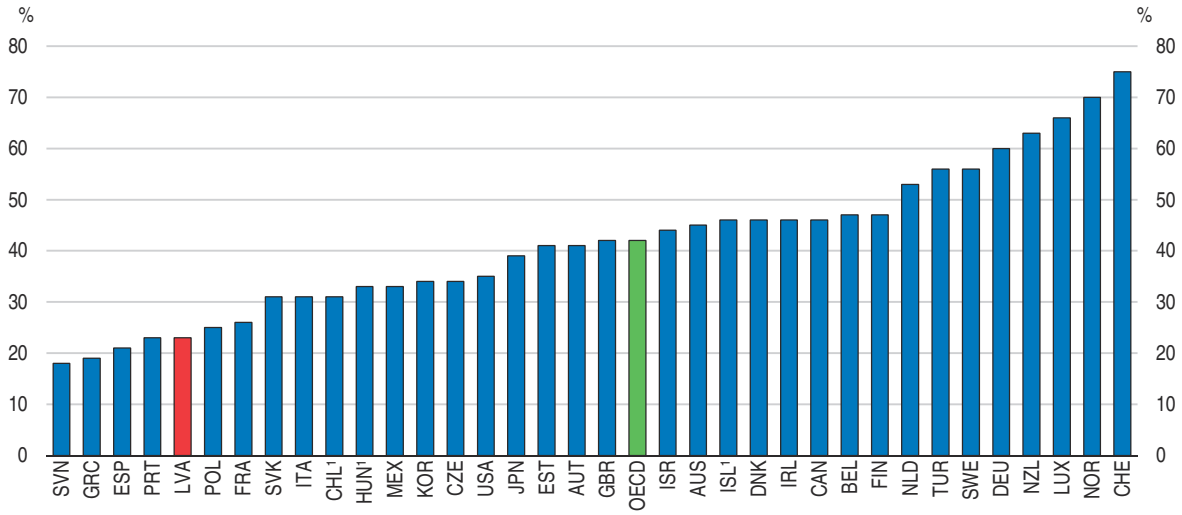
fighting corruption and avoid political interference with the work of the KNAB. However, scope for further improvement remains, for example, by raising the budgetary independence. The budget of the KNAB continues to be proposed by the Council of Ministers and is approved by parliament annually, weakening independence. Full independence is important so KNAB is perceived to be able to investigate corruption within these institutions. As is the case for competition authorities, budgetary independence should be reinforced by mechanisms reducing government discretion, such as fixed

Figure 22. **Trust in the government is low**

2014



1. 2013 for Chile, Hungary and Iceland.

Note: Trust refers to the percentage of respondents who answered "yes" to the question "Do you have confidence in national government" in the World Gallup Poll, 2014.

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

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multiannual budget allocations, the allocation of fixed revenue sources, for example fees or taxes, or a combination of these (OECD, 2016i).

Many judges are appointed by parliament, which may expose them to political influence. Stronger independence from political influence in the procedures to appoint judges could also improve perceptions of governance. It is welcome that legislation to strengthen the independence of judges is being considered by parliament. There is also scope to strengthen rules on the engagement of lobbyists in the legislative process (Council of Europe, 2016). Broadening access to key social services, notably health services, may also strengthen perceived fairness and thereby willingness to work in the formal economy (see below).

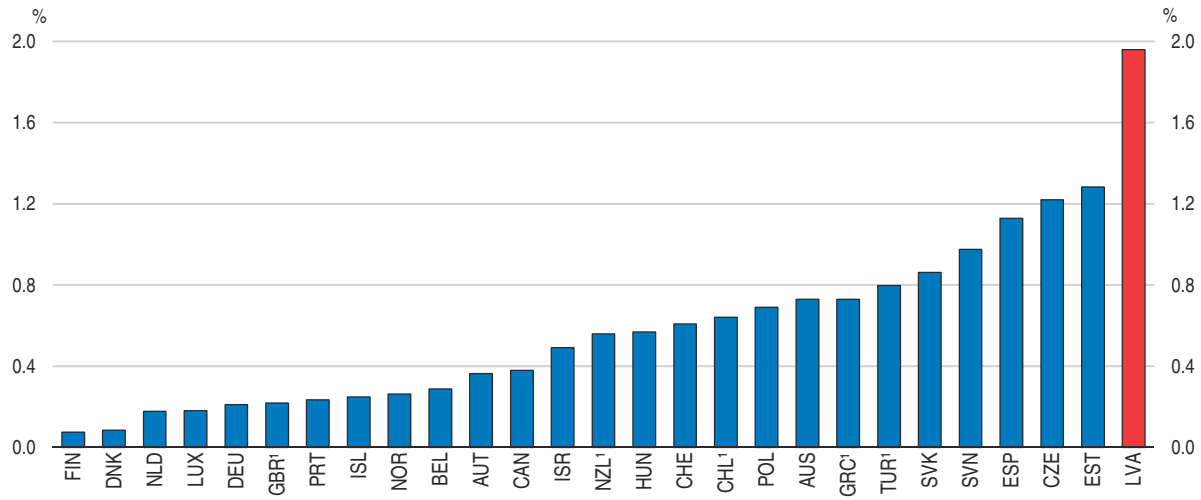
High operating costs reduce the pensions workers accrue in the second pillar pension system

Since 2001, all young workers taking up employment in Latvia are enrolled in the compulsory, second pillar (private) pension scheme, which complements the first pillar (public) pension scheme. Six per cent of workers' salaries flow into a privately managed plan chosen by each worker. But high operating costs imposed by private investment managers, particularly costs from excessive marketing activities, considerably reduce risk-adjusted returns. Operating costs of private pension funds amounted to close to 2% in 2015 (Figure 23), although they were somewhat lower (1.6 %) for funds in the compulsory second pillar system. The high costs significantly reduce the capital workers accumulate in the fund over their working lifetime. With current contributions and risk-adjusted returns today's workers will have to lower their living standards considerably when retiring.

Empirical evidence suggests that marketing activities of fund managers with the purpose of attracting contributors to their funds has no benefit for workers (Hastings et al., 2013). Such activities raise costs as well as suppliers' market power because they attach

Figure 23. **High operating costs depress the returns in the private pension system**

% of assets under management, 2015



1. 2014 for Greece and New Zealand. 2013 for the United Kingdom. 2011 for Chile and Turkey.

Source: OECD (2017), *OECD Pensions Statistics* (database).

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workers to pension funds for reasons unrelated to performance, especially low-wage contributors. Berstein and Micco (2003) show that, in oligopolistic market structures, pension funds have incentives to engage in marketing that reduces social welfare but generates costs, to raise profit margins. Proposals currently under discussion in Latvia are to lower the cap on the general fee from currently 1% and stricter requirements for performance-related higher charges. These steps would be welcome. To reduce costs and boost net returns in second pillar pension systems, Australia and Sweden, for example, have introduced a low-cost default-choice fund (OECD, 2013a; Tapia and Yermo, 2008), in which contributors invest unless they take a deliberate decision to invest elsewhere. Costs in these funds are kept low with passive investment strategies and by avoiding marketing expenses. In Sweden, such funds have proven to offer higher returns than managed funds.

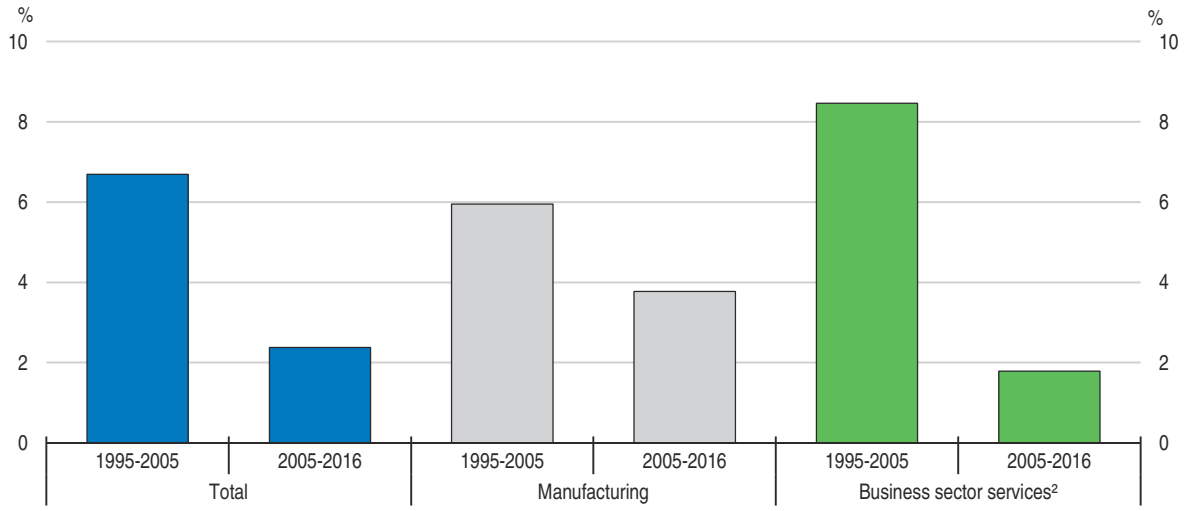
Improving living standards requires boosting productivity and stronger integration in global value chains

Latvia enjoyed strong productivity growth until the early 2000s. However, as in many OECD countries, productivity growth has slowed significantly in the past decade (Figure 24). Reinvigorating the productivity of Latvian firms is key for Latvia to continue to improve living standards.

As a small open economy, Latvia needs to be integrated into the global economy to boost productivity. International trade and foreign direct investment (FDI) channel knowledge from advanced economies (Coe et al., 2009; Alfaro, 2016). Imports of intermediate goods boost productivity by enabling firms to diversify production and upgrade quality (Amiti and Koning, 2007). Integration in global value chains (GVCs) intensifies such knowledge transfer and use of imported inputs and enables Latvia to further diversify its exports and to tap into world demand through GVCs. Indeed, entry to export market boosts significantly the productivity, employment and wages of Latvian firms (Figure 25; Benkovskis et al., 2017). For example, starting to export boosts labour

Figure 24. **Productivity growth has slowed**

Average annual growth of labour productivity[1]



1. Labour productivity growth is the change in gross value added per hour worked at constant prices.
2. Excludes real estate.

Source: OECD (2017), *OECD Productivity Statistics* (database).

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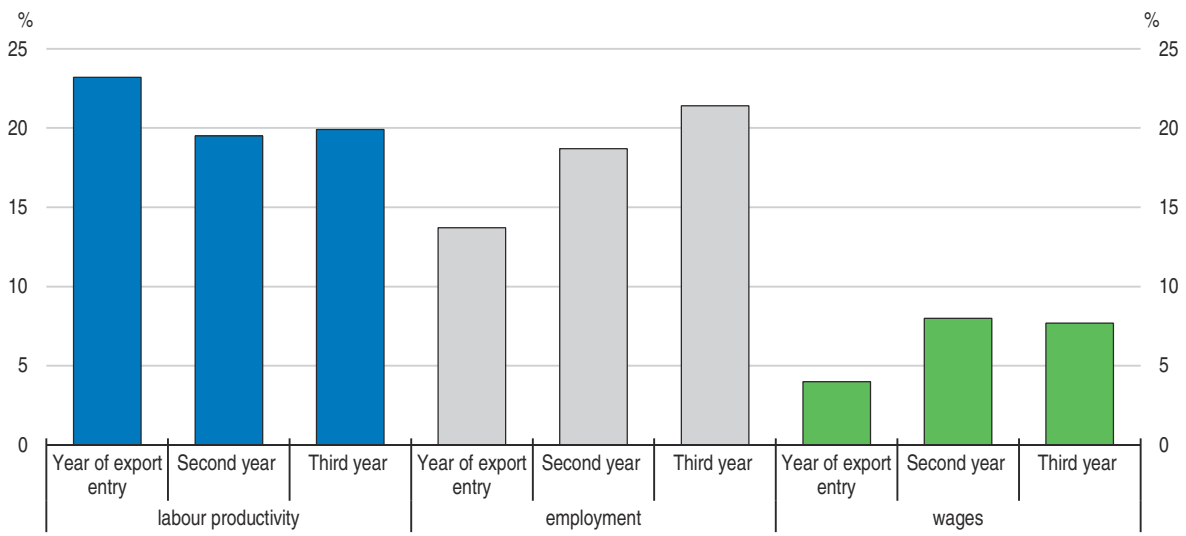
Figure 25. **Exporting raises productivity, employment and wages of Latvian firms**

Differences in productivity, employment and wages between exporting and non-exporting firms after export entry



Note: The chart shows the differences in productivity, employment and wages between firms that started exporting and non-exporting firms. By comparing the export entrants with the subset of non-exporting firms that are initially as productive and large as the export entrants, these differences in performance can be interpreted as causal effect of export entry. See Box 2 of Chapter 1 for details.

Source: Benkovskis et al. (2017), "Export and productivity in Global Value Chain: Evidences from Latvian and Estonian firms", *OECD Economics Department Working Paper*, forthcoming.

StatLink http://dx.doi.org/10.1787/888933582740

productivity by more than 23% in the year of export entry. Employment and wages also increase by 21% and 8% respectively in the third year. These effects are particularly strong for firms that are likely to be participating in high value added activities within GVCs, such as exports of intermediate goods and knowledge intensive services (see Chapter 1).

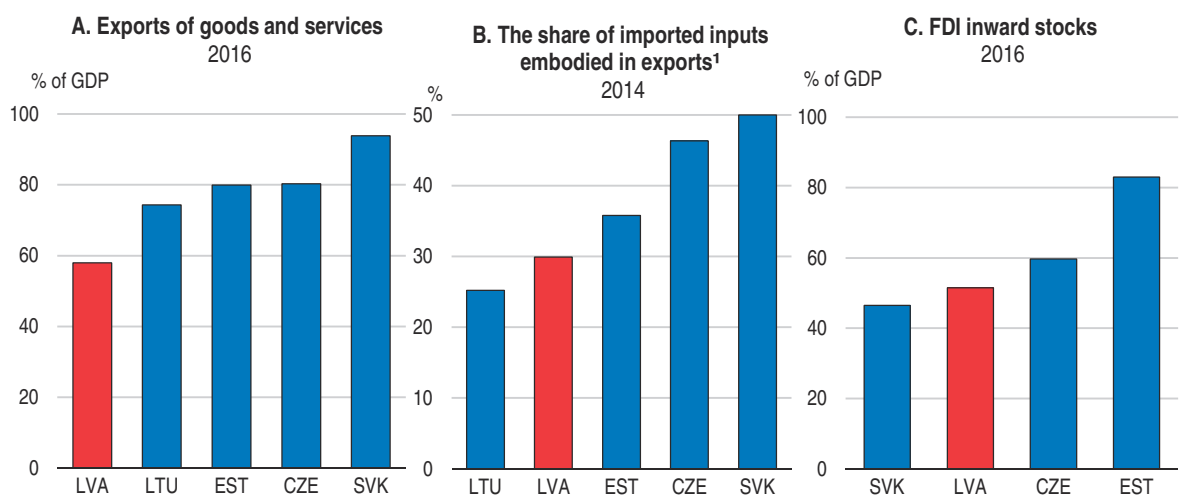
Only few Latvian firms export (6%, or 28 % of firms with more than 10 employees, in 2014) and an even lower share of firms participate in GVCs. Participation in GVCs requires upfront investment such as developing capabilities to comply with quality standards (OECD, 2013b; Henson and Humphrey, 2010). This acts as entry barrier for small and low productive firms. Policies that remove barriers to the reallocation of resources would help firms with high growth potential to attract the capital and labour they need to expand. They thus allow more firms to participate in GVCs and boost productivity. Indeed, productivity in Latvia could be up to 25% higher if capital, labour and other inputs were reallocated to more productive firms (Benkovskis, 2015). This could set off a virtuous cycle of improving export and productivity performance, as higher productivity also boosts firms' export performance.

The large scale of informal activities also holds back productivity, as informal firms limit their size and use backward production technologies to avoid detection (Dabla Norris et al., 2007). Informality hampers efficient resource allocation by giving informal firms a cost advantage (Perry et al., 2007). Informal activities tend to be concentrated in low-skill jobs with low wages and with no integration in global value chains such as construction. Informal sector jobs are estimated to be on average 30% less productive than formal jobs in Latvia (Putnins and Sauka, 2016).

Foreign trade and FDI are weak

Latvia's exposure to trade is lower than its peers' (Figure 26, Panel A). Latvia also makes little use of imported intermediate inputs (Figure 26, Panel B). FDI in Latvia is also lower than in Estonia (Panel C). Participation in GVCs lags behind other Baltic and Central European countries (Figure 27). In 2014, less than 40% of domestic value added was generated from GVC participation, less than in Estonia, Lithuania and Central European countries.

Figure 26. **Latvia has room to boost productivity through trade and FDI**



1. OECD estimates based on the 2011 Inter-Country Input-Output (ICIO) table and the OECD Bilateral Trade Database by Industry and End-Use (BTDIxE).

Source: OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database), *Statistics on Trade in Value Added* (database) and *OECD International Direct Investment Statistics* (database).

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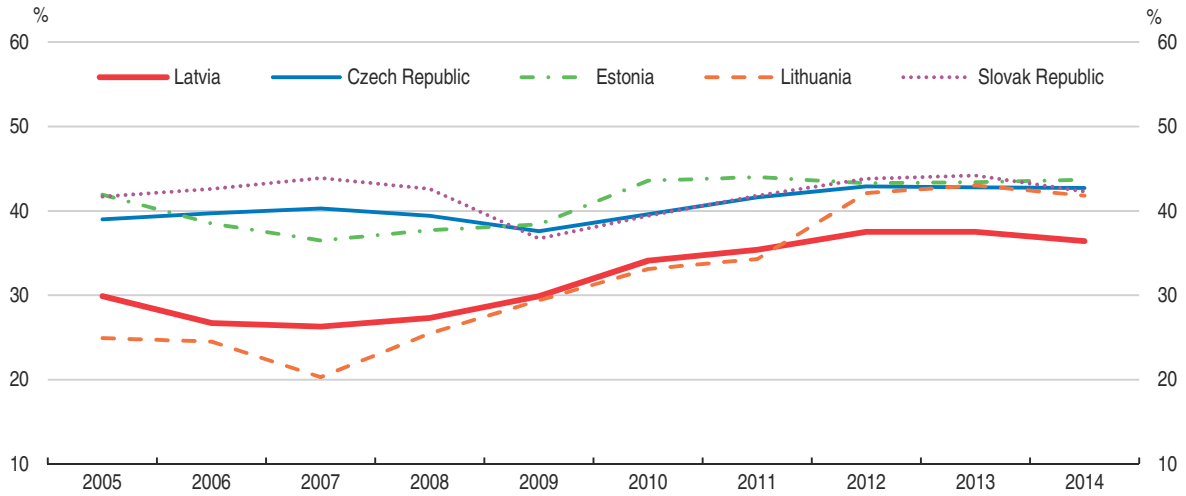
Figure 27. **Latvia's participation in global value chains lags behind peers**

The share of domestic value added embodied in foreign final demand



1. The data after 2011 are estimates based on the 2011 Inter-Country Input-Output (ICIO) table and the OECD Bilateral Trade Database by Industry and End-Use (BTDIxE).

Source: OECD calculations based on OECD/WTO (2016), *Statistics on Trade in Value Added* (database) and OECD (2016), *OECD National Accounts Statistics* (database).

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Almost one-third of Latvia's employment is sustained by GVC participation (OECD, 2016b). However, the value-added per worker from GVC participation is low compared to advanced OECD economies (Figure 28). This is partly explained by knowledge intensity, as Latvia's share of knowledge intensive services included in its exports is lower than that of Estonia or advanced OECD economies (Figure 29). In order to boost productivity and create more high-skilled jobs, Latvia needs to expand the scope of its participation in GVCs to more high value added activities such as new product development, manufacturing of technologically advanced components, as well as marketing, branding and after-sale services (OECD, 2013b). Facilitating broader access to such jobs to workers in low-income households will also make growth more socially inclusive.

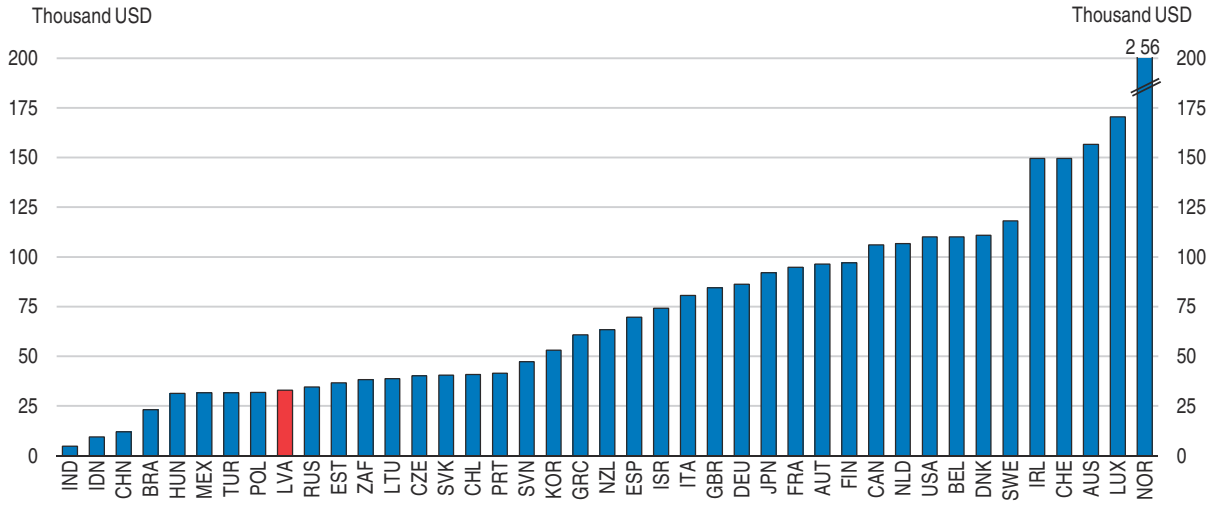
Improving the supply of labour market relevant skills

The shortage of relevant skills holds back Latvian firms' adoption of advanced technologies or management practices. The misallocation of skills, often represented by a large presence of workers over or under-skilled for their jobs, constrains productivity growth by making it difficult for productive firms to hire more skilled workers (Adalet McGowan and Andrews, 2015). Around 11% of Latvian workers report being underskilled and 20% are overskilled. The share of workers in Latvia reporting that their skills were below the level required for their job is among the highest in European OECD countries (Figure 30, Panel A). By contrast over-skilling is low in international comparison (Panel B).

Important reforms have improved the quality of vocational education and training (VET) (Table 6). The educational contents of VET have been upgraded. Education programmes which can be completed in separate modules have improved flexibility (OECD, 2015a, 2016c). Many VET students are likely to originate from low and middle-income families. In periods in which they are on workplace-placed training, they may receive a stipend from their employers. The stipend benefits from a tax-exemption (up to a ceiling).

Figure 28. **Latvia is drawing limited value-added from GVC participation**

Value added embodied in foreign final demand per worker



Note: Value added embodied in foreign final demand per worker is computed by dividing the domestic value added captured from foreign final demand by the number of employment sustained by foreign final demand. Data are of 2011.

Source: OECD calculations based on OECD/WTO (2016), *Statistics on Trade in Value Added* (database) and OECD (2016), *OECD National Accounts Statistics* (database).

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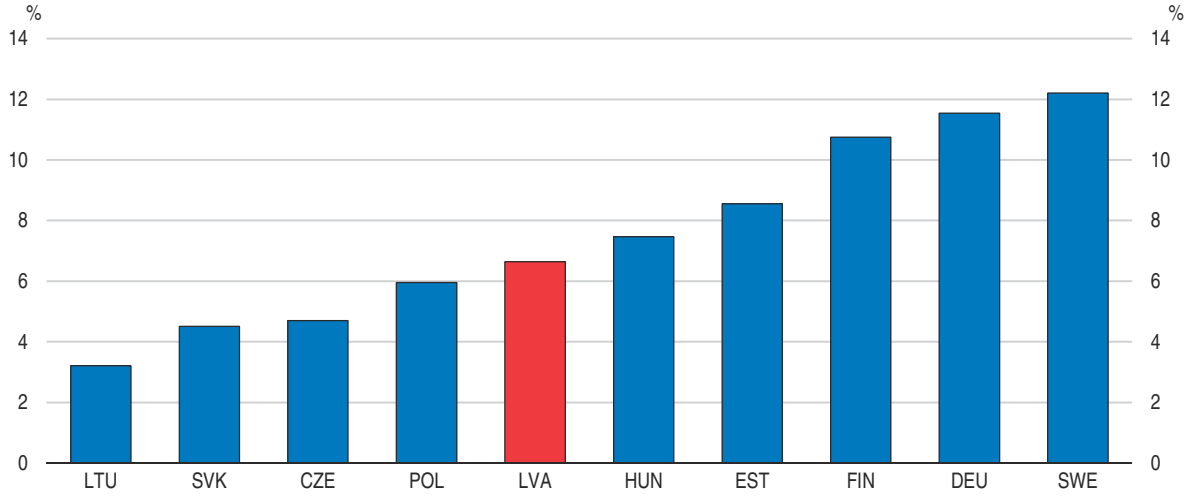
Figure 29. **The knowledge intensity of exports is lower than in many advanced OECD economies**

The share of value added from knowledge intensive services embodied in exports,[1] 2014



1. OECD estimates based on the 2011 Inter-Country Input-Output (ICIO) table and the OECD Bilateral Trade Database by Industry and End-Use (BTDIxE).

Source: OECD/WTO (2016), *Statistics on Trade in Value Added* (database)

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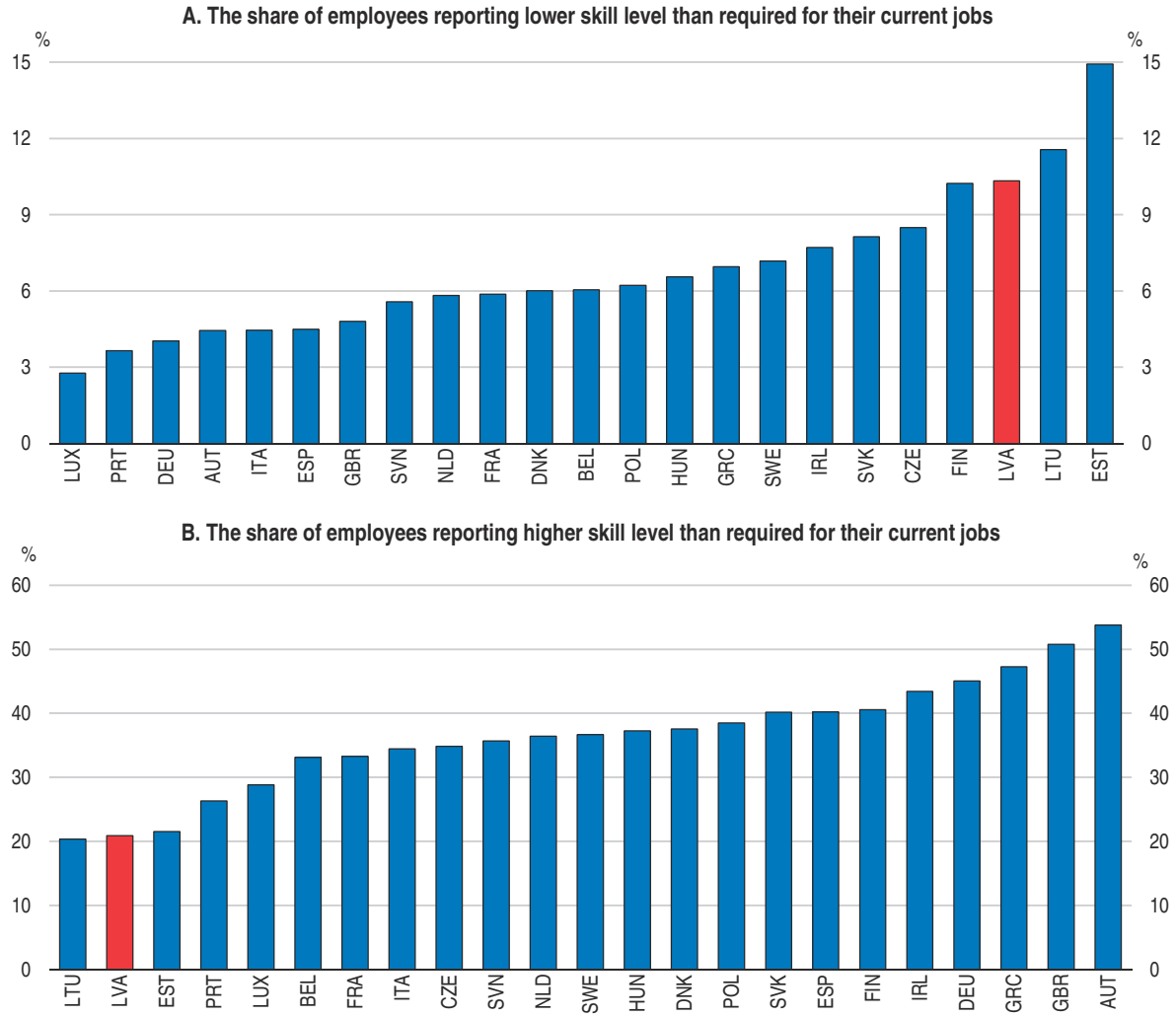
However, most students only receive 40-70 euros per month of means-tested income support, which is not sufficient as the sole income source for students (Baranovska et al., 2015). This makes it difficult for students from low income households to pursue VET. Also, students receiving support are no longer eligible for family allowances (Baranovska et al., 2015). Income support for VET students from low-income families should be scaled up to the level that allows students to focus on pursuing VET degrees and made compatible with

Figure 30. **Under-skilling is frequent while over-skilling is rare in international comparison**

2014



Source: CEDEFOP (2016), "Skills Panorama" (*http://skillspanorama.cedefop.europa.eu*).

StatLink http://dx.doi.org/10.1787/888933582797

Table 6. **Implementation of recommendations on vocational education and training**

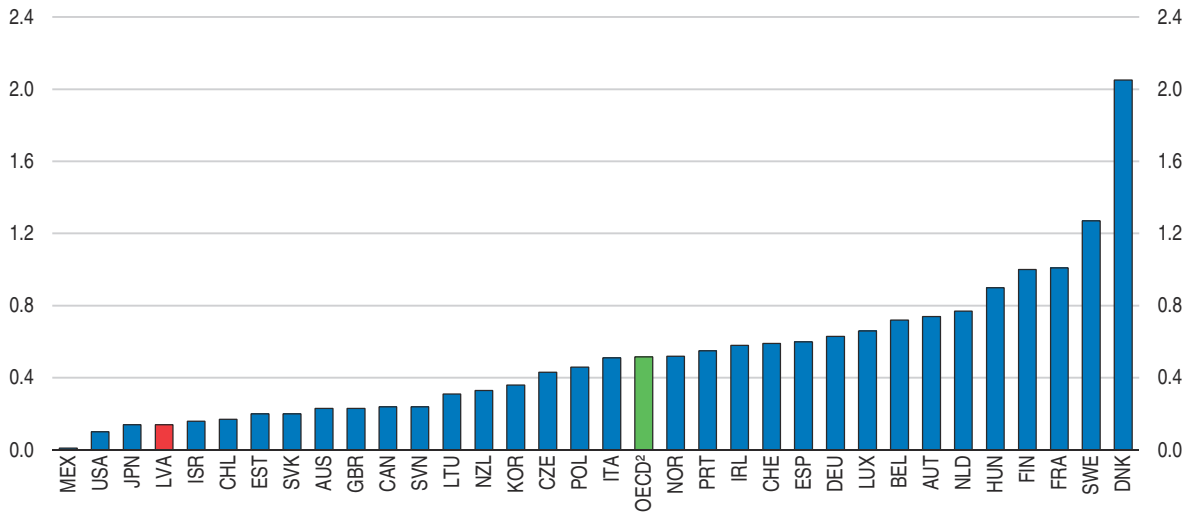
Earlier OECD recommendations	Actions taken
Proceed with the reform of vocational education and training, including the planned extension of work-based learning.	The network of vocational education and training (VET) schools was consolidated in 2015 and 18 schools were upgraded to VET Competence Centres (VECC). The regulation of Sectoral Expert Councils was adopted in 2016 to increase involvement of entrepreneurs in VET, particularly in workplace based learning. A project funded by the EU to expand the provision of workplace-based learning was launched in December 2016. Since 2017, VET students' pay in workplace-based learning is exempt from personal income tax up to EUR 280. The second phase of curricula reform supported by EU structural funds started in December 2016. Starting from the 2017/2018 academic year, VECC and other VET schools will begin implementing the modular VET programmes developed in the first phase of the curricula reform.

the family allowance, which amounts to between 11 and 50 euros per month. The government envisages additional support for students at risk of early school leaving, funded by EU structural funds, which is welcome.

Substantial progress has been made to increase the effectiveness of active labour market policies (ALMPs) such as by profiling job seekers to determine programs according to their characteristics and by evaluation. Training programmes are designed by a committee involving social partners to respond to skill demands in the labour market. But participation in active labour market programmes (ALMPs) is low by international standards. Latvia spends only 0.2% of GDP on employment services and related ALMPs (Figure 31). Plans to improve access of the unemployed to the reformed modularised vocational education system are welcome.

Figure 31. **Expenditure on active labour market policies is low**

Public expenditure as % of GDP, 2015[1]



1. 2014 for Estonia and New Zealand. 2011 for the United Kingdom.
2. Unweighted average of the data shown.

Source: OECD (2017), *OECD Employment and Labour Market Statistics* (database).

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Recent reforms of universities have strengthened internal and external quality assurance and have linked funding to the result of quality assessments (OECD, 2016c). The quality assessments will incorporate indicators of labour market performance of graduates. However, few students receive income support through grants. They are mainly based on merit. Household income only plays a role when merit is the same. Some universities also offer their own grants for students from low-income families. This hampers access of students from disadvantaged socio-economic backgrounds despite the availability of free study places (OECD, 2016c; World Bank, 2014). The purely merit-based system should be modified to include means-tested income support to improve access to higher education for students from disadvantaged socio-economic backgrounds who are able enough to get a free study place.

Immigration of skilled individuals from abroad can ease skill shortages, help attract foreign direct investment and facilitate knowledge transfer. Latvia's immigration policy lacks strategic focus on foreign skilled workers (OECD, 2016a). Foreign workers from outside the EU

are not covered by public health insurance and must buy private health insurance, which tends to be more expensive. Latvian language proficiency requirements for many occupations which require communication with the public or government authorities also create barriers. Students from outside the EU who finish their studies in Latvia are subject to a labour market test and do not benefit from any fast track visa and residence permit procedures. Further wage tax reductions could also help retain young Latvians in the country.

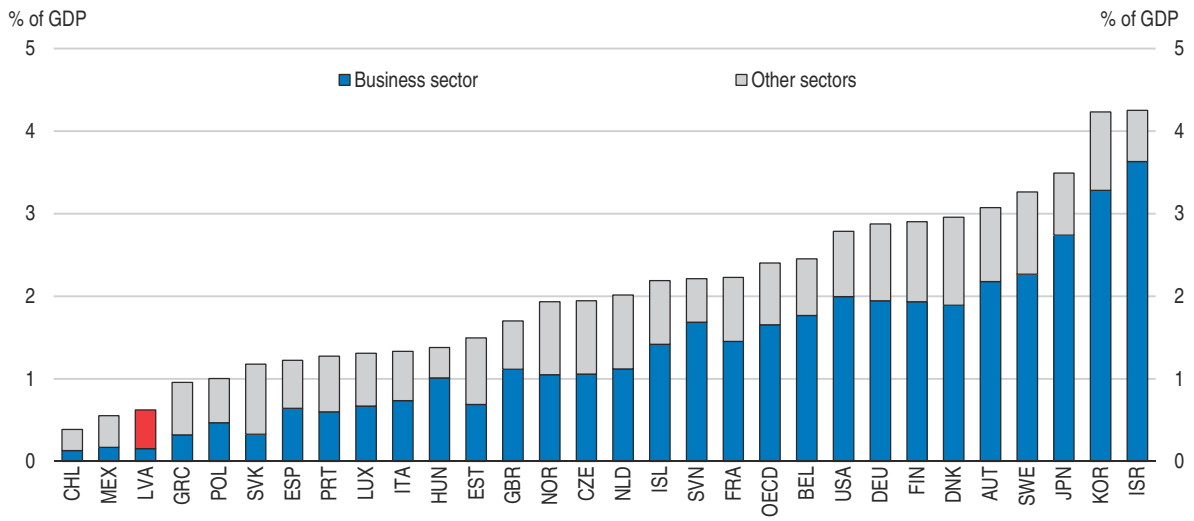
Policies to remove barriers for women to access good job careers can also improve the supply of skills. The gender wage gap is particularly large for well-paid positions, pointing to poor utilisation of highly skilled female employment, and can for the most part not be explained by job or personal characteristics (Gaveika and Skrūzkalne, 2012). Shortages in the supply of formal early child care hold back the reconciliation of employment and family life (European Parliament, 2015). Steps to encourage women to study science, technology, engineering or mathematics (STEM), where free study places are abundant and labour market demand is strong, would reduce skill shortages and the gender gap in earnings (OECD, 2016c). Barriers to female entrepreneurship could also be identified and addressed. Another option, suggested by Turk et al. (2010), is to require firms to identify and address pay inequalities between men and women. Germany has recently taken steps in this direction.

Boosting co-operation in innovation, especially with foreign institutions

Innovation is the key driver of productivity growth and essential in capturing higher value added from GVC participation. In 2015, Latvia invested only 0.6% of GDP in research and development, among the lowest in the OECD countries (Figure 32). Business-driven research and development is particularly weak. Less than one-fifth of product and process innovations are completely new to the market (OECD, 2015b). However, several indicators of innovation performance such as the number of non-EU doctoral students in Latvia have improved most recently, allowing Latvia to exit the group of least performing EU countries (European Commission, 2016).

Figure 32. **Research and development expenditure is among the lowest in the OECD**

2015



Source: OECD (2016), *OECD Main Science and Technology Indicators* (database).

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One factor limiting the innovation performance of Latvian firms is the low co-operation between businesses and higher education and research institutions (CSB, 2016). Enhancing such collaboration would improve the ability of Latvian firms to identify and absorb best practices and latest technologies produced outside Latvia (Jesiļevska, 2016), but would require additional funding. Reform of higher education funding introduced in 2015 also provides incentives for universities to co-operate with businesses, which is welcome. Co-operation with foreign firms and research institutions is particularly important but is rare. Stronger co-operation with foreign research institutions would facilitate the transfer of advanced technologies from advanced OECD economies and contributes to Latvia's competitiveness in high value added activities within GVCs.

Latvia has taken several policy initiatives in order to boost innovation and co-operation, especially in areas defined in the Smart Specialisation Strategy. It includes the EU-funded Competence Centre support programme which aims to raise the competitiveness of Latvian firms by fostering co-operation between research institutions in developing new products, as well as the EU-funded Applied Research Grants programme, the Post-doctoral Research Grants programme and the support programme for the Modernisation of Higher Education and Research Infrastructure. Other measures such as the Cluster programmes and the Innovation Voucher scheme help firms, including SMEs, to access knowledge in research institutions and encourage local and international knowledge transfer. Steps have also been taken to stimulate mobility of workers between the business sector and the public sector. Many of these policies have been implemented only recently or are in the process of implementation. They are open to Latvian research institutions as well as foreign institutions. The government should evaluate these programmes and identify which ones are effective in promoting co-operation between businesses and research institutions, particularly international co-operation with foreign firms and research institutions.

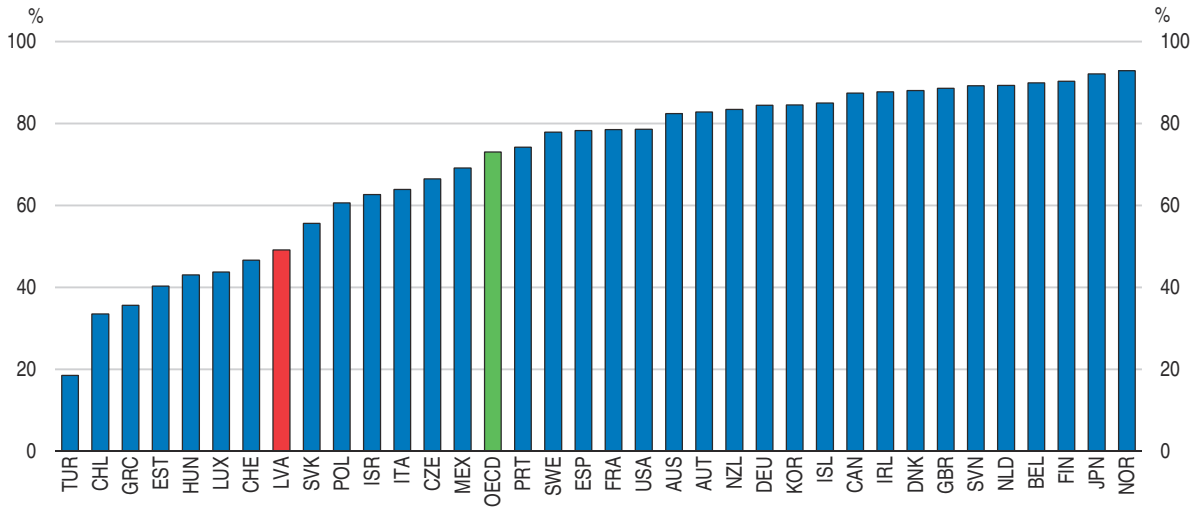
Strengthening judicial and insolvency regimes to enhance resource allocation

Effective judicial processes that ensure contract enforcement and intellectual property rights support GVC participation by allowing firms to outsource complex, highly tailored tasks (Levchenko, 2007; Essaji and Fujiwara, 2012). A transparent and efficient insolvency regime facilitates lending to finance investment needed for GVC participation and higher value added activities (Manova and Yu, 2016). Effective insolvency also encourages firm creation and eases the exit of unproductive firms, thereby enhancing re-allocation of scarce resources such as skilled workers (Andrews and Adalet McGowan, 2016).

In terms of the time and costs of enforcing a contract, Latvia is almost as efficient as an average OECD country, but the debt recovery rate in Latvia is low (Figure 33). The government has been engaging in reforms of the judicial system, including the gradual consolidation of district courts, which will be completed in 2018. A large scale training program was launched in 2016 to improve the competency of personnel. These measures are likely to improve the judicial system and contract enforcement. The quality of judgement can be improved by specialisation of courts or judges, especially in insolvency cases. While Latvia does not have many unviable firms remaining in business, as banks wrote off loans to non-viable firms quickly following the economic and financial crisis, there are concerns about transparency and abuse in insolvency cases (FCIL, 2016), which likely reduce debt recovery. Specialised insolvency judges may be better equipped to reduce abuse. Steps were taken to strengthen the expertise and accountability of insolvency administrators. Legislation to strengthen the qualifications and tighten the supervision on administrators came into force in early 2017, which is welcome.

Figure 33. **The recovery of debt from insolvent firms is low**

Average recovery rate, June 2016



Note: The recovery rate is calculated based on the time, cost and outcomes of insolvency proceedings and is recorded as cents on the dollar recovered by secured creditors. The calculation takes into account whether the business emerges from the proceedings as a going concern or the assets are sold piecemeal. The costs of the proceedings are deducted. The value lost as a result of the time the money remains tied up in insolvency proceedings is also deducted. The recovery rate is the present value of the remaining proceeds.
Source: World Bank (2017), Doing Business 2016: Measuring Regulatory Quality and Efficiency (Resolving insolvency database).

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Transport and energy infrastructure policies can improve openness and inclusive green growth

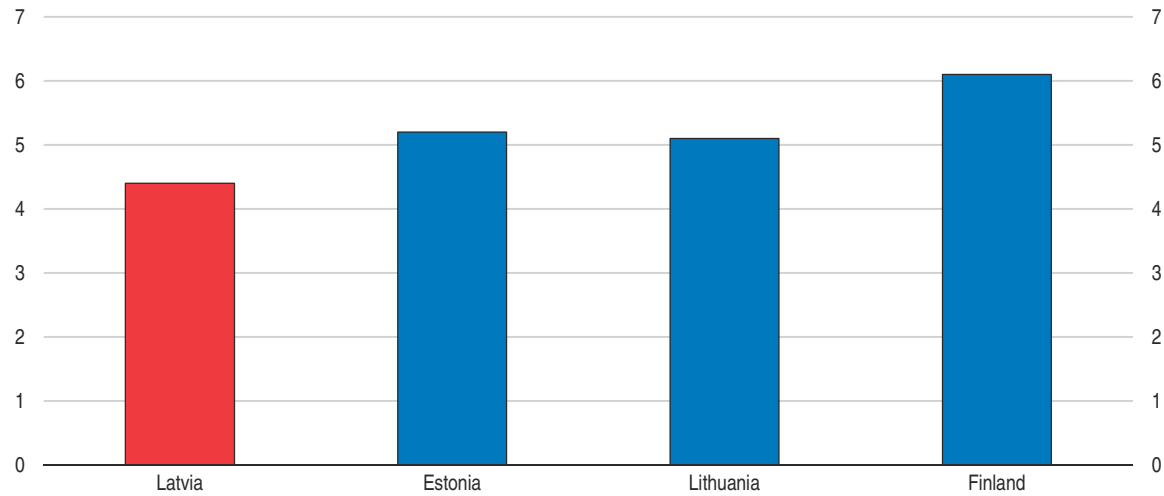
Survey evidence suggests that the quality of infrastructure still falls short of standards in other countries of the region, notably high-income countries (Figure 34), in particular in road transport (World Economic Forum, 2015; International Bank for Reconstruction and Development/World Bank, 2014). This is the case even though Latvia plays an important role as a transport hub for the Baltic region and has absorbed most of the structural funds it has received from the European Union.

Evaluation of transport infrastructure projects is uneven. When funding is provided by the EU, evaluation of large investment projects follows a standardised methodology which includes social cost-benefit analysis. When no EU funding is provided, the evaluation approach depends on the project and the state-owned company carrying it out. There are risks that state-owned enterprises subordinate policy priorities to operational priorities. State-owned enterprises may prioritise the survival of their business model, rather than the best investment projects. The same cost-benefit tests should therefore be applied to national projects as are applied to EU-funded projects. Planning should be based on lifetime costs. The development of a national transport model would allow having the best possible forecasts of future developments in transport.

Transport policies also need to address regional economic disparities within Latvia. Rural regions are experiencing a rapid decline in population and low population density makes it difficult to sustain adequate public transport services. The Latvian government already supports public transport, including bus services between towns, with subsidies of 0.3% of GDP per year. New mobility concepts may offer opportunities to provide services at a low cost and better suited to individual needs. ITF (2015) found that car-sharing and ride-sharing services can be suited to rural markets. Demand-responsive bus services have

Figure 34. **Infrastructure still lags behind other countries in the region**

Global Competitiveness Index in terms of overall infrastructure, scale from 1 to 7 (best)



Source: World Economic Forum, "The Global Competitiveness Report 2016-2017".

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shown promising results, adjusting mobility services to the needs of the customer. In a number of countries local governments have brokered agreements to combine school bus services, postal delivery services, ambulance services. Evidence from Norway suggests that these can improve access to medical services and raise wellbeing among the young (Dotterud Leren and Skollerud, 2015). To enable this, policy makers must ensure that there are no barriers that would hamper the creation of these services. It is promising that the government is already working on developing these innovative public transport services.

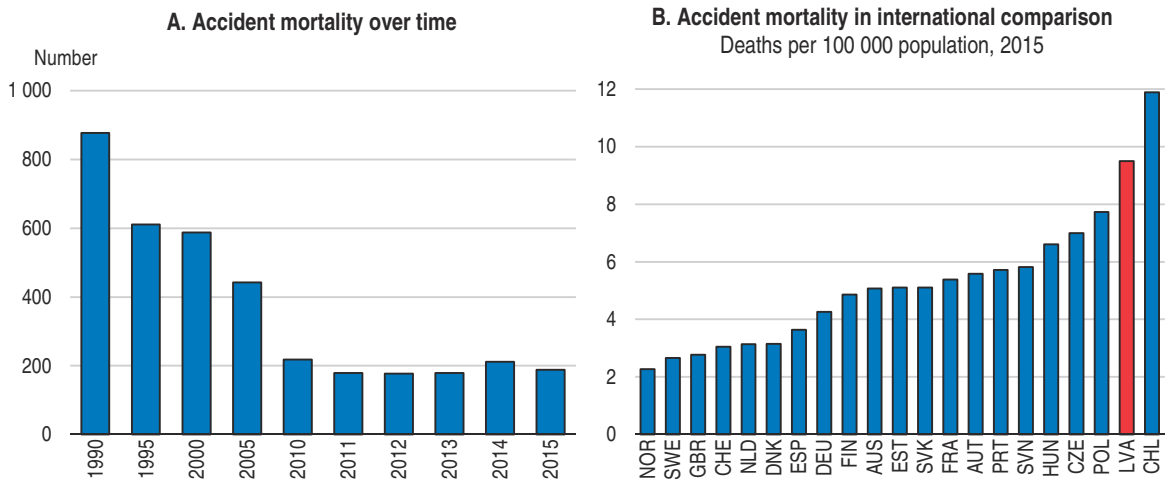
With 9.5 road deaths per 100 000 population per year, Latvia still has one of the highest road mortality rates in the EU or the OECD, although impressive progress has been made in reducing mortality since Latvian independence in 1991 (Figure 35). More priority needs to be given to investment in safer road infrastructure. For example, investments in motorway sections and to develop pedestrian friendly infrastructure in urban areas would boost road safety.

Latvia benefits from good wind resources, with large suitable offshore and onshore areas for wind energy development (EEA, 2009). While Latvia uses renewable energy sources extensively, thanks to hydropower and biomass, Latvia's installed capacity of wind generation accounts for a small share of electricity generation. A feed-in tariff to promote renewable energy generation has been put on hold until 2020 due to concerns over cost (Dreblow, 2014). Several countries use competitive tenders or procurement auctions. Such tenders have resulted in record-low bids. The most recent example in Europe is Germany's new Renewable Energy Act. Another interesting model is the "Contract for Difference" (CFD) for renewable energy recently introduced in the United Kingdom.

Making the most of the economic potential of Riga

The Riga metropolitan area is a key driver of economic growth and is a major regional transport hub. The city and its surrounding municipalities are home to more than half of the Latvian population and contribute 69% to national GDP. It boasts growth in knowledge-intensive services, low unemployment, and attractive natural assets (Chapter 2). More than

Figure 35. **Road accident mortality has fallen significantly but it is still high**



Source: International Transport Forum.

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80% of Latvian enterprises in the ICT sector are located in Riga and high-tech sectors are growing strongly, albeit from a small base (Riga City Council, 2016). The network effects of metropolitan areas are key drivers of innovation (OECD, 2015c). Since 2010, Latvia's population declined by 6%, whereas the population decline was only 3.6% in the metropolitan area. Riga has a high share of working population aged 30-45. The metropolitan area has an important role to play for retaining young adults and families in Latvia. Effective housing policies, as described below, can go a long way in making the most of this potential.

But Riga's international competitiveness is lagging behind equivalent cities in the Baltic region. For example, GDP per capita is on average about 70% of that in other capital cities around the Baltic Sea (VASAB, 2016). Since 2010, the metropolitan Area of Riga performed less well than its peer cities in Estonia and Lithuania (Eurostat, 2016a, 2016b).

OECD experience shows that good metropolitan governance plays a critical role in improving economic growth, well-being and environmental outcomes (Ahrend et al., 2014; OECD, 2015c). Metropolitan governance arrangements result in higher labour productivity, and thus durably higher wages, less urban sprawl and pollution as well as more residents' satisfaction with public transport. Governance mechanisms that match daily mobility patterns of the residents are essential.

The benefits of co-ordination across local governments within the metropolitan area of Riga are receiving increasing attention by Latvian municipalities. But no formal governance arrangements exist covering the entire metropolitan area. The "Riga Planning Region" provides a discussion platform for most municipalities in the area. However, it does not include all municipalities where most residents commute to Riga. Moreover, experience across OECD countries shows that better metropolitan governance can be built by extending participation beyond the local governments, to include the central government and major education and research institutions. The central government can provide financial incentives to identify and carry out metropolitan projects beyond the confines of individual municipalities and create reliable sources of metropolitan financing, for example, to better co-ordinate public transport. A long-term process for metropolitan monitoring and evaluation is also needed (OECD, 2015c). OECD evidence

shows that such policies lower infrastructure costs. Denser cities also have substantially lower CO_2 emissions, helping to achieve emission reduction targets (Ahrend et al., 2014; OECD, 2015c).

Improving access to housing and health care is key for more inclusive growth

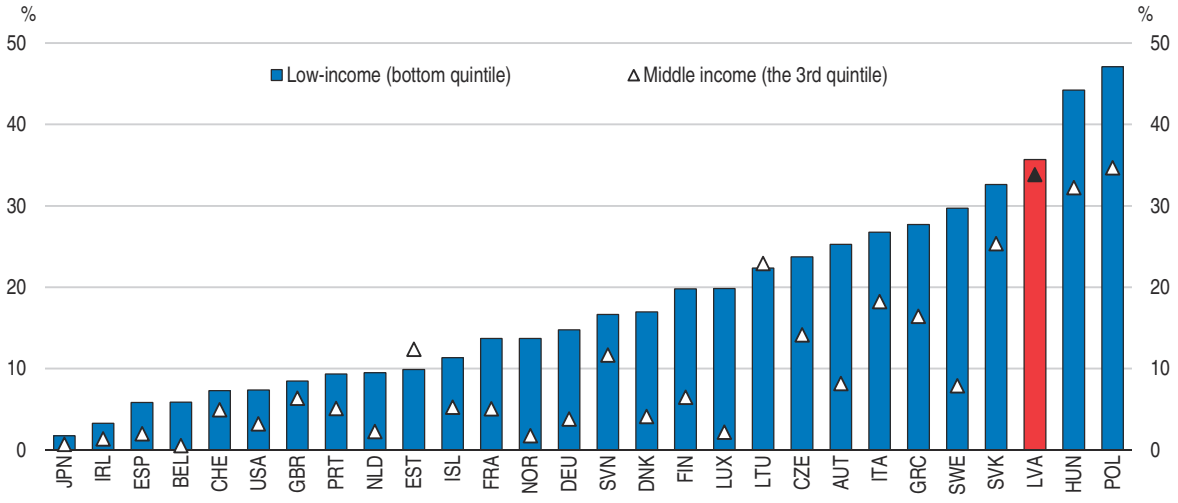
Affordable housing in neighbourhoods which are well connected to employment opportunities is an important driver for inclusive development and labour mobility. This is especially true in Riga, where housing is relatively expensive, while unemployment is low and high-productivity sectors are expanding, offering good employment opportunities. Housing market policies shape residential mobility, which is positively correlated with worker reallocation (Caldera Sánchez and Andrews, 2011) and the efficiency of job matching (OECD, 2015d). Therefore, they help reduce unemployment in high-unemployment regions. Affordable housing is also important for supporting other wellbeing dimensions, such as health and educational outcomes. Despite substantial improvement over the past decade, life expectancy at birth remains the lowest among OECD countries. The gap in life expectancy by education background is substantially larger than in other OECD countries. The poor, less educated and unemployed are more likely to be in worse health or die prematurely than those in more favourable socioeconomic circumstances (OECD, 2016e).

Housing policy needs to improve access to economic opportunities

Overcrowded housing is widespread among low and middle-income households in Latvia (Figure 36). While population has declined markedly since independence, low income among many home owners has contributed to the high incidence of low-quality housing. Moreover, population trends are unequal within the country, resulting in markedly stronger demand for housing in economically dynamic areas with good employment opportunities. About 81% of the Latvian population live in the homes they own. Even among low-income households, few rent (Figure 37).

Figure 36. **Many households live in overcrowded housing**

Share of households, by quintile of the income distribution, 2014 or latest year



Source: OECD (2016), *OECD Affordable Housing Database*, Table HC2.1.3, December *(www.oecd.org/social/affordable-housing-database.htm)*.

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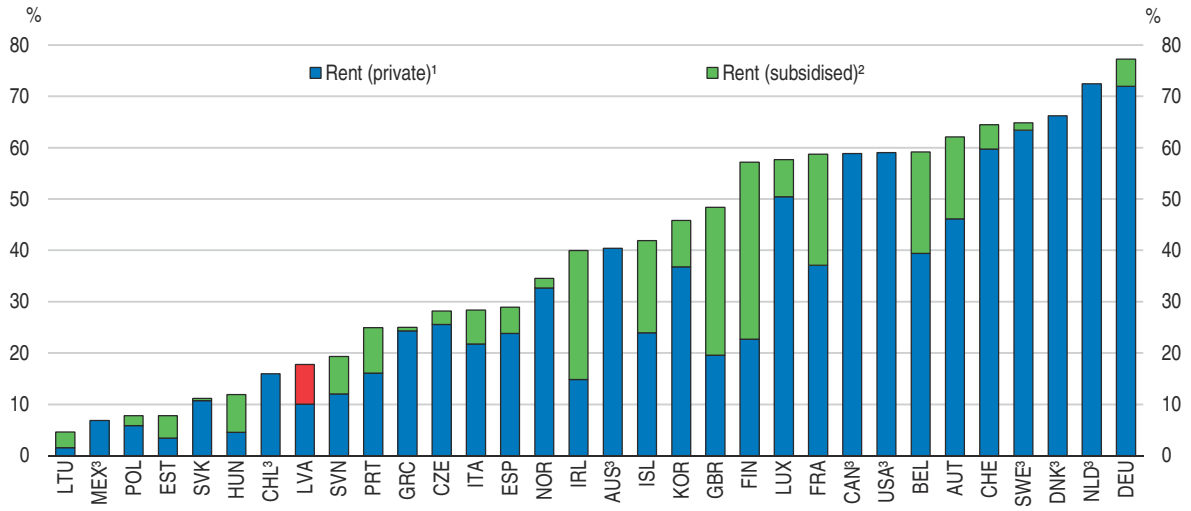
Figure 37. **Few low-income households rent their homes**

Share of rental housing, low-income households, 2014 or latest year



Note: Low-income households with income in the bottom quintile of the net income distribution. For Chile, Mexico, Korea and the United States, gross income is used due to data limitations.

1. Share of households renting their dwelling at market prices on the private rental market.
2. Share of households renting their dwelling at reduced market prices.
3. Data on tenants renting at private rental market prices include tenants renting at reduced prices for Australia, Canada, Chile, Denmark, Mexico, the Netherlands and the United States. For Sweden, data on tenants renting at reduced prices are not capturing the full extent of coverage due to data limitations.

Source: OECD (2016), *OECD Affordable Housing Database*, Table HM1.3.3, December *(www.oecd.org/social/affordable-housing-database.htm)*.

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There appears to be no commercial housing development aimed at the rental market. A stronger private rented housing sector would support the provision of affordable housing for households that do not have the financial means to purchase a home. It also encourages labour mobility. Higher home-ownership rates are associated with higher skill mismatch, and housing policies which impede residential mobility might amplify skill mismatch. Housing policies appear to be particularly relevant for young people since they have a naturally higher propensity to move (Caldera Sánchez and Andrews, 2011). In the Latvian context, good housing policies could also encourage young people to seek opportunities in Latvia rather than emigrate. Different housing demand and house price trends across regions in Latvia are likely to have reduced labour mobility, as home owners from high-unemployment areas are likely to find it difficult to afford buying housing in areas with good employment opportunities.

The government has introduced a mobility allowance for unemployed workers who take up a job at a distant location to help cover their commuting and moving costs. However, the allowance is available for a short period of time and is not available in Riga, where most jobs are located. Providing workers with subsidies to cover the costs of relocating can be a cost-effective way to enhance labour mobility. For instance, in Germany workers participating in a relocation subsidy programme are matched with higher paying and more stable jobs than non-participants (OECD, 2017c).

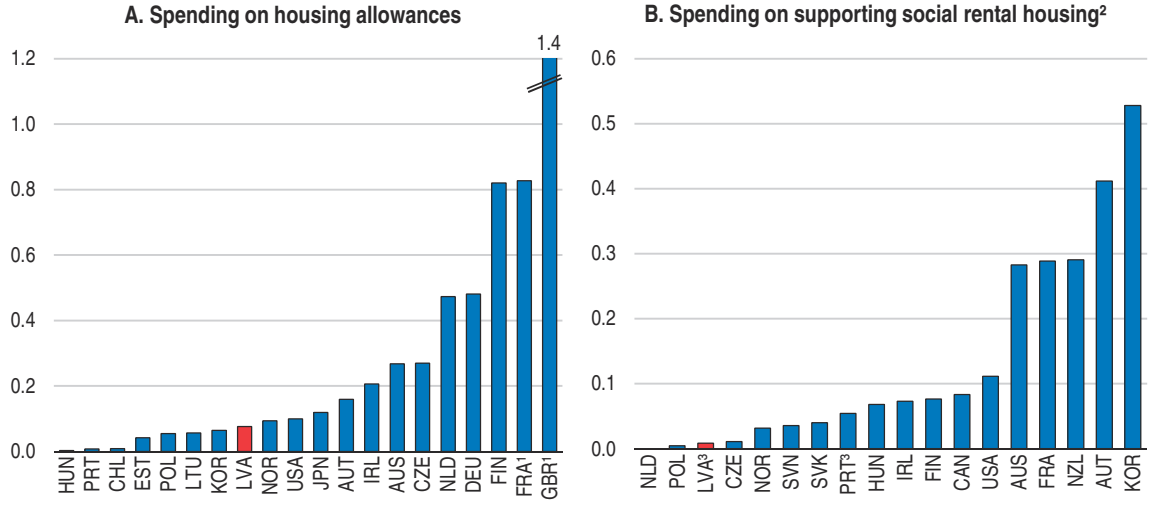
Low legal certainty appears to hold back the rental market. It appears to be difficult to conclude rental contracts such that the landlord and the tenant are confident that the contract complies with law (Kolomijceva, 2016; Hussar, 2016). Most court cases take more than 6 months (Kolomijceva, 2016). This may deter some owners to offer housing for rent, as they

may not receive any rent payment for some time. Indeed, court decisions are always required, for example, to evict a tenant who does not pay rent. Indeed, weak protection of landlords' property rights affects worker mobility and productivity negatively because of its negative impact on the rented housing market (OECD, 2015c). The government is therefore considering developing out-of-court procedures. By law, decisions to evict low-income tenants can be implemented only if social housing is available for them. This rule prevents social hardship, in view of widespread poverty and low social assistance entitlements. However, the supply of social housing is low, and waiting lists are long. Therefore, steps to increasing the supply of social housing could also help encourage private home owners to offer more housing for rent. Reducing tax evasion and fostering long-term lease contracts could also increase reliability of contracts and make rented housing more attractive for tenants (Hussar, 2016).

Government spending on social housing and on cash housing benefits for low-income households are among the lowest in the OECD (Figure 38). Support for low-income households to improve access to quality housing only cover a small share of the low and middle income population. Waiting lists for housing at subsidised rates are often long, especially in high demand areas as the Riga metropolitan area. Cash-benefits to help low-income households pay rent in the private market would not be effective for as long as the private rented housing market is not well-developed. In the near term, social housing should therefore be the preferred option to improve access to housing for low-income households. Housing policies are mostly designed at the national level and implemented at the local level. An eligible person can only apply for assistance in the municipality where she resides, limiting labour and residential mobility.

Figure 38. **Government spending on housing support is low**

Government spending as % of GDP, 2015



1. 2014-15 for the United Kingdom. 2014 for France.
2. Central government spending only, with the exception of Australia, Austria and Korea where funding at regional level is included.
3. 2013 for Latvia and 2012 for Portugal.

Source: OECD (2016), *OECD Affordable Housing Database*, December *(www.oecd.org/social/affordable-housing-database.htm)*.

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Investment in energy efficiency of residential buildings can, over time, reduce housing costs, make economic growth more environmentally sustainable and help meet long term greenhouse gas emissions targets. Indeed energy efficiency makes up the bulk of investment

needs to limit global warming in line with the Paris agreement (IEA, 2016). Latvia has made much progress in reducing energy consumption for housing, using EU funds, but it remains high. Low wealth and lack of access to bank loans hold back investment. In some OECD countries, local governments have successfully stimulated renewable energy and energy efficiency retrofits by offering up to 100% upfront financing for these projects. Property owners then repay the loan over the long-term in form of an extra addition on their property tax (Wesoff, 2015). This however requires upfront government financing. Utility companies can also provide loans for energy-efficient appliances, and allow repayment to be made as part of the monthly electricity bill (Terry, 2016).

A nation-wide register that allowed eligible persons to apply for social housing where they expect better job opportunities could help support residential mobility. To ensure that places in social housing are allocated to the targeted population, incomes should be verified not only at the time of application, but also in regular time intervals following the rental agreement. Several OECD countries have also successfully expanded affordable housing by requiring private developers to allocate a proportion of the dwellings as affordable units (Salvi del Pero et al., 2016). The responsiveness of housing supply to demand is lower in countries where it takes longer to acquire a building permit (Andrews et al., 2011), and this increases skill mismatch and damps productivity (OECD, 2015d). It is therefore welcome that the Latvian government is planning to accelerate building permit procedures.

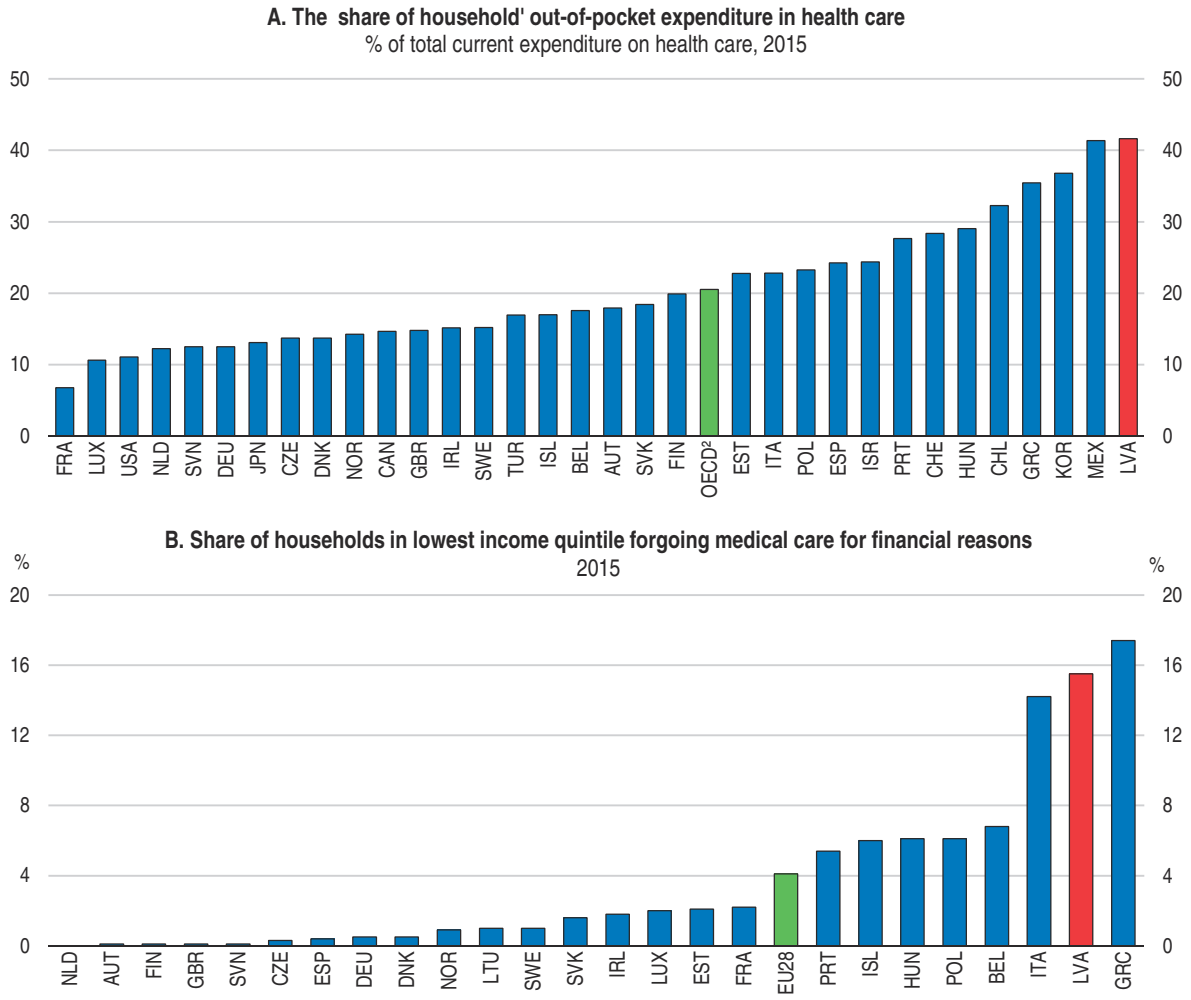
Low-income and rural households forego medical treatment

The National Health Service (NHS) is the single purchaser of publically funded personal health services. It provides universal coverage to the entire population and is financed through general taxation. However, public expenditure on health is very low, 3.3% of GDP in 2014. 41 per cent of total health care expenditure in 2014 was out-of-pocket spending, a share that is among the highest in OECD countries (Figure 39, Panel A). Patients must make substantial co-payments towards the cost of general practitioner visits, specialist visits, hospital stays and pharmaceuticals. For low-income households health care needs can result in a significant drop in the disposable income they can use for other expenditure (WHO, 2016; Ke, 2005). Fifteen per cent of the low income population in Latvia reported forgoing needed medical examination in 2014 for financial reasons, (Figure 39, Panel B). Recent OECD research shows that out-of-pocket payments are harmful to the cost-effectiveness of public health care spending in the long run, as they may reduce demand for early health care interventions which can prevent more expensive interventions later (de la Maisonneuve et al., 2016).

Exemptions from co-payment requirements only apply to the poorest households, with less than EUR 128 per person monthly income. Financial barriers to care for low-income households are also exacerbated toward the end of the year, when annual budgets for healthcare are exhausted and any demand for health services for the rest of the year may need to be paid out-of-pocket (OECD, 2016e). To improve access to care, Latvia recently reduced co-payments for daily inpatient charges in hospital from EUR 13.52 to EUR 10 per day and co-payments for inpatient surgical intervention from EUR 42 to EUR 31. These steps are welcome. Expanding exemptions from co-payments for a broader range of low-income households and eliminating end-of year rationing for key services should be a policy priority.

Access to care is particularly limited in rural areas. Challenges in rural areas relate to shortage of some health care professionals. Latvia could consider innovative solutions to reduce geographical barriers to accessing health care, for example making better use of

Figure 39. **High out-of-pocket payments limit access to health care**



1. Includes non-profit institutions serving households.
2. Unweighted average of the data shown.

Source: OECD (2017), *OECD Health Statistics* (database) and Eurostat.

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existing health resources for rural populations. These can play a larger role in preventive care. Pharmacists, could take a greater role in managing chronic conditions and the role of nurses' and physicians' assistant could also be expanded (OECD, 2016e).

Improving efficiency of health care provision

The number of hospital beds declined from 8.8 to 5.7 per 1 000 population between 2000 and 2014. This is still higher than the OECD average and indicators of quality of care in hospitals give cause for concern. The recent introduction of diagnosis-related groups is a step in the right direction to promote a more efficient use of hospital resources (OECD, 2016f). However, hospitals do not have incentives to promote quality. The NHS could undertake more strategic contracting to incentivise quality and efficiency. It could for instance strengthen monitoring and evaluation of hospital activities, to selectively contract with better-performing hospitals to drive quality improvement. It is important to identify low-volume hospitals, which generally are not able to promote high quality care, and

underperforming hospitals. Such a mapping of services has already started, which is welcome.

Despite the high quality of the Latvian health information infrastructure (OECD, 2016e), there are still important gaps in information on health care quality in primary and secondary care. In primary care, indicators do not reflect patients' clinical outcomes. Worsening risk factors, including obesity and alcohol consumption, and low preventive screening rates signal a failure in preventive efforts at primary care level. In the area of hospital care, Latvia does not report several OECD health care quality indicators (OECD, 2017b). Provider-level data can generate several opportunities for improving both quality and efficiency. By gaining a better understanding of these variations in treatment outcomes, resources can be reallocated to best use. A core set of reliable quality and performance indicators should be made available at national, local and individual provider level to guide health policy, monitor progress, and benchmark performance of providers.

Environmental outcomes are good

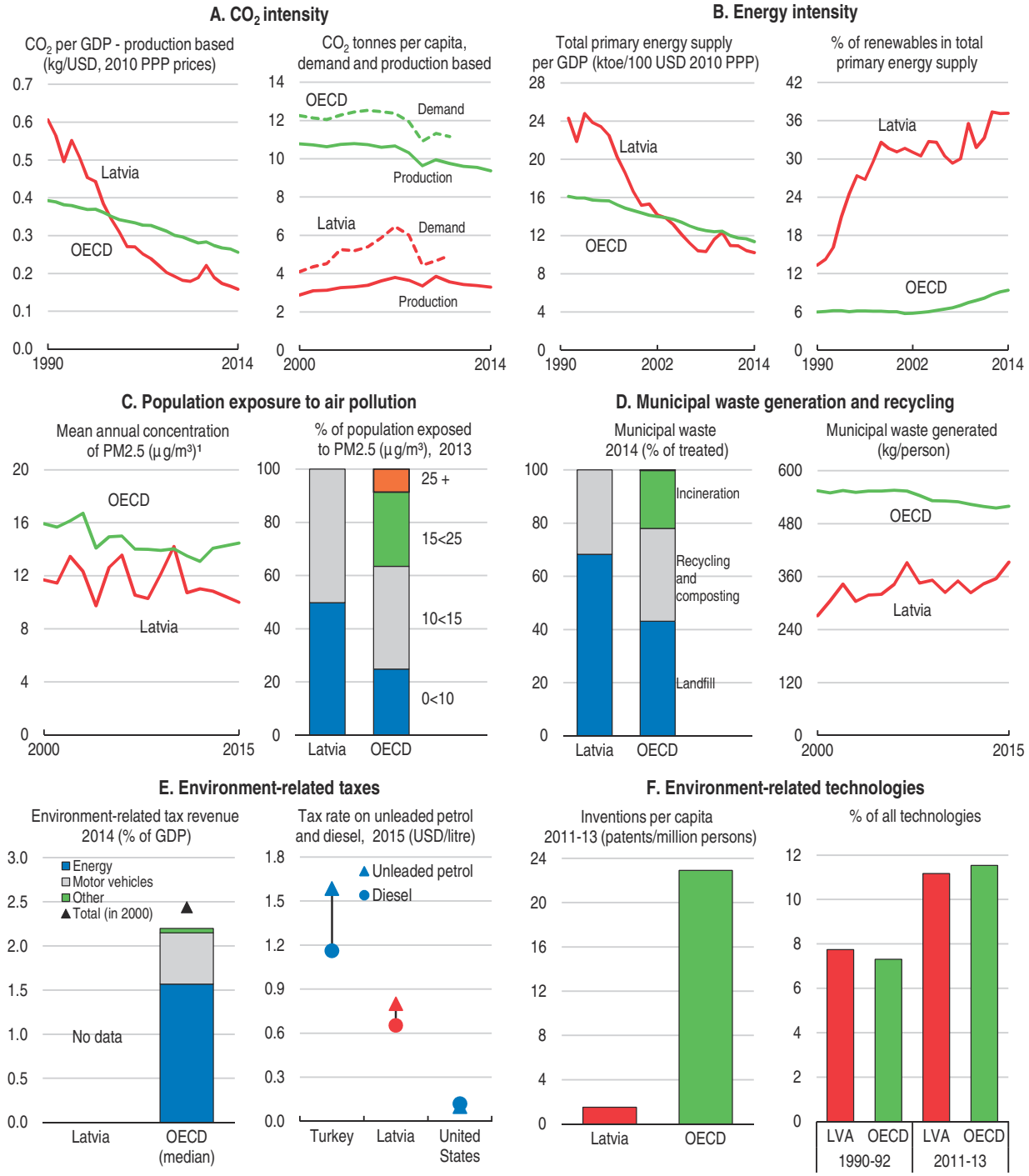
Latvia's energy intensity declined significantly during the 1990s (Figure 40). Per capita greenhouse gas (GHG) emissions are well below average, partly because of the contribution of renewable energy, which supplied around 40% of total primary energy supply in 2014, the absence of heavy industry, and relatively low incomes. As in many OECD countries, Latvia's imports embody more GHG emissions than domestic production, as the CO_2 intensity of demand is higher than the CO_2 intensity of production (Panel A) so its contribution to climate change through demand is greater than through domestic production. Both GHG intensity and energy intensity were declining through to about 2010, but the decline may have slowed since then.

The share of renewables in total energy supply increased enormously at the end of the last century as the use of wood for fuel, especially in households, grew. Air quality is very good with hotspots for particle pollution limited to occasional occurrences in the capital, Riga. Average exposure to particle pollution across the country has been stable for many years.

Municipal waste generation per capita has always been well below the average for the European Union (Eurostat, 2017a; Latvian data comparable to OECD data is not yet available); it was 40% below the EU average in 2010. But since then it has risen by over one fifth while the EU average continued to decline, even though a landfill tax was introduced in Latvia in 2002 and has been steadily increased. A further increase is planned by 2020. There are no facilities for waste incineration in Latvia. 27% were recycled or composted in 2015. The rest goes to landfill.

Eurostat data show relatively high environmental tax revenue, about 2.5% of GDP and nearly 10% of total government revenue. As in all countries, the bulk of this is energy tax revenue and transport-related taxes. The share of environmental inventions in total patents has risen substantially since the early 1990s, as in many countries, but the absolute level of environmental patenting is extremely low, in line with Latvia's low overall level of R&D.

Figure 40. **Green growth indicators: Latvia**



1. Data in 2014 are the average of 2013 and 2015.

Source: OECD (2017), *Green Growth Indicators* (database).

StatLink http://dx.doi.org/10.1787/888933582968

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ANNEX

Progress in structural reform

This annex reviews action taken on recommendations from previous Surveys. *They cover macroeconomic and structural policy priorities. Each recommendation is followed by a note of actions taken since the January 2015* Survey. *Recommendations that are new in this* Survey *are listed in the relevant chapter.*

Recommendations in the previous *Survey*	Actions taken
Fiscal policy	
Reinforce countercyclical liquidity buffers.	Countercyclical liquidity buffers have not yet been built up because economic activity is still below potential. A fiscal buffer for 2017, 2018 and 2019 amounting to 0.1% of GDP each year has been incorporated in the planning of the 2017 annual budget.
Enhance public sector efficiency	
Carry out co-ordinated and regular assessment of productivity challenges as an input for regulatory reform.	The government is envisaging setting up the National Productivity Board in 2018 to improve co-ordinated and regular assessment of productivity challenges. The European Commission, the OECD, as well as representatives from Latvian public administration, parliament, academia and social partners have been consulted to set up the board in the most effective manner.
Restore the funding of the State Audit Office to at least pre-crisis levels.	The grant to the State Audit Office has been increased in the 2017 Budget to EUR 5.9 million, still 11% lower than the 2008 level.
Reinforce regulatory impact assessments by reducing fast-tracking for the assessment of new regulation and establishing methods to select proposed regulations that require in-depth assessments.	Amendments to improve the *ex ante* regulatory impact assessment framework were developed in 2016. Approval by the Cabinet of Ministers is expected in 2017. A conceptual report proposing an *ex post* evaluation framework was approved in 2016. Two pilot projects are launched in 2017 to develop the evaluation methodology.
Introduce regular reporting on long-term spending trends and the adequacy of social programmes, such as pensions and healthcare.	Long term social insurance budget projections are produced regularly and are used for political decision making, analysis, monitoring, ensuring the long term stability. The Ministry of Health has made estimates of the health care funding for 2017-23. The European Commission's Ageing Report to be published in 2018 will include such projections.
Ensure that local governments are sufficiently resourced and autonomous by increasing their tax revenues, reducing the share of earmarked revenues, and improving the equalisation system.	A new financial equalisation law strengthening the autonomy of local governments was introduced in 2016.
Modernise human resource management by further developing results-oriented pay.	Legislation in 2016 aims at reducing pay gaps between the public and the private sector. A pilot project to develop a new remuneration system will be evaluated by September 2017. Additional pay for key experts was introduced. Law amendments will be developed in 2017 in order to introduce additional measures to link remuneration with performance indicators and to reduce the pay gap. A comprehensive public administration senior manager development program was introduced in 2016. In 2017 the topic of the senior managers' development program is performance management.
Strengthen the transparency of public procurement by ensuring the independence of institutions in charge of combating corruption and by providing practical guidance on conflicts of interest.	An evaluation of the implementation of the Conflict of Interest Prevention Law is to be conducted in 2017. A working group has been set up by Parliament. The Corruption Prevention and Combating Bureau (KNAB) provided training to government officials on prevention of conflict of interest, ethics and internal control in 2016. The independence of the Corruption Prevention and Combating Bureau (KNAB) was strengthened in 2016 by limiting the Prime Minister's rights to control KNAB's decisions.
Strengthen social protection	
Evaluate the current benefit system and make universal social benefits more targeted at low-income households. Withdraw benefits targeted at low-income earners more gradually when they take up a job.	A mechanism to set minimum guaranteed income levels (social assistance) was proposed in June 2015. An action plan on improving the income situation of the most vulnerable groups for 2017-20 was produced in the first quarter of 2017. Amendments to the Law on Social Services and Social Assistance entered into force on February 2017, allowing workers to keep social assistance benefits during the first 3 months after starting employment and phasing them out afterwards. More families with children are entitled to social assistance.

Recommendations in the previous *Survey*	Actions taken
Make tax system more growth friendly	
Strengthen efforts to tackle tax fraud and improve tax collection. Continue to reduce the complexity of tax compliance.	In 2016 legislation introducing criminal liability for employers paying envelope wages on a large scale was adopted. Other measures to combat shadow economy were also adopted including: an obligation for the general contractor to pay minimal social contributions for all employees at construction sites regardless of whether they are employed by the general contractor or the subcontractor; expansion of the range of personnel who are liable to provide information to the State Revenue Service on suspicious transactions; prohibition of natural persons to perform cash transactions exceeding EUR 7 200; IT system to exchange information between the State Revenue Service and financial institutions for more efficient tax debt recovery; new regulations for e-commerce to prevent tax evasion. Several measures to increase revenue from the taxation of specific goods and services were introduced, such as VAT reverse charge for precious metals.
Decrease labour tax for low-income earners.	From 2016 a differential non-taxable minimum income allowance was introduced with a higher tax-exempt level for low income (EUR 160 per month for the lowest wages) The monthly allowance for dependents was raised from EUR 165 to EUR 175.
Raise additional revenues by increasing property and environmentally related taxes. Increase energy tax rates, making them depend on their relative carbon content. Phase out environmentally harmful fuel subsidies.	In 2015 and 2016 the excise tax rates for alcohol, tobacco and several oil products were raised and the tax base was broadened. Excise tax rates will be raised gradually until 2018. Car and motorcycle taxes have been abolished in 2017 and replaced by the vehicle exploitation tax where rates are based on CO_2 emissions. The tax exemption for electricity expenditure was abolished. Tax rates on the extraction of natural resources in several categories of minerals and soil were increased by the order of 25-29%. Taxes on the disposal of municipal waste were increased for hazardous waste and production waste. Tax rates on activities emitting CO_2 and on goods harmful to the environment were increased.
Improve the business environment	
Simplify the licenses and permits system, remove compulsory chamber memberships in professional services and reduce the complexity of regulatory procedures.	An action plan for the improvement of the business environment was approved by the government in 2017. Measures include on-line registration of a company starting from 2018, registration of property without a notary with a safe electronic signature, creation of a monitoring system of insolvency proceedings, public administration e-services, a single account for all tax payments, English communication with the State Revenue Service and specialisation of judges in the courts.
Bring the governance of state-owned enterprises further in line with the OECD Guidelines on Corporate Governance of State-Owned Enterprises. In particular, introduce boards of directors in all economically-oriented state-owned enterprises, together with regular assessments of the rationale and need for state ownership. Allocate adequate staff and resources to the Cross-Sectoral Co-ordination Centre.	An annual report on state-owned enterprises is published, starting in November 2016. Boards of directors for the 12 largest state-owned enterprises were established by the end of December 2016. Assessments of the rationale and need for state ownership are progressing. Additional resources are allocated in 2017 and the following years to the Cross-Sectoral Co-ordination Centre.
Extend corporate management best practices to port authorities and municipal corporations.	No action taken.
Strengthen the independence of the Competition Council and enforcement of competition policy by giving it more financial and administrative autonomy.	Amendments to the Competition Law in 2016 increased the financial resources of the Competition Council approximately by 4% by allocating the revenue from the newly-introduced fee for merger notifications to the Competition Council. From 2016, public persons (central government and municipal authorities) are obliged to consult and receive an opinion from the Competition Council prior to entering relevant markets.
Continue improving the connectivity of energy networks with the rest of the European Union.	The desynchronisation of Baltic states from the Integrated Power System and the unified power system (UPS), which links the power grid in the Baltic states to Russia and other CIS countries, is ongoing and is planned to be implemented by 2025 as the key project in the European Energy Security Strategy and Baltic Energy Market Interconnection Plan (BEMIP). The key electricity infrastructure projects such as the 3rd electricity interconnection with Estonia are ongoing.
Remove barriers to trade and investment such as restrictions on the ownership of agriculture and forestry land. Introduce a single window for customs related matters, speeding up cross–border paperwork.	Amendments to the legislation that will enable OECD member countries' citizens to buy agricultural land are being prepared.

Recommendations in the previous *Survey*	Actions taken
Continue with efforts to improve the court and out-of-court disputes settlement system.	District courts have been consolidated. The reorganisation of the judicial map is to be concluded by the end of 2018. The pay of judges and court employees was increased. A plan to develop the competence of judicial and law enforcement personnel was approved in 2015 and will be implemented by 2022. A comprehensive assessment of the judicial system will be conducted by December 2018. Amendments to the Arbitration Law that improve government control of the arbitration courts came into force in 2016. Since December 2015, sworn notaries and bailiffs may practice as certified mediators. Free consultations by mediators are provided in several courts.
Explore the potential to improve the financing of micro-enterprises such as developing this function in the credit unions sector, which would require changes in regulatory requirements and supervision.	No action taken.
Address skill shortages	
Proceed with the reform of vocational education and training, including the planned extension of work-based learning.	The network of vocational education and training (VET) schools was consolidated in 2015 and 18 schools were upgraded to VET Competence Centres (VECC). The regulation of Sectoral Expert Councils was adopted in 2016 to increase involvement of entrepreneurs in VET, particularly in workplace based learning. A project funded by the EU to expand the provision of workplace-based learning was launched in December 2016. Since 2017, VET students' pay in workplace-based learning is exempt from personal income tax up to EUR 280. The second phase of curricula reform supported by EU structural funds started in December 2016. Starting from the 2017/2018 academic year, VECC and other VET schools will begin implementing the modular VET programmes developed in the first phase of the curricula reform.
Encourage lifelong learning and training by improving information about training opportunities and adult learning, while ensuring the portability of skills.	The Plan of Adult Education Governance Model 2016-2020 is being implemented with the support of EU funds. The Adult Education Governance Board, including representatives of ministries and social partners and providers of adult education, held its first meeting in 2017. A project funded by the EU to support the upskilling of employed adults with a special focus on older and low-skilled workers was launched end-2016. The upgrading of the national database providing information on adult education opportunities is envisaged using EU funds.
Continue helping minorities to acquire skills needed on the labour market.	Material for teaching Latvian as a second or foreign language is provided for free to support teachers of minority schools. Latvian language training is provided at the Public Employment Service as part of active labour market policy.
Continue offering programmes enhancing basic literacy and numeracy skills.	In the 2016/2017 academic year, competence approach-based general education content will be launched in 80 general education institutions. A project aimed at reducing early school drop-out by implementing preventive and intervention measures is also to be launched. New ICT study programs implementing a new curriculum standard are being tested in 157 schools from September 2015.
Strengthen the innovation system	
Evaluate the newly reformed tax incentives for R&D, also in view to reaching young firms.	The evaluation of the R&D tax incentive is planned in 2017.
Consolidate the existing research infrastructure.	Research institutes have been consolidated through the allocation of funds following an external assessment of research quality. The number of research institutions receiving public finance is 21 as of early-2017, as opposed to 29 in 2015.
Develop incentives for international co-operation in local research and innovation as well as a regular external evaluation exercise.	The Baltic Bonus program provides support to research co-operation with other Baltic countries in applying for EU framework programs. The evaluation by international experts is incorporated in funding of research institutes and research and development activities.
Support the development of knowledge markets by providing firms with well-defined and high quality intellectual property rights.	The new Technology Transfer Program that supports the commercialisation of public research was launched in 2016. The program includes the Innovation Voucher that promotes knowledge transfer from research institutes to SMEs and protection of the intellectual property rights held by SMEs. The Competence Centres programme was launched to support innovation co-operation between scientists and businesses. The Law on Industrial Property Institutions and Procedures came into force in 2016, establishing an independent industrial property-related dispute settlement body. A pilot project to reduce the costs of processing patent applications and to improve their quality has been launched by the Patent Office in October 2016.

Recommendations in the previous *Survey*	Actions taken
Green growth	
Ensure that feed-in tariffs for renewable energy production are cost-effective.	Regarding the current legislation from 1 January 2016 new producers cannot receive feed-in tariffs. Government subsidies are limited so the internal rate of return on capital investment does not exceed 9%. The total compulsory "feed-in" component of electricity rates is limited to EUR 26.79/MWh.The government intends to compensate those businesses most at risk of energy price increases due to support for renewables. At the same time Latvia has launched a process to develop a new and sustainable renewable energy support mechanism. Energy-intensive firms will have the opportunity to pay lower contributions to finance feed-in tariffs pending the European Commission's approval.
Offer financial support to foster energy efficiency gains in the housing sector, in particular to credit-constrained households.	A program to foster energy efficiency in the housing sector was approved in 2016. A public fund of EUR 166.47 million will be disbursed to construction, reconstruction or implementation of building engineering systems and use of the renewable energy sources.
Provide stronger incentives to improve efficiency in district heating.	A program to increase energy efficiency and usage of renewable energy sources in district heating systems through grants was put in place the 1st quarter of 2017.

Thematic chapters

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Chapter 1

Moving up the global value chain

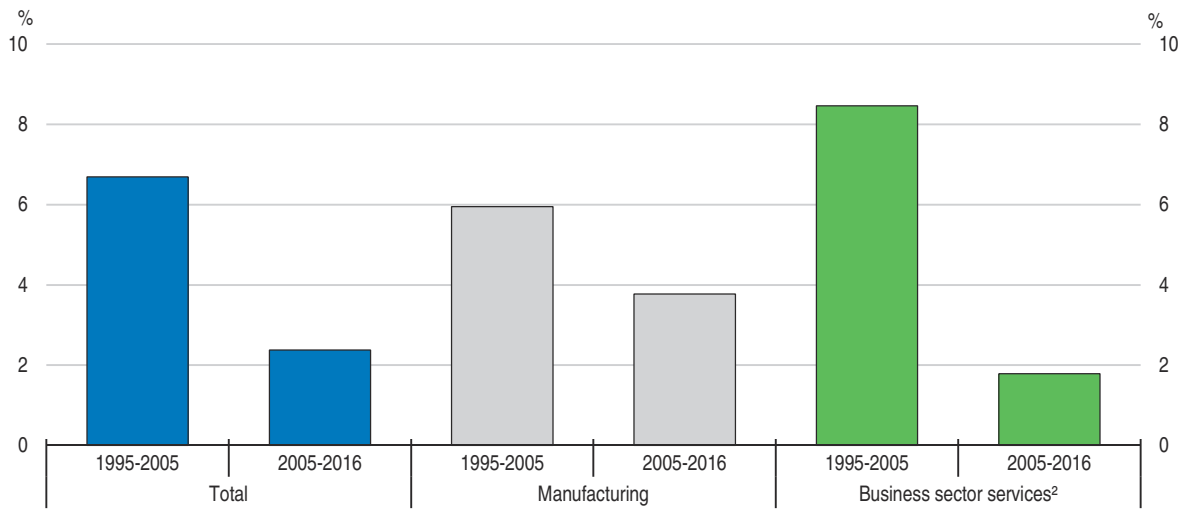
Stronger integration in global value chains (GVCs) offers opportunities for boosting productivity through knowledge transfer and intensive use of technologically advanced inputs. It also enables Latvia to diversify exports into high value added goods and services. Latvia's participation in GVCs lags behind its Baltic and Central European peers. It also draws less value added from GVCs compared to many OECD economies. Nevertheless, participation in GVCs boosts the productivity of Latvian firms and enables them to increase employment and wages. Strong skills, high innovation capabilities and efficient resource allocation are essential for Latvian firms to engage in more knowledge intensive activities within GVCs. Improving access to higher education, promoting innovation co-operation between Latvian firms and foreign research institutes, reducing the large informal economy and establishing an effective judiciary and insolvency regime would unlock inclusive productivity growth through stronger integration in GVCs.

Stronger integration into global value chains can boost productivity and raise living standards

Productivity growth is the main driver of Latvia's convergence in living standards to advanced OECD countries (OECD, 2017). Latvia enjoyed strong productivity growth until the early 2000s. However, as in many OECD countries, productivity growth has slowed significantly in the past decade (Figure 1.1). Reinvigorating the productivity of Latvian firms is key for raising living standards further.

Figure 1.1. **Productivity growth has slowed**

Average annual growth of labour productivity[1]



1. Labour productivity growth is the change in gross value added per hour worked at constant prices.
2. Excludes real estate.

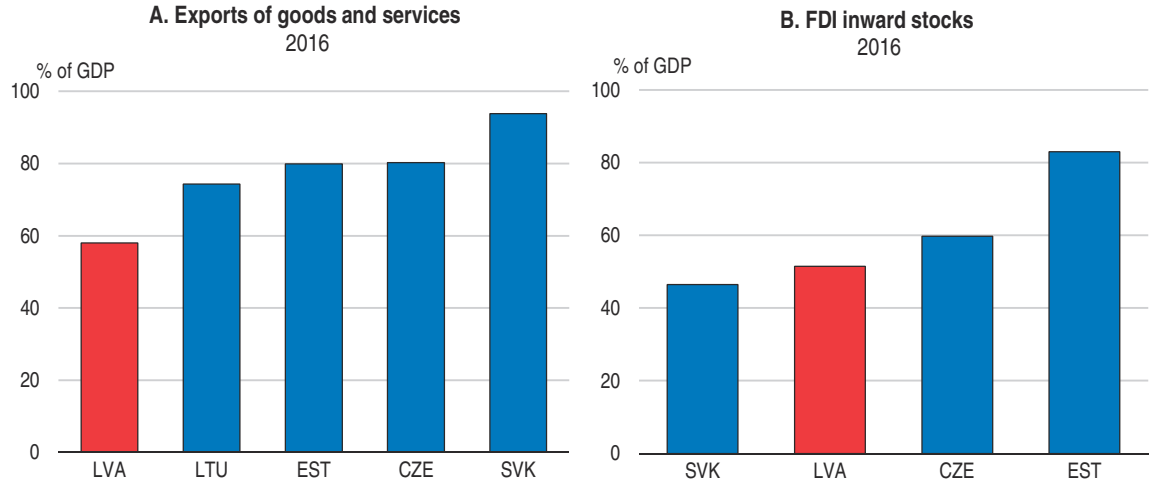
Source: OECD (2017), *OECD Productivity Statistics* (database).

StatLink http://dx.doi.org/10.1787/888933582721

As a small open economy, Latvia needs to be integrated into the global economy to boost productivity. International trade and foreign direct investment (FDI) channel knowledge transfer from advanced economies (Coe et al., 2009; Alfaro, 2016). Access to export markets stimulates investment in new technologies and skills by increasing the return firms can appropriate from such investment (Aw et al., 2007; Bustos, 2012). FDI by multinational enterprises provides opportunities for local firms to benefit from transfer of advanced knowledge (Hoekman and Javorcik, 2006). Yet, Latvia's exposure to foreign trade is lower than in its Baltic or Central European peers (Figure 1.2, Panel A). The stock of inward FDI is also low compared to Estonia (Figure 1.2, Panel B).

Latvia's export mix limits the scope of knowledge transfer and productivity growth through higher trade exposure. Although Latvia's exports are diversifying, close to 60% of goods exports are still raw materials and natural-resource intensive products (Figure 1.3, Panel A).

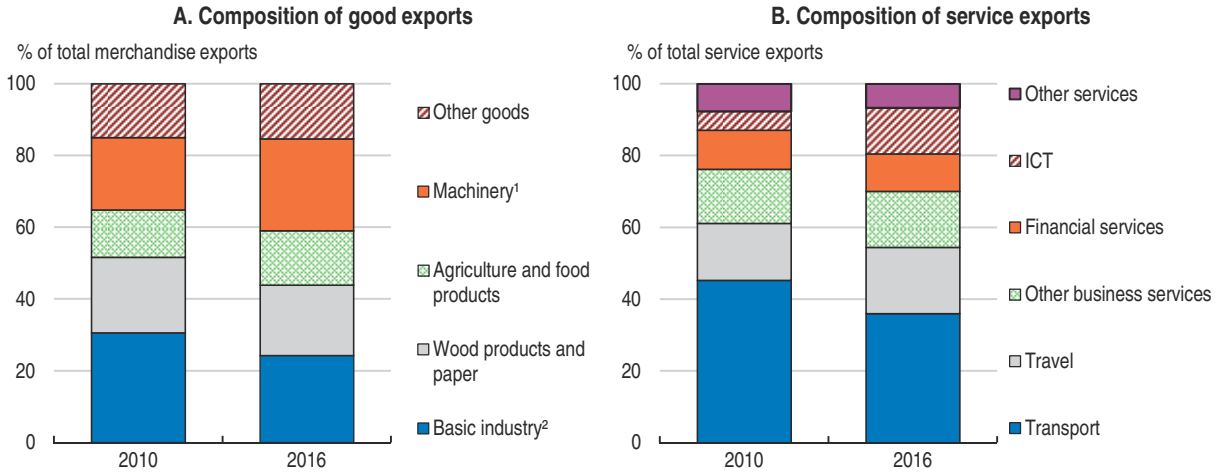
Figure 1.2. **Latvia has room to boost productivity through trade and FDI**



Source: OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database)and *OECD International Direct Investment Statistics* (database).

StatLink http://dx.doi.org/10.1787/888933582987

Figure 1.3. **Exports are still concentrated in resource-intensive goods and transport services**



1. Includes mechanical appliances; electrical equipment; transport vehicles; optical instruments and apparatus (inc. medical); clocks and watches; musical instruments.
2. Includes products of the chemical and allied industries; plastics and articles thereof; rubber and articles thereof; base metals and articles of base metals; and mineral products.

Source: OECD (2017), Central Statistical Bureau of Latvia.

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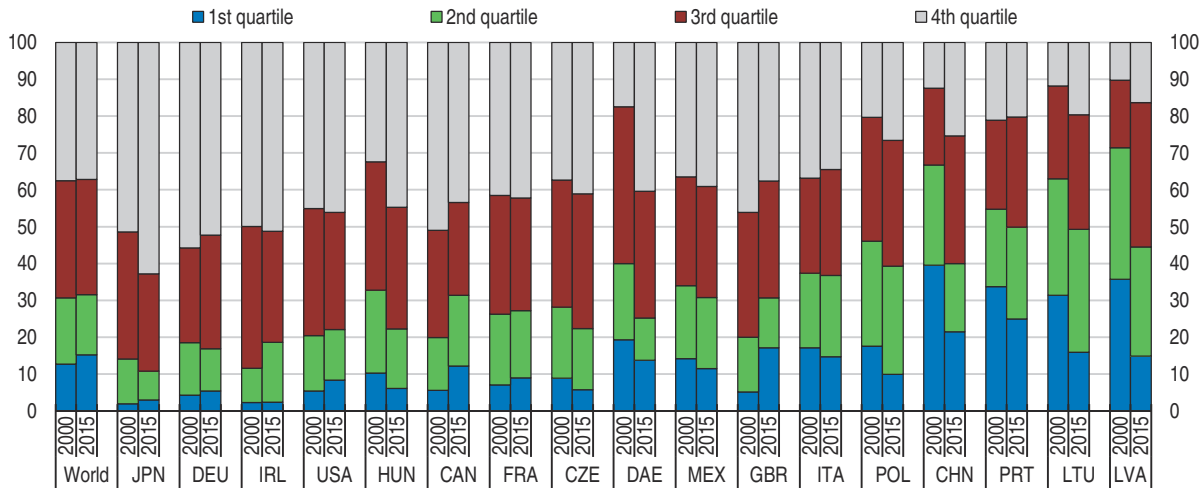
The share of machinery exports has grown but about a half are re-exports (Beņkovskis et al., 2016). Latvia's goods exports are also concentrated on products that compete little with exports of advanced OECD economies (Figure 1.4). Although the share of information and communication technology (ICT) service exports has grown markedly, transit transport and tourism still account for a half of service exports (Figure 1.3, Panel B). Overall, Latvia's export sectors have a relatively small potential for innovation and rapid technological progress.

While Latvia receives FDI predominantly from technologically advanced OECD countries (Figure 1.5, Panel A), FDI is concentrated in sectors with relatively low knowledge

Figure 1.4. **Latvia's export products differ substantially from advanced OECD economies**

Share of export by complexity quartile



Note: Complexity is defined by the implied productivity of the product (PRODY) using the methodology of Hausmann, R., J. Hwang and D. Rodrik (2007), "What you export matters", *Journal of Economic Growth*, Springer, Vol. 12(1). PRODY is calculated by taking a weighted average of the per capita GDPs of the countries that export the product. The weights are the revealed comparative advantage of each country in that product. The products are then ranked according to their PRODY level. An example of product in the 4th (highest) quartile is magnetic imaging resonance (MRI) machines used in scans in hospitals which ranked 18th in 2015, out of 4 989 products listed in the Harmonized System 6 classification. A product in the 1st (lowest) quartile is crayons ranked 4 218th in 2015. The analysis is carried out using a high level of product disaggregation to try to capture specialisation at different stages of the production chain.

Source: Araujo, S., T. Chalaux and D. Haugh (2017), "Who's in Your Export Market? The Changing Pattern of World Trade in the Age of GVCs", *OECD Economics Department Working Papers*, forthcoming.

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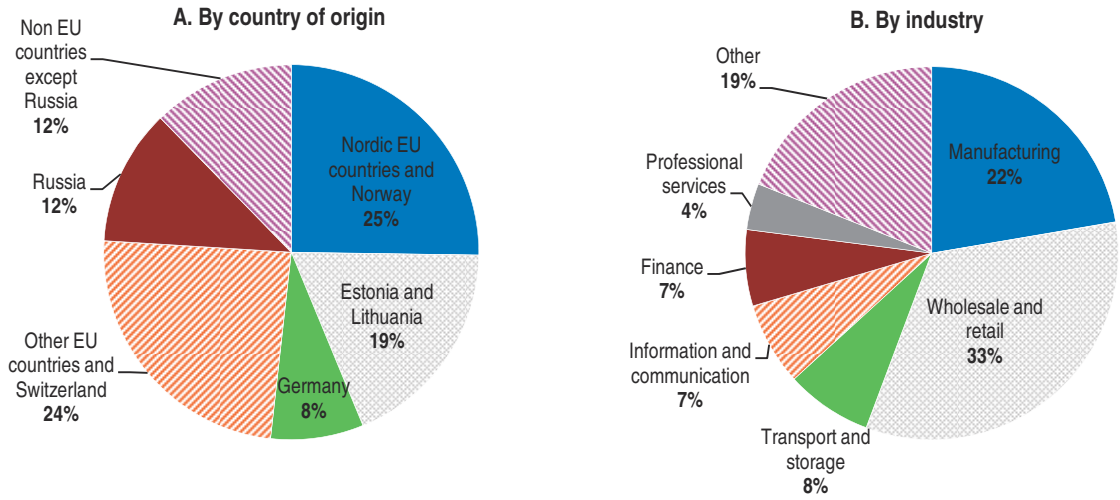
Figure 1.5. **FDI is concentrated in sectors with low knowledge-intensity**

The composition of employment by MNEs, 2014



Source: OECD (2017), *Activity of Multinational Enterprises Database*.

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intensity, limiting the scope of knowledge transfer. About 40% of employment by multinational enterprises (MNEs) is in transportation, storage, wholesale and retail trade (Figure 1.5, Panel B). Less than a quarter of MNEs' employment is in manufacturing, mostly in traditional, natural-resource intensive industries.

Participation in global value chains has improved, still it lags behind peers

Participation in global value chains (GVCs) boosts productivity, as closer interactions with foreign buyers and suppliers often involve knowledge transfers and intensive use of high quality imported inputs (OECD, 2013a). It provides opportunities for countries to diversify exports into sectors characterised by faster technological progress and to attract FDI in such sectors. Firms can tap into world demand through the supply chains of MNEs instead of building own distribution networks. Integration in GVCs also increases demand for skilled workers, increasing high paid job opportunities although it may also increase wage inequality (Feenstra, 2003). A country's participation in GVCs is shaped by inherent characteristics such as geographic location or availability of natural resources but can also be strengthened by policies that improve skills, boost innovation and enhance resource allocation.

Latvia's participation in GVCs has progressed since the crisis. Yet, it lags somewhat behind Baltic and Central European peers. The share of domestic value added embodied in foreign final demand was below 40% in 2014. This is lower than in Estonia and other Central European countries (Figure 1.6 Panel A). The domestic value added embodied in foreign final demand includes exports and domestic production supplying inputs to exports, and is a measure of the extent to which Latvia participates in GVCs as a supplier.

Latvia participates in GVCs mainly as the provider of logistic services and base materials, reflecting its role as a transit hub (Figure 1.6 Panel B). Knowledge-intensive services such as ICT and professional services (included in real estate, renting and business activities in panel B), generate less value added than in Estonia. Also, the value added created in the manufacturing sector is smaller than in Estonia and the Czech Republic. Within manufacturing, traditional industries such as wood processing and food products are generating most value added, and the role of high-technology industries is relatively small.

Latvia is making little use of imported inputs in producing its exports

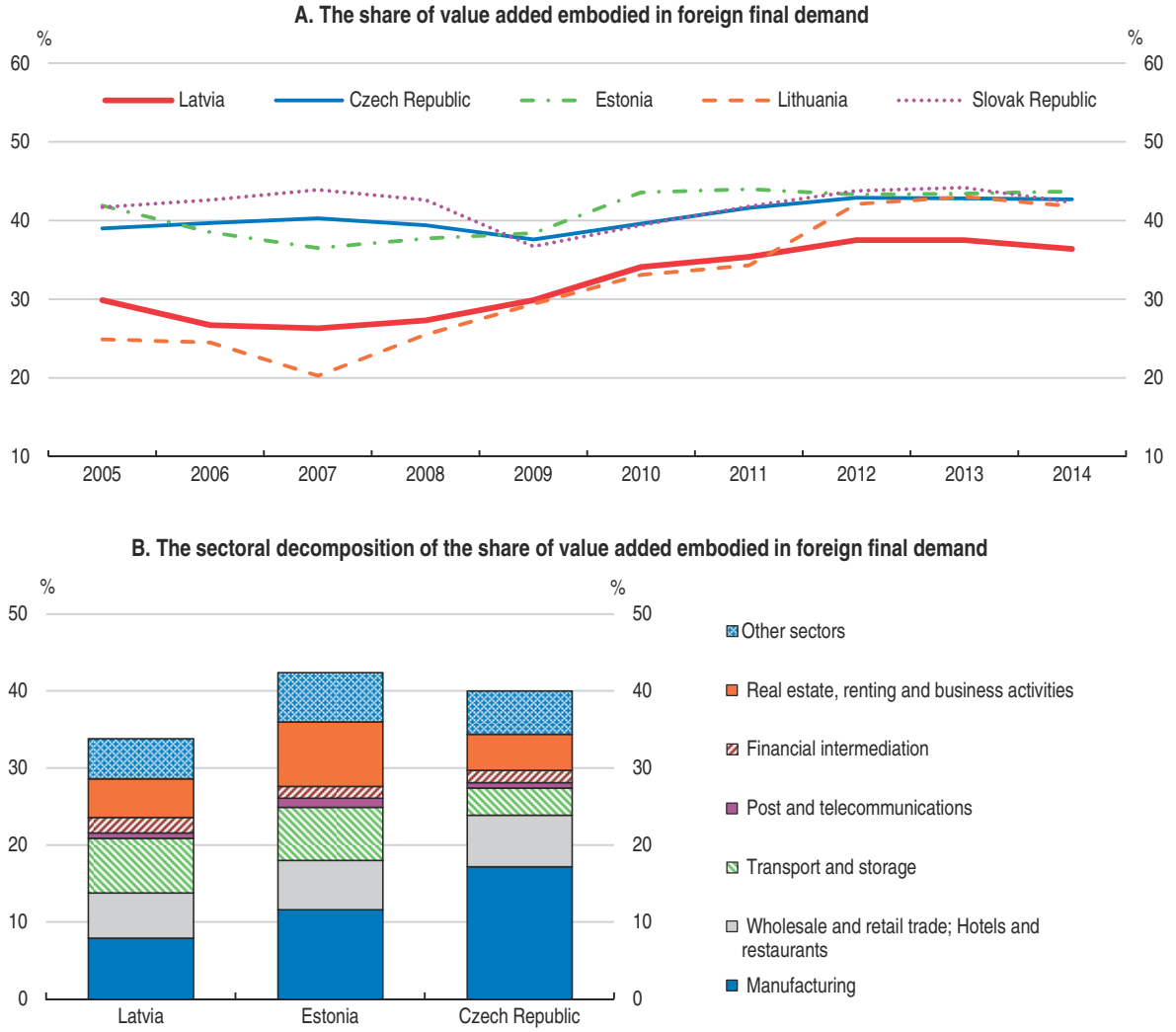
The use of imported inputs enables countries to diversify exports, upgrade product quality and absorb the knowledge embodied in such inputs (Amiti and Koning, 2007). The share of foreign value added embodied in Latvia's exports captures the use of imported inputs to produce its exports, and thus the extent of Latvia's participation in GVCs as a user. Foreign value added accounted for around 30% of Latvian exports in 2014, which is considerably lower than in Estonia and some Central European countries (Figure 1.7, Panel A).

There is scope to boost productivity growth by participating more in GVCs of high-technology industries through more intensive use of imported intermediate goods. The use of imported inputs could be particularly effective in boosting productivity growth in industries where Latvia has much potential to catch up to the technology frontier. However, the use of imported inputs in manufacturing exports is concentrated in traditional industries like wood and food products or basic metals (Figure 1.7, Panel B), where such potential is small. The use of imported inputs in high-technology industries such as electric and optical equipment or transport equipment is small. This contrasts with Estonia and the Czech Republic.

GVC participation is concentrated in low value added activities

Participation in GVCs is an important source of employment for Latvia. About one-third of employment is sustained by foreign final demand. Yet, this is lower than in

Figure 1.6. **Participation in GVCs has improved, but it is mainly concentrated to traditional sectors**



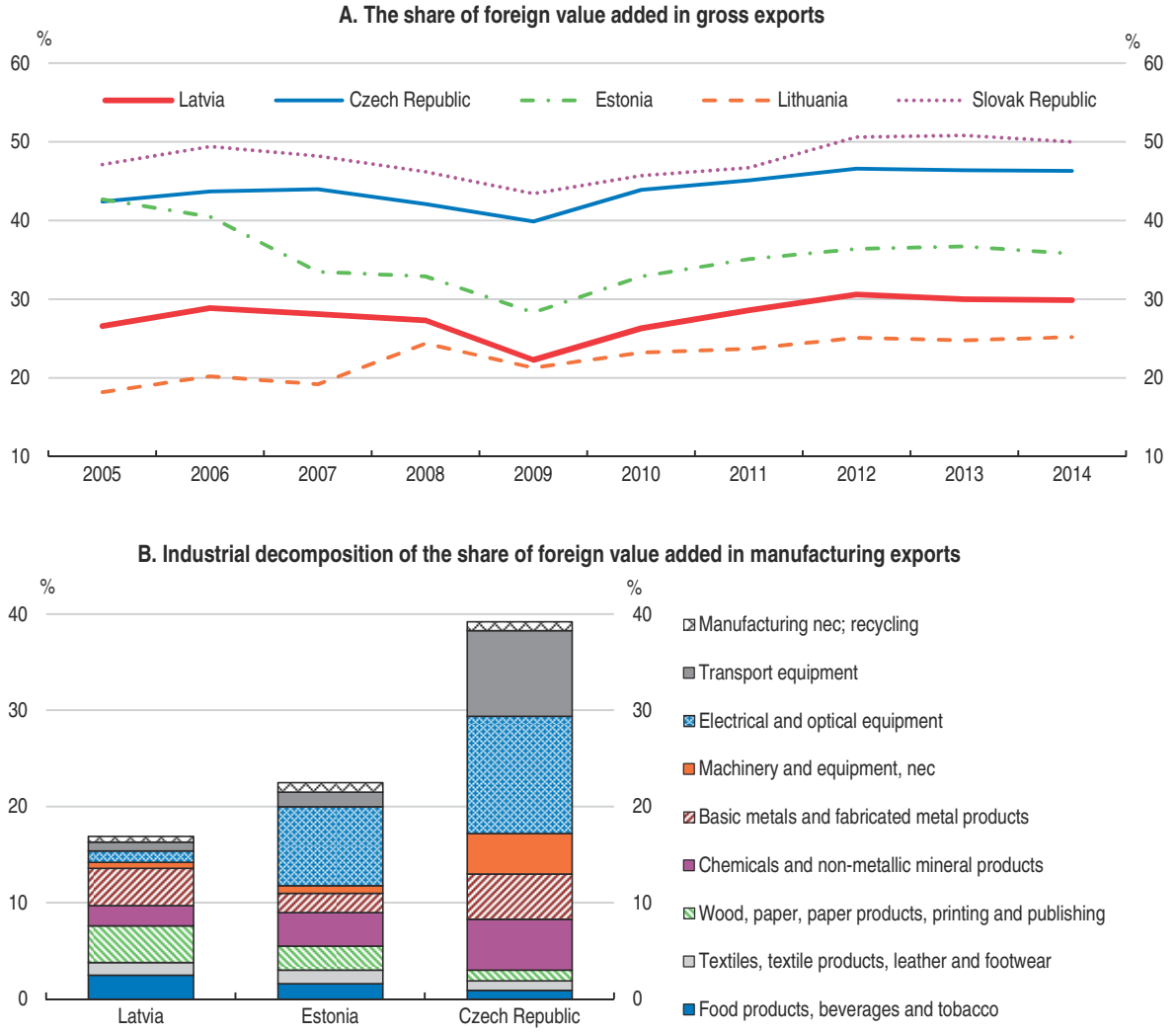
Note: Panel A displays the share of domestic value added that is embodied in the foreign final demand in total domestic value added. The data after 2011 are estimates based on the 2011 Inter-Country Input-Output (ICIO) table and the OECD Bilateral Trade Database by Industry and End-Use (BTDIxE). Panel B is the sectoral break down of the share shown in panel A, It refers to 2011 data.
Source: OECD/WTO (2016), *Statistics on Trade in Value Added* (database), and OECD calculations based on OECD/WTO (2016), *Statistics on Trade in Value Added* (database) and OECD (2016), *OECD National Accounts Statistics* (database).

StatLink http://dx.doi.org/10.1787/888933583044

Estonia or Central European countries where participation in GVC sustains more that 40% of all jobs (OECD, 2016a). Foreign final demand sustains particularly large shares of employment in some manufacturing industries such as textiles, machinery and electrical equipment and in services such as transportation and storage (Figure 1.8).

Overall, Latvia is specialised in low value added activities within GVCs. The value-added from GVC participation per worker is among the lowest in OECD countries, even lower compared to Baltic and Central European peers (Figure 1.9, Panel A). This is particularly the case in electrical machinery (Figure 1.9, Panel B). This suggests that Latvia is mainly engaging in less knowledge intensive, possibly labour intensive activities. In wood products, Latvia is drawing higher value added from GVC participation compared to

Figure 1.7. **Latvia's use of imported inputs is relatively low and concentrated in low-tech industries**



Note: Panel A displays the share of foreign value added embodied in the country's exports. The data after 2011 are estimates based on the 2011 Inter-Country Input-Output (ICIO) table and the OECD Bilateral Trade Database by Industry and End-Use (BTDIxE). Panel B is the breakdown of the share focusing only on the exports in manufacturing sector. It refers to 2011 data.
Source: OECD/WTO (2016), *Statistics on Trade in Value Added* (database), and OECD calculations based on OECD/WTO (2016), *Statistics on Trade in Value Added* (database) and OECD (2016), *OECD National Accounts Statistics* (database).

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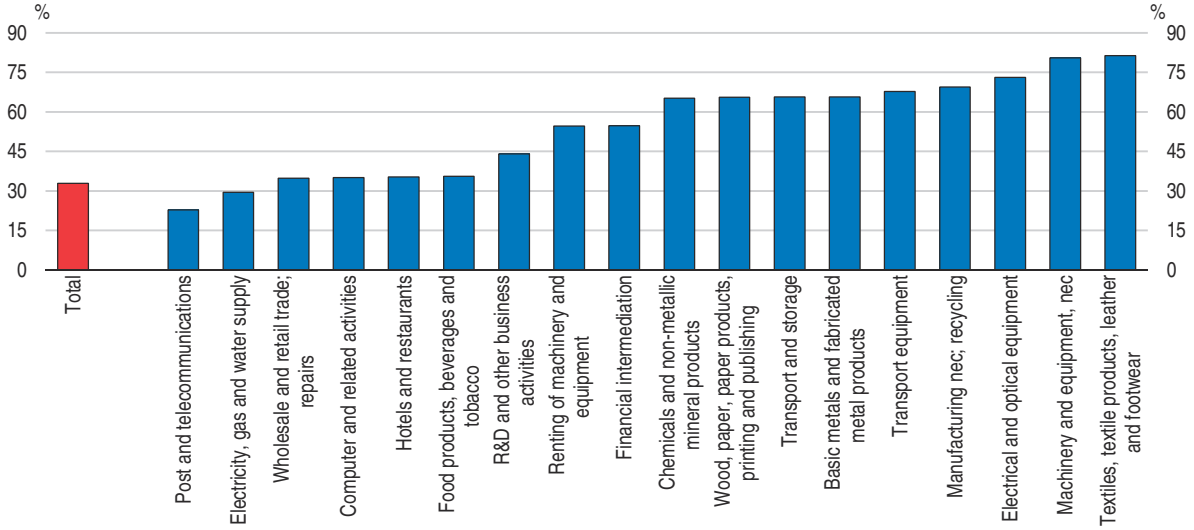
its peers (Figure 1.9, Panel C). However, the amount of value added that the most remunerated countries draw from GVC in wood products is markedly smaller than that in electrical machinery. Latvia thus needs to shifts its GVC participation to activities and industries that generate higher value added.

The value added drawn from GVC participation is particularly low in industries where a larger share of employment is sustained by GVC participation (Figure 1.10). Moving up the value chain into more knowledge-intensive activities that yield higher value added would boost productivity growth and create more high-skilled jobs. Such activities include new product development, manufacturing of technologically advanced components, as well as knowledge intensive services including marketing and branding (see Box 1.1).

Figure 1.8. **GVC participation sustains about one-third of employment in Latvia**

The share of employment sustained by foreign final demand, latest available year



Note: Data refers to 2011.

Source: OECD (2016), "Trade in Employment: Core Indicators" in *OECD Structural Analysis (STAN) Databases*.

StatLink *http://dx.doi.org/10.1787/888933583082*

Strengthening innovation capabilities and investing in advanced technologies, skills and superior management practice would improve the comparative advantage in such activities (OECD, 2013b).

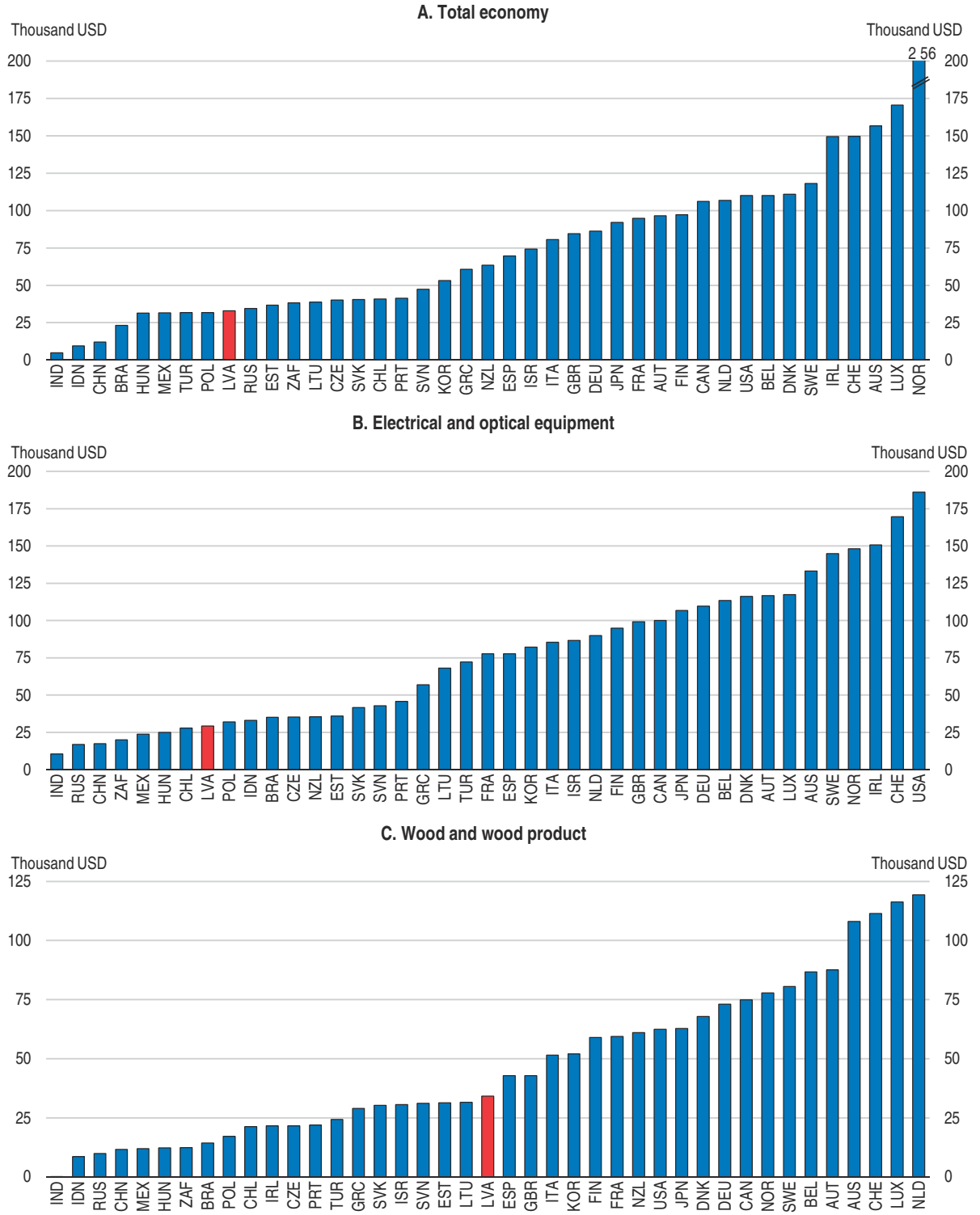
Latvia's participation in GVCs has the potential to become more skill and knowledge intensive. The share of high skilled jobs (e.g. managers, professionals and technicians) out of all jobs sustained by foreign final demand is higher in Latvia than in Baltic and Central European peers (Figure 1.11, Panel A). It is however possible that many of skilled workers are hired in low technology sectors engaging in low value added activities. Also, Latvia's exports embody a higher share of inputs from knowledge intensive services such as research and development or computing services, compared to some peers (Figure 1.11, Panel B). Yet the skill and knowledge intensities are still modest when compared with advanced economies that are likely to be operating the GVCs Latvia participates in. In order to move up the value chain, Latvian firms have to be able to compete with firms in advanced countries.

Participation in GVCs is concentrated in a handful of firms

Considering Latvia's small domestic market size, access to foreign markets through GVCs is likely to boost Latvian firms' productivity by increasing capacity utilisation and scale economies. However, productivity growth can be long lasting if GVC participation results in qualitative changes such as the absorption of advanced technology or increase in innovation capabilities. Long-lasting productivity gains are particularly important for supporting competitiveness in the current context of strong wage growth. Relying on new firm-level empirical analysis, this section assesses the effects of GVC participation on Latvian firms' productivity, employment and wages (see Box 1.2).

Figure 1.9. **Latvia is drawing little value-added from GVC participation**

Value added embodied in foreign final demand per worker



Note: Value added embodied in foreign final demand per worker is computed by dividing the domestic value added embodied in foreign final demand by the number of employment sustained by foreign final demand. Data refers to 2011.

Source: OECD/WTO (2016), *Statistics on Trade in Value Added* (database) and OECD (2016), "Trade in Employment: Core Indicators" in *OECD Structural Analysis (STAN) Databases*.

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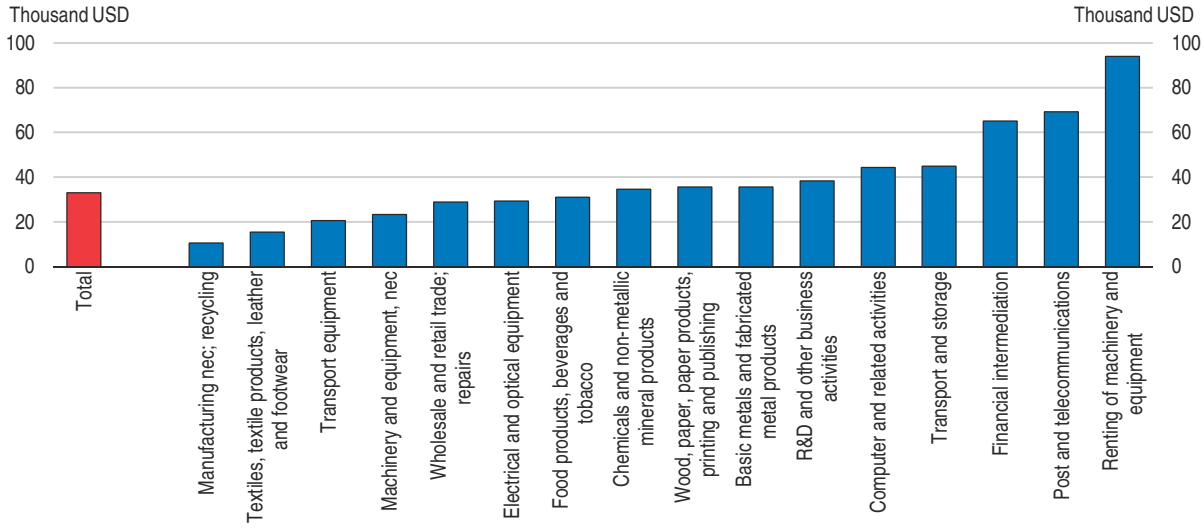
Figure 1.10. **Value added is small in industries where larger employment is sustained by GVCs**

Value added embodied in foreign final demand per worker by industries



Note: Value added embodied in foreign final demand per worker is computed by dividing the domestic value added embodied in foreign final demand by the number of employment sustained by foreign final demand. Data refers to 2011.

Source: OECD/WTO (2016), *Statistics on Trade in Value Added* (database) and OECD (2016), "Trade in Employment: Core Indicators" in *OECD Structural Analysis (STAN) Databases*.

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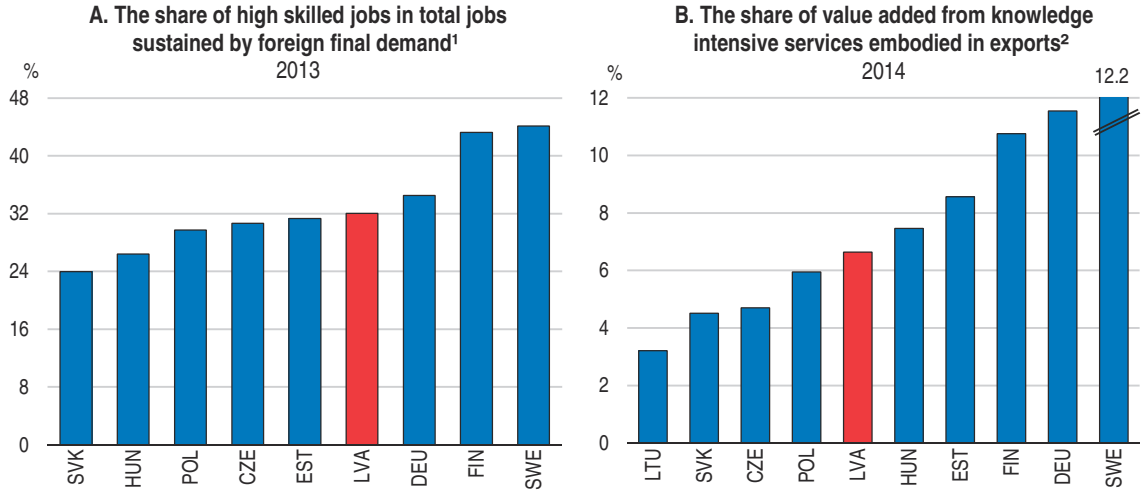
Figure 1.11. **The skill and knowledge intensities of GVC participation are modest**



1. The figure decomposes total employment sustained by exports derived from OECD's Inter-Country Input-Output (ICIO) table into three groups of skill intensity defined according to major groups of the International Standard Classification of Occupations 2008 (ISCO-08): High-skilled occupations (ISCO-08 major Groups 1 to 3), medium-skilled (4 to 7) and low-skilled (8 and 9). OECD calculations based on the OECD Inter-Country Input-Output (ICIO) table, the OECD Bilateral Trade Database by Industry and End-Use (BTDIxE) and European Labour Force Survey (EU-LFS).
2. OECD estimates based on the OECD Inter-Country Input-Output (ICIO) table and the OECD Bilateral Trade Database by Industry and End-Use (BTDIxE).

Source: OECD/WTO (2016), *Statistics on Trade in Value Added* (database).

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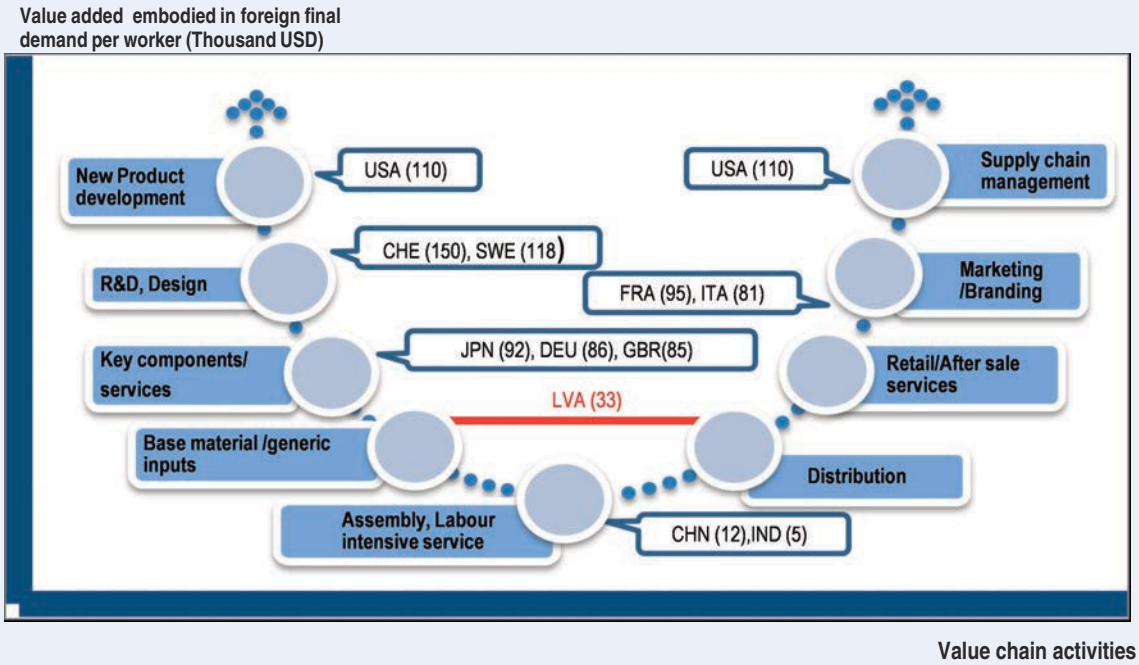
Box 1.1. **Moving up the global value chain**

The rise of GVCs shifts the policy focus from competitiveness in strategic industries to competitiveness in value chain activities that yields particularly high value added.

Figure 1.12. **Value chain activities and associated value added in Latvia**



Note: The figure illustrates the value added associated with different types of value chain activities, with examples of countries with notable competitiveness in each of the different activities. Numbers in the bracket are the value added embodied in foreign final demand per worker, shown in Figure 1.9, Panel A.
Source: OECD calculations based on OECD/WTO (2016), *Statistics on Trade in Value Added* (database).

Within GVCs, countries that excel in knowledgeand technology intensive activities such as innovation, basic research, design or branding or those supplying key parts and components that define the competitiveness of final products are remunerated much more than those providing standardised, substitutable inputs and less knowledge-intensive activities such as mass assembly (OECD, 2013a; Baldwin, 2012; Dedrick et al., 2010). The figure below illustrates the relation between the main value chain activities a country engages in and the value added it draws from GVC participation (value added embodied in foreign final demand per worker shown in Figure 1.9, Panel A). Emerging economies often enjoy a boost in productivity growth as they participate in GVCs because they access larger demand and specialise in activities they have comparative advantage. However, they are prone to be trapped in activities associated with low value-added, due to their limited innovation capabilities and knowledge-based capital (OECD, 2013a).

The above ordering of the size of value added along value chain activities is sometimes inferred as the smile curve and applies best to GVCs of electric machinery or apparel (OECD, 2013a). It is somewhat stylised, since the value added from a value chain activity is in general determined by entry barriers (Kaplinsky and Morris, 2002). Entry barriers can be institutional such as entry regulations, but are more often rooted in the difficulty to produce the knowledge-based capital that underpins the competitiveness in the specific activity (OECD, 2013a, 2013b).

There are several ways to realise higher value added from GVC participation. The following patterns have been documented in vast number of case studies (OECD, 2013a).

Box 1.1. **Moving up the global value chain** *(cont.)*

- *Process upgrading*: undertaking tasks with significantly greater efficiency and lower defect rates, and process more complex orders.
- *Product upgrading*: supplying higher value-added products owing to their superior technological sophistication and quality, and also introducing novel products faster. This is the case of wood products in Latvia.
- *Functional upgrading*: starting to supply competitive products or services in value chain activities which are associated with higher value added. This is the case of countries previously specialised in labor intensive activities such as assembly to start exert competitiveness in knowledge intensive activities such as R&D or design.
- *Chain upgrading*: participating in new GVCs that produce higher value-added goods or services, often leveraging the knowledge and skill acquired from the current participation in GVCs. In the case of Latvia, this means shifting the weight of its GVC participation from traditional industries to high technology industries and knowledge intensive services.

In the process of catching up to advanced economies, a country often succeeds in process upgrading as the first step of upgrading GVC activities (Gereffi, 1999). As technological capabilities improve, product upgrading follows and functional upgrading is achieved when innovation capabilities are sufficiently built up. Chain upgrading is possibly the most challenging as it requires rich accumulation of a wide range of knowledge-based capital including superior managerial know-how to identify new profitable products (OECD, 2013b).

Box 1.2. **Comparative firm-level analysis on the effects of GVC participation**[1]

This empirical analysis assesses the effects of participation in GVC on the performance of Latvian and Estonian firms. The research focuses on GVC participation through exports. It abstracts from other channels such as domestic transactions with MNEs, due to data constraints and also due to the low FDI penetration in Latvia.

Data and approach

The research exploits administrative firm-level datasets on activities and international trade of Latvian and Estonian firms over the period 2006 to 2014 (1995 to 2014 for Estonian firms) as well as employee-employer data. Data processing and empirical approaches were harmonized to the largest possible extent between the Latvian and Estonian empirical analysis to allow comparison between the two countries.

The research highlights types of exports that are closely linked to participation in GVCs, namely exports of intermediate goods, re-exports, and service exports. A firm is considered to be exporting intermediate goods, if its exports goods are classified as intermediate goods according to the OECD BTDIxE end-use classification.[2] Re-exports is estimated to comprise on average 28% of Latvia's merchandise exports between 2005 and 2013 (Beņkovskis et al., 2016). Re-exports may not only include logistic services. They can also include high value-added activity that facilitates trade between parties with large information asymmetries (Feenstra and Hanson, 2004). A firm is considered to be engaging in re-exports if it imports and exports the same product within a narrowly defined classification (CN 8 digits) within 12 months (Beņkovskis et al., 2016). The service sector is observed to play a large role in GVCs. It comprises a large share in the value added created from exports (OECD, 2013a). Service inputs increasingly define the competitiveness of manufacturing as they allow firms to add higher value to their products by complementing them with knowledge-intensive services (Miroudot and Cadestin, 2016). This research distinguishes transport and non-transport service exporters, given the large weight of transport services in Latvia's exports. Exports of non-transport services include exports of knowledge intensive services such as ICT and professional services.

Box 1.2. **Comparative firm-level analysis on the effects of GVC participation**[1] *(cont.)*

Measuring the advantage of firms participating in GVCs

The research employs the well-established empirical framework for comparing exporting firms with non-exporting firms (Bernard and Jensen, 1999). Firm-level performance indicators such as productivity, employment and average wage (denominated by Y_{ijt} on the left hand side of the equation below) are regressed on an indicator variable that takes the value 1 if a firm i is an exporter and 0 otherwise (the term $Exporter_{ijt}$ on the right hand side), while controlling for other factors that affect performance for example, firm size, firm age, or foreign ownership (the term X_{ijt} on the right hand side). Industry and year specific effects are also controlled for by including dummy variables η_j and η_t.

$$\ln Y_{ijt} = \alpha + \beta * Exporter_{ijt} + X_{ijt} + \eta_j + \eta_t + \varepsilon_{ijt}$$

The coefficient β captures the performance advantage of exporting firms over non-exporters in per cent. This coefficient is found to be positive and statistically significant in many countries (ISGEP, 2008). In this research, the indicator variable for exporting firms is replaced by several variables corresponding to the types of exports related to GVC participation described above.

Evaluating the effect of GVC participation

The key objective of the research is to evaluate whether entry to exports, especially those closely related to GVC participation, results in a significant improvement in performance. This can be inferred by observing whether firms that started exporting realise higher productivity compared to those that did not. However, firms with higher productivity *ex ante* have a higher chance of becoming exporters (Beņkovskis et al., 2017). Therefore, in order to isolate the effect of exporting from such "self-selection" effect, the comparison is made between export entrants and the group of non-exporters that were initially as likely to start exporting as actual export entrants. The research focuses on export entrants that remain in export markets for two consecutive years after the year of export entry.

The first step is to estimate the probability for a firm to start exporting (the left hand side of the equation below) as the function of its productivity level and other factors that are likely to enable firms to overcome the initial costs of export entry (the vector X on the right hand side). They include firm size, firm age, the liquidity ratio, capital labour ratio (K/L) and foreign ownership. The explanatory variables are lagged one year in order to avoid reverse causality.

$$Prob(Export\ entry_t) = f(Productivity_{t-1}, X_{t-1})$$

The next step is to match each export entrant with non-exporters with the closest likelihood of export entry. Then, the mean of the productivity level in s years after the export entry is compared between the group of export entrants (the first term in the equation below) and that of matched non-exporters (the second term). The difference is interpreted as the effect of export entry.

$$E(Productivity_{t+s} \mid Export\ Entry_t = 1) - E(Productivity_{t+s} \mid Export\ Entry_t = 0)$$

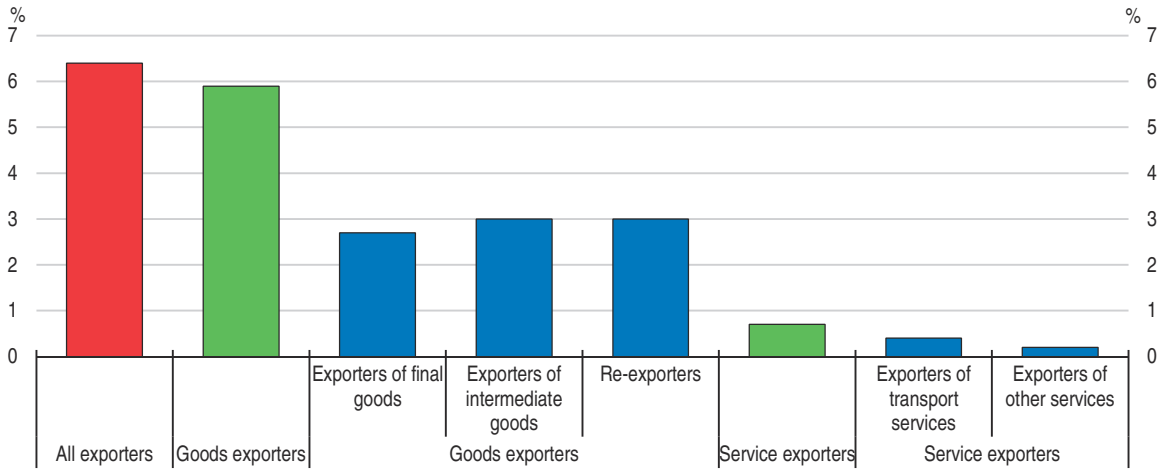
This method has been widely employed by previous studies to infer "learning by exporting," the effect of exports on productivity, possibly channeled by absorption of new knowledge from foreign markets (De Loecker, 2007). Supportive evidence for learning by exporting is often found for firms in developing and emerging countries but not always for those in large advanced economies (Wagner, 2007).

1. This research is joint research with the Bank of Latvia and researchers at the University of Tartu, Estonia.
2. This classification is used to compute the trade flow of intermediate goods across countries, which is in turn used to construct the OECD-WTO Trade in Value Added (TiVA) database. See *www.oecd.org/trade/bilateraltradeingoodsbyindustryandend-usecategory.htm*.

Despite the small size of the domestic market, a large majority of Latvian firms do not export. In 2014, only 6% of Latvian firms exported in 2014. Only 3% of firms exported intermediate goods or re-exported and less than 1% of firms exported services (Figure 1.13). There are a large number of very small firms that do not export. This is partly due to the

Figure 1.13. **Only a handful of Latvian firms export**

The share of exporters in the total number of Latvian firms, 2014



Note: The shares of different types of goods exporters add up to more than the share of all goods exporters because some goods exporters export both final and intermediate goods, or part of their exports are categorised as re-exports. Firms in agriculture and mining, energy and water supply, construction, and public services sectors are excluded.

Source: Beņkovskis et al. (2017), "Export and productivity in Global Value Chain: Evidences from Latvian and Estonian firms", *OECD Economics Department Working Paper*, forthcoming.

StatLink http://dx.doi.org/10.1787/888933583158

micro enterprise tax regime that encourages firms to split into smaller units. Among firms with more than 10 employees, 28% export. Export entry is rare. In 2014, less than 2% of firms started exporting and less than 1% of firms started exporting intermediate goods or re-exporting. Only a tiny fraction of service exporters are new exporters.

Among the handful of firms that export, exports are highly concentrated in a few firms. For instance, the top 5% exporters accounted for 65% of total exports in 2014. Exports related to GVC participation such as export of intermediate goods are also concentrated to the same extent. The low share of Latvian firms participating in GVCs and the high concentration of exports related to GVC participation indicate that benefits from increased participation in GVCs can be concentrated in a handful of firms.

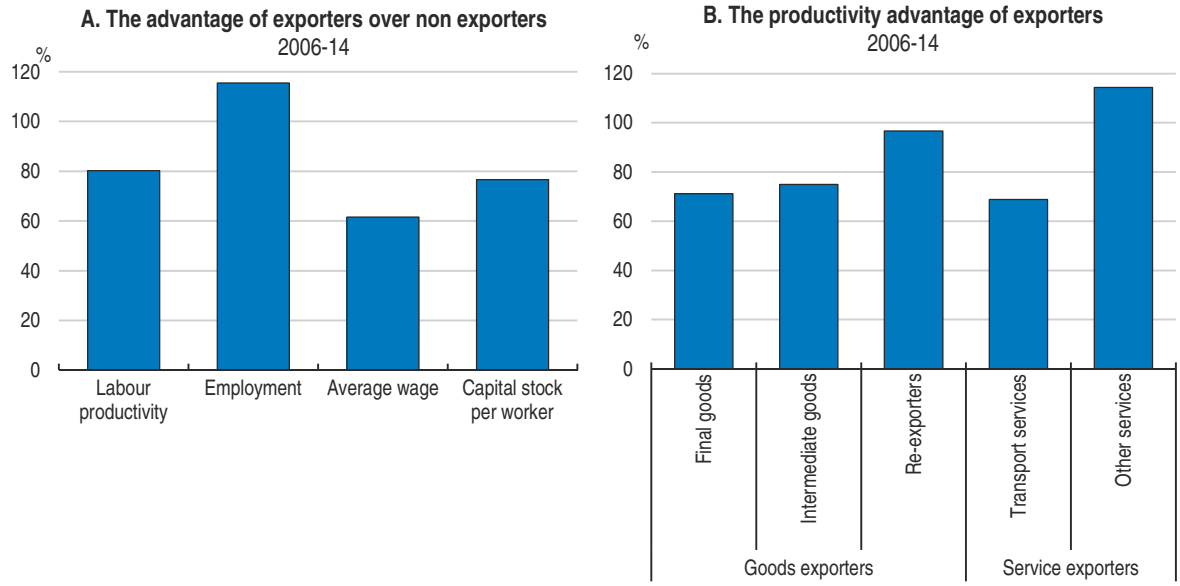
Only the most productive firms can start exporting and participate in GVC

After controlling for the firms' age, liquidity and foreign ownership, exporting firms have on average 80% higher labour productivity, employ more than twice as many workers, pay 62% higher wages and use 77% more capital per worker than non-exporting firms (Figure 1.14, Panel A). The advantage in labour productivity is especially large for firms engaging in exports of intermediate goods and re-exports (Figure 1.14, Panel B). Service exporters have on average 90% higher labour productivity than non-exporters. The productivity advantage is particularly large for firms exporting non-transport services. Firms which export intermediate goods and non-transport services are likely to participate in the upstream or far-downstream of GVCs. This generates higher value added (see Figure 1.12 in Box 1.1).

These significant advantages of exporting firms over non-exporting firms partly exist because firms that start exporting are originally more productive and larger than those that do not (Bernard and Jensen, 1999). This is because export entry requires significant costs to penetrate foreign markets (Roberts and Tybout, 1997). Only firms that are productive and large enough to bear such costs can start exporting (Melitz, 2003). Participation in GVCs does

Figure 1.14. **Exporting firms are more productive, especially those participating in GVCs**

The share of exporters in the total number of Latvian firms, 2014



Note: This chart summarises the advantage of exporting firms over non-exporters. For example, the left-hand side bar in Panel A indicates that exporters are 84% more productive than non-exporters.

Source: Beņkovskis et al. (2017), "Export and productivity in Global Value Chain: Evidences from Latvian and Estonian firms", *OECD Economics Department Working Paper*, forthcoming.

StatLink http://dx.doi.org/10.1787/888933583177

not require firms to penetrate foreign markets directly, but instead requires them to develop capabilities to meet the quality requirements and standards set by global buyers (Henson and Humphrey, 2010). In the empirical analysis described in Box 1.2, a higher productivity level and a larger firm size are indeed found to increase significantly the probability that Latvian firms start exporting (Box 1.3).

Box 1.3. **The determinants of participation in GVCs**

This Box reviews the main determinants of export entry by Latvian and Estonian firms, obtained from the estimation of the probability to start exporting described in the Box 1.2. The empirical findings are drawn from Beņkovskis et al. (2017) unless otherwise cited.

1. **Labour productivity:** Higher productivity level increases the likelihood that Latvian and Estonian firms start exporting. For Latvian firms, the effect of higher productivity on export entry is larger for exports of final goods and for re-exports than for export of intermediate goods and services.
2. **Firm size:** Larger firms are significantly more likely to enter exports, even after incorporating the fact that more productive firms are larger. For Latvian firms, the effect of larger firm size on export entry is larger for export of final goods than for export of intermediate goods and services. The probability of export entry decreases after firms reach a certain size.
3. **Firm age:** Younger firms are more likely to start exporting in both Latvia and Estonia, although this is not true for very young firms.
4. **Capital intensity:** Latvian and Estonian firms with higher capital-labour ratio are more likely to start exporting.

Box 1.3. **The determinants of participation in GVCs** *(cont.)*

5. **Access to credit:** Firms with higher liquidity ratio are more likely to start exporting in Estonia, while this is the opposite in Latvia. One possible interpretation is that Latvian firms are subject to credit constraints and therefore need to use internal cash flow to finance the upfront costs of export entry.
6. **Skilled workers:** Hiring managers or employees who previously worked for MNEs or exporting firms increases significantly the probability of Estonian firms to start exporting (Masso et al., 2015; Masso and Vahter, 2016). Hiring of ex-employees of exporting firms also increases the likelihood of export entry by Latvian firms. This underscores the importance of skilled workers in GVC participation. It is also in line with the view that the mobility of skilled workers is the key channel of knowledge spillovers (Dasgupta 2012).
7. **Foreign capital:** For both Latvian and Estonian firms, firms with a higher foreign capital share are more likely to enter export markets. These firms can be participating in the supply chains operated by MNEs or enjoy transfer of knowledge in foreign markets.

The large performance advantages of exporting firms are not driven by few very productive exporters but are broad-based. About 30% to 45% of non-exporting firms have a productivity level lower than the least productive exporters (Table 1.1), indicating that there are many non-exporters with very low productivity. The large productivity gap between exporting and non-exporting firms is a concern because many Latvian firms may have a productivity level that is too low to be competitive and to overcome the initial costs of participating in GVCs.

Table 1.1. **Productivity is very low in many non-exporting firms**

Share of non-exporting firms with lower labour productivity than the lowest decile of exporting firms, per cent

	Latvia	Estonia
2006	45.1	31.2
2007	44.9	32.3
2008	43.6	32.2
2009	40.1	35.7
2010	43.0	35.3
2011	37.2	33.6
2012	31.0	34.4
2013	39.1	34.7
2014	31.1	35.1

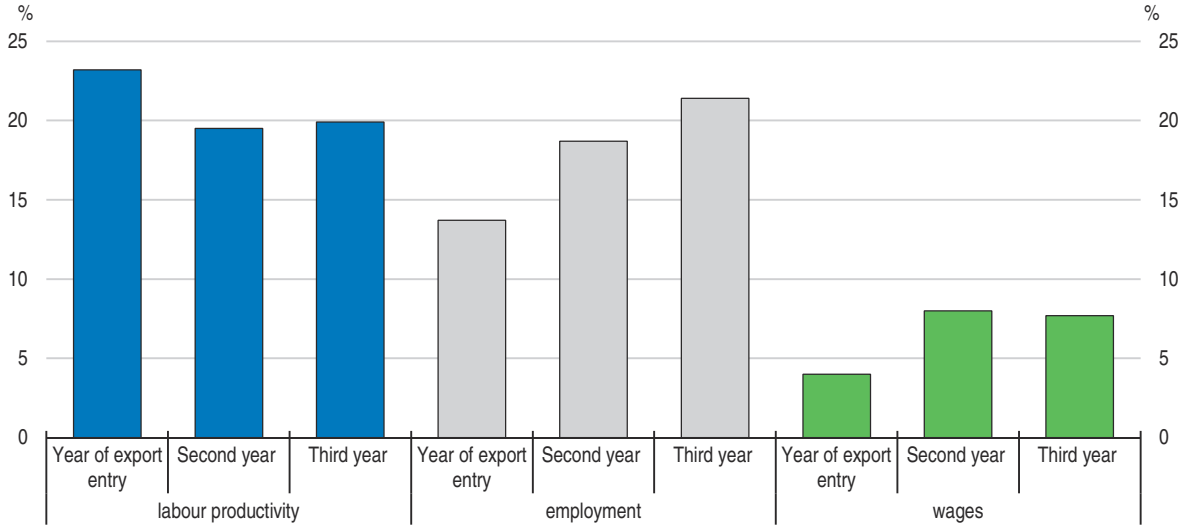
Source: Beņkovskis et al. (2017), "Export and productivity in Global Value Chain: Evidences from Latvian and Estonian firms", *OECD Economics Department Working Paper*, forthcoming.

Participation in GVCs increases productivity, employment and wages

Even between firms with initially similar level of productivity, size and age, those that start exporting enjoy substantial productivity gains compared to those that did not enter export markets. Exporting enables firms to realise more than 23% higher labour productivity in the year of export entry (Figure 1.15). The gain in productivity is largely maintained in subsequent years. The large gain in productivity in the year of export entry partly reflects the increase in capacity utilisation or scale economies. The gain in productivity would increase over time if export entry results in improvement in technological capabilities or innovation.

Figure 1.15. **Exporting raises productivity, employment and wages of Latvian firms**

Differences in productivity, employment and wages between exporting and non-exporting firms after export entry



Note: The chart shows the differences in average productivity, employment and wages between firms that started exporting and non-exporting firms. By comparing the export entrants only with the subset of non-exporting firms that are initially as productive and large as the export entrants, differences in performance can be interpreted as causal effect of export entry. See Box 1.2 for details.

Source: Benkovskis et al. (2017), "Export and productivity in Global Value Chain: Evidences from Latvian and Estonian firms", *OECD Economics Department Working Paper*, forthcoming.

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This is the case for firms that start re-exporting or start to export services (Beņkovskis et al., 2017). It suggests that those firms are translating knowledge acquired through GVC participation into stronger capabilities.

Export entry also increases employment, indicating that the higher labour productivity is not driven by labour shedding (Figure 1.15). Exporters also pay 8% higher average wages than non-exporters in the second year of export entry, perhaps because firms hire more high-skilled workers, or reduce wage underreporting. Entry to exports of intermediate goods and service exports result in particularly larger employment, while re-exports and export of non-transport services result in particularly higher wages (Beņkovskis et al., 2017).

Participation in GVCs through exports boosts productivity and allows Latvian firms to increase better quality jobs, yet only the most productive firms are able to participate in GVCs. Further integration in GVCs may result in a wider productivity gap between a handful of exporters and the large mass of non-exporters, unless the number of firms participating in GVCs increases. A more inclusive participation in GVCs requires boosting the productivity of smaller non-exporting firms and ensuring that firms seeking to start exporting can access the resources needed to overcome barriers to enter export markets. Indeed, access to credit, skilled workers and knowledge about foreign markets are among the most important determinants of export entry of Latvian firms (see Box 1.3).

Policies that boost skills, innovation and resource allocation foster inclusive participation in GVCs

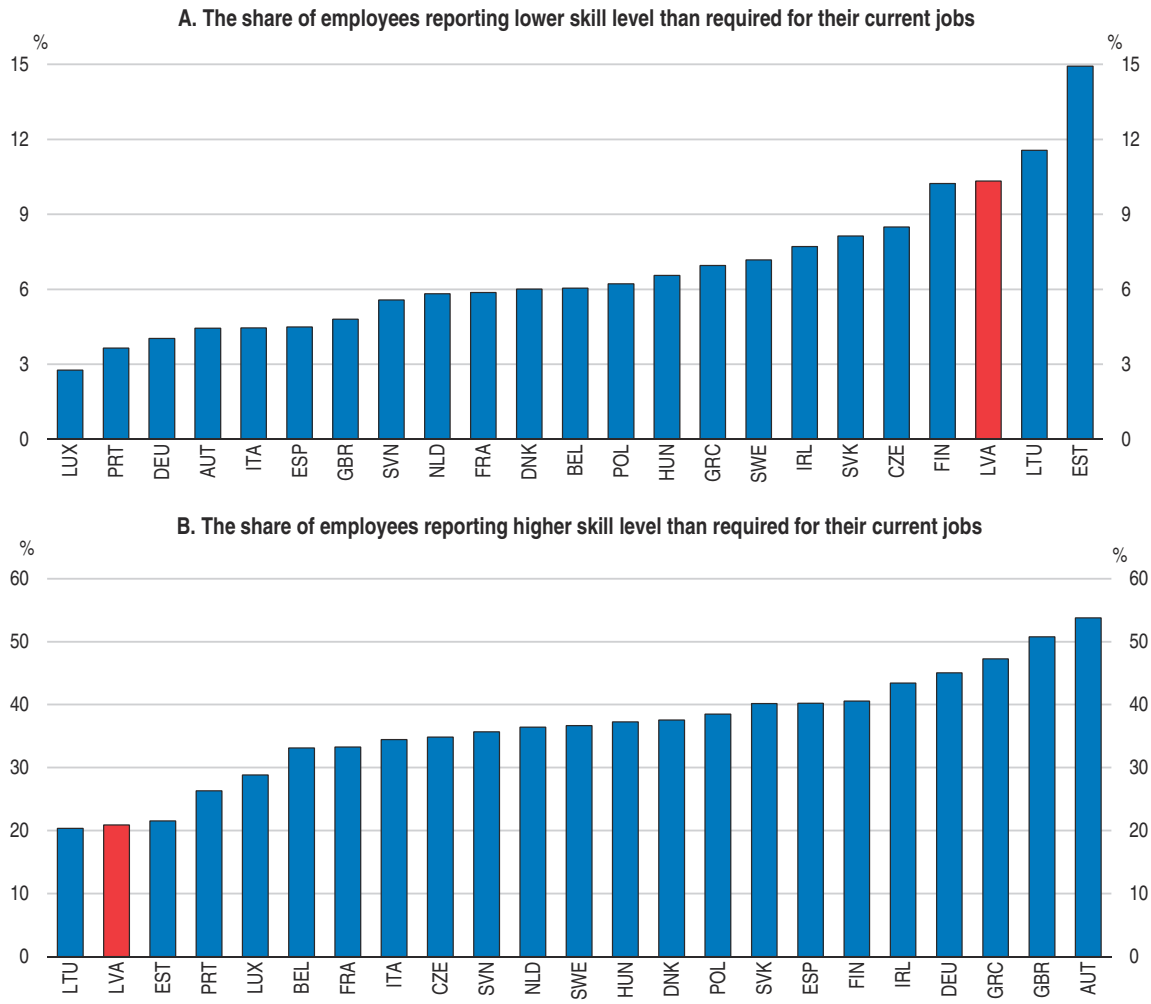
Improving access to higher education and lifelong upskilling opportunities

Further participation in GVCs and moving up the value chain requires high-skilled workers. Skills are also a pre-requisite for stronger innovation capabilities and competitiveness in knowledge-intensive activities. Stronger skills also increase the economy's capacity to

absorb knowledge spillovers associated with GVC participation. It would allow more Latvians to enjoy the employment opportunities created by further integration in GVCs. Survey evidence indicates that 11% of Latvian workers report being underskilled and 20% being overskilled. The share of workers reporting that their skills were below the level required for their job is among the highest in European OECD countries (Figure 1.16, Panel A). By contrast, over-skilling is low in international comparison (Figure 1.16, Panel B). Addressing the shortage of workers equipped with adequate skills would allow Latvia to reap greater benefits from participating in GVCs.

Figure 1.16. **Under-skilling is frequent while over-skilling is rare in international comparison**

2014



Source: CEDEFOP (2016), "Skills Panorama" (*http://skillspanorama.cedefop.europa.eu*).

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Expanding access to high-quality vocational education and training

Latvia has made substantial progress in improving the quality of vocational education and training (VET). Comprehensive VET reform has improved the quality and labour market relevance of training programmes through stronger involvement of social partners. Modularised education programmes were developed, enabling more systematic acquisition of specific skills and introducing up-to-date teaching methods (OECD, 2016b). VET schools

have been consolidated and multi-functional VET Competence Centres (VECCs) were established. They experiment with new programs and also offer adult training. A work-based learning model was implemented in 2016 and a legal framework regulating the employment relationships between the student, firm and school during the workplace learning has been established.

The government aims to equalise participation rates in upper secondary general education and VET by 2020. Further acceleration in the development of modular programmes, professional qualification exams and occupational standards will contribute to meeting this ambitious objective. While the expansion of work-based learning is important in narrowing the gap between skills acquired in VET and those demanded in the labour market, it is held back by the limited number of firms offering training places. The government could consider introducing incentives in order to encourage smaller, resource constrained firms to offer workplace training. Given that the productivity of students is lower than that of regular workers, the government may also consider introducing an exemption to the minimum wage for workplace learning.

Wider access of students from low and middle-income families to the upgraded VET programs would address the shortage of medium to high-skilled workers, contributing to productivity growth and inclusiveness. However, the access of students from disadvantaged socio-economic background to VET is held back by low income support. In periods in which VET students are on workplace-placed training, they may receive a stipend from their employers. The stipend benefits from a tax-exemption (up to a ceiling). Nevertheless, most students only receive 40-70 euros per month of means-tested income support, which is not sufficient to cover their living expenses (Baranovska et al., 2015). As a result, there is a concern that students from low income households are forced to combine studies and work, often leading to declining academic achievements and attendance, which in turn lowers their eligibility for continued support (Baranovska et al., 2015). Furthermore, students receiving support are no longer qualified for the family allowance, which amounts to between EUR 11 and 50 per month, creating a potential disincentive for poor families to send their children to VET. According to the data from the Central Statistical Bureau, in the academic year 2014/15, about 17% of VET students dropped out of programs. The most frequent reasons for dropping out were family reasons followed by non-attendance. The mean-tested scholarship should be increased to a level that allows students to concentrate on completing VET programs and be made compatible with state family benefits. The government envisages additional support for students at risk of early school leaving, funded by EU structural funds, which is welcome.

Making the most of ongoing improvements in higher education

The quality of tertiary education has been enhanced through establishment of internal and external quality assurance system that conforms to the standards of the European Union. A new funding system allocates resources according to the results of these assessments, the alignment of university programs with labour market demand, and innovation activities by tertiary education institutes (OECD 2016a). The quality assessments will incorporate indicators of labour market performance of graduates from individual universities in the near future. In response to the strong labour market demand for graduates in Science, Technology, Engineering and Mathematics (STEM), the government has allocated more state-funded free study places to these subjects.

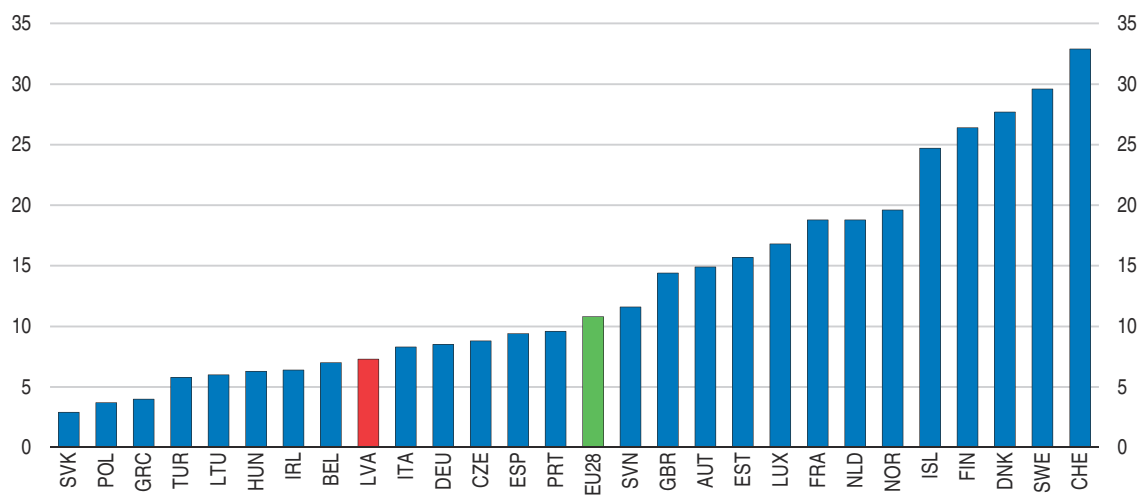
These reforms should increase the supply of high skilled workers with relevant skills, if coupled with measures to increase the access to tertiary education. However, low financial assistance is hindering the access of students from disadvantaged socio-economic backgrounds. The scholarship is mainly merit-based and is not available for all students eligible for free study places. Furthermore, its amount is not sufficiently high to cover living costs. Household income only plays a role when merit is the same. Some universities also offer their own grants for students from low-income families. Student loans are available but their repayment is not income-contingent. These conditions are especially challenging for low income students living in rural areas who want to pursue STEM studies, because they need to bear the living expenses in the, sometimes distant, towns where STEM studies are offered. The merit-based system should be modified to include means-tested income support to improve access of talented students from disadvantaged socio-economic backgrounds to higher education.

Promoting adult learning and education is important especially among low skilled workers

Participation in GVCs exposes Latvian firms and workers to new technologies and organisational practices, which make some skills obsolete. Latvian workers need opportunities to update their skills in order to benefit from stronger integration to GVCs. The government has set an ambitious target to have 15% of the adult population actively involved in education and training by 2020 (MoES, 2014). Still in 2016, 7.3% of 25-64 year-olds participated in formal or non-formal education and training, a share that is considerably lower than other European countries (Figure 1.17). In order to address the weak participation, an action plan that establishes a governance framework and quality control of adult education was approved in 2016, which is welcome. The action plan is currently financed mainly by EU funds and the central government is foreseen to start financing adult education from 2022 onwards.

Figure 1.17. **Participation in lifelong learning is low**

Participation rate in lifelong education or training, 25-64 year-olds, 2016



Note: Data refer to the share of 25 to 64 year-olds who participated in education or training in the 4 weeks prior to the survey.
Source: Eurostat (2017), *Education and training statistics* (database).

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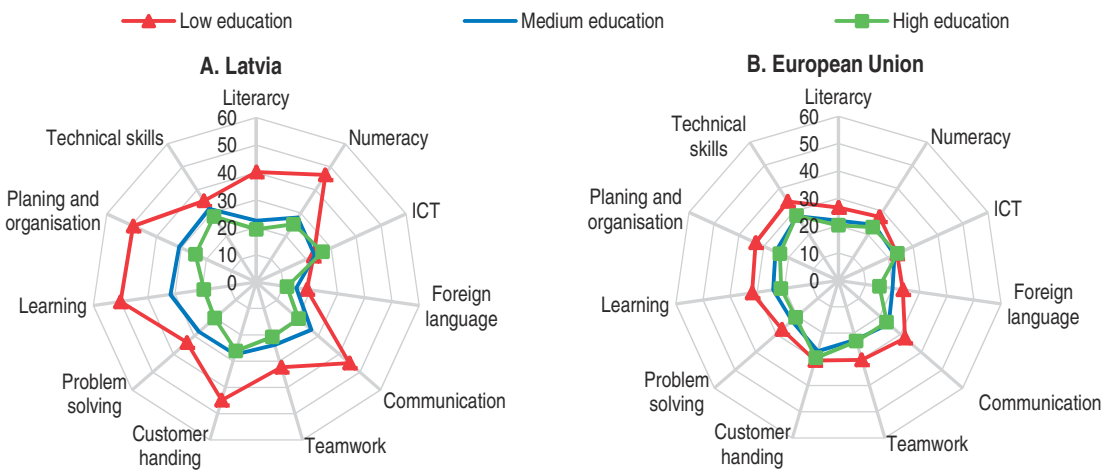
The provision of adult education can be boosted by making better use of VET schools that recently underwent considerable reform. Currently, among VET schools, only some (the VET Competence Centres, VECCs) offer adult education partly due to state budget rules that limit the possibilities for public VET schools to retain additional income gained through offering of adult education (OECD, 2016b). Such disincentive should be removed. The action plan mentioned above includes measures to strengthen the capacity of VET schools to offer adult education. More could be done by introducing a legal requirement and incentives for VET schools to offer adult education, as done for VECCs.

Encouraging participation in adult education is especially important among low educated workers. Low educated workers in Latvia face particularly large skill gaps in their jobs (Figure 1.18). Still, less than 11% of Latvian adults with a lower secondary education or less participate in adult education and training, a rate that is about five times lower than for those with tertiary education (OECD, 2016b). Measures to encourage participation by low skilled workers should be strengthened. This would broaden access to the high quality employment opportunities created by firms' GVC participation.

Figure 1.18. **Low educated employees face particularly large skills gaps**

% of workers reporting foundation, transversal, job-specific skills gaps by educational level[1], 2014



1. The percentage of employees whose foundation (literacy; numeracy; ICT; and foreign languages), transversal (communication; customer handling; learning; planning and organization; problem solving; and team-working), job-specific skills are ranked lower/are barely matched to the level needed to do their job. Respondents were asked to score, on a 0-10 scale on skills compared to what is required for doing their job, where 0 means their level of skill is a lot lower than required and 10 means their level of skill is a lot higher than required. Scores below 7 (the lowest quartile) were used to calculate all skills gaps except foreign language skills gaps. Scores below 5 (the lowest quartile) were used to calculate foreign language skills gaps. Both country data and the aggregated data for EU28 are weighted by occupation, industry, education, age and gender by using a given weight in the database.

Source: OECD calculations based on the European skills and jobs survey (2014), Centre européen pour le développement de la formation professionnelle (Cedefop).

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Promoting the participation of women in high skill jobs

Policies to remove barriers for women to access good job careers can also improve the supply of skills. The gender wage gap is particularly large for well-paid positions, pointing to poor utilisation of highly skilled female workers, and can for the most part not be explained by job or personal characteristics (Gaveika and Skrūzkalne, 2012). Shortages in the supply of formal early child care hold back the reconciliation of employment and family life (European Parliament, 2015). Steps to encourage women to study science, technology, engineering or

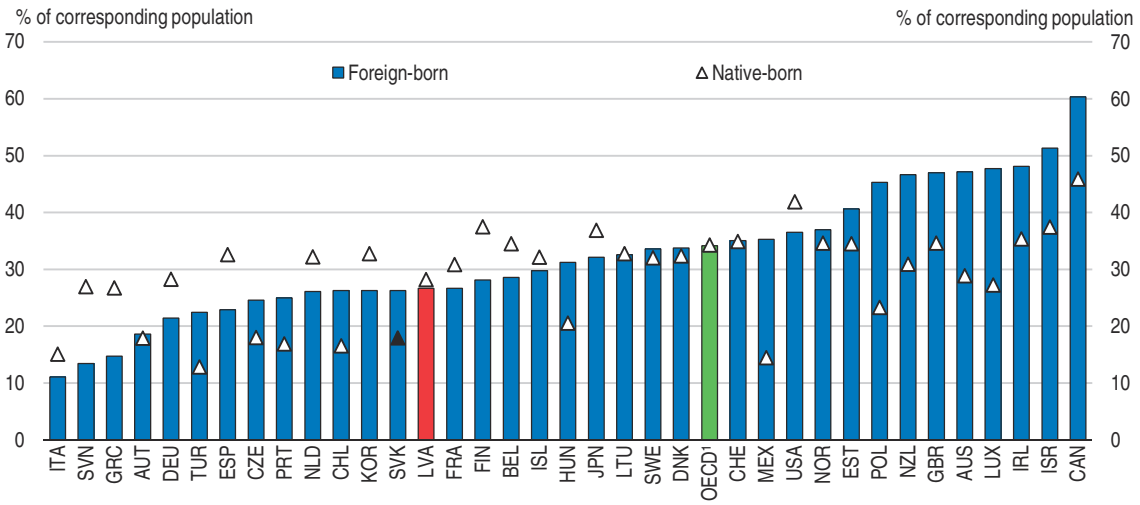
mathematics (STEM), where free study places are abundant and labour market demand is strong, would reduce skill shortages and the gender gap in earnings (OECD, 2016b). Barriers to female entrepreneurship could also be identified and addressed. Another option, suggested by Turk et al (2010), is to require firms to identify and address pay inequalities between men and women. Germany has recently taken steps in this direction.

Migration policy should target foreign skilled workers

Latvia needs to attract talent and skills from abroad to address skills shortages. The possibility of hiring talented individuals from abroad can facilitate the participation of Latvian firms to GVCs. Indeed research has shown that hiring of employees who have worked in MNEs boosts GVC participation (Box 1.3). Yet, Latvia is not very successful in attracting high skilled foreign workers. The share of foreign-born working-age individuals in Latvia with a degree from tertiary education is lower than in other Baltic countries (Figure 1.19). It is also slightly lower than the share of native Latvian workers completing tertiary education, which contrasts with countries with immigration policies geared toward attracting highly-skilled individuals.

Figure 1.19. **Latvia is not attracting highly educated immigrants**

Share of the highly educated among nativeand foreign-born 15-64 year-olds,[1] 2013 or latest year



1. Latvia was excluded because Latvia was not yet a member of the OECD at the moment of publication.

Note: Highly educated people with tertiary education attainment at the levels 5 and 6 (ISCED-97).

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

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Apart from return migration, the immigration flow to Latvia is low (OECD, 2016c). Latvia's work permit framework is aligned with EU legislation. However, unlike Estonia, Latvia does not provide any preferential treatments to skilled immigrants from non-EU countries in obtaining residence permits (OECD, 2016c). Furthermore, these foreign workers are not covered by the public health insurance scheme and must purchase private health insurance at an additional cost. There is also a requirement of Latvian language proficiency for many occupations that requires communications with the public or government authorities, which limits the scope of jobs that foreign skilled workers can take up.

International students represent another potential pool of talent and skills. While their number has increased rapidly, reaching 5% of enrolled students in higher education in 2014, only a handful of them stay after their graduation. The government has set a goal of increasing the share of graduated international students staying in Latvia to 10% by 2030. A national agency has set up a website to promote Latvia as a study destination. Students from outside the EU who finish their studies in Latvia are entitled to request up to six months of residential permit for job searching. However, there are no arrangements to facilitate their hiring, such as fast-track acquisition of working visas or easing of labour market tests.

Boosting knowledge transfer and innovation capabilities of Latvian firms

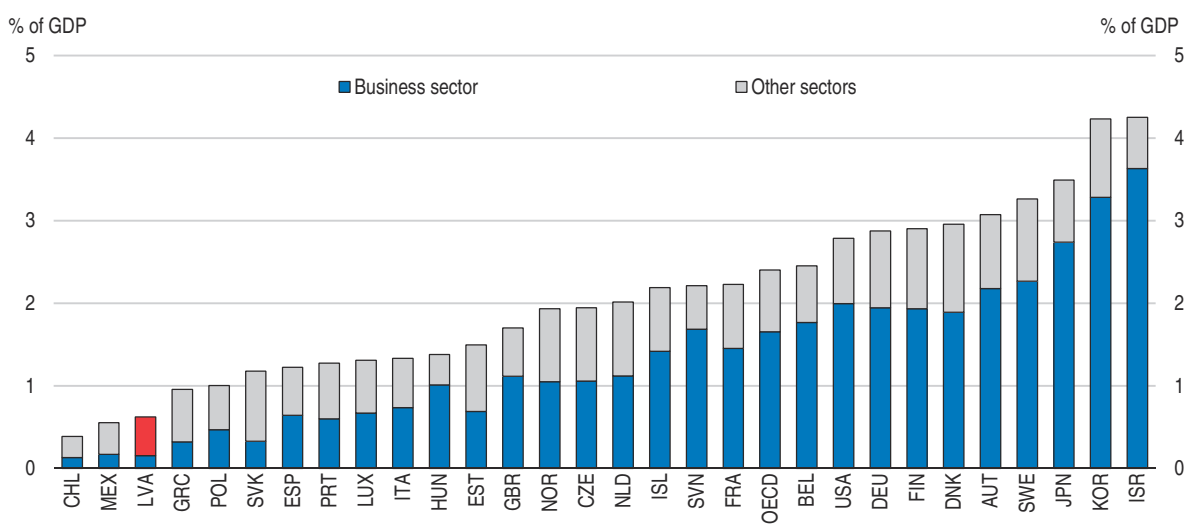
Innovation boosts productivity and creates new businesses and jobs through new products, technologies and managerial methods (OECD, 2015a). Latvia's competitiveness in more knowledge-intensive, high value added activities within GVCs depends on developing an efficient innovation system that facilitates knowledge transfer and stimulates commercialisation of new technologies and investment in knowledge-based capital.

Business-based innovation is weak

Latvia's investment in research and development (R&D) is among the lowest in the OECD (Figure 1.20). It is primarily driven by public research institutions. Less than one-third of R&D expenditure is business-based. In 2014, 24% of business-based R&D was funded by EU structural funds. The share of Latvian firms engaged in innovation such as the introduction of new products, processes, marketing or organisational structures is among the lowest in the EU countries (Figure 1.21). Only few firms are introducing new products that they consider new to the market (Figure 1.21). Innovation by Latvian firms are characterised as adoption of recent technologies rather than frontier innovation, largely reflecting the ongoing catch-up process. 78% of the innovation expenditure by Latvian firms was used to purchase of technologically advanced equipment and software

Figure 1.20. **Research and development expenditure is among the lowest in the OECD**

2015



Source: OECD (2016), *OECD Main Science and Technology Indicators* (database).

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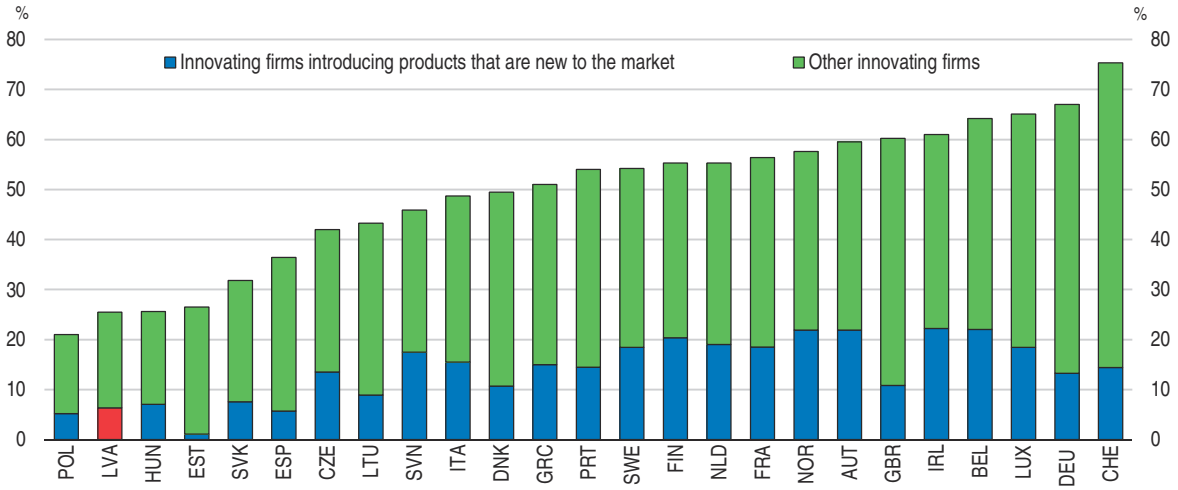
Figure 1.21. **Business-driven innovation is low**

The share of innovating firms in all firms surveyed, 2012-14



Note: International comparability may be limited due to differences in innovation survey methodologies and country-specific response patterns.

Source: Eurostat (2016), Community Innovation Survey (CIS) 2014.

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(CBS, 2016). However, several indicators of innovation performance such as the number of non-EU doctoral students in Latvia have improved most recently, allowing Latvia to exit the group of least performing EU countries (European Commission, 2016a).

Stronger co-operation would boost innovation

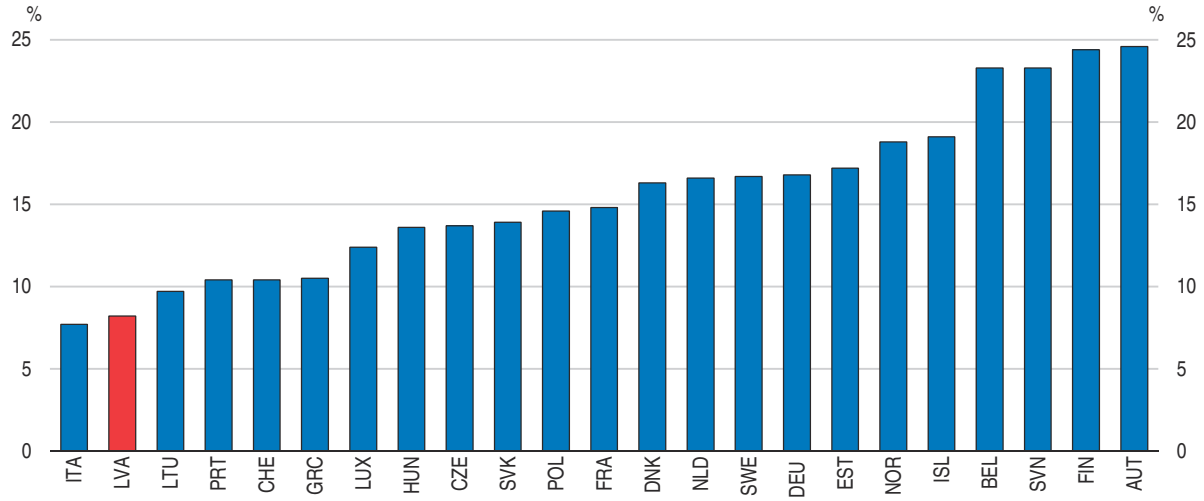
The low innovation performance of Latvian firms goes hand in hand with their low engagement in innovation co-operation. Co-operation is especially effective in saving costs of innovation under rapid pace of technology changes and increased complexity of innovation activities. It includes co-developing innovations with other companies, procuring research services such as R&D or design, licensing the rights to others' inventions or simply imitating innovations developed and adopted elsewhere. Only one fourth of innovating Latvian firms engaged in co-operation during 2012-2014 (CSB, 2016). Co-operation occurred predominantly between suppliers of equipment and inputs with other firms. Such co-operation, especially with multinational enterprises (MNEs) is often a promising channel of knowledge transfer and productivity growth (Hoekman and Javorcik, 2006).

Co-operation between higher education or research institutions is a promising avenue for boosting the innovation capabilities of Latvian firms. However, the share of innovating firms that collaborated with higher education and research institutions is lower in Latvia than most European countries (Figure 1.22). The weak link with research institutions has been found to constrain the ability of Latvian firms to innovate and to identify and absorb new technologies developed outside the country (Jesiļevska, 2016). Enhancing co-operation especially among young firms that are more eager to experiment with new technologies can accelerate the commercialisation of frontier technologies and strengthen Latvia's ability to move up the value chain.

Latvia has taken several policy initiatives in order to boost innovation and co-operation, especially in areas defined in the Smart Specialization Strategy. They include the EU-funded Competence Centre support programme which aims to raise the competitiveness of Latvian

Figure 1.22. **Co-operation with higher education or research institutions in innovation is low**

The share of firms co-operating in all product and/or process-innovating firms, 2012-14



Note: International comparability may be limited due to differences in innovation survey methodologies and country-specific response patterns.

Source: Eurostat (2016), Community Innovation Survey (CIS) 2014.

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firms by fostering co-operation between research institutions in developing new products, as well as the EU-funded Applied Research Grants programme, the Post-doctoral Research Grants programme and the support programme for the Modernization of Higher Education and Research Infrastructure. Other measures such as the Cluster programmes and the Innovation Voucher scheme help firms, including SMEs, to access knowledge in research institutions and encourage local and international knowledge transfer. Steps have also been taken to stimulate mobility of workers between the business sector and the public sector. Many of these policies have been implemented only recently or are in the process of implementation. Reform of higher education funding introduced in 2015 also provides incentives for universities to co-operate with businesses, which is welcome.

Considering the small size of domestic research capabilities and the large scope for technology catch-up, co-operation with foreign research institutions is particularly important for strengthening productivity in Latvia. Many of the policy measures mentioned above extend to international collaboration in principle. For example, the Competence Centers scheme can be applied to R&D services provided by foreign research institutions if those services are not available in domestic institutions. The Cluster Program envisages promoting the international cluster-to-cluster co-operation in research and innovation activities. Measures to strengthen the international co-operation between researchers were also put in place. However, those measures have not so far resulted in a notable increase in international research collaboration. Latvian firms favour collaboration with domestic institutions due to higher research costs abroad.

The funding allocated to innovation policy, mostly from EU funds, is thinly dispersed across numerous support measures to basic research, commercialisation of research and development and research co-operation. There is a risk that those policy measures might not reach the critical mass to be effective. It is therefore important that the measures are rigorously assessed for their effectiveness and fiscal resource is swiftly reallocated

accordingly. The evaluation of innovation support measures consists of *ex ante*, mid-term and *ex post* evaluation. Amendments and corrections, even eliminations of some measures are possible, depending on the mid-term evaluation. The government must ensure that evaluation is strictly applied. From the perspective of promoting an inclusive participation of Latvian firms to GVCs, it is important to assess to what extent support measures helped the less productive, smaller firms that are over-represented among non-exporters to boost their productivity. From the perspective of moving up the global value chains, the effectiveness of measures in promoting international co-operation should be evaluated.

Improving resource allocation by enhancing the efficiency of the judiciary

Public institutions that ensure contract enforcement and secure property rights are essential to support Latvia's GVC participation by allowing MNEs to more easily outsource complex tasks to Latvian firms. Latvian firms can also boost their productivity through outsourcing by specialising in the most competitive and profitable activities. Countries with efficient judiciary systems are found to be particularly more competitive in industries that rely on a wide range of intermediate inputs and in the production of higher value-added goods within an industry (Levchenko, 2007; Essaji and Fujiwara, 2012). More generally, stronger rule of law boosts economic growth by encouraging innovation and increasing the effectiveness of other policies that enhance competition and resource allocation (Guillemette et al., 2017).

Latvia has been engaging in reforming the judicial map and consolidating small municipal courts in order to increase efficiency. The average length of court proceedings has gradually decreased. The gradual consolidation of district courts is to be completed in 2018. Also, efforts to improve the quality of judgements are in the pipeline. The government envisages specialisation of some judges in the consolidated larger courts on specific topics such as insolvency or intellectual property protection. An action plan supported by the European Social Fund will be providing training to 12 000 judicial sector workers until 2022, boosting capabilities in managing judicial processes and professional knowledge.

Increased out-of-court settlements such as arbitration or mediation would alleviate the burden of courts. Amendments to the Arbitration Law came into force in 2016, strengthening the state control on the arbitration courts. Sworn notaries and bailiffs were allowed to practice as certified meditator in the end-2015. Despite those measures, the use of out-of-court settlements remains rare. Further efforts to establish transparent framework of out-of-courts settlements are warranted.

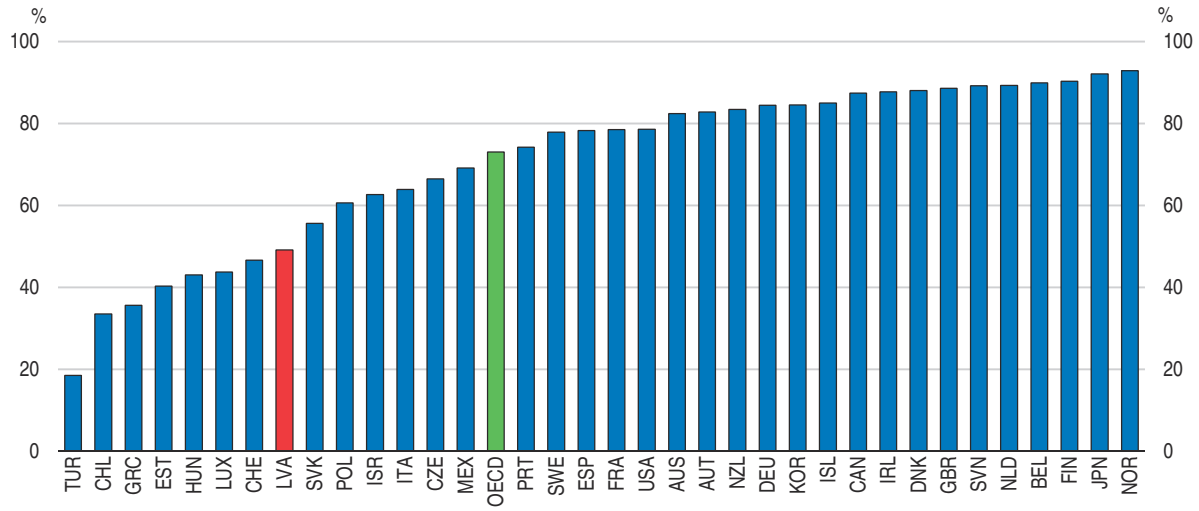
Increasing the transparency of the insolvency regime

A transparent and efficient insolvency regime facilitates access to finance, which is central to participation in GVCs and to engage in a more high value added activities (Manova and Yu, 2016). Effective insolvency also encourages firm creation and makes it easier to close unproductive firms, thereby enhancing the re-allocation of important resources for GVC participation, such as skilled workers (Andrews and Adalet McGowan, 2016). While Latvia does not have many unviable firms remaining in business, as banks wrote off loans to non-viable firms quickly following the economic and financial crisis, there are concerns about transparency and abuse in insolvency cases (FCIL, 2016).

While the average costs and length of insolvency procedures in Latvia are close to the OECD average, the debt recovery rate is low (Figure 1.23). This is holding back lending to smaller firms and young firms with limited credit records (Bank of Latvia, 2016). The low

Figure 1.23. **The recovery of debt from insolvent firms is low**

Average recovery rate, June 2016



Note: The recovery rate is calculated based on the time, cost and outcomes of insolvency proceedings and is recorded as cents on the dollar recovered by secured creditors. The calculation takes into account whether the business emerges from the proceedings as a going concern or the assets are sold piecemeal. The costs of the proceedings are deducted. The value lost as a result of the time the money remains tied up in insolvency proceedings is also deducted. The recovery rate is the present value of the remaining proceeds.
Source: World Bank (2017), Doing Business 2016: Measuring Regulatory Quality and Efficiency (Resolving insolvency database).

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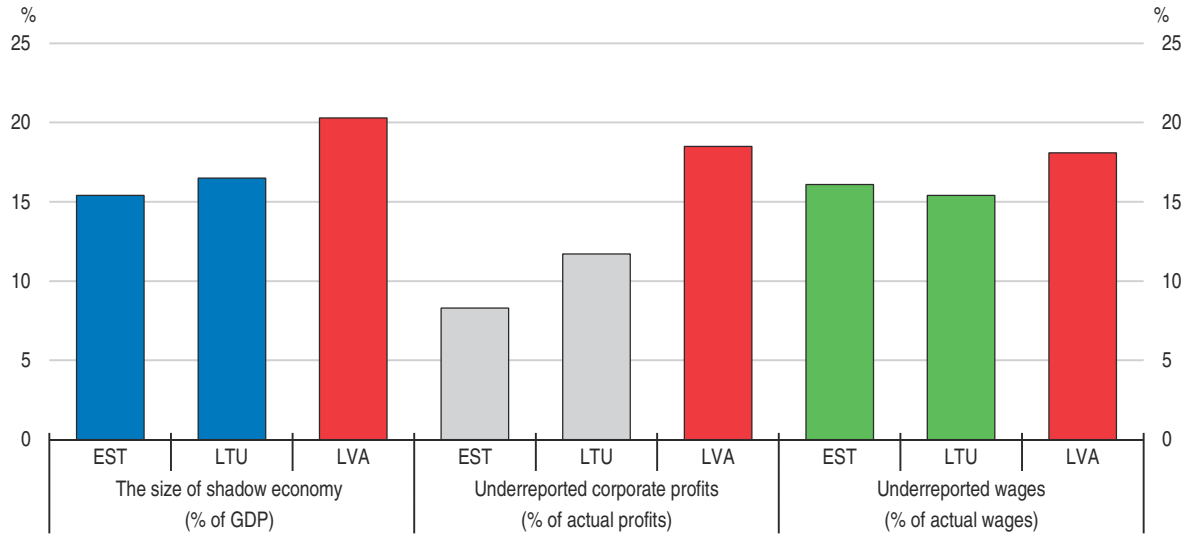
recovery rate is mainly due to abuse with low penalty for abusers and low accountability of insolvency administrators. In order to strengthen the credibility of the insolvency regime, the government has adopted the Insolvency Policy Development Guideline which is being implemented between 2016 and 2020. Among others, these measures include more vigorous requirements for qualification and selection of insolvency administrators. From 2016, all administrators face the same obligations of income and assets disclosure as public officials. The amendment to the insolvency law in January 2017 strengthened the supervisory functions of the public insolvency administration. Capacity to prevent the abuse of insolvency regime is being built through the training program mentioned above. Co-ordination with the insolvency administration and the police has been strengthened. The specialisation of judges on insolvency is also likely to contribute to capacity building.

Reducing informality through better governance

While it is difficult to capture the exact size of informal economy, it is estimated to be between 20 to 25% of GDP in Latvia (Schenider, 2015, Putnins and Sauka, 2016). Around 20% of business income and 10% of wage payment are estimated to be undeclared, considerably higher than in Estonia or Lithuania (Figure 1.24). The large share of informal business activities undermines productivity growth by distorting the competitive advantage and resource allocation toward firms that do not comply with regulations and avoid tax (Hsieh, 2015). Such unfair competition condition is discouraging Latvian firms to grow in size and invest in innovation (European Commission, 2016b), which in turn holds back their participation in knowledge-intensive activities within GVCs. A recent survey among foreign-owned enterprises indicates that the prevailing informal economy is an obstacle to their further investment and expansion in Latvia (FICIL, 2016).

Figure 1.24. **The size of the informal economy is large**

Estimated size of the informal economy and underreported corporate profits and wages, 2016



Note: The aggregate size of the informal economy is estimated from firm-level information. Underreported corporate profits and wage payments by registered firms in the three Baltic countries are based on survey data.

Source: Putniņš, T. and A. Sauka (2017), "Shadow Economy Index for the Baltic Countries", *Stockholm School of Economics in Riga (SSE Riga)*.

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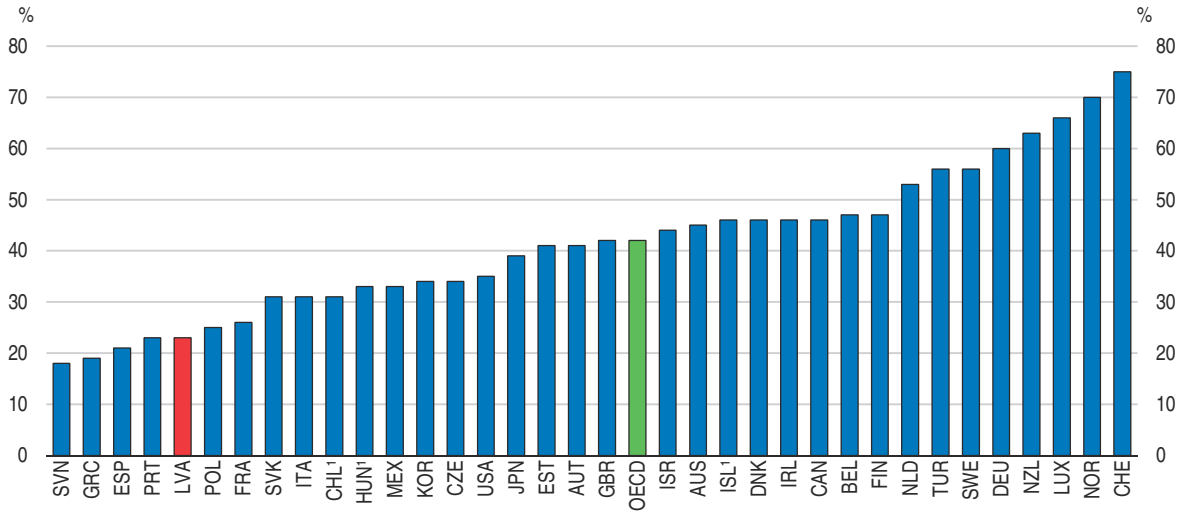
The government has made considerable efforts to reduce the informal activities and to improve tax collection. It has intensified tax audits on individuals and firms operating in sectors where informal activity is widespread. It has introduced criminal sanctions against employers paying undeclared wages. It has strengthened controls, resources and co-ordination among relevant authorities (tax authorities, labour inspectors and customs), raised fines and increased personal liability of company board members. The government is also planning to make better use of ICT for tax law enforcement. It plans to require electronic record keeping cash registers. The government also plans to combat tax evasion in electronic commerce and to enable electronic exchange of information between credit institutions and the tax authorities. This could be extended by requiring mandatory electronic invoicing and automated reporting in business to business transactions.

While those efforts are welcome, more fundamental efforts to reduce informal economy are needed. Studies have suggested that public's perceptions of weak governance undermine the willingness to pay tax. Surveys of company owners and managers shows that acceptance of informal activity is strongly related to their dissatisfaction with business legislation (Putnins and Sauka, 2016). In comparison with Estonia and Lithuania more Latvian businesses display lower trust in the government (Putnins and Sauka, 2016). Trust in public governance is also weak in the population at large (Figure 1.24). Greater trust in government helps improve tax morale (Daude et al., 2012). Better governance improves willingness to pay tax (Torgler and Schneider, 2007). Developing greater procedural justice, strengthening perceptions of impartial treatment of all citizens as well as ensuring broad and fair access to public services would improve trust to the government.

Reforms to improve public sector efficiency have included more steps to fight corruption of the Latvian Corruption Prevention and Combating Bureau (KNAB). The KNAB's core budget increased in 2016 and 2017.This shows the commitment of Latvia to fighting corruption and avoid political interference with the work of the KNAB. However, the budget of the KNAB

Figure 1.25. **Trust in the government is low**

2014



1. 2013 for Chile, Hungary and Iceland.

Note: Trust refers to the percentage of respondents who answered "yes" to the question "Do you have confidence in national government" in the World Gallup Poll, 2014.

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

StatLink http://dx.doi.org/10.1787/888933582683

continues to be proposed by the Council of Ministers and is approved by parliament annually, weakening independence. Full independence is important so KNAB is perceived to be able to investigate corruption within these institutions. As is the case for competition authorities, budgetary independence should be reinforced by mechanisms reducing government discretion, such as fixed multiannual budget allocations, allocation of fixed revenue sources, for example fees or taxes, or a combination of these (OECD, 2016c).

Many judges are appointed by parliament, which may expose them to political influence. Stronger independence from political influence in the procedures to appoint judges could also improve perceptions of governance. It is welcome that legislation to strengthen the independence of judges is being considered by parliament. There is also scope to strengthen rules on the engagement of lobbyists in the legislative process (Council of Europe, 2016). Broadening access to key social services, notably health services, may also strengthen perceived fairness and thereby willingness to work in the formal economy (see Chapter 2).

Creating a more open and competition-friendly regulatory environment

A transparent and competition-friendly regulatory environment provides the base for Latvia's participation in GVCs and its competitiveness in knowledge intensive value chain activities. An open and efficient trade regime is essential as Latvia relies on imported inputs given its small size. Trade openness also matters because trade costs, both tariffs and costs arising from border procedures or behind-the-border regulations, are magnified within GVCs as goods and services cross several borders (OECD, 2013a).

Latvia has made progress in reducing regulatory barriers to entrepreneurship by making it easier to get licences and permits and by reducing administrative burdens for start-ups. The "silence is consent" rule, which grants firms the right to operate in absence of a formal

response from the authority within a given period, has been extended to 17 services. An online one-stop shop has been set up, allowing firms to acquire all information needed for acquiring licences and permits. Also, the time needed to create a business has been reduced. Registration of a company can be done completely online from 2018.

Funding for the Competition Council, the main organisation implementing competition policy has increased. On the other hand, the Council remains a sub-organisation of the Ministry of Economy and its autonomy over its budget is limited. Also, the Council does not have the statutory power to intervene against public actions which restrict competition, such as anticompetitive municipal regulations, unlike the competition authorities in many other countries (OECD, 2014). Concerns were expressed that municipalities expand their commercial activities and undermine competition by private providers (for example, FICIL, 2013). Granting the Council the authority to intervene against certain anticompetitive acts by municipalities ensures fair competition between State-owned enterprises (SOEs) and private firms. However, such reform would be more credible with complete formal independence from the Ministry of Economy (OECD, 2014). Furthermore, the status of employees as civil servants makes it difficult for the Council to offer competitive compensation to qualified personals.

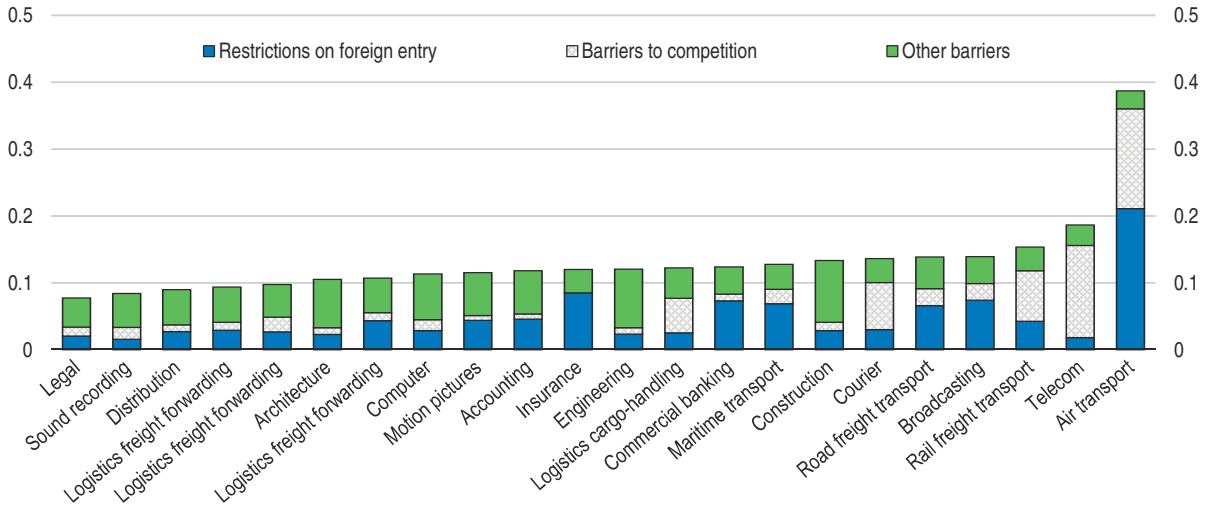
State-owned enterprises (SOEs) in Latvia enjoy dominant market shares in some network industries namely in electricity and transportation. The government has implemented measures to improve the corporate governance of state-owned enterprises as committed during the OECD accession process. Legislation stipulating the governance framework of SOEs came into force in 2015, introducing the Co-ordination Institution, which advises the Cabinet and shareholder ministries and institutions on corporate governance. The Co-ordination Institution is also tasked to increase the transparency of SOEs. It produced the first annual report of SOEs in 2016. Boards of directors were instated in the 12 largest state-owned enterprises by the end-2016. The government should consider extending these measures to all other commercially oriented SOEs, regardless of their size. It has been pointed out that the case for state ownership is unclear in some cases (OECD, 2015b). The government is in process of assessing state ownership of enterprises.

According to the OECD Trade Facilitation Indicator, Latvia's border procedures are close to best practice. However, there is still room to reduce the border transaction costs by delegating some border controls from government agencies to the custom authority and aligning border procedures and formalities with neighbouring countries. Small improvement in border procedures are found to increase significantly the use of imported inputs in producing exports (Moïsé and Sorescu, 2015), an area in which Latvia lags behind its peers (Figure 1.6). Such improvements are likely to be particularly beneficial for small economies, such as Latvia's.

Costs related to service trade are particularly relevant for Latvia's competitiveness in GVCs, given that services account for 52% of domestic value added embodied in Latvia's exports. Barriers to service trade are low overall, except in air transport and telecommunications where state ownership is large (Figure 1.26). In telecommunications, the state holds a controlling share in companies providing fixed and mobile telecommunication and internet services. There are also barriers related to the movement of people. For instance, non-EU persons seeking to provide services in Latvia on a temporary basis, for example employees of multinational enterprises transferred to affiliated firms in Latvia, are required to be paid at least as well as local employees. For independent service suppliers the duration of stay is limited to 12 months on their first entry permit.

Figure 1.26. **Barriers to service trade are low overall**

OECD Services Trade Restrictiveness Index,[1] scale from 0 to 1 (most restrictive), 2016



1. They are calculated on the basis of the Service Trade Restrictions Index (STRI) regulatory database over the 35 OECD Members, Brazil, China, Colombia, Costa Rica India, Indonesia, Lithuania, Russia and South Africa. The STRI database records measures on a most-favoured-nations basis. Preferential trade agreements are not taken into account. Air transport and road freight cover only commercial establishment (with accompanying movement of people).

Source: OECD (2017), "Service Trade Restrictions Index by services sector" in *OECD Industry and Services Statistics* (database).

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Recommendations for moving up the global value chain
(Key recommendations included in the Executive Summary are bolded)

Improving skills

- **Provide more generous grants for students attending vocational schools who are from low-income families.**
- **Expand grants for university students and target them to students from low-income families.**
- Accelerate the development of modular programmes in VET, professional qualification exams and professional standards.
- Promote the provision of adult education by VET schools.
- Reduce labour market test and language requirements for highly skilled immigrants.
- Support the employment of foreign students by shortening the process for obtaining working visa and labour market test.

Strengthening innovation capabilities and knowledge transfer

- **Increase government funding of programmes with strong evaluation results.**

Improving contract enforcement and the insolvency regime

- **Strengthen the specialisation of judges.**
- Establish a transparent framework for out-of-courts settlements such as arbitrage or mediation.
- Improve the skills of law enforcement officials and insolvency administrators to deal with fraud.

Reducing informality

- **Strengthen the budgetary independence of the Corruption Prevention and Combating Bureau (KNAB).**

Recommendations for moving up the global value chain
(Key recommendations included in the Executive Summary are bolded) *(cont.)*

- **Make better use of information and communication technology for tax law enforcement.**
- **Remove political influence in the appointment of judges.**

Improving the business environment

- Strengthen the budgetary independence of the Competition Committee.
- Introduce boards in all commercially oriented state-owned enterprises and clarify the rationale for state ownership.
- Strengthen co-operation with border agencies of neighboring countries by aligning border procedures and formalities.

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Chapter 2

Making the most of economic and social infrastructure

Latvia has expanded infrastructure in transport networks substantially, supported with European Union structural funds. Further investment projects are ongoing, in part to improve connectivity with infrastructure networks within the European Union, as trade has largely switched from Russia to European Union countries. The quality of health services has also improved. Yet important challenges remain to make the most of economic and social infrastructure to boost opportunities for economic activity, reduce poverty and improve wellbeing, helping to make Latvia a more attractive place to live and work. Project selection and cost-benefit analysis need to be more consistently applied when selecting transport infrastructure investment projects. Although road accident rates have fallen they remain unusually high. The Riga metropolitan area is a key driver of economic growth and hosts an important international transport hub. It boasts growth in knowledge-intensive services and low unemployment, and rich natural assets. It could play an important role in retaining young people in Latvia. Yet insufficient access to affordable housing, growing spatial segregation as a result of urban sprawl and weak public transport hold back the contribution Riga could make to inclusive growth. More effective redistribution of tax revenues and stronger governance arrangements could make more of Riga's potential. Low-income households continue to face substantial difficulty in accessing health services, especially in rural areas. More resources are necessary to improve access, coupled with more efforts to reinforce efficiency of provision. Policies to boost energy efficiency investment and wind energy would help maintain strong inclusive growth while helping to achieve greenhouse gas emission reductions.

Infrastructure and social policies can make the economy more open and inclusive

Latvia plays an important role as a transport hub for the Baltic region, with the most important ports and airport. Latvia has expanded infrastructure in transport networks substantially and has managed to spend most of the structural funds received from the European Union. Nonetheless, surveys of international business leaders (World Economic Forum) and the World Bank suggest that transport infrastructure quality is still lagging other countries in the region, especially with respect to road infrastructure (Figure 2.1).

Infrastructure and social policies also need to address regional socioeconomic disparities. These are considerable. Economic activity and jobs are concentrated in the Riga metropolitan area, where population has been growing. Rural regions are experiencing a decline in population. Poverty and unemployment are concentrated in rural areas, especially in the easternmost Latgale region (Figure 2.2). Housing conditions are poor for low income households. The rented housing marked is underdeveloped, holding back worker mobility. Social housing is scarce, especially in Riga. People in Latvia enjoyed fairly substantial gains in life expectancy over the past decade. Latvia has been strengthening its health information infrastructure and has high quality health system data, building a strong basis to deliver health care efficiently (OECD, 2016a). But access to some health services is still difficult for the low-income and rural populations.

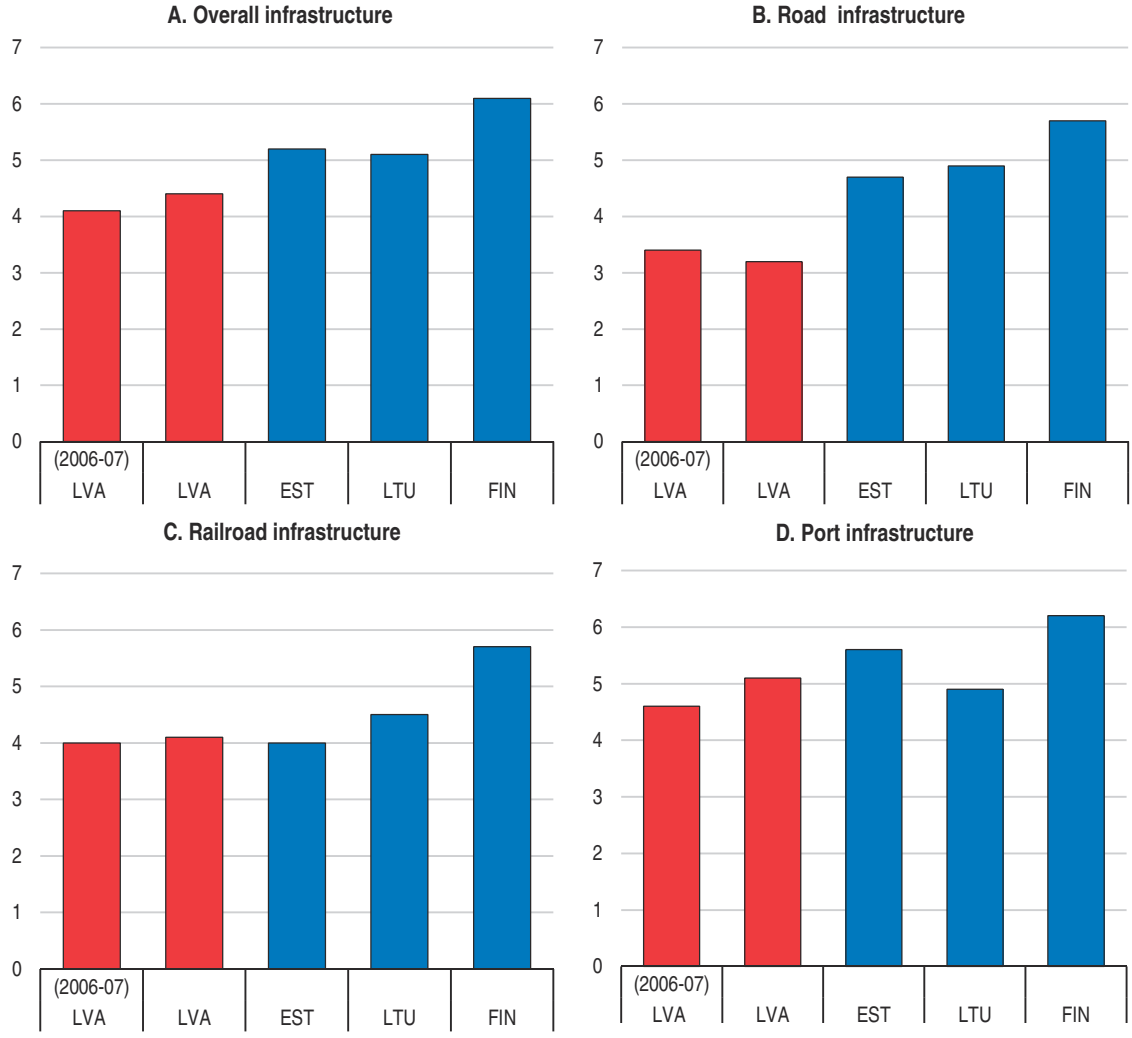
Evaluation of transport infrastructure projects and planning can improve

The *ex ante* evaluation procedure to guide the selection of investment projects depends on the funding source. The two main funding sources available are the central government's budget, which often channels funds through state-owned enterprises, as well as EU funds. In the 2014-20 planning period, EU funding still contributes 85% of funding. However, this share will diminish over time as Latvian GDP per capita catches up with other EU economies. When funding for a large infrastructure project is provided at least partially by the EU, the *ex ante* evaluation of the projects follows a standardised methodology which includes social cost-benefit analysis. When no EU funding is provided, the specific evaluation approach depends on the project and the state-owned company carrying out the project. The projects with EU funding also follow clear *ex post* evaluation guidelines, which are not applied to projects with other funding sources.

There are risks that economic or social policy priorities are subordinated to operational priorities of state-owned enterprises. For example, investments may be made in order to maintain activity in the enterprise, but longer term perspectives for this same infrastructure could be for reduced traffic, thus not justifying the investment in the long run. This is likely to result in sub-optimal project selection. When projects are funded by the government through public enterprises, they obtain loans from banks guaranteed with their assets. This creates contingent liabilities to the government. Developing a uniform methodology for evaluation and funding of infrastructure projects would improve project

Figure 2.1. **Infrastructure still lags behind other countries in the region**

Global Competitiveness Index, scale from 1 to 7 (best), 2016-17 unless specified otherwise



Source: World Economic Forum, "The Global Competitiveness Report 2016-2017" and "The Global Competitiveness Report 2006-2007".

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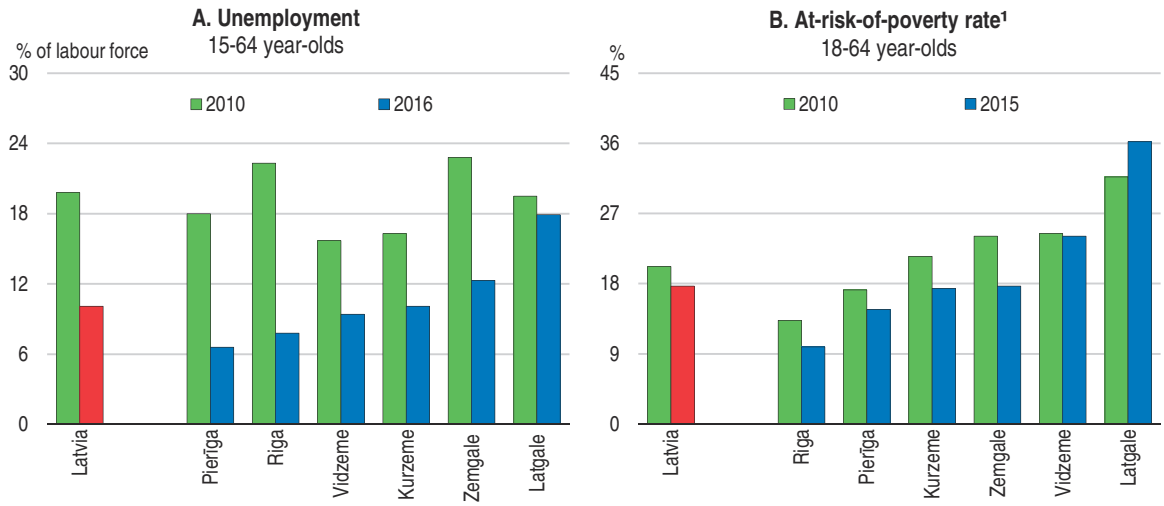
selection. The most efficient way would be to align the requirements and procedures for all investment projects to the existing procedures that are currently followed for the EU-funded projects.

Funding of the infrastructure of railways in Latvia must be linked to the central government's budget. A multi-annual agreement is planned between the government and the infrastructure manager, in line with EU legislation. This is welcome as it could help achieve the right balance between operational and economic priorities.

Transport planning is based on an appropriately broad range of statistical sources (Box 2.1). Expert evaluation is used for preparing forecasts. However, no modelling tools are employed. Development of a national transport model would allow having the best possible forecasts of future developments in transport.

Figure 2.2. **Poverty is high in regions with high unemployment rates**



1. Share of population with disposable income below 60% of median household income.
Source: Central Statistical Bureau of Latvia.

StatLink http://dx.doi.org/10.1787/888933583329

Box 2.1. **Transport planning in Latvia**

The National Development Plan (NDP) is supported by the Transport Policy Guidelines (TPG) for a 7 year period, which sets out the objectives of transport planning and expected results, as well as the actions to be taken. In some fields there are also short-term (up to 3 years) planning documents based on the TPG, including a Road Traffic Safety plan and Electromobility plan. Evaluations are systematically undertaken whether policy goals have been achieved in the planned time period. If the goal has not been achieved, analysis determines the reasons for this and contributes to the next iteration of the planning documents.

The "Transport Policy Guidelines 2014-2020" have two main lines of action:

- Developing Latvia as a sustainable transport and logistics service provider;
- Ensuring internal and external accessibility and high quality of opportunities for mobility within the country.

Variable Demand Models allow simulating route choice, mode sharing, and demand responses of an intervention in the network. The setup of a model involves multiple stages, starting with the scoping (to determine type and complexity of the model), data collection, calibration and model validation (Jaspers, 2014). Traffic network models are also necessary in cost benefit analysis for projects over EUR 70 million funded by the European Social Fund.

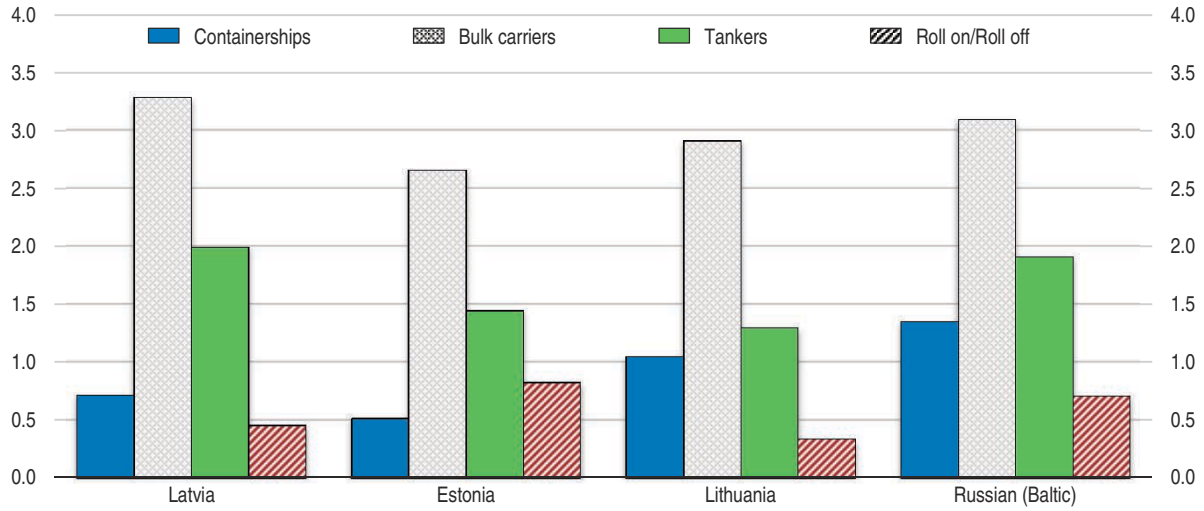
Port and rail infrastructure are well developed and mostly serve Russian transit trade

Ports can have an impact on trade performance. Port costs generally represent a marginal share of the value of the exported goods. But weak efficiency can result in delays and in supply chain disruptions. This could generate important adverse impacts on trade (Loh and Thai, 2015). Latvian ports are competitive. Port performance is only slightly lagging the best performing ports among its competitors. Cargo handling times are in line with those of ports in neighbouring countries. Latvian turnaround times for containerships

and roll on/roll off ships are quick, not only in a Baltic perspective (Figure 2.3) but also in a European perspective. On the other hand, turnaround times for bulk carriers and tankers are slower than in neighbouring countries. Overall, Latvia's scores on World Bank's logistics performance indicators are slightly less favourable than those for Estonia and Lithuania, reflecting its performance with regards to customs and timeliness.

Figure 2.3. **Average ship-turnaround times in days in Latvia are similar to competing ports**

Number of days, 2015



Source: ITF/OECD calculations based on data from Lloyds Marine Intelligence Unit.

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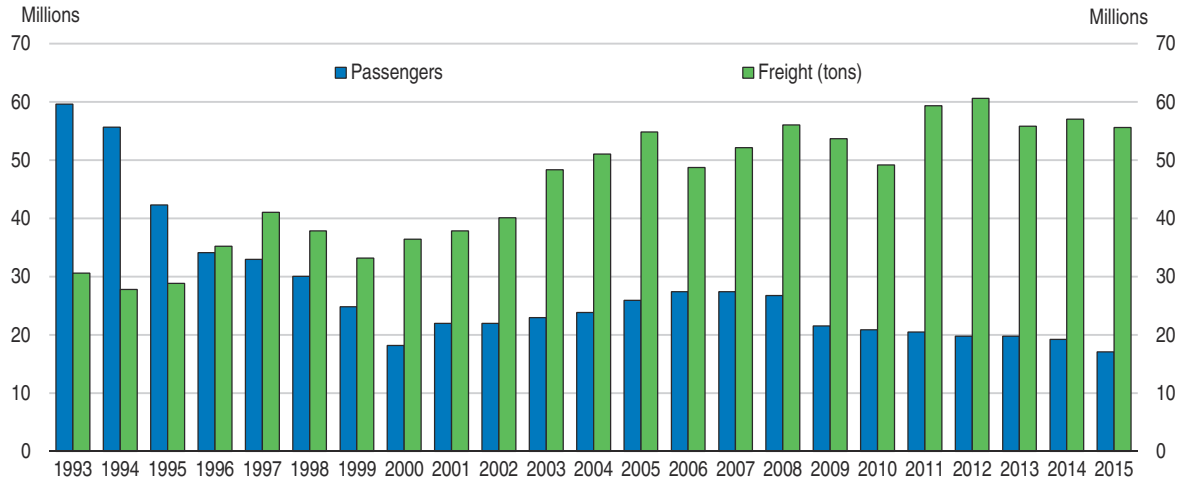
Latvia's rail network spans 2,239 km, the largest in the Baltic States. While not compatible with the EU standard gauge, the broad-gauge network is fully compatible with Russia's railway network, enabling traffic transiting from Russia to Latvian ports without a gauge change. The network is generally not electrified. By 2030, the infrastructure manager plans to electrify its main east-west corridor.

Rail is the most important mode of transport for freight in Latvia, with a market share of over 59%, the largest in the EU. In 2016, 83% of rail freight traffic carried by the country's main rail carrier (LDz Cargo) was transported to one of Latvia's three main ports, Riga, Ventspils and Liepāja. About 74% of total rail cargo is linked to Russian trade, mostly transporting Russian exports westbound towards the Latvian ports. In 2015, of the 56 million tons carried, oil accounted for 21.8 million tons and coal for 19.1 million tons. In recent years, freight traffic has diminished, albeit from historically high levels (Figure 2.4).

Russia has indicated a desire to gradually shift the transit of its exports to its own ports. In addition, Europe is also seeking greater energy diversification and decreased dependence on Russian energy imports, which may place additional downward pressure on demand for transport services. Fossil fuels accounts for around 70 per cent of traffic. If the pace of decarbonisation of the global economy accelerates to achieve the climate mitigation objectives set in the Paris COP 21 agreement, it will reduce demand for fossil fuels, which could in turn impact rail traffic.

The share of passenger traffic carried by rail in Latvia is quite low, around 5% (EC, 2016) and has been slowly declining in the past five years (Figure 2.4). Freight revenues are sufficient to cover infrastructure expenditure. Latvia continues to enjoy some of the lowest

Figure 2.4. **Rail freight transport remains close to historic highs**



Source: Latvijas dzelzceļš (2015), Performance Indicators of LDZ Railway Network.

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rail fares in the EU, on a per-km basis in purchasing parity terms (EC, 2016a). Declining freight volumes caused by loss of Russian transiting traffic could mean that passenger traffic would have to cover a greater part of the infrastructure expenditure of the railways. This would entail a mix of higher public subsidies and higher fares, and a greater need to use the road network to provide alternative bus services, especially in rural areas (see below).

Diversification of rail traffic would encourage better use of infrastructure

Diversification of rail traffic could ensure financial sustainability in the face of significant revenue risk from a reduction in Russian transit trade. Latvia seeks to develop a China-Latvia rail corridor and connect the Northern European markets to Eastern Asia. In addition to diversifying geographically, this would greatly diversify the transported commodity mix and boost eastbound traffic, resulting in better infrastructure utilisation, as Russian transit is mostly westbound, towards the ports. Chinese companies would likely look to make significant investment in the port of Riga to develop their own logistics hub and would look for the Latvian rail network to operate in a highly efficient manner, as has occurred in other European ports.

Another potential area of diversification is through the Rail Baltica project, one of the priorities of the Trans-European Transport Networks. The project aims at creating an EU-standard gauge railway from Poland to Estonia with ferry service to Finland. Construction is expected to span the 2020-30 periods. Rail Baltica would bring new North-South traffic to Latvia. It would provide an opportunity for Latvia to connect to the EU's network, with an EU-compatible gauge. Rail Baltica would be an opportunity to create new traffic flows which could contribute to the diversification of trade links. But it may not have a significant impact in helping maintaining adequate demand on the existing rail infrastructure with a different gauge.

Reflecting uncertainties about future rail demand, one key policy challenge is to strike the right balance between preparing for a downturn in Russian traffic while maintaining an efficient railway network that could attract Chinese and other traffic. Certain investments could generate on-going higher maintenance costs that the rail operator may not be able to

fund in the future. For example, according to the Latvian government, electrification of the network could help make the network more competitive. A cost-benefit analysis carried out to EU standards also showed the project to be worth-while. However, electrification of the network is a significant capital expenditure and can make infrastructure maintenance more expensive. Thus, in light of demand uncertainty, there are some inherent short-term risks to electrification to be balanced against the long term benefits, especially if oil prices were to significantly rise in the future. Similarly, the replacement of part of diesel with hydrogen locomotives, which the government has initiated, may potentially result in high maintenance cost and is not necessarily well suited for the traffic on Latvian railways. Planning of all large investment projects should be based on lifetime costs and benefits.

There is scope to strengthen competition and governance in railway operations

Rail track access charges and port fees in Latvia are lower than those in Baltic neighbours (EC, 2016), helping to attract freight. Latvia's rail freight market is open to competition. It is dominated by the government-owned incumbent operator LDz Cargo, but increasing market share is taken by private railway undertakings. The state-owned infrastructure manager (AS Latvijas dzelzceļš LDZ) is legally and functionally separated from LDz Cargo. JSC "LatRailNet" is a public body which is separate from the infrastructure manager and from the incumbent transport operator. It is in charge of train path allocation and infrastructure user charges, including setting and collecting the charges. However, both the main operator and the infrastructure manager are state owned enterprises. This is common in the EU but is nevertheless not ideal for ensuring non-discriminatory access to other carriers. Domestic passenger services are operated by a government-owned monopoly company, AS Pasažieru vilciens.

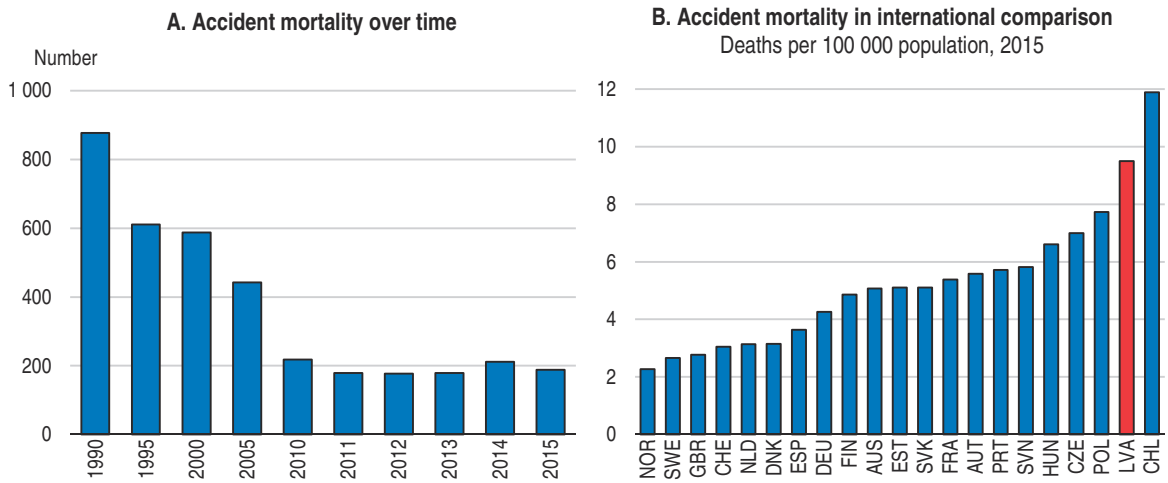
Oversight and arbitration is provided by the State Railways Administration (*Valsts dzelzceļa administrācijai* or VDzA), a national regulator. It supervises allocation of capacity, oversees infrastructure charges and conducts regular consultations with all stakeholders. It also monitors competition and environmental issues. VDzA's independence is weakened by a potential conflict of interest. Remuneration of its director is determined by the Ministry of Transport. The minister has partial discretionary powers in setting the remuneration level. To alleviate any appearance or real conflict of interest, it would be advisable that remuneration of management staff of the State Railways Administration would be fully independent.

Latvia does not apply incentive regulation for the pricing of access to rail networks, such as price-cap regulation, nor to other services subject to monopoly conditions. Introducing incentive regulation would require that the funding and institutional capacity of the State Railways Administration is expanded so that it would become a full economic regulator. Incentives should be a based upon a combination of performance-based and financial metrics to ensure the railway is operated in an efficient and financially sound fashion.

Making Latvia's roads even safer would raise well-being

With 9.4 road deaths per 100 000 population, Latvia still has among the highest road mortality among EU and OECD countries (Figure 2.5, Panel B), although significant progress has been made in reducing mortality since Latvian independence in 1991. Between 2000 and 2011, the number of road deaths decreased by more than 70% (Figure 2.5, Panel A). This reduction is explained by the implementation of road safety plans, and the adoption of

Figure 2.5. **Road accident mortality has fallen significantly but it is still high**



Source: International Transport Forum.

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important measures such as penalty points for traffic offenders, use of speed cameras, systematic auditing of the road infrastructure, road safety campaigns, improved driver licensing requirements, drunk driving enforcement and a progressive renewal of the car fleet. However, since 2011 mortality has stopped falling. Latvia has itself the target to reduce the number of road fatalities by a further 50% by 2020.

A number of important challenges remain to be tackled so that Latvia can reach its target and gradually move towards zero deaths and serious injuries, which is the ambition recommended by the International Transport Forum at the OECD. This would also boost the attractiveness of these areas for living and business. This requires more investment in road infrastructure especially outside built-up areas.

- Increased funds are needed for investment in safer road infrastructure for new roads and for maintenance and upgrading of existing roads especially in rural areas. Compared to other EU countries, Latvia has a much higher rate of road deaths outside built-up areas. Raising the quality of the most densely trafficked roads was a key contributor to improvements in crash rates in some other countries in the EU, such as Spain.
- Separating high speed traffic and pedestrian flows and installing median barriers would provide a safer environment. Motorways are by far the safest part of the road network when properly designed. As of 2015, there was no motorway in Latvia, and all traffic outside built-up areas is supported by simple dual carriageways or even gravel roads. These are used by a mix of road users (e.g. cars, trucks, agricultural vehicles, pedestrians, cyclists). There could also be an economic case for investments in motorway sections on the busiest road links if traffic levels are high enough.
- Pedestrians are particularly vulnerable in road traffic and represented one third of all fatalities in 2014. Reducing speed and developing pedestrian-friendly infrastructure in urban areas, in particular around public transport stops, schools and shopping and residential areas could bring important benefits in terms of road safety and also in terms of a better quality of life. The provision of safe pedestrian paths along the road outside built-up areas is also important.

- Traditional road safety measures focusing on seatbelt wearing, speed compliance and no drinking and driving still have huge potential to save lives. Latvia has a solid regulatory framework but more could be achieved. As an example, in 2012, it is estimated that only 40% of car passengers in back seats wore a seatbelt (European Commission, 2015), so better information campaigns could help improve road safety.

Transport policies to provide mobility solutions for low density areas

Low demand makes it difficult to sustain adequate public transport services outside of urban areas. However, improving public transit could improve mobility options for rural Latvians and make it easier for them to access employment opportunities and make rural areas more attractive for expanding business activity. The high number of passengers travelling on a special fare could indicate that many Latvians have limited mobility options, such as students or pensioners. Overall, when including rural and urban areas, cars accounts for about 80% of inland passenger traffic in Latvia, compared to about 15% for buses and 5% for rail. Bus and rail services sustain high costs due to serving sparsely populated areas with a population that is growing older with more limited mobility. These issues are not unique to Latvia. In Finland, for example accessibility in rural areas is a key transport policy challenge as services have been reduced and yet costs have increased by about 10% per year.

The Ministry of Transport of Latvia has initiated a new transport on demand concept of public transport services in low populated areas. This concept foresees that parts of current public transport routes will be covered upon demand in real time from passengers. This is welcome, as new mobility models may offer opportunities to provide services at a low cost to the government and better suited to individual needs. Demand-responsive bus services have shown promising results in Norway. This has been achieved by providing door-to-door services at the user's desired time rather than with a fixed route and timetable (Dotterud Leren and Skollerud, 2015). These services have improved wellbeing, particularly among the young and the old, and improved access to health services. Public transit in rural areas would also benefit from common policies on route planning, pricing and tickets across providers and municipalities to provide a more seamless experience for customers.

Car-sharing and ride-sharing services can be suited to some rural markets, for instance, extending services in cities to the outer suburbs (ITF, 2015). In several OECD countries transport network companies are discussing the potential for providing services in lower income and more thinly populated areas with some government support. Ride-sharing services are providing an increasing share of mobility for longer distance travel between towns in France and a number of other countries. On the other hand, car-sharing and ride-sharing can have negative effects because of illegal passenger carriage, tax evasion, rapid growth of deficit or cancellation of public transport subsidies. The whole system of passenger transport by road should be regarded as a single market and steps towards liberalization of different types of passenger transport services should be considered.

In a number of countries local governments have brokered agreements between different government departments and bus operators to provide various collective transport services (e.g. school bus, postal, ambulance services) jointly, funded across the budgets of the relevant agencies. Such approaches have enjoyed some success in Japan (ITF, 2015). In Japan these arrangements have been complemented in a number of cases by agreements with local community representatives to guarantee a critical minimum number of passengers.

Taxis can also play a role in public transit in rural areas and there may be scope to stimulate the supply of taxis by removing barriers to entry such as restrictive licencing

systems, as was done in New Zealand (1989), Sweden (1990) or Ireland (2000); (OECD, 2007). In all three cases, removing barriers to entry led to an immediate and significant increase in the number of taxis.

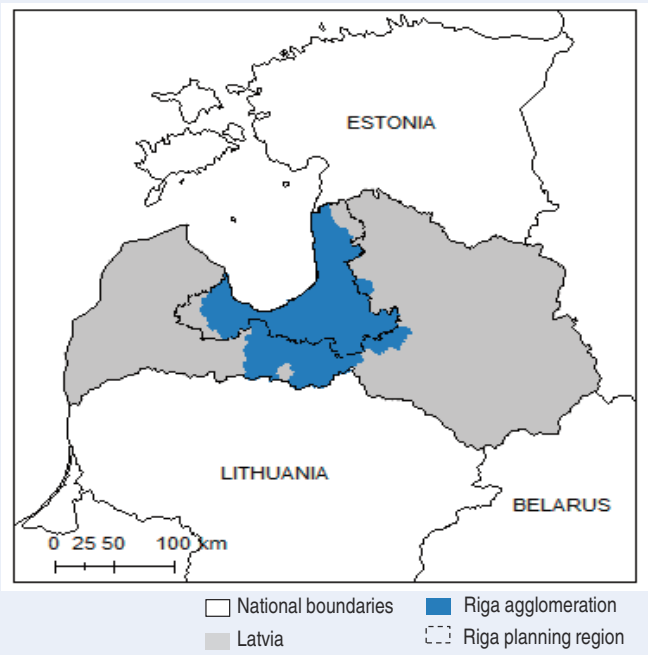
Making the most of the Riga metropolitan area

Located at the centre of the Baltic States, Latvia's capital city Riga and its surrounding municipalities are a strategically important logistic centre with access to markets in Europe and Russia. It is the largest city in the Baltic States and the third largest in the Region of the Baltic Sea behind Saint Petersburg and Stockholm. The city and its surrounding municipalities are home to more than half of the Latvian population. The area also contributes about 69% to national GDP and is therefore a main driver of Latvia's economy (Box 2.2, Table 2.1)

Box 2.2. **Defining the metropolitan area of Riga**

In general the OECD classifies urban areas based on functional integration rather than administrative boundaries to enable a consistent analysis of urban dynamics, growth patterns and economic connections. The definition of functional urban areas, which was developed with the European Commission, is based on population density grids and commuting data (see OECD, 2012 for details). In Latvia, relevant data to identify a functional urban area for Riga is not available. Therefore, analysis in this chapter is based on the combined statistical regions of Riga and Pieriga. This region, which is also the Riga Planning Region, does however not fully overlap with the Riga Agglomeration, an area that is defined by Regional Policy guidelines adopted by the cabinet of Ministers in 2013 (Figure 2.6).

Figure 2.6. **Latvia and delimitations of the Riga metropolitan area**



Source: OECD (2012), "Redefining "Urban": A New Way to Measure Metropolitan Areas", Eurostat (2016), *Regional Statistics by NUTS 3 classification* (database), Central Statistical Bureau of Latvia, and RDIM (2016), Regional development indicators (*www.raim.gov.lv*).

Box 2.2. **Defining the metropolitan area of Riga** *(cont.)*

Table 2.1. **Snapshot of the Riga area**

	Metropolitan area of Riga (Riga Planning Region)	Latvia	% of national value
Area (square km)	10 439	64 573	16
Municipalities (number)	30	119	15
Population 2016	1 005 977	1 968 957	51
GDP in 2013 (million EUR, Eurostat)	15 579	22 805	69
GDP per capita 2013 (EUR, Eurostat)	15 370	11 300	
Average monthly gross salary 2015 (EUR, CBS)	892	818	
Average monthly net salary 2015 (EUR)	656	603	

Source: OECD (2012), "Redefining "Urban": A New Way to Measure Metropolitan Areas", Eurostat (2016), *Regional Statistics by NUTS 3 classification* (database), Central Statistical Bureau of Latvia, and RDIM (2016), Regional development indicators (*www.raim.gov.lv*).

Despite its location and size, Riga's international competitiveness is lagging behind equivalent cities in the Baltic Sea region. For example, GDP per capita is on average about 70% of that in other capital cities (VASAB, 2016). The metropolitan area of Riga has to provide an environment that stimulates its economic activity and innovation, in combination with highly accessible services in order to be competitive within the Baltic Sea Region and on a global scale. Urban policies that improve economic performance can also raise the quality of life more generally for a large share of Latvia's population, and, as argued below, retain young and qualified people who have emigrated in large numbers in recent years.

The metropolitan area of Riga is a key driver of GDP growth and employment opportunities

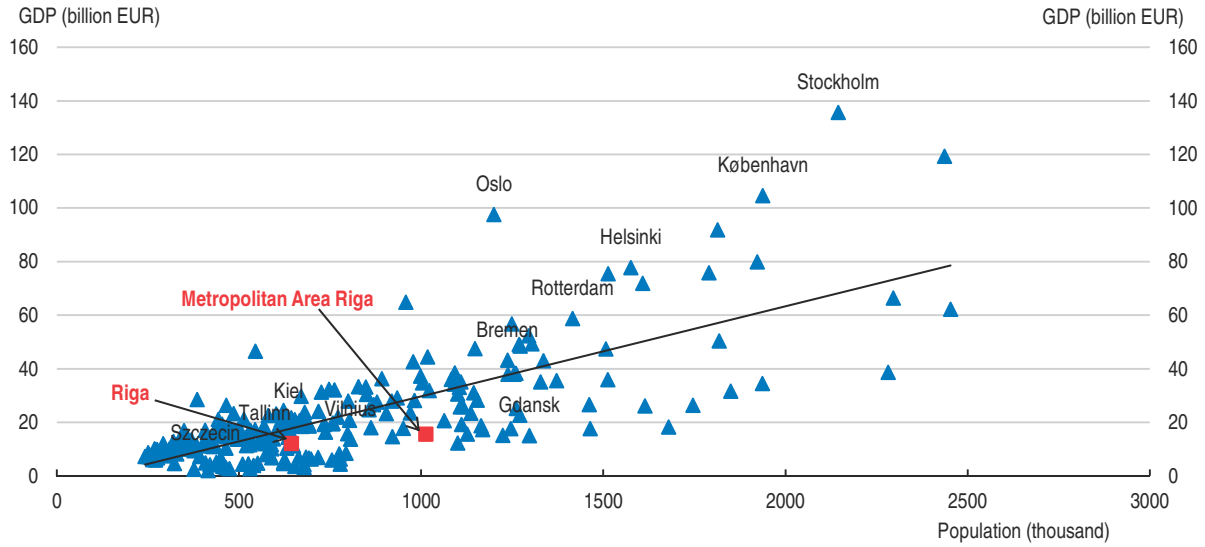
From 2010, at the trough of the recession, to 2013 GDP grew by 16% in the metropolitan area of Riga, somewhat stronger than in Latvia as a whole. GDP per capita is almost three times higher than in the economically weakest region of Latgale. Between 2010 and 2015 the unemployment rate in Riga City and the nearby Pieriga region declined much more than in the country as a whole and, in particular, the Eastern rural region of Latgale (Figure 2.2 above). The metropolitan area accounts for 59% of national employment and close to 75% of vacancies.

Its role as a regional transport center notwithstanding, the level of GDP is still lower than most similar-sized metropolitan areas across Europe (Figure 2.7). Since 2010, the metropolitan Area of Riga performed less well in terms of GDP growth than peer capital cities in Estonia and Lithuania (Eurostat, 2016b, 2016c). Therefore, there is scope for the metropolitan area of Riga to increase its economic performance to become competitive with its peers in neighbouring countries and at a wider international scale.

The Riga metropolitan area can foster sectoral clusters by providing potential agglomeration benefits through shared infrastructure and by facilitating knowledge spill-overs. Latvia's high-skilled and high-value added activities are predominately concentrated in Riga and its surroundings. In 2011, 35% of the 25-65 year olds in Pieriga and Riga had tertiary education. Economic sectors characterised by high or rising productivity,

Figure 2.7. **GDP of the Riga metropolitan area is lower than in most similar-sized European metropolitan areas**

2013



Note: Riga refers to the city of Riga, whereas the Metropolitan Area Riga refers to the combined NUTS 3 regions of Riga and Pieriga. The chart only includes metropolitan areas with a population of 0.2-2.5 million.

Source: Eurostat (2016), *Regional statistics by typology* (database), and OECD calculations based on Eurostat (2016), *Regional statistics by NUTS classifications*(database).

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such as information and communication technology (ICT), are concentrated in the Riga metropolitan area. More than 80% of Latvian enterprises in the ICT sector are located in Riga, and Riga has benefited from strong business growth in this sector. The same pattern can be observed for professional, scientific and technical activities where three out of four enterprises in this sector are located in Riga, according to data from the Central Statistical Office. The Riga metropolitan area contributes more than 90% to national gross value added in these sectors.

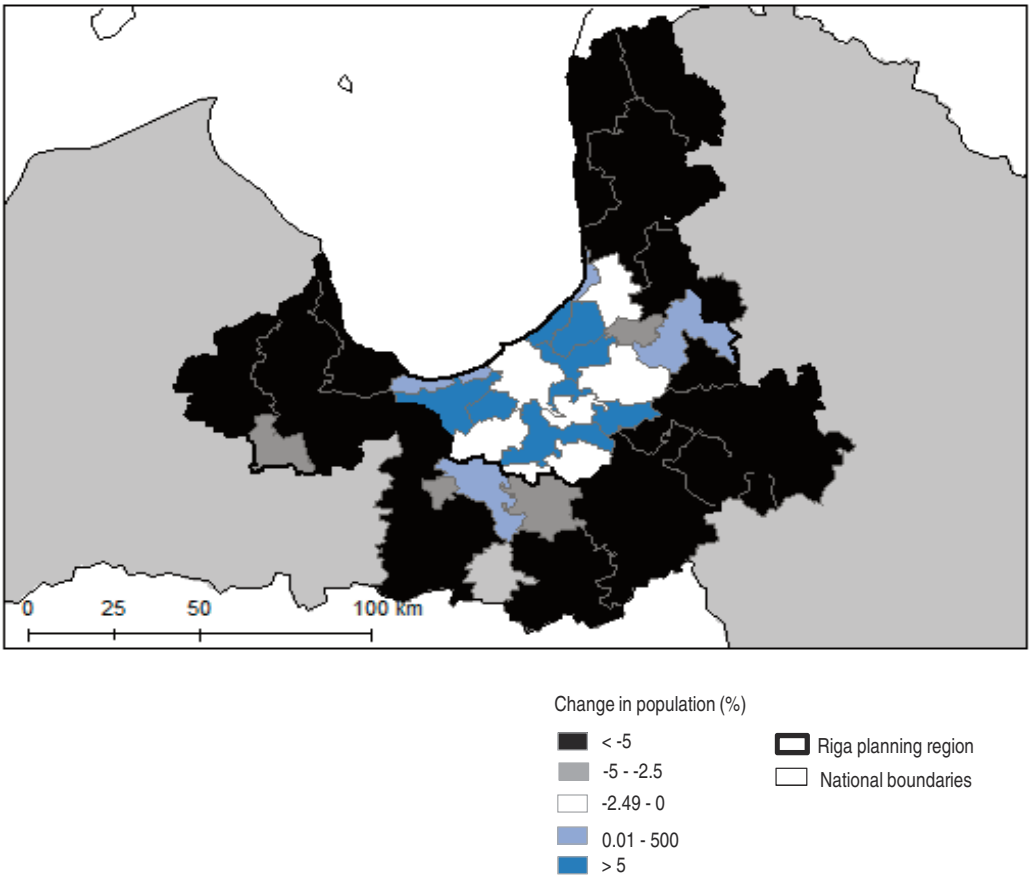
Employment in the trade, transportation, storage, information and communication, as well as financial, insurance, professional and scientific sector is well above the Latvian average. These are also the sectors that experienced most employment growth since 2010. For example, between 2010-13 employment in Riga City alone in the professional, scientific and technical sector grew by about 75% and in the Information and Communication sector by about 10%.

The Riga metropolitan area has attracted population but urban sprawl needs to be addressed

Since 2010, Latvia's population declined by 6%, whereas the population decline was only 3.6% in the metropolitan area of Riga. Being the economic centre of Latvia, in combination with hosting 46 universities and colleges, it has the potential to retain and attract high-skilled young people (Riga City Council, 2016). Indeed, the metropolitan area concentrates the prime-age working population aged 30-45 and young children. This suggests that the area has a key role to play for retaining young adults and families in Latvia. However, the city of Riga has lost inhabitants mostly to its surrounding municipalities in the Pieriga region (Central Statistical Office of Latvia, 2015a) (Figure 2.8).

Figure 2.8. **Population has declined in many municipalities but has grown in municipalities surrounding Riga**

Population growth, 2010-15



Note: Only municipalities that are part of the Riga planning region or the Riga agglomeration are depicted.
Source: OECD calculations based on RDIM (2016), Regional development indicators (*www.raim.gov.lv*).

Suburbanisation is driven by low density developments in municipalities that are in commuting distance to Riga City. Results from the census 2011 suggest that the share of single detached houses is significantly higher and the housing stock is newer outside the city (Central Statistical Office of Latvia, 2015a). The trend towards low density development in suburban areas is continuing, as reflected in granted building permits (Central Statistical Office of Latvia, 2016a).

Suburbanisation can give rise to socio-economic, transport, infrastructure and environmental concerns. Suburbanisation in the metropolitan area of Riga is driven by middle to high income households, contributing to a concentration of households with similar socio-economic status in neigbourhoods (residential segregation). Residential segregation can result in unequal access to quality education primarily because a large share of students tends to go to schools in their own neighbourhood. For example, in the United States, persistent residential segregation was found to have a large negative impact on intergenerational mobility of earnings and University attendance (Chetty and Hendren, 2016; Chetty et al., 2016). Residential segregation in Riga is still lower than in other European capital cities but it has been increasing since 2001 (Tammaru et al., 2015).

Inhabitants in the newly developed areas rely on work opportunities within Riga City. Suburbanisation therefore increasingly results in congested roads and environmental pollution. For instance, between 2000 and 2010 the number of private vehicles in Riga increased by 60%, whereas the flow of incoming vehicles from surrounding areas of Riga doubled. According to the 2015 Quality of Life survey, about 67% of respondents stated that they were satisfied with the public transport in Riga City, which is a decline by 14 percentage points since 2012. Only 38% of the respondents indicated that they use public transport modes on a daily basis (European Commission, 2016a). About 15% of the population of Riga City has no easy access to public transport, and have to walk more than 5 minutes to the next bus or tram stop or 10 minutes to the closest metro stop (European Commission, 2016b; 2015). In surrounding municipalities of Riga, the share can be much higher. As a consequence, the Sustainable Development Strategy of Latvia until 2030 highlights the need for co-ordinated planning of transport infrastructure, public transport and urban development. Better co-ordination of public transport can improve provision, as argued below.

Competition between municipalities for high-income residents discourages inclusive development

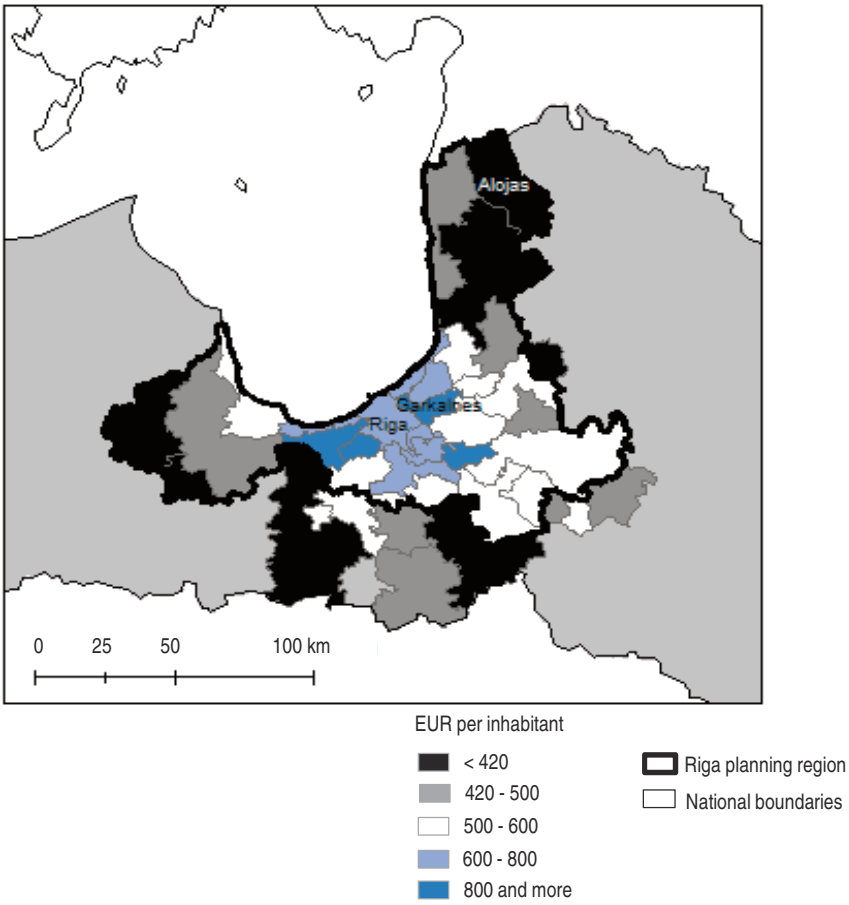
Municipalities play a large role in determining the supply and location of housing through zoning and land-use policies. Latvia's fiscal framework incentivises municipalities to follow a strategy that maximises their revenues by individually adjusting their spatial planning. This is because high income households generate more local tax revenues. While there is redistribution of tax revenue across municipalities, it only offsets a small part of the revenue differences as the equalisation formula only takes into account the age composition of the population. In Latvia on average about 50% of municipalities' revenue stem from personal income taxation and 10% from tax on real estate property. In the metropolitan Area of Riga, tax revenues from income and real estate are more important with 60% and 12% respectively (see RDIM, 2016). In 2015, municipal personal income tax revenues per inhabitant ranged from EUR 1 073 in the Garkalnes, a municipality neighbouring Riga, to EUR 319 in Alojas which is located at the northern fringe of the metropolitan area (Figure 2.9). In Riga City the personal income tax per inhabitant amounted to about EUR 663. A similar pattern applies to municipal real estate tax revenue (RDIM, 2016).

Competition between municipalities for middle and high income tax residents has resulted in urban sprawl and uncoordinated real estate developments that hamper inclusive development within the metropolitan area. Municipalities surrounding Riga City transform agricultural and greenfield sites into developable land allowing for the construction of single detached family housing. Municipalities have no incentives to provide amenities that might attract lower income households, such as social housing. OECD work on fiscal equalisation highlights the importance of taking differences in tax-raising capacity and spending needs into account in order to support inclusive development (Box 2.3, OECD, 2013a).

Municipalities that follow a strategy of revenue maximisation in isolation may hinder increasing the overall competitiveness of the metropolitan area. Possible consequences are not only increasing inequality, but also inefficiency in providing infrastructure and key social services in low density developments as the needed critical mass is lacking. In some parts of the metropolitan area of Riga, the organisation of public services has proven to be inefficient as a result of population movement to suburban areas, including water supply and water treatment equipment, waste management services, provision of fire brigades

Figure 2.9. **Income tax revenues per inhabitant vary strongly**

2015



Note: Only municipalities that are part of the Riga planning region or the Riga agglomeration are depicted.
Source: OECD calculations based on RDIM (2016), Regional development indicators (*www.raim.gov.lv*).

Box 2.3. **General principles for fiscal equalisation across OECD**

Reforms of equalisation should reduce inequality while ensuring that economic growth in the more productive regions is not held back and that jurisdictions' development incentives are not undermined. While the design of equalisation is country-specific, it is possible to state a few general principles on the reform of equalisation.

- Equalisation should rely on only a few core indicators that reflect inter-jurisdictional differences in tax-raising capacity and/or spending needs. These indicators should be immune to any manipulation by sub-national governments in order to pre-empt any unfair allocations to jurisdictions or spending excesses by either sub-national governments or central government.
- The institutional set-up should help underpin the efficiency of equalisation while keeping equity objectives intact. In all countries, disparities in revenue-raising capacity across jurisdictions are much greater than those in service cost. They should therefore be the first priority of equalisation. The size of a jurisdiction should not enter the equalisation formula, the possible exception being large agglomerations where living costs are high.

Box 2.3. **General principles for fiscal equalisation across OECD** *(cont.)*

- In order to improve transparency, equalisation should be clearly separated from tax sharing and other intergovernmental grants whose purpose is not redistribution. Equalisation should, ideally, be a single transfer that offsets differences in tax-raising capacity and/or one or more transfers that meet differences in spending needs in the main policy areas devolved to sub-national governments – such as education and infrastructure. Donors and recipients should be clearly visible.
- The impact of equalisation should be regularly monitored. Periodical reviews of the system should assess to what extent equalisation helps reduce inter-jurisdictional inequality and how it affects the efficiency of the public sector, development incentives, overall spending and tax levels. Equalisation should, in particular, come under scrutiny to ascertain whether it provides insurance against asymmetric shocks. If it does not, equalisation and stabilisation should be addressed by two separate transfer systems.

Source: OECD (2015a), based on OECD (OECD, 2013a).

and placements of schools and kindergartens. In Riga City for example, the depopulation poses several challenges to efficient infrastructure provision, maintenance and sustainable development. Moreover, commuters from surrounding municipalities increase the pressure on the urban infrastructure while paying their tax at their home municipality.

Integrated planning and co-operation across levels of government can improve quality of life

Transport and spatial planning policies should be well co-ordinated as they are highly complementary. In order to provide an effective public transport infrastructure, a critical mass of population density needs to be served. More compact cities have substantially lower per capita emissions of CO_2 from ground transport and of local pollutants which are harmful to human health (OECD, 2015a).

Transport-oriented development with mixed land use combined with the provision of affordable housing support green and inclusive growth (OECD, 2017a, 2015b). Planning should take into account the land needed for future transport infrastructure from the beginning. This can ultimately reduce the costs of investment substantially, as experience across OECD countries shows (OECD, 2017a, 2015b). In contrast, when cities have already developed a spatial urban structure that is incompatible with transit, it is costly to adjust the spatial patterns (see e.g. OECD, 2017a).

Transport planning within Riga and its surroundings is fragmented and does not reflect the metropolitan scale. Co-ordination between municipalities within the metropolitan area is needed to create a high-quality and competitive public transport system. Planning an integrated network, schedules and fares could benefit from co-financing by the central government. Financial transfers have often shown to facilitate co-operation across local jurisdictions (OECD, 2015c). Such a project could not only improve the transport situation, but also stimulate the co-operation between municipalities in the Riga metropolitan area.

Governance mechanisms that match daily mobility patterns of the residents are essential for the development and implementation of effective policies in urban agglomerations. OECD experience shows that good metropolitan governance plays a

critical role in improving economic growth, well-being and environmental outcomes (see e.g. Ahrend et al., 2014; OECD, 2015a). Metropolitan areas that have governance arrangements which facilitate policy co-ordination across sectors and governments are more likely to result in higher labour productivity, and thus durably higher wages and better quality of life. Metropolitan areas without tailor-made governance arrangements have experienced an increase in urban sprawl, whereas those with a metropolitan authority densified. Residents' satisfaction with public transport in metropolitan areas with a dedicated transport authority is 14 percentage points higher and air pollution (as measured by small particle matter, such as $PM_{2.5}$) is significantly lower than in cities without a metropolitan authority.

While the benefits of co-ordination across local governments within the metropolitan area of Riga are receiving increasing attention by Latvian municipalities, no formal governance arrangements covering the entire metropolitan area are yet in place. The Riga Planning Region provides a discussion platform for most municipalities in the area surrounding Riga city, but it does not reflect the daily mobility patterns of the metropolitan area (Box 1.1 above). The "association of local municipalities surrounding Riga city" works on fields that are likely to benefit from co-ordinated approaches, such as traffic infrastructure and organisation, provision of public services in the region, and the improvement of financial equivalisation between municipalities, but the association does not include the city of Riga.

Box 2.4. **Five steps for effective metropolitan governance reform**

While metropolitan governance reforms are based on unique regional characteristics and political frameworks of the respective countries, OECD work has identified some key steps that work as political levers to encourage metropolitan governance reforms.

- **Identify metropolitan projects to motivate collaboration.** A broad awareness of the socio-economic and political issues within the metropolitan region allows the identification of projects of joint interest that can create benefits of metropolitan-wide collaboration. Communication of (realistic) long-term gains as well as the costs of non-collaboration can reduce the resistance to the reform.
- **Build ownership among key stakeholders.** Metropolitan governance reforms need strong advocate(s) as driver of the process. Beyond municipalities, the national government, intermediate levels of government, the private sector, civil society and universities need to be actively engaged in the reform process. Leadership by the national government can be a crucial factor for the success of reforms.
- **Create reliable sources of metropolitan financing.** The reform needs to take into account how the new governance structure can respond to the financial needs of the metropolitan region, and how to match the new governance structure's responsibilities with corresponding financial resources. Securing an appropriate, reliable stream of funding helps to avoid unfunded mandates and facilitates effective collaboration.
- **Provide incentives and compensation for compromises.** Typically, not all municipalities benefit from a reform to the same degree. It is therefore important to identify and manage the expectations of different actors. Co-operation among municipalities works best on a voluntary basis with incentives provided by higher levels of government, but also when a strategy is elaborated for engaging those who feel threatened by the reform and leveraging their buy-in, sometimes by compensating for their anticipated losses.

Box 2.4. **Five steps for effective metropolitan governance reform** *(cont.)*

- **Implement a long-term process for metropolitan monitoring and evaluation.** Metropolitan governance reform is a continuous process and even well-functioning governance structures may need to be adapted as the metropolitan area evolves. Therefore, short, medium and long-term objectives should be identified and monitored with suitable indicators. This allows that possible challenges can be identified and addressed in a timely manner. In addition, solid background research and scrutiny from unbiased experts creates and sustains credibility for the reform by strengthening the evidence base.

Source: Based on OECD (2015c).

Lack of affordable housing hampers inclusive development

Affordable housing in neighbourhoods which are well-connected to employment opportunities is an important driver for inclusive development and labour mobility. Population trends are unequal within the country, resulting in markedly stronger demand and higher prices for housing in economically dynamic areas with good employment opportunities. This is especially true in Riga, where land is relatively scarce, pushing up prices, while unemployment is low and high-productivity sectors are expanding, offering good employment opportunities, especially for young people.

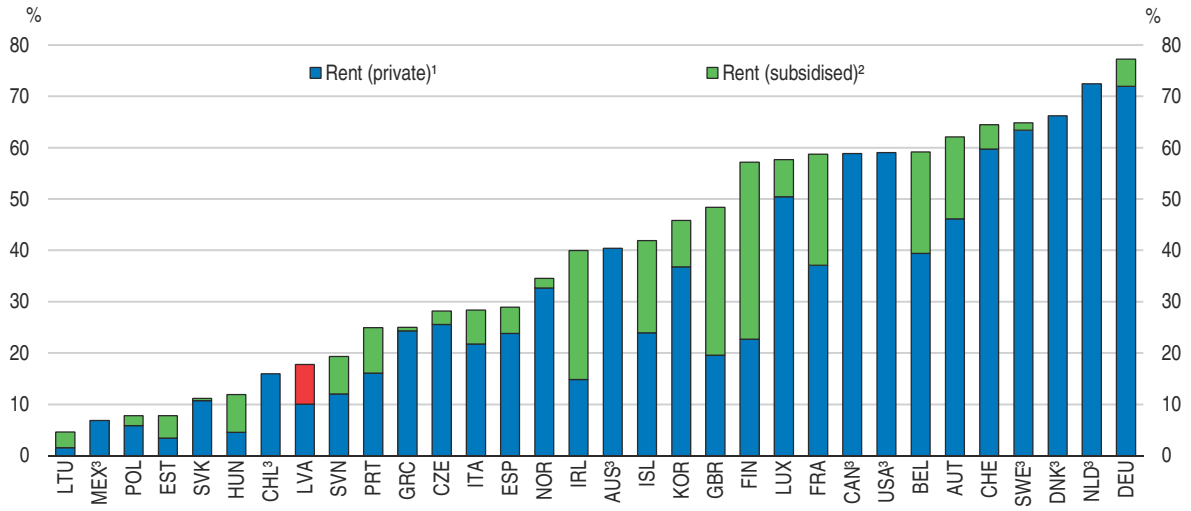
Housing policies need to support the provision of affordable quality housing with good connections to areas where jobs and education are located. According to the 2015 Eurobarometer survey (European Commission, 2016a), the share of respondents who found it difficult to access quality housing at a reasonable cost was 61% in Riga City, which is considerably higher than in neighbouring capital cities of Lithuania (about 47%) and Estonia (36%). It is welcome that the authorities are planning to shorten the time it takes to obtain a building permit. This will make housing supply more responsive to demand and could encourage developers to supply more housing. Such steps have proven to encourage labour mobility, and thereby macroeconomic performance (see e.g. OECD, 2015d).

The development of the private rented housing sector can support the provision of affordable housing, especially for households that do not have the financial means to purchase a home. The rental market is underdeveloped in Latvia: 13% of households live in rented dwellings compared to about 24% on average across OECD countries (OECD Affordable Housing Database). This limits access to affordable housing and reduces mobility, especially for low-income households (Figure 2.10).

During the economic transition, the mass privatisation of the housing stock below market prices resulted in high ownership rates among the low-income population. Among the Latvian population at risk of poverty, about 70% live in owner-occupied homes. The majority has no outstanding mortgage or loan. Outright home-owners have lower mobility than home-owners with a mortgage as they have fewer incentives to accept jobs that require moving residence to meet mortgage payments (Andrews et al., 2011). More importantly, a low-income person in an area with few job opportunities might face high opportunity costs to move to areas with better economic opportunities if there is a lack of affordable housing for rent and if the cost for a new house is higher than the value of their home, ultimately resulting in the person being "locked in" (see Glocker and Plouin, 2016 for a literature overview). Different housing demand and house price trends across regions in Latvia are likely to have reduced labour mobility, as home owners from high-

Figure 2.10. **Few low-income households rent their homes**

Share of rental housing, low-income households, 2014 or latest year



1. Share of households renting their dwelling at market prices on the private rental market.
2. Share of households renting their dwelling at reduced market prices.
3. Data on tenants renting at private rental market prices include tenants renting at reduced prices for Australia, Canada, Chile, Denmark, Mexico, the Netherlands and the United States. For Sweden, data on tenants renting at reduced prices are not capturing the full extent of coverage due to data limitations.

Note: Low-income households with income in the bottom quintile of the net income distribution. For Chile, Mexico, Korea and the United States, gross income is used due to data limitations.

Source: OECD (2016), *OECD Affordable Housing Database*, Table HM1.3.3, December *(www.oecd.org/social/affordable-housing-database.htm)*.

StatLink *http://dx.doi.org/10.1787/888933582911*

unemployment areas are likely to find it difficult to afford buying housing in areas with good employment opportunities.

The government has introduced a mobility allowance for unemployed workers who take up a job at a distant location to help cover their commuting and moving costs. However, the allowance is available for a short period of time and is not available in Riga, where most jobs are located. Providing workers with subsidies to cover the costs of relocating can be a cost-effective way to enhance labour mobility. For instance, in Germany workers participating in a relocation subsidy programme are matched with higher paying and more stable jobs than non-participants (OECD, 2017b).

Low legal certainty appears to hold back the rental market. It appears to be difficult to conclude rental contracts such that the landlord and the tenant are confident that it complies with the law (Kolomijceva, 2016; Hussar, 2016). Uncertainty may be reinforced by long court procedures. Most take more than 6 months (Kolomijceva, 2016). This may deter some owners to offer housing for rent, as they may not receive any rent payment for some time. Indeed, court decisions are always required, for example, to evict a tenant who does not pay rent. The government is therefore considering developing out-of-court procedures. By law, decisions to evict low-income tenants can only be implemented if social housing is available for them. This rule prevents social hardship, in view of widespread poverty and low social assistance entitlements. However, the supply of social housing is low, and waiting lists are long. To avoid tax payment, landlords appear to offer housing for rent informally, without contract (Hussar, 2016), which leaves landlord and tenant without legal guarantees. Fostering long-term lease contracts could also increase reliability of contracts for tenants and so make rented housing more attractive for them (Hussar, 2016).

Boosting public support to improve access to affordable quality housing

Government support in Latvia for low-income households to improve access to quality housing include rental allowances and direct provision of subsidised housing but they only cover a small share of the low and middle income population. Housing policies are mostly designed at the national level and implemented at the local level. National legislation requires that individuals with monthly income below EUR 128.06 in 2016 for three consecutive months ("needy person") are entitled to municipal housing support, although local governments can define higher income ceilings. An eligible person can only apply for assistance in the municipality where she resides. To apply for social housing in a different municipality, they have to move there first. However housing may be more expensive in municipalities with better employment opportunities. Low-income households may therefore not move. A nation-wide register that allows eligible persons to apply for housing assistance where they expect better job opportunities could help support residential mobility. Applying the same criteria for applying to social housing nationwide has been found to support mobility (Andrews et al., 2011).

In the near term, direct provision of social housing is the most effective way in which the governments can improve access to low-cost housing. Policies that provide housing support through rent allowances can complement direct provision of social housing (Salvi del Pero et al., 2016). However, for as long as the rented housing market does not function well, rent allowances may not be effective in boosting access to low-cost housing. Once the private rental market works well, supported by effective contract enforcement, portable rent allowances can be more effective in boosting worker mobility, as they avoid the problem of waiting lists for social housing.

The availability of social housing in the metropolitan area of Riga, as in Latvia as a whole, is scant. In 2015, there were about 109 social houses in Latvia with a total amount of 3 413 apartments. Local governments also let 51 924 further apartments at higher rental prices. Apartments in social housing account for less than 1% of total dwellings in Latvia and apartments owned or leased by the local government about 5% of all dwellings according to data from the Central Statistical Office. Waiting lists for these apartments tend to be long, especially in high demand areas as the Riga metropolitan area. To ensure that places in social housing are allocated to the targeted population, incomes should be verified not only at the time of application, but also in regular time intervals following the rental agreement. When households move to high income levels appropriate action needs to be taken, such as asking households to pay market rents (Andrews et al., 2011). Several OECD countries, for example Sweden, have successfully expanded affordable housing by requiring private developers to allocate a proportion of the dwellings as affordable units (Salvi del Pero et al., 2016).

Latvia also supports home ownership by providing a loan guarantee for first time buyers for loans up to EUR 200 000, which is not means-tested. Subsidies that support home-ownership might ultimately have a regressive effect, as they do not benefit the poorest of the population, who have no access to housing loans. Housing costs for this population group are even likely to rise, as the policy could increase house prices (Andrews et al., 2011). In addition, such policies often encourage urban sprawl and residential segregation and raise infrastructure development costs for municipalities (OECD, 2016b). The loan guarantee also creates incentives for households to take on additional financial risks and pass them on to the government. It would be preferable to target housing support to low-income households and avoid encouraging home ownership over rented housing.

Policies to improve health outcomes and reduce health inequalities

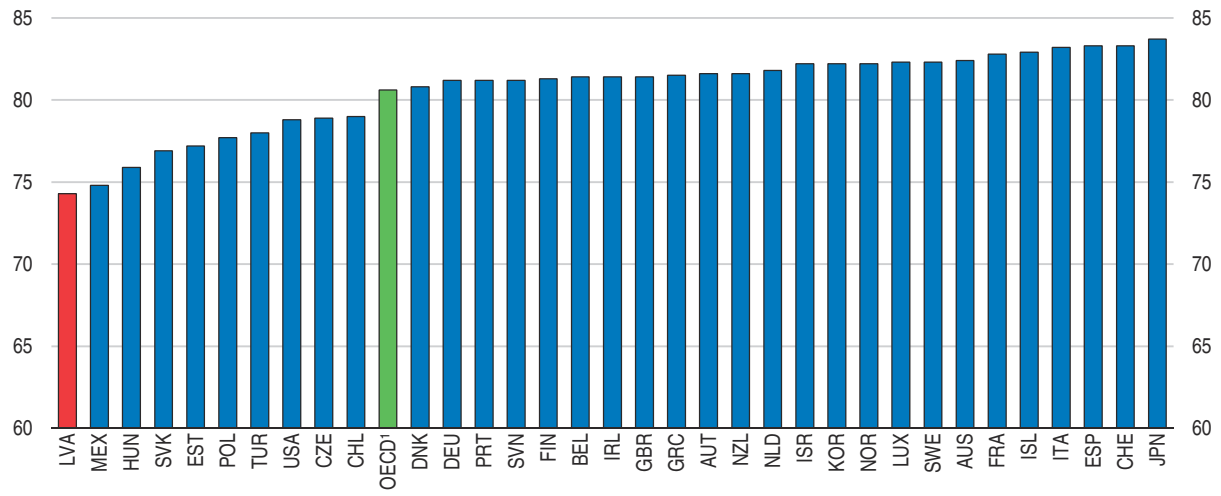
The health status of the Latvian population lags behind other OECD countries, which is mainly the result of high mortality rates from cardiovascular diseases due to worsening risk factors. Health inequalities across socio-economic groups are also source of great concern, having adverse impacts on well-being, labour force participation and economic activity.

Health outcomes of the population are relatively poor and unequal

Although people in Latvia have enjoyed fairly substantial gains in life expectancy over the past decade, life expectancy remains the shortest among OECD countries (Figure 2.11). In 2014, life expectancy at birth of the Latvian population was 74.5 years, more than 6 years lower than the average among OECD countries (80.6 years). Life expectancy at birth for women reached 79.4 in 2014, compared to 69.1 for men, a gap of 10.3 years. The gender gap in life expectancy is substantially larger than in other OECD countries, more than twice as large as the OECD average.

Figure 2.11. **Life expectancy at birth in Latvia is low**

Number of years, 2014



1. Unweighted average of the data shown.

Source: OECD (2017), *OECD Health Statistics* (database).

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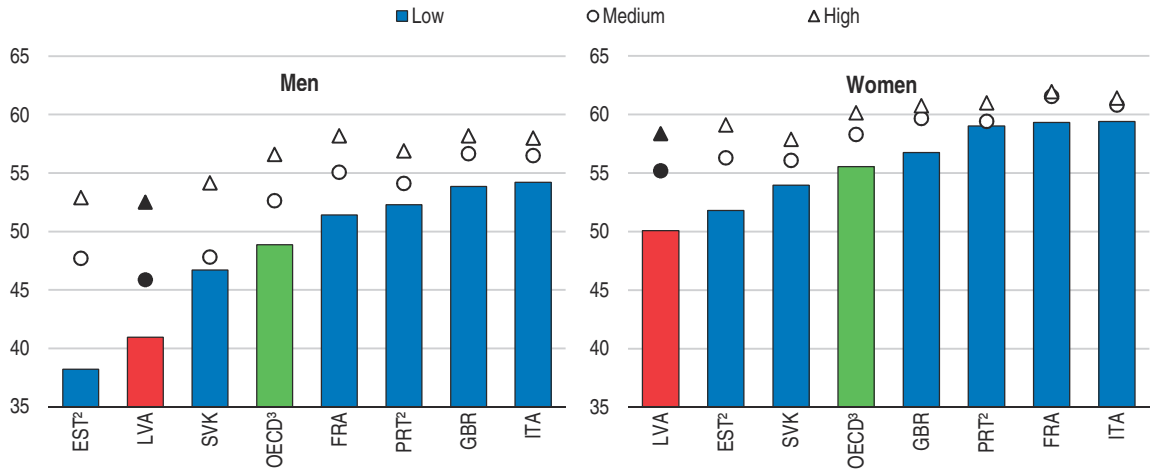
The relatively poor health in Latvia compared to other OECD countries is mainly the result of higher mortality rates from several leading causes of death, notably cardiovascular diseases, cancers, as well as accidents and injuries. In 2013, more than 16 000 people died from cardiovascular diseases in Latvia (including heart attacks, strokes and other circulatory diseases), accounting for 57% of all deaths. The second leading cause of death in Latvia is cancer, with more than 6 000 people dying from various types of cancer in 2013, representing 21% of all deaths. Death rates from cervical cancer among women and prostate cancer among men are particularly high compared to other OECD countries (OECD, 2016a).

Health inequalities are important and reflect a combination of health, social and economic conditions. The poor, less educated and unemployed are more likely to be in worse health or die prematurely than those in more favourable socioeconomic circumstances. The

gap in life expectancy between Latvia and other OECD countries is relatively small for the highly educated, while it is much larger for the low-educated (Figure 2.12).

Figure 2.12. **The difference in life expectancy between Latvians with high and low educational attainment is large**

25 year-olds, around 2011



1. Low education refers to below upper secondary education including no schooling. Medium education refers to upper secondary and post-secondary non tertiary education. High education refers to tertiary education.
2. OECD calculations for the Slovak Republic. Eurostat data for Estonia and Portugal. They may not be comparable with OECD data.
3. Unweighted average of available OECD countries.

Source: Murtin, F. et al. (2017), "Inequalities in longevity by education in OECD countries: Insights from new OECD estimates", *OECD Statistics Working Papers*, No. 2017/02 and Eurostat

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Large inequalities in health warrant particular attention in Latvia. Health outcomes are an important determinant of individual well-being and labour force participation. Moreover, healthy adults are more productive at work, spend fewer days on sick leave and are less likely to be unemployed, with benefits for the whole society. In Latvia, according to Ministry of Health data, it is estimated that around 67 400 persons (7% of the labour force) were out of work in 2015 due to illness, injury or disability. Given the strong interdependence between health, poverty, employment, education and living conditions, health inequalities are best addressed with co-ordinated policy interventions which reduce poverty, boost employment and living conditions. Better co-ordination across authorities responsible for housing, education, income, social protection and health would help address the social determinants of health inequalities (James, Devaux and Sassi, forthcoming; EU Consortium for Action on the Socioeconomic Determinants of Health, 2008).

The prevalence of many risk factors to health is high and worsening

The relatively poor health status of the population in Latvia is linked to a number of health determinants, including living and working conditions as well as behavioural risk factors. Obesity and alcohol consumption are on the rise, while tobacco consumption is still well above the OECD average.

More than one in five Latvian adults were obese in 2014, an increase from one in six in 2008, the fourth highest rate among OECD countries. Latvian adults on average consumed 10.4 liters of alcohol per capita in 2014, an increase from 7.1 in 2000, which contrasts to a

decreasing trend in OECD countries. The smoking rate in Latvia is 24.6%, 1.3 times higher than the OECD average. On the positive side, the share of Latvian adults reporting smoking every day has decreased substantially since 2000.

Latvia has already taken steps to encourage health promotion and prevention such as promoting healthy food and active life styles and more recently with the introduction of the action plan for the reduction of alcohol consumption. In 2016, Latvia also introduced the new law on tobacco and several smoking restrictions were implemented. While these initiatives are steps in the right direction, greater prevention efforts should be embedded in Latvian primary care (see below).

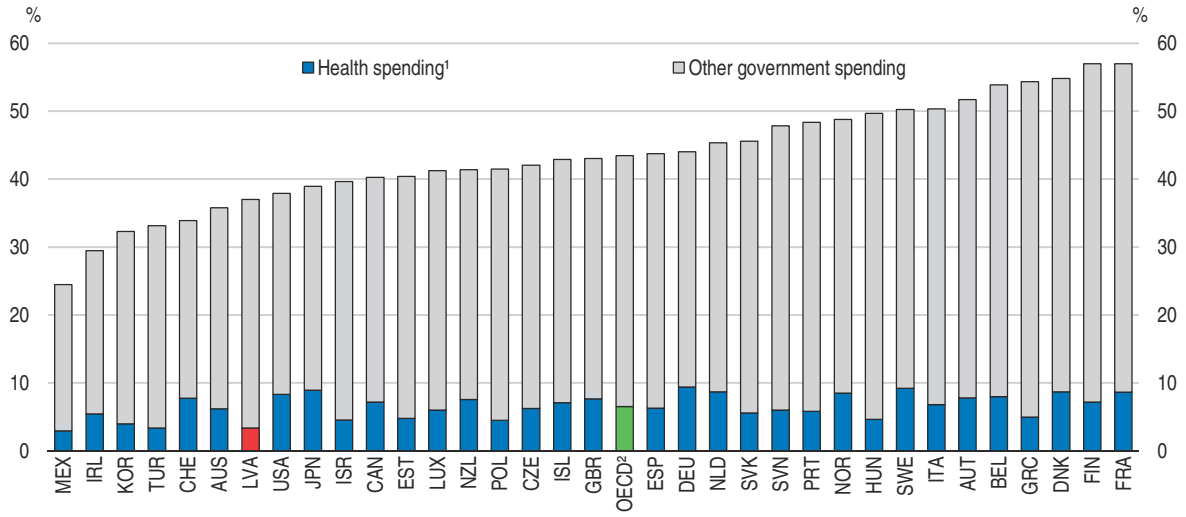
Improving access to care, notably for low income and rural populations

The National Health Service (NHS) in Latvia, financed through general taxation, is the single purchaser of all publically funded personal health services. It provides universal coverage to the entire population. The publicly-funded benefit package is relatively limited and the Latvian population is not well protected from the cost of poor health. The uneven distribution of health services through the country is also a source of geographical barriers to care.

The Latvian health system is under-resourced. In 2015, Latvia spent USD PPP 1 370 per capita per year, a third of OECD average spending. Latvia's public expenditure on health is very low, at 3.3% of GDP in 2014. In neighbourhood countries with a similar income level (such as Estonia and Lithuania), the level of public spending on health is nearly 1 percentage point of GDP higher than in Latvia (Figure 2.13). Spending more on health is a political choice that can offer high returns in terms of improving insurance against related economic risks and better health outcomes (WHO, 2016). The WHO regional office recommends spending at least 12% of the government budget on health and Latvia has taken a step in the right direction by increasing investment on health for 2017 (additional financing of EUR 66.8 million). The Latvian authorities plan to reach 12% by 2020.

Figure 2.13. **Government health spending is low**

Government spending as % of GDP, 2015



1. Government schemes and compulsory contributory health care financing schemes.
2. Unweighted average.

Source: OECD (2017), *OECD Health Statistics* (database) and *OECD Economic Outlook: Statistics and Projections* (database).

StatLink http://dx.doi.org/10.1787/888933583443

The government plans to improve access to a range of health care services, in particular, to improve access to emergency treatment and primary care and to improve reimbursement of medicines (Box 2.5).

Box 2.5. **Planned improvements in access to health care**

The health care reform foresees to improve accessibility for the following health care services until 2023:

- 24 hours' ambulance services and assistance in acute cases available closer to home. In areas with lower population density more ambulance services will be available. Steps will be taken to ensure emergency medical assistance is available in less than 60 minutes.
- Improve availability of primary health care services at all times, including late hours and weekends.
- Involving local governments in providing home care and in patient care for the terminally ill (Hospice type).
- Improve health care for patients with chronic diseases, increasing the number of care beds twice.
- Shorten the waiting period for specialist consultations.
- Raising reimbursement of medicines up to 100%, broadening the range of medicines which are reimbursed.

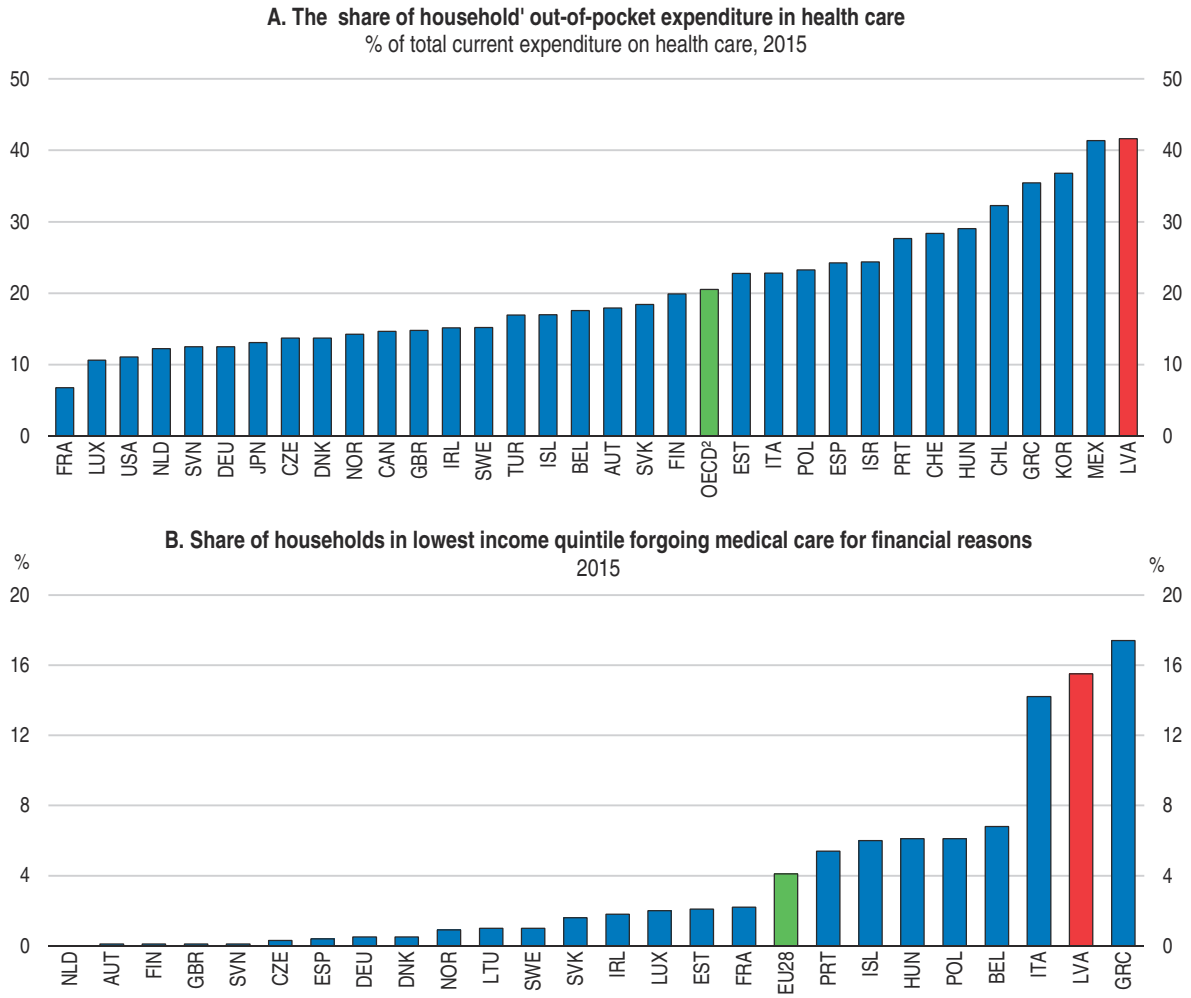
High level of out-of-pocket payments for health reduce access to care

Patients pay a substantial part of the costs, including specialist visits, hospital stays and for pharmaceuticals (OECD, 2016a). The contribution of out-of-pocket spending to total health care expenditure in Latvia is the second highest across OECD countries, at 42% in 2014 (Figure 2.14, Panel A). Recent estimates show that cost-sharing in the form of co-payments lead to higher health spending in the long term, notably because it might lead to a lower use of needed medical care with adverse consequences for health status (de la Maisonneuve et al., 2016).

High out-of-pocket payments cause catastrophic payments in Latvia and are an important driver of unmet health care needs. According to the WHO, catastrophic heath expenditure occurs when a household's total out-of-pocket health payments amount to at least 40% of its non-subsistence spending (Ke, 2005). The extent to which Latvian households are protected from financial hardship when they need health care is weak. In 2013, nearly 13% of households experienced catastrophic out-of-pocket payments as a result of using health services, significantly higher than in Lithuania (9.5%) and Estonia (6%) (WHO, 2016). These catastrophic out-of-pocket payments are heavily concentrated among poor households and pensioners (WHO, 2016). As a direct consequence, a large proportion of the population report problems in obtaining care. Based on the 2014 EU-SILC survey, 10.5% of the Latvian population reported unmet needs for medical examination for financial reasons. Among the low income population 16 per cent reported forgoing needed medical examination for financial reasons in 2015, compared to an average of 4% across EU countries (Figure 2.14, Panel B; OECD, 2016a).

Financial barriers in access to health care reflect the narrow publicly-covered benefit package, and the limited exemption policy on co-payments which only protects the poorest

Figure 2.14. **High out-of-pocket payments limit access to health care**



1. Includes non-profit institutions serving households.
2. Unweighted average of the data shown.

Source: OECD (2017), *OECD Health Statistics* (database) and Eurostat.

StatLink http://dx.doi.org/10.1787/888933582949

households, with monthly earnings less than EUR 128 per person per month. There are caps on co-payments for inpatient, outpatient and diagnostic services, but they are too high to protect other poor and modest-income households (EUR 356 per hospitalisation and EUR 569 per person a year in overall health care spending). Low income households and pensioners who earn more than EUR 128 per month have to pay these co-payments, which can seriously undermine their financial protection and be a source of unmet medical needs. Financial barriers to care are also exacerbated toward the end of the year due to the annual quota system for government-financed health services (OECD, 2016a). Service providers are given annual limits for the amount of services they can provide and which are covered by the NHS. When these limits are reached, patients must either wait until the following year for the renewal of the quota or pay for the services out-of-pocket. In the latter case, there is no exemption and all health care users are required to pay the full cost of care out-of-pocket.

To improve access to care, Latvia recently reduced co-payments for daily inpatient charges in hospital from EUR 13.52 to EUR 10 and co-payments for inpatient surgical

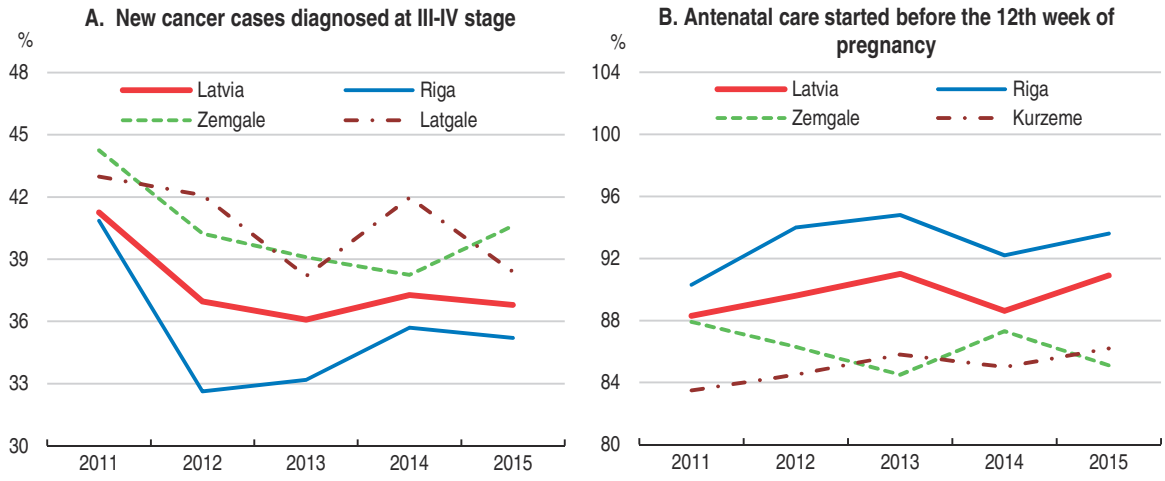
intervention from EUR 42 to EUR 31. NHS coverage of some pharmaceuticals has also been recently improved. From January 2016, the coverage rate for hepatitis C treatment has, for example, been extended from 75% to 100%.

Further reducing co-payments required at the point of use of services would improve coverage and access to health care. Expanding exemptions from co-payments for the lowand modest-income population is a priority. Increasing public health care spending is a prerequisite to these steps. It is welcome that the government has set itself the objective to improve access to health services in 2018.

The uneven distribution of health services are a source of geographical barriers to care

Access to care is particularly limited in rural areas. Access to important services is consistently lower in Latgale, Kurseme and Zemgale Regions. Late detection of cancer is more frequent and access to timely antenatal care is more limited (Figure 2.15). Problems with access to care partly explain the poorer health status observed in remote areas, where life expectancy is substantially lower. In 2015, life expectancy at birth was 77.9 years for women and 67.5 years for men in Latgale, compared to 80.2 and 70.9 years in Riga respectively.

Figure 2.15. **Access to care varies across regions in Latvia**



Source: The Centre for Disease Prevention and Control of Latvia.

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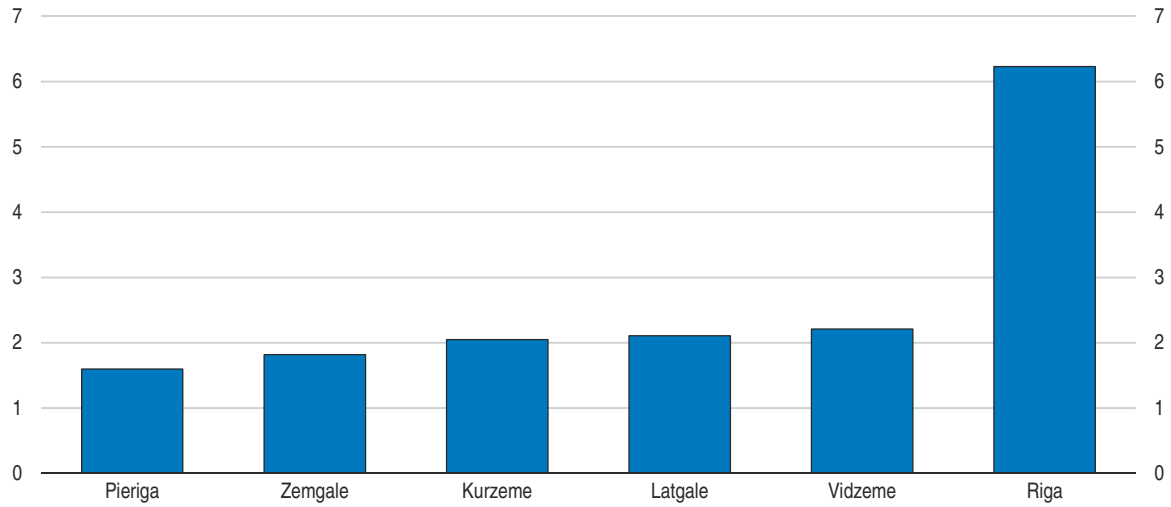
Challenges in rural areas relate to shortages of some health care professionals. While Latvia is generally well endowed with practicing doctors, emigration of young health workers, internal migration, and the expected retirement of general practitioners (GPs) in coming years make the supply of medical doctors in rural areas challenging (OECD, 2016a). In 2013, the density of practicing medical doctors was more than 3 times higher in the Riga area than in Zemgale (Figure 2.16). At the same time, the number of practicing nurses is relatively low at 4.8 per 1 000 population, compared with the OECD average of 8.9 in 2014.

Latvia has already taken steps to ensure adequate supply of health professionals in rural areas. The capitation rate for primary health care in rural areas, for example, is higher than in urban areas. Further, since April 2015, medical universities are required to give priority to applicants who have agreed to practice in a rural area after completing their

Figure 2.16. **The density of practicing medical doctors varies across regions**

Density per 1 000 population, 2013



Source: Statistical yearbook of health care in Latvia, 2013.

StatLink http://dx.doi.org/10.1787/888933583481

training. The government raised wages for all groups of health professionals and increased the number of student places in nursing university.

While these plans may mitigate workforce challenges, there are other innovative solutions that Latvia could consider to reduce geographical barriers to accessing health care, for example making better use of existing health resources for rural populations. Pharmacists, for example, could take a greater role in managing chronic conditions, and the role of nurses and physicians' assistants could also be expanded in rural areas (OECD, 2016a). Experience from other OECD countries, including Sweden, Norway and Finland could guide Latvia in the process of maximising the utility of existing human resource skills (see below).

Better use of health data can improve efficiency

Wider collection of quality information to measure, compare and improve the performance of health care provision is essential to improve efficiency. Strengthening preventive health care and management of long-term conditions in primary care, and continuing the rationalisation of the hospital sector are two other key levers to bring efficiency gains (OECD, 2017b; 2013b).

Latvia has in recent years strengthened its health information infrastructure and has high quality health system data (OECD, 2016a). Several national institutions, including the Centre for Disease Prevention and Control (CDPC), the Central Bureau of Statistics and the NHS, collect and report health system information relating to expenditure, health care activities and quality in primary and secondary care. Latvia also introduced an impressive e-health system in 2015. All providers and patients are expected to share data on diagnoses, health care services and treatments. Over the long term, the introduction of the e-health system can increase care quality and efficiency, notably through greater control of risks, and reducing duplication of diagnostic tests.

Despite the high quality of the Latvian health information infrastructure (OECD, 2016a), there are important gaps in information on health care quality in primary and

secondary care. In primary care, the data do not reflect patients' clinical outcomes. In the area of hospital care, Latvia does not report several OECD health care quality indicators such as congestive heart failure or surgical complications. In addition, there is no national system for adverse event reporting in Latvia. This information is essential to identify, report and reduce failures in standards of care (OECD, 2017b).

When it exists, the information on health care quality is mainly available at national level. There remain substantive gaps about provider-level outcomes and quality of care. Provider-level data can generate several opportunities for improving both quality and efficiency. First collecting and analysing such data allow understanding variation in care and outcomes. By gaining a better understanding of these variations, underutilised resources can be reallocated. This is also a prerequisite to draw lessons from better performing providers. Finally, collecting and analysis provider level data is necessary to monitor and assess the impact of policy actions aiming at driving quality and efficiency gains.

Overall, more systematic monitoring and assessment of health provider performance need to be undertaken. A core set of reliable quality and performance indicators should be made available at national, local and individual provider-level to guide health policy, monitor progress against performance indicators, and to benchmark performance measures between providers. OECD countries offer some examples that Latvia could follow, for example the measurement performance framework developed in Tuscany, Italy (see Box 2.6).

Box 2.6. **The Tuscan Performance Evaluation Programme**

The Tuscan Performance Evaluation Programme is an innovative measurement framework used as an internal evaluation tool for health care providers (OECD, 2014). It was developed in 2005 to measure the quality of health care services in order to improve population health and to achieve higher quality of life. It gathers more than 130 indicators, classified in six dimensions: population health status, capacity to pursue regional strategies, clinical performance, patient satisfaction, staff satisfaction and efficiency or financial performance. The performance results are monitored every three months with feedback provided to health care professionals and managers. They are also linked to the CEOs' reward system and made publicly available. Available evidence suggested that more than 50% of the indicators significantly improved in Toscany between 2006 and 2010, leading to better quality of care and increasing both population health and quality of life.

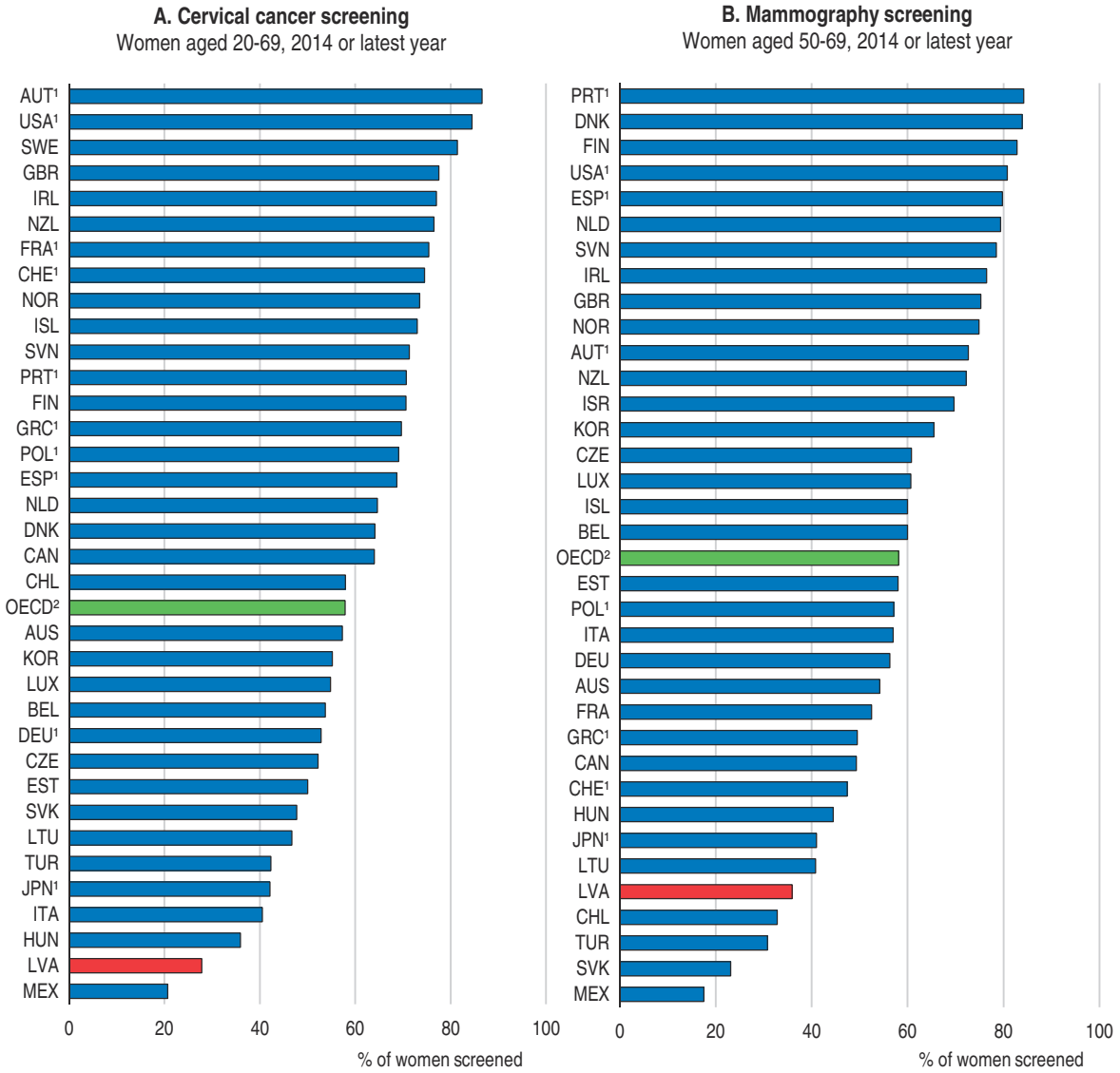
Delivering preventive care more effectively by primary care providers

There is strong recognition of the need for a renewed focus on preventive health care and management of long-term conditions in Latvia. As mentioned above, alcohol consumption and obesity are worsening, which increases the burden of cardiovascular diseases (OECD, 2015e). The proportion of people who undergo cervical cancer screening is very low, contributing to late detection of disease and low survival rates (Figure 2.17, Panel A). Latvia also compares poorly with regards to breast cancer screening (Figure 2.17, Panel B).

Worsening risk factors and low screening rates signal a failure in preventive efforts at primary care level. Latvia has implemented several initiatives to strengthen the focus on health promotion and prevention. These include i) the pay-for-performance scheme introduced in 2013 to reward GPs who are meeting defined targets for prevention and

Figure 2.17. **Cervical and breast cancer screening is not very common in Latvia**

2014 or latest year



1. Based on survey data.
2. Unweighted average of OECD member countries with programme data.

Source: OECD (2016), *OECD Health Statistics* (database).

StatLink http://dx.doi.org/10.1787/888933583500

chronic disease management; ii) health promotion activities; and iii) recent regulatory measures introduced on tobacco consumption. While these activities are now well established, which is welcome, there is scope to further lower health risks related to the rising burden of chronic diseases.

To improve the management of chronic conditions, Latvia could consider supporting the work of GPs by expanding the roles of other primary care professionals. Latvia has developed new health care professions, notably the second practice nurses and the physician assistants. The potential contribution of these professional groups is not yet fully realised (OECD, 2016a). They rarely get involved in co-ordinating the care of patients

with chronic conditions. Across the OECD, nurses with additional specialist training are undertaking an increasingly wide range of primary care tasks, particularly around chronic disease management. In Sweden for example, nurse-led clinics provide care for patients with long-term conditions, such as diabetes and heart failure, and nurse practitioners play a role in co-ordinating care for chronically ill patients. With appropriate training and on-going support from GPs, nurse practitioners have been found to provide as high-quality care as primary care doctors for some acute and chronic conditions, and with higher patient satisfaction (Maier et al., forthcoming). A number of systematic reviews also suggest lower cost of nurse practitioners providing care in primary care settings compared to physicians (Maier et al., forthcoming), notably due to lower salaries or lower reimbursement rates of the same services provided. The incidence of avoidable hospitalisation is also found to be lower among patients receiving nurse-led care than physician-led care. This has implications for both health outcomes and for costs (Maier et al., forthcoming).

The extension of the role of community pharmacists is another potential development that Latvia could consider. Although pharmacists already offer consultations regarding medicine use and some aspects of health promotion and disease prevention, there is scope to develop their role further. In Norway, for example, pharmacists commonly offer cardiovascular health checks. In Finland, community pharmacists are involved in the treatment and prevention of major chronic diseases (Box 2.7). Steps in this direction could also improve access to health care in rural area where GPs are scarcer.

Box 2.7. **The Diabetes programme for community pharmacy in Finland**

The Association of Finnish Pharmacies developed a diabetes programme for community pharmacies in 2001. The overarching objective is to promote successful diabetes care and prevention. As part of the programme, community pharmacies are responsible for:

- Support for lifestyle changes to reduce risk factors associated with type 2-diabetes;
- Identification of patients at risk of developing type 2 diabetes and support for preventive screening;
- Screening for potential drug interactions;
- Ensure correct use of diabetes medicines and adherence to treatment;
- Support self-care of diabetic patients;
- Establish and strengthen collaboration with other local healthcare professionals and relevant associations (e.g. diabetic patients associations).

Source: Information provided by the International Federation of Pharmacists.

Strengthening the focus on health promotion and prevention will also require putting more financial resources into this cost-saving health policy area. Recent estimates show, for example, that a package of fiscal measures, regulatory measures and primary care interventions would reduce the entire burden of disease associated with harmful alcohol use by an estimated 10% (OECD, 2015f). Such strategies would yield yearly savings in health expenditures. Under the Public Health Strategy for 2014-20, more financial resources for health promotion and prevention are planned. Such investments should help address the challenges of strengthening the focus on health promotion and prevention.

Undertaking strategic contracting and revisiting the ownership of Latvian hospitals

The hospital sector has traditionally been the dominant sector in the Latvian health care system. The abundant supply of hospital beds, associated with a payment system that depended to a certain degree on fee-for-services, has driven up both hospital admissions and the average length of stays (OECD, 2016c). The hospital sector has however been reformed significantly over the past decade to move care to out-patient services. Latvia has closed several hospitals and emergency departments to improve quality and contain costs. The number of hospital beds declined from 8.8 to 5.7 per 1 000 population between 2000 and 2014. This is still higher than the OECD average and indicators of quality of care in hospitals give cause for concern. The mortality following stroke and acute myocardial infarction is among the highest across the OECD (OECD, 2016a). In order to secure high value care and effective resource use, more functional changes or hospital closures are necessary. An important prerequisite is to identify low-volume hospitals, which generally are those hospitals not able to promote high quality care, and underperforming hospitals. Such a mapping of services has already started.

Revisiting the ownership status of Latvian hospitals is a priority. Currently, there are two types of public ownership with different legal status and regulatory conditions: i) state hospitals owned by the central government and ii) municipal hospitals. Central government-owned hospitals are under restrictive financing obligations. They are not allowed to report a deficit at the end of the fiscal year (OECD, 2016a). By contrast, municipal hospitals have less stringent restrictions. They make for example their own procurement and capital investment decisions. The system might create incentives to buy expensive pieces of equipment that can be used inappropriately in municipal hospitals (such as MRI) (OECD, 2016a). This is problematic when costly and inappropriate hospital services are provided by municipal hospitals and financed by the public national health service. Moving the ownership and functional governance of all hospitals to the central level is desirable to reduce such inefficiencies. With a more integrated, national system for ownership and management of the hospital infrastructure, the central government would also be in a stronger position to decide the role, function and capacity of each hospital, which will ease the process of adapting hospital services.

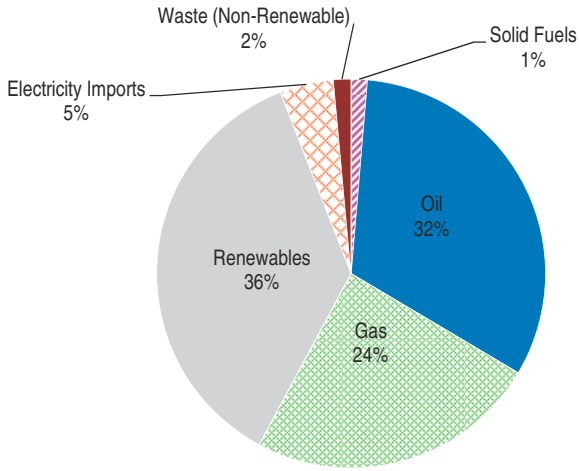
The introduction of diagnosis-related groups (DRG) in hospital funding in many OECD countries has boosted efficiency in many OECD countries by basing funding on the diagnosis of patients, encouraging efficient use of resources. The recent introduction in Latvia is a step in the right direction to promote more efficient use of hospital resources (OECD, 2016c). However, hospitals do not have incentives to promote quality. The NHS could undertake more strategic contracting to incentivise quality and efficiency. It could for instance strengthen monitoring and evaluation of hospital activities, to selectively contract with better-performing hospitals to drive quality improvement. Clear cost and quality criteria would be explicitly defined, with expected outcomes specified in contracts. There are key examples to learn from other OECD countries. For example, Portugal introduced a new payment system for hospitals based on an explicit programme in 2002 and combined this with an adapted DRG payment system. Under these contracts, 5% of a hospital's income is linked to its quality and performance (OECD, 2015g).

Aligning energy policy with inclusive growth and environmental objectives

Latvia's primary energy supply is dominated by fossil fuels, in particular oil and gas, that is mostly imported from neighbouring Russia, as well as by locally generated renewables (Figure 2.18). Renewable energy consumption largely reflects use of hydropower and bio-mass (mostly fuel-wood).

Figure 2.18. **Fossil fuels still meet more than half of energy needs**

Gross inland energy consumption by source, 2014



Source: Eurostat.

StatLink http://dx.doi.org/10.1787/888933583519

As in other OECD economies,the household and transportsectors are the two largest energy consuming sectors. The proportion of energy consumption in households is however particularly large, some 7% larger than the EU average (see Farkas et al., 2017 for more details).

Greenhouse gas emissions have fallen, but future reduction targets may be challenging

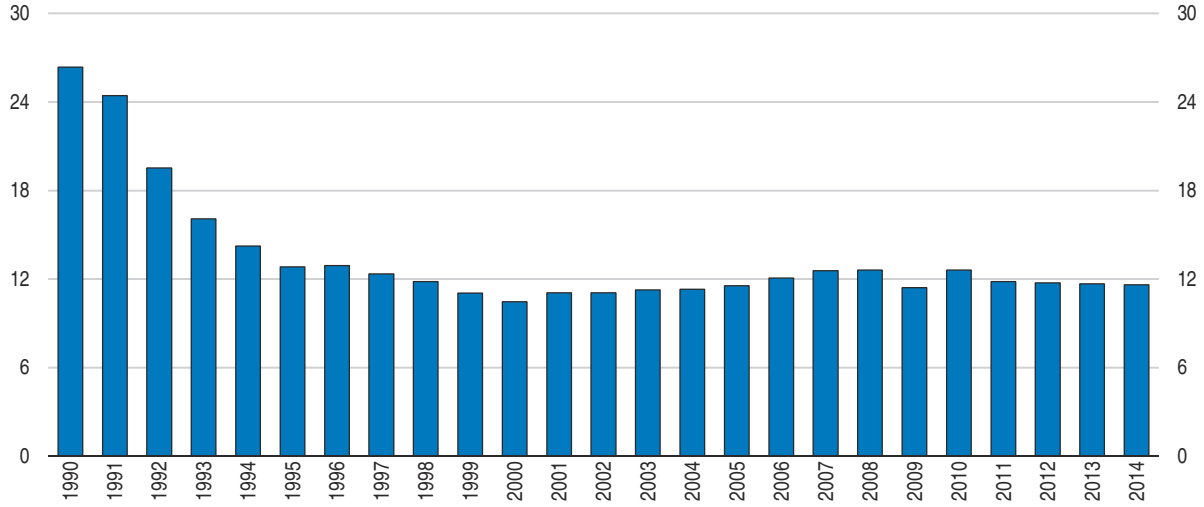
After independence in 1991, there was a sharp decrease in Latvia's GHG emissions, especially in energy industries and agricultural sectors (Figure 2.19). In 2014 they were 56% below 1990 levels (excluding emissions from land use, land use change and forestry, LULUCF).

Seventy nine per cent of Latvia's GHG emissions fell outside the EU-Emissions Trading System (ETS) in 2014. In the context of the EU effort sharing decision, Latvia may increase its non-ETS emissions by 17% by 2020 compared to 2005. Latvia's National Inventory Report shows that current emissions levels are close to those of 2005, implying that Latvia will meet its 2020 target. However, in 2030, in the context of EU effort sharing, Latvia is expected to have to achieve a reduction of 6%. For the first time, emissions from the LULUCF sector will be taken into account (European Union, 2016). From 2010 the LULUCF sector has been a net contributor to emissions in Latvia. In the long term net greenhouse gas emissions will globally have to be driven close to zero in the course of this century to achieve the Paris agreement climate goals (IEA, 2016). Energy efficiency and renewable energy account for the bulk of needed investment.

Implicit carbon pricing levels (i.e. taxes on emitting products and activities) are uneven across energy sources and sectors. Latvia's implicit tax rate on energy is among the lowest in the EU (European Commission, 2016). Taxes for heating are much lower than for transport. The difference is bigger than in other EU countries (Farkas et al., 2017). There is room to gradually align tax rates according to the carbon content of the taxed fuels. Carbon taxes on heating and transportation fuels exist in a number of EU Member States, including

Figure 2.19. **Greenhouse gas emissions have stopped falling**

Greenhouse gas emissions (million tonnes of CO_2 equivalents),[1] 2014



1. Excluding land use, land use change and forestry (LULUCF).

Source: Eurostat.

StatLink http://dx.doi.org/10.1787/888933583538

Denmark, France, Ireland, Finland, Portugal and Sweden. However, higher taxes on heating fuels would need to be accompanied with measures to ensure real incomes of low-income households are protected. This can in part be achieved through policies to improve energy efficiency, discussed below.

Energy efficiency has improved substantially but can improve further

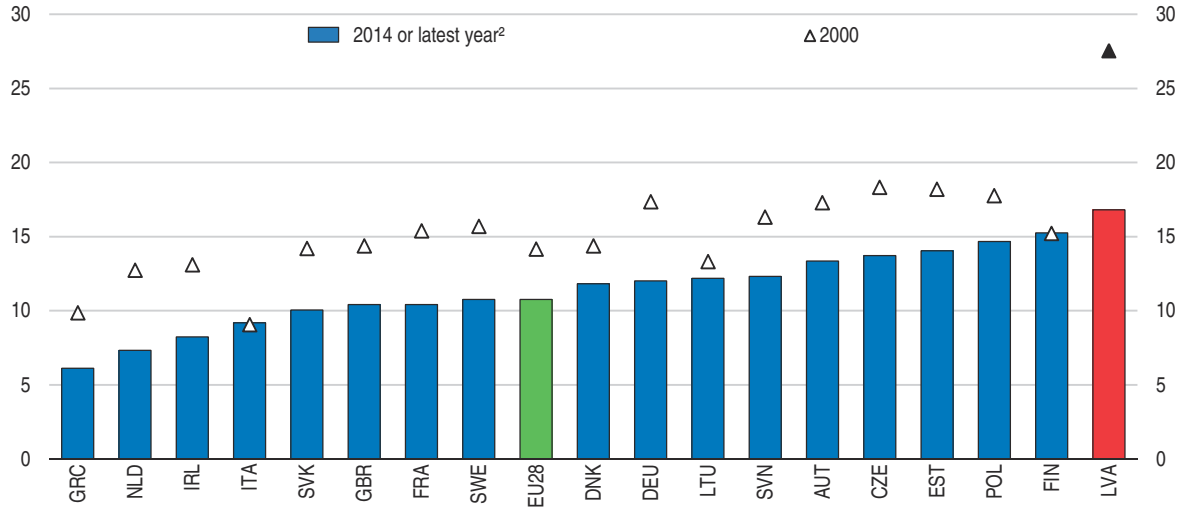
Energy consumption for residential purposes relative to inhabited surface has fallen substantially but remains high (Figure 2.20). High energy consumption in part reflects relatively cold winters. But low winter temperatures also raise the benefits of energy efficiency investments. Improving energy efficiency can help reduce CO_2 emissions and local pollution, reduce housing costs and reduce dependency on energy imports. Inefficient district heating systems and poorly insulated multi-apartment buildings make the building sector a particularly poor performer. District heating pipelines have an average heat loss of 17% (Inguna Ozolina, 2015). The district heating pipelines in Riga saw a reduction of heating losses to 13% in the past years due to the implementation of government-funded regulatory measures. However, elsewhere heating losses can reach up to 30%.

The government of Latvia recognises the challenges posed by low energy efficiency and has taken a range of policy measures to increase efficiency. These measures are outlined in the country's National Energy Efficiency Action Plans. The Latvian Government has accessed EU funds for this purpose. Investment support is available in the form of grants, loans and loan guarantees. These steps have helped achieve the substantial energy efficiency improvement. Nonetheless, heat energy consumption of most buildings remains well below estimated optimal levels, so continued support for renovations of residential buildings is of paramount importance (CEE Bank Watch Network).

Barriers for further progress in improving energy efficiency, identified by Latvia's Third National Energy Efficiency Action Plan, include home owners' low wealth and

Figure 2.20. **Energy consumption in residential buildings is still high**

Energy consumption per m² for space heating[1]



1. National climatic corrections
2. 2013 for Greece, Portugal, Sweden and EU28. 2012 for the United Kingdom and Lithuania.

Source: Energy Efficiency Indicators in Europe, ODYSSEE Database (*www.odyssee-mure.eu/*).

StatLink http://dx.doi.org/10.1787/888933583557

difficult access to bank loans (European Commission, 2014). To overcome these barriers the following policies appear to have been successful in some OECD countries:

- *Tax-lien financing:* Tax-lien financing is a relatively new investment support tool pioneered by the United States Property Assessed Clean Energy (PACE) programme. Under PACE, local councils or governments stimulate renewable energy and energy efficiency retrofits by offering up to 100% upfront financing for these projects. Property owners then repay the loan over the long-term (15-20 year period) in form of an extra addition on their property tax (Wesoff, 2015). This requires upfront public financing.
- *On-bill financing:* Utility companies provide loans for energy-efficient appliances and allow repayment to be made as part of the monthly electricity bill (Terry, 2016). Eligibility is usually restricted to projects where energy cost savings exceed the monthly loan repayment. Such programs have been implemented successfully by private utilities in the United States (Henderson, 2013, Terry, 2016). On-bill financing has also been implemented in emerging economies such as Mexico where the state-owned utility company provided small loans for new energy efficient appliances (Institute for Building Efficiency, 2012). The program benefited both homeowners by lowering the monthly payments for energy, and the government, which could cut electricity subsidies.

Wind energy could be exploited more

Latvia's installed capacity of wind generation has risen but remains low and accounts for a small share of electricity generation. Latvia benefits from good wind resources, with large suitable offshore and onshore areas for wind energy development (EEA, 2009). Current installed capacity is low and has increased only slightly since 2013. A feed-in tariff to promote renewable energy generation has been put on hold until 2020 due to concerns over cost and lack of transparency (Dreblow, 2014). While electricity generation is covered by the EU-ETS scheme, a cost-effective policy to support wind generation deployment can help achieve emissions reductions while maintaining strong economic growth.

Several countries use competitive tenders or procurement auctions, whereby the government issues a call for the installation of a certain amount of renewable energy capacity and interested bidders provide a price at which they would be able to realize the investment, allowing the government to choose the best offer. Such tenders have resulted in record-low bids across renewable energy technologies and countries. This is the case in recent wind procurement auctions in Northern Europe and large-scale solar photovoltaic auctions in the Middle East and South Asia. Another advantage of competitive auctions is that governments retain control over renewable energy capacity and its cost. Bids can be capped to a maximum price, above which they are not considered. The most recent example in Europe is Germany's new Renewable Energy Act. Another interesting model is the "Contract for Difference" (CFD) for renewable energy recently introduced in the United Kingdom (Farkas et al., 2017).

Recommendations to make the most of economic and social infrastructure (Key recommendations included in the Executive Summary are bolded)

Improving access to low-cost housing

- **Improve legal certainty in rental regulation and encourage out-of-court procedures.**
- **Simplify the administrative process for obtaining a building permit.**
- **Provide more funding for low-cost rented housing in areas of expanding employment.**
- **Expand the mobility programme, which provides temporary support for relocation and transport.**
- Create a nation-wide registry that allows eligible persons to apply for housing assistance where they expect better job opportunities.
- Require housing developers to allocate a proportion of their dwellings as affordable units.

Improving access to health services

- **Reduce out-of-pocket payments especially for the low-income population.**
- **Develop key service quality and performance indicators for health care providers at national, local and provider-level.**
- Deliver preventive care more effectively by expanding the activities nurses and pharmacists are allowed to carry out, notably in rural areas where health services are scarcer.

Improving transport infrastructure

- **Apply the same cost-benefit tests to large national projects as are applied to EU-funded projects.**
- Introduce incentive regulation for the prices of monopoly services set by the infrastructure manager and the incumbent rail service operator.
- Set wages of managerial staff in the railway regulator independently from the Transport Ministry.
- Make use of the latest technologies to favour demand-responsive collective road transport services tailored to the needs of customers in rural areas.
- Raise the priority of investment in safer road infrastructure. Improve maintenance of rural roads, Raise the quality of the most densely trafficked roads with investments in motorway sections and develop pedestrian-friendly infrastructure in urban areas.

Making the most of the Riga metropolitan area

- **Create a platform to co-ordinate policies of all municipalities where most residents commute to Riga.**

Recommendations to make the most of economic and social infrastructure (Key recommendations included in the Executive Summary are bolded) *(cont.)*

- Reform the redistribution of tax revenues across municipalities, equalising per capita tax revenues more strongly and taking into account the demand of key social services.

Strengthen energy policy

- Gradually raise and harmonise the taxation of fossil fuels in transport and heating according to their carbon content.
- Encourage energy efficiency investment in the building sector through tax-lien financing and utilities' on-bill financing.
- Support the deployment of wind energy through competitive tendering.

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Latvia's economy has grown robustly in recent years on the back of a strong track record in implementing structural reforms, despite a challenging international environment. Rising wages have supported household consumption. After a severe setback in 2008-09, catch-up with higher income OECD countries may have resumed. Government finances are solid and financial market confidence in Latvia is strong. Private sector indebtedness is now lower than in many OECD economies. Export performance, including diversification of products and destinations, is improving, but Latvia's participation in global value chains is modest. Latvia's exports still rely heavily on low value-added, natural resource intensive products, reflecting in part skills shortages and weak innovation. Unemployment remains high, although it has fallen. Many young Latvians emigrate. Informal economic activity is still widespread. High long-term unemployment, weak social safety nets and high labour taxes for workers on low pay contribute to widespread poverty. Many low-income households are inadequately housed. High out-of-pocket payments limit access of low-income households to health services. Improving access to housing, health care, education and training would improve economic opportunities for low-income households and requires additional government spending.

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