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Foreword

This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

The economic situation and policies of Latvia were reviewed by the Committee on 13 December 2021. The draft report was then revised in light of the discussion and given final approval as the agreed report of the whole Committee on 11 February 2022.

The Secretariat's draft report was prepared for the Committee by Peter Jarrett and Zeev Krill, with inputs from CTP, EDU, DAF and ELS, under the supervision of Mame Fatou Diagne. Research assistance was provided by Corinne Chanteloup, and editorial support by Alexandra Guerrero and Gemma Martinez.

The previous Survey of Latvia was issued in May 2019.

Information about the latest as well as previous Surveys and more details about how Surveys are prepared is available at www.oecd.org/eco/surveys.

Table of contents

Foreword	3
Executive Summary	9
1 Key Policy Insights	15
The economy is recovering, but negative risks predominate	17
Fiscal and tax policies need to focus on supporting both growth and inclusion	19
Fiscal policy has moved robustly to counter the pandemic	19
Fiscal policy could also do more to reduce poverty	24
The financial system is sound, but credit provision could be improved	26
Banks, especially the larger ones, are in good financial shape	26
Credit growth is modest	26
Progress is being made in the long battle against informality and corruption	29
Informality in the labour market is severe	29
Corruption and bribery are also still seen as longstanding problems	29
Labour market participation is high, while social protection is modest	32
Securing an adequate supply of labour	33
The ageing population calls for pension-system adjustments	36
The population is shrinking rapidly	36
The population has also aged	38
Depopulation has fallen most heavily on rural areas, resulting in big regional disparities	38
Adjusting the pension system is key to address these demographic pressures	40
Health-care performance has been improving, but more needs to be done	43
Overall health spending is low, contributing to short life expectancy and other ills	43
The low quality of care and substantial unmet needs also signal a need for improvement	46
A lack of resources has implied low numbers of medical personnel and long wait times	47
Health-care spending efficiency could be enhanced	48
Shifting towards more preventive measures	49
Lifestyle-related risk factors are heavy, calling for more aggressive policy actions	49
Much of the housing stock is crowded, old and in poor condition	52
Latvia needs to address some major environmental challenges	56
Recent progress in dealing with climate change has been limited, and air pollution is bad	56
Progress is being made in water treatment, but solid waste disposal and biodiversity remain challenges for the future	59
References	62
2 Boosting productivity and incomes through capitalising on export opportunities	66
Latvia could foster productivity and income growth by increasing exports	67
Export performance has been weak, but promising trends have emerged	69
Low-tech sectors still dominate Latvian manufacturing	71

Growth of services exports has been slow	72
Exports of goods have been resilient since the COVID-19 shock	73
Promising developments in the ICT sector	74
Promoting export growth and diversification	74
Expanding export product diversity and complexity	77
Expanding exports to new markets	81
Sustaining exports through increasing product complexity	82
Diversifying the supplier base to improve resilience	82
Improving the business environment and infrastructure	83
Maintaining efforts to improve market regulations for all firms	83
Strengthening SOEs governance to improve their effectiveness	85
Improving connectivity through better public transport	86
Improving skills to enhance export performance	88
Much is being done to overcome the shortcomings of the education system	88
A shortage in ICT and STEM skills has become an increasingly important constraint	89
Facilitating the immigration of skilled workers	92
Improving digital and management skills to increase uptake of digital technologies	93
Enhancing adult education by establishing a training fund	94
Increasing access to higher education	96
Increasing R&D and innovation from its low base	97
Latvia's innovation performance is poor	97
Increasing the level of public support to business R&D	100
Fostering knowledge transfer through stronger incentives	102
Attracting and retaining PhD students	105
References	108

Tables

Table 1. The recovery is well underway	10
Table 1.1. Macroeconomic indicators and projections	18
Table 1.2. Potential vulnerabilities of the Latvian economy	19
Table 1.3. Illustrative economic impact of some reforms proposed in this survey, after 10 years	23
Table 1.4. Illustrative budget impact of recommended fiscal/structural reforms	24
Table 1.5. Past OECD recommendations on taxation and spending	26
Table 1.6. Past OECD recommendations on the allocation of capital	28
Table 1.7. Past OECD recommendations on informality, corruption and bribery	32
Table 1.8. Past OECD recommendations on health care	51
Table 1.9. Past OECD recommendations on housing policies	55

Figures

Figure 1. The population is shrinking	10
Figure 2. Active Labour Market Policies should be strengthened	11
Figure 3. Health-care spending is very low	11
Figure 4. Exports have underperformed	12
Figure 1.1. The COVID-19 crisis has hit hard, and vaccination has lagged	15
Figure 1.2. Latvia is still catching up steadily to its most affluent trading partners	16
Figure 1.3. The poverty rate is high, especially for the elderly	16
Figure 1.4. Fiscal support in the first year of the pandemic was adequate	20
Figure 1.5. A fiscal consolidation strategy is needed to prepare for ageing pressures	23
Figure 1.6. Taxes and transfers do not moderate income inequality much	25
Figure 1.7. The banking system is not providing much credit to the economy	27
Figure 1.8. Corruption is a serious albeit diminishing problem	30
Figure 1.9. Employment is high, but so is unemployment	32
Figure 1.10. The long-term unemployment share is relatively large	34

Figure 1.11. ALMP spending is low	35
Figure 1.12. The gender wage gap for full-time employees is comparatively large	35
Figure 1.13. The population has been falling and is expected to continue to do so	37
Figure 1.14. The “demographic burden” has been rising steadily	38
Figure 1.15. Pension spending is low, and old-age poverty rates are high	42
Figure 1.16. Health-care spending is low per capita and in relation to GDP	44
Figure 1.17. Life expectancy is low, notably for men	45
Figure 1.18. Households’ out-of-pocket health-care spending is high	46
Figure 1.19. Latvia has few practising nurses	47
Figure 1.20. Alcohol consumption is the OECD’s highest in per capita terms	50
Figure 1.21. Adult obesity is higher than in most other European countries	51
Figure 1.22. Housing investment has long been a small share of GDP	52
Figure 1.23. House prices have only just recovered from the plunge during the GFC	53
Figure 1.24. Social rental housing is a small share of the total	54
Figure 1.25. Public spending on housing allowances is modest	54
Figure 1.26. Housing-sector fine particle emissions are the OECD’s highest	55
Figure 1.27. Environmental indicators tell a mixed story	57
Figure 1.28. Latvia’s GHG emissions are attributable relatively heavily to agriculture and transport	58
Figure 2.1. The labour productivity gap with the best performers is still large	67
Figure 2.2. Beginning to export leads to gains in productivity, employment and wages	68
Figure 2.3. Latvia’s export performance has been weak compared to neighbouring countries	69
Figure 2.4. Latvia’s participation in GVCs has remained limited	70
Figure 2.5. Labour costs have increased faster than labour productivity	70
Figure 2.6. Exports in high- and medium-high-tech sectors are growing fast	71
Figure 2.7. The structure of Latvia’s manufacturing is still dominated by low-tech industries	71
Figure 2.8. There has been moderate growth in services exports	72
Figure 2.9. Exports of transport services were weak already before the COVID-19 outbreak	73
Figure 2.10. The ICT sector contributes greatly to GDP growth	75
Figure 2.11. Breakdown of merchandise export growth using entry and exit levels of firms	76
Figure 2.12. Breakdown of merchandise export growth using entry and exit levels of product-destination pairs	76
Figure 2.13. Latvia’s exports’ complexity has remained limited	78
Figure 2.14. Latvia exports many low-complexity products	78
Figure 2.15. The number of products in which Latvia specialises has broadened	79
Figure 2.16. The quality of exported products has improved substantially since 2000	79
Figure 2.17. In 2015 Latvia had a comparative advantage in the wood-products sector	80
Figure 2.18. Exports outside Europe are small	81
Figure 2.19. FDI inward position is high, while FDI Regulatory Restrictiveness is low	83
Figure 2.20. The quality of infrastructure is low, and logistics performance lags behind peers	87
Figure 2.21. The number of ICT specialists is rising	89
Figure 2.22. ICT graduates enjoy a very high wage premium in Latvia’s labour market	90
Figure 2.23. Few young adults are able to programme	91
Figure 2.24. Participation in online courses is low	95
Figure 2.25. Technology and intellectual property fixed assets remain low	97
Figure 2.26. Innovation is weak	98
Figure 2.27. Latvia’s R&D spending is low in all economic sectors	99
Figure 2.28. Lack of internal funding and high costs hinder innovation activities	100
Figure 2.29. Low government support for business R&D	101
Figure 2.30. The transfer of knowledge and technology from research institutes to firms is limited	103
Figure 2.31. Financial incentives to collaborate with industry could be stronger	104
Figure 2.32. The number of PhD graduates is low and decreasing	105
Figure 2.33. The share of top performers in PISA is low	106

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BASIC STATISTICS OF LATVIA, 2020
(Numbers in parentheses refer to the OECD average) ¹

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million)	1.9		Population density per km ²	30.6	(38.6)
Under 15 (%)	16.4	(17.8)	Life expectancy at birth (years, 2019)	75.2	(80.2)
Over 65 (%)	20.7	(17.4)	Men (2019)	70.8	(77.6)
International migrant stock (% of population, 2019)	12.4	(13.2)	Women (2019)	79.9	(82.9)
Latest 5-year average growth (%)	-0.8	(0.6)	Latest general election	October 2018	
ECONOMY					
Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	33.7		Agriculture, forestry and fishing	4.6	(2.8)
In current prices (billion EUR)	29.5		Industry including construction	22.4	(26.3)
Latest 5-year average real growth (%)	1.7	(0.8)	Services	73.0	(71.0)
Per capita (000 USD PPP)	32.2	(46.3)			
GENERAL GOVERNMENT (Per cent of GDP)					
Expenditure	43.1	(49.8)	Gross financial debt (OECD: 2019)	56.0	(108.9)
Revenue	38.6	(38.9)	Net financial debt (OECD: 2018)	16.8	(68.2)
EXTERNAL ACCOUNTS					
Exchange rate (EUR per USD)	0.88		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	0.48		Machinery and transport equipment	23.8	
In per cent of GDP			Manufactured goods	17.8	
Exports of goods and services	60.3	(50.6)	Food and live animals	15.3	
Imports of goods and services	59.2	(47.1)	Main imports (% of total merchandise imports)		
Current account balance	2.9	(0.0)	Machinery and transport equipment	30.0	
Net international investment position	-37.3		Manufactured goods	14.0	
			Chemicals and related products, n.e.s.	12.8	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate (aged 15 and over, %)	56.7	(55.1)	Unemployment rate, Labour Force Survey (aged 15 and over, %)	8.1	(7.1)
Men	62.3	(63.0)	Youth (aged 15-24, %)	14.8	(15.0)
Women	52.1	(47.7)	Long-term unemployed (1 year and over, %)	2.2	(1.3)
Participation rate (aged 15 and over, %)	61.7	(59.5)	Tertiary educational attainment (aged 25-64, %)	37.8	(39.0)
Average hours worked per year	1,577	(1,687)	Gross domestic expenditure on R&D (% of GDP, 2018)	0.6	(2.6)
ENVIRONMENT					
Total primary energy supply per capita (toe)	2.3	(3.7)	CO ₂ emissions from fuel combustion per capita (tonnes, 2019)	3.5	(8.3)
Renewables (%)	42.7	(11.9)	Water abstractions per capita (1 000 m ³ , 2018)	0.1	
Exposure to air pollution (more than 10 µg/m ³ of PM 2.5, % of population, 2019)	69.5	(61.7)	Municipal waste per capita (tonnes, 2019)	0.4	(0.5)
SOCIETY					
Income inequality (Gini coefficient, 2019, OECD: latest available)	0.344	(0.318)	Education outcomes (PISA scores, 2018)		
Relative poverty rate (% , 2019, OECD: 2017)	16.2	(11.7)	Reading	479	(485)
Median disposable household income (thousand USD PPP, 2019, OECD: 2017)	17.7	(24.2)	Mathematics	496	(487)
Public and private spending (% of GDP)			Science	487	(487)
Health care (2019)	6.7	(8.8)	Share of women in parliament (%)	30.0	(31.5)
Pensions (2017)	7.2	(8.6)	Net official development assistance (% of GNI, 2017)	0.1	(0.4)
Education (% of GNI, 2019)	3.9	(4.4)			

Note: The year is indicated in parentheses if it deviates from the year in the main title of this table.

1. 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 80% of member countries.

Source: Calculations based on data extracted from databases of the following organisations: OECD, International Energy Agency, International Labour Organisation, International Monetary Fund, United Nations, World Bank.

Executive Summary

The economy is recovering from the global COVID-19 shock

The pandemic has hit the economy hard, but catch-up in per capita incomes has continued. Initial containment measures and restrictions were lifted in mid-2021, but a subsequent surge in case numbers following slow vaccination led to a three-month-long state of emergency and a short shutdown, weakening the pace of recent growth. Targeted fiscal support is being prudently maintained while pandemic restrictions are still in place. Increasing vaccination rates should lessen the need for such restrictions.

The recovery is set to accelerate (Table 1). By the spring of 2021 the economy had regained its output level from the end of 2019. The pickup in growth is broadly based, led by pent-up consumer demand, EU-financed public investment and exports. Inflation has also picked up considerably because of surging energy prices, other global supply shocks and domestic wage increases.

Table 1. The recovery is well underway

	2020	2021	2022	2023
Real GDP growth	-3.8	4.8	3.6	4.8
Unemployment rate (%)	8.1	7.5	6.6	6.2
Harmonised consumer prices (%)	0.1	3.2	4.9	2.7
Fiscal balance (% of GDP)	-4.5	-8.7	-5.4	-3.9
Public debt (Maastricht, % of GDP)	43.3	49.0	52.6	54.6

Source: OECD Economic Outlook 110 (December 2021) and updated historical data.

However, downside risks to growth dominate, the most important of which relate to the pandemic, as well as to global geopolitical and trade tensions. Also, possible further negative supply shocks could keep inflation higher beyond the short term.

The government appropriately intends to ease the burden of the pandemic on vulnerable households and firms. However, with continued expansionary monetary policy in the euro area and large EU funding inflows, it is

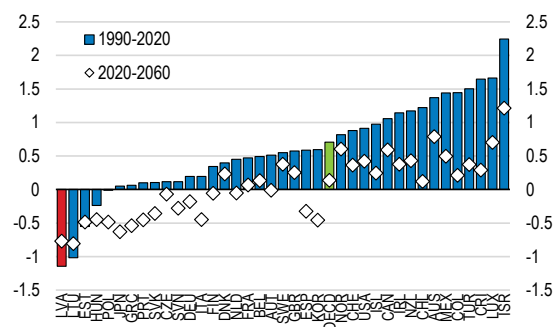
crucial that short-term fiscal settings not increase the risks of overheating. Furthermore, given the many demands on the budget, a credible fiscal strategy is needed to prepare for ageing- and climate-related challenges and stabilise the public debt at a sustainable level.

Addressing medium-term labour market and inclusion challenges would support growth and equity

The main factor influencing medium-term growth prospects is demographics. The population has been shrinking for three decades (Figure 1), driven by net migration, low fertility and short (albeit rising) life expectancy. Going forward, continued population shrinkage will lead to further losses in agglomeration benefits and accentuate fiscal challenges in a context of worsening old-age dependency and an already fairly uneven distribution of income and wealth. It also puts the labour market under pressure from the decline and ageing of the labour force.

Figure 1. The population is shrinking

Population changes, annual % change



Source: United Nations (2019), World Population Prospects: The 2019 Revision, Online Edition.

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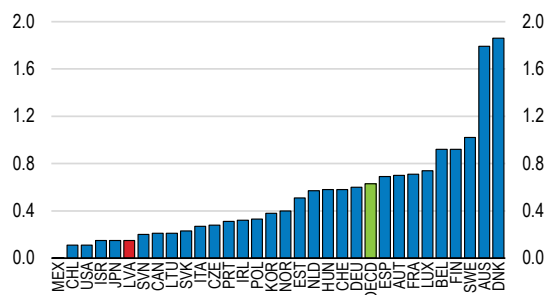
Although participation and employment rates have enjoyed trend improvement, labour-market performance could still be enhanced. Pervasive business informality and underreported wages result in lost training opportunities, pension rights and tax revenues. The government is preparing an action plan to combat informality, including welcome steps to step up enforcement; tax wedges should also be reduced. The long-term unemployment share in

total unemployment is larger than in the average OECD country. This problem should be tackled by boosting active labour market spending, notably on job training of reasonable duration (Figure 2). Addressing gender stereotypes and enforcing anti-discrimination legislation need to continue in order to reduce the growing gender wage gap, which is among the EU's highest.

The tax and transfer system could do more to alleviate income and wealth inequality. Recent efforts to confront poverty, especially severe among the elderly, should be strengthened. Similarly, the social safety net remains minimal, pointing to the need to further raise the Guaranteed Minimum Income.

Figure 2. Active Labour Market Policies should be strengthened

Active Labour Market Policy spending, % of GDP, 2019



Source: OECD Labour Market Statistics database.

StatLink  <https://stat.link/tqwp2>

Pensions, health-care and housing policies are all in need of attention

Living conditions could be significantly improved by changes to the pension, health care and housing sectors. Poverty, and population ageing and shrinkage make these policy areas especially challenging.

Old-age pension replacement rates are modest and, under current rules, will fall in the future. More must be done to improve pension adequacy by encouraging longer working lives, including through future increases in the pension age as life expectancy rises.

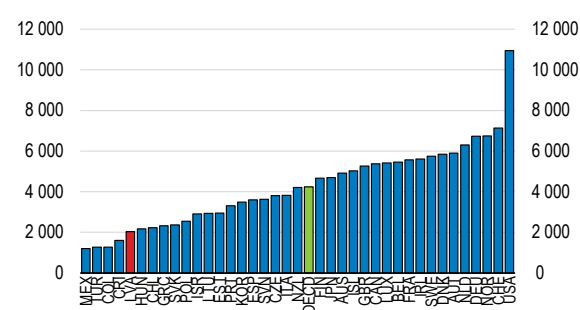
Low life expectancy underscores the need for more health-care spending (Figure 3). Latvia

spends about half the OECD average per capita on health care. As a result people rely heavily on out-of-pocket outlays to meet their medical needs. Widening public insurance coverage and lowering spending caps would be helpful. The tight supply of practitioners should be alleviated by continuing pay rises and making medical careers more attractive.

The efficiency of the hospital network should be re-examined, and more resources provided to preventive measures, primary and home care, mental health treatment and long-term care, all of which are underfunded. Making greater use of digitalisation and training nurses to perform more functions would help to improve treatment quality.

Figure 3. Health-care spending is very low

Current health expenditure per capita, USD PPP, 2020



Source: OECD Health Statistics database.

StatLink  <https://stat.link/9v4tly>

Excessive alcohol consumption, smoking and poor diets lead to adverse health outcomes. Raising applicable excise taxes and better informing citizens of the benefits of dietary change and more exercise are crucial steps towards healthier lifestyles. Warning labels for unhealthy foods would also be helpful.

The disadvantaged suffer from poor housing conditions, notably overcrowding. Housing investment as a share of GDP, especially in new construction, has been the OECD's lowest for many years. Housing benefits are modest and poorly allocated. Rental markets are thin, with little social housing, reducing labour mobility and Latvia's attractiveness to potential foreign investors. Meeting the National Development

Plan's housing objectives, notably by raising the supply of affordable and social housing and improving home-heating systems is crucial.

Dealing with environmental challenges is urgent

Despite some progress, more should be done to achieve green and sustainable economic growth. GHG emissions per capita are still rising, and air pollution from fine particles weighs heavily on health outcomes.

Latvia is committed to reducing GHG emissions by 65% from 1990 levels by 2030. Yet, this does not go much beyond reversing post-2000 increases. Lowering and ultimately removing the favourable treatment of natural gas and diesel for vehicle use (while protecting the poor) would help. Policies will also need to seek to raise the share of renewables and to integrate regional power and gas markets.

Air pollution is caused mainly by low-quality heating systems and industrial boilers. The relevant regulations need to be toughened. Agricultural activities are the major cause of diffuse-source water pollution, with nutrients causing negative impacts on water quality. Remaining untreated wastewater should be tackled by consolidating regional water companies. Finally, population shrinkage provides an opportunity to boost the share of protected land.

Investment, skills and innovation need support for export-led growth

Demographic pressures and slowing income convergence underscore the need to rely more on investment, innovation and skills in the search for faster productivity growth.

Progress has been made in the fight against corruption, bribery and money laundering, which should encourage more investment. Yet, trust in government is low, and bribes are still seen as common. Meanwhile, the responsible agency has been given considerable additional resources, and Latvia has been deemed as largely or fully compliant in all dimensions of the MONEYVAL anti-money laundering process.

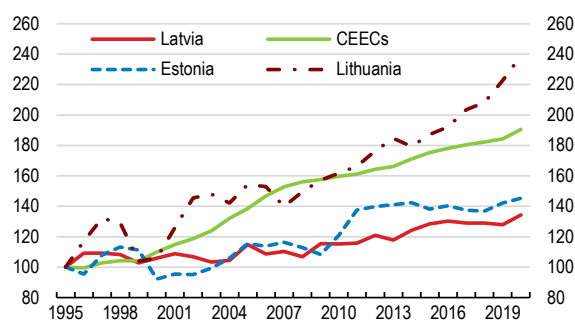
The imminent government action plan to shrink the shadow economy must also be implemented effectively.

Investment is being held back by a lack of credit. While the large banks are in good shape, lending conditions are tight. Many households are credit constrained, and access to finance – along with its cost and collateral demanded – is a serious barrier to business investment. The authorities need to deepen capital markets, create a culture of investment, starting with improving financial literacy, and fully transpose the EU restructuring directive, including simplifying corporate debt restructuring through out-of-court and hybrid procedures. A larger role for nonbanks, notably fintechs, would be helpful.

Focusing on exports is the best growth strategy for Latvia, given its demographic outlook. However, Latvia's exports have underperformed in recent decades (Figure 4). This may be attributable to the country's industrial structure, which is still dominated by low- and medium-low tech firms, along with the persistent rise in real labour costs. The government should aim to support the development of Latvia's exports of more complex products by fostering innovation, increasing worker skills and improving the business environment.

Figure 4. Exports have underperformed

Export performance, 1995 = 100



Source: OECD Economic Outlook database.

StatLink  <https://stat.link/5ut4wi>

Poor basic digital skills and high tertiary dropout rates point to an insufficiency of workforce skills. So does a scarcity of employer-provided training and adult education more generally. Too few youth study STEM subjects. One way forward is to hire high-quality teachers by giving schools more flexibility in setting their wages, provide tertiary students with greater financial support and implement training funds through tripartite social dialogue.

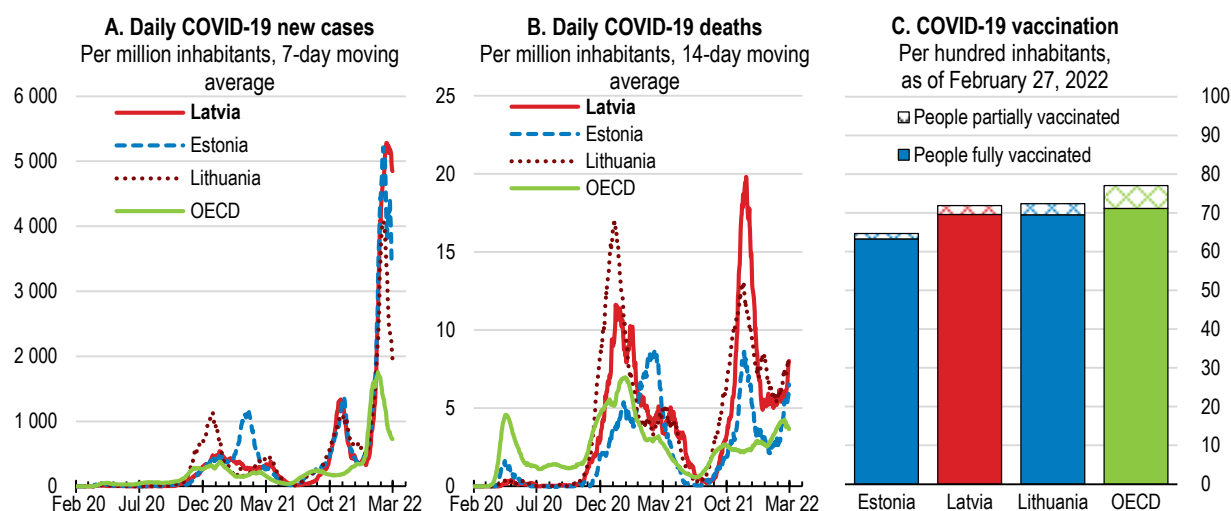
Improving the innovation system is equally important. The framework conditions for innovation are weak, with limited private-sector adoption of digital technologies, low-quality higher education institutions with few doctoral graduates, and low R&D spending in relation to GDP, especially by businesses. The 2018 corporate tax reform resulted in treating R&D like any other investment; this should be re-examined in light of persistently weak outcomes. It should also allow its academic researchers to share in the returns to their inventions.

MAIN FINDINGS	KEY RECOMMENDATIONS
Supporting the recovery and setting appropriate policies for sustainability and equity	
The vaccination rate has accelerated since the summer, reaching nearly 70%, close to the EU average	Continue efforts to accelerate vaccinations.
The national and EU budget rules have been suspended again for 2022. Budget balances are still feeling the effects of the COVID-19-related recession in 2020-21. Public debt is projected to exceed 50% of GDP in 2022. Annual spending reviews have been underway since 2016.	Maintain targeted short-term fiscal support to vulnerable households and the sectors hardest hit by COVID-19-related restrictions. Devise a credible fiscal strategy including effective associated fiscal rules, to prepare for ageing and climate challenges. Continue the process of annual spending reviews. Ensure effective implementation of projects financed by RRF funds, and coordinate the process with other national planning documents.
Latvia's tax and transfer policies provide little in the way of redistribution of income and wealth, whose inequality is severe. Old-age poverty is high. The Guaranteed Minimum Income was recently raised but is still insufficient to live off. Geographic disparities are pronounced.	Review minimum income thresholds on a regular basis, and raise the benefits for vulnerable groups, notably the elderly.
Long-term unemployment is high as a share of the total, especially in certain regions. Active labour-market measures are insufficient. Only about half of the unemployed receive unemployment benefits.	Raise active labour market spending. Expand eligibility for unemployment benefits.
The gender wage gap of 22% is among the highest in the European Union. The government has just adopted a Plan for gender equality and equal opportunities.	Shed more light on gender pay gaps by sector and employer, notably in public firms, and continue efforts in addressing gender-specific perceptions and enforcing anti-discrimination legislation.
Revising pension, health care, housing and environmental policies to enhance social welfare and sustainability	
Latvia's demographics have long been unfavourable and look set to continue to worsen. The ageing burden is set to fall mainly on retirees as pension replacement rates will fall, exacerbating old-age poverty.	Continue to raise the retirement age beyond 2025 by automatically linking it with life expectancy.
Public health-care spending is low relative to GDP, even allowing for Latvia's low per capita income level. Out-of-pocket spending is unusually high, and indicators of treatment quality (such as preventable and treatable mortality) and patient satisfaction (including unmet needs) are poor. Long-term care is a small share of total spending. Risky behaviours are widespread, especially in the form of heavy alcohol consumption, and obesity is prevalent.	Boost government health-care spending, and reduce the cap on individual contributions and improve access to state-funded health services and medicines to cut out-of-pocket expenses. Increase health-care spending on preventive measures, primary and home care, mental health treatment and long-term care. Consolidate the hospital network, and make greater use of digitalisation in the health-care sector.
Much of Latvia's housing is old, of poor quality and overcrowded. A lack of affordability is a widespread problem, as many households who cannot afford a mortgage are ineligible for housing benefit.	Ensure effective implementation of the National Development Plan's housing objectives, notably by raising the supply of affordable and social housing and improving home-heating systems.
Latvia has a number of sub-standard environmental outcomes. Carbon emissions have risen since 2000, and effective carbon tax rates are well below the estimated global cost of such emissions. Air quality is especially poor because of severe fine particle pollution.	Gradually raise effective carbon tax rates in sectors not covered by the EU-ETS, phasing out gas subsidies and redistributing revenues towards poorer households. Encourage greater use of renewables, and increase system inter-connection in both electricity and natural gas. Fight fine particle pollution through more stringent regulations and tighter enforcement of heating-system standards.
Strengthening investment, skills and innovation to boost exports and productivity	
Labour market informality, tax evasion, bribery and official corruption are seen as longstanding problems. Perceptions suggest that conditions have improved.	Continue to fight corruption, increase transparency in public procurement processes, and enforce the heavy penalties for tax evasion and bribery that existing legislation allows.
Export production is concentrated in low-complexity products, and few exports go outside the EU.	Strengthen business networks to support SMEs throughout their internationalisation process.
Despite recent progress, the quality of road infrastructure is well below the EU average, causing high road mortality. The government plans to upgrade most main roads by 2040.	Improve cost-benefit analysis and the selection process for new infrastructure projects, prioritising road safety.
Skills development is still lacking as seen by high dropout rates from tertiary education and below-average PISA outcomes in reading and sciences. The share of students in STEM subjects is low, while STEM graduates enjoy a high wage premium. A low level of basic digital skills is limiting the uptake of advanced digital technologies, which could overcome labour shortages in key sectors.	Boost student financial aid, and provide appropriate financial incentives for tertiary institutions to increase graduation rates. Provide schools with more flexibility in setting teacher wages to address recruitment difficulties for some subjects. Accelerate government collaboration with training providers to support the skills needed for the adoption of digital technologies.
The provision of employer-provided training is insufficient.	Establish training funds based on tripartite social dialogue.
Many aspects of Latvia's innovation performance are weak, including limited private-sector adoption of digital technologies, low-quality higher education institutions with few doctoral graduates and very low R&D spending in relation to GDP, especially by the business sector.	Improve the financial incentives for business R&D after evaluating the impact of the 2018 corporate tax reform. Allow academic researchers a share in royalties earned from their research.


1 Key Policy Insights

Like most other people around the world Latvians have suffered considerably from the COVID-19 pandemic. After having had few infections in the first wave in the spring of 2020 but a severe second wave, a new wave began to build in mid-summer 2021 (Figure 1.1). Vaccination has been slow until recently, with only about 67% of the population fully vaccinated in mid-January 2022 (Panel C), below the OECD average rate, and with substantial internal geographic variation (Central Statistical Bureau, 2021^[11]). Earlier containment measures were largely lifted at end-June, boosting economic activity, but a state of emergency was imposed for three months on 11 October following the summer resurgence of cases.

Figure 1.1. The COVID-19 crisis has hit hard, and vaccination has lagged



Source: OECD calculations based on Our World in Data.

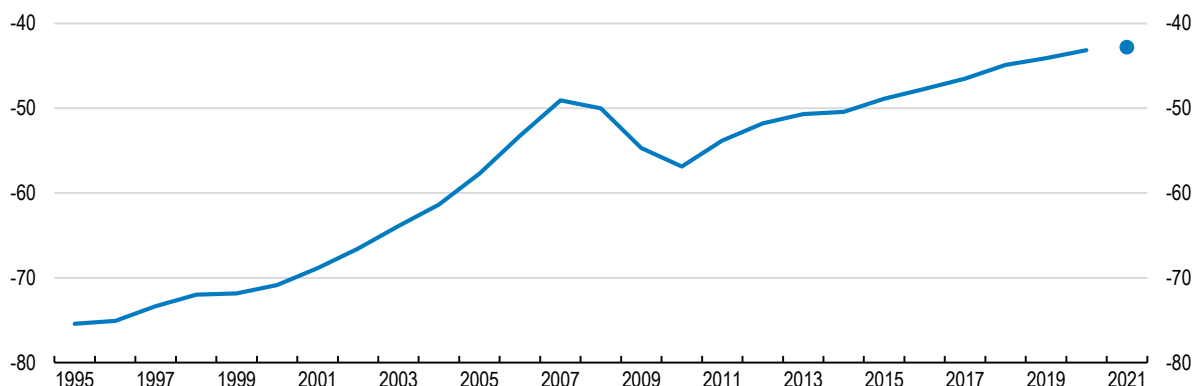
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The pandemic has been superimposed on long-standing structural weaknesses and social challenges. Although per capita income is continuing to converge to levels enjoyed by Latvia's more affluent trading partners, the 2020 gap in PPP terms was still 22.5% from the OECD average and nearly double that compared to the top half (Figure 1.2). Nevertheless, it has continued to catch up during the COVID-19 crisis (during the last year and a half).

Income and wealth inequality are quite pronounced: Latvia's latest Gini estimate was 34.5 in 2020, higher than in most other OECD countries (see Figure 1.4 below). The share of net household wealth held by the top decile was around 60% in 2015, fourth highest out of 27 OECD countries. Absolute poverty is widespread, also in relative terms, especially among the elderly (Figure 1.3).

Figure 1.2. Latvia is still catching up steadily to its most affluent trading partners

Gap in GDP per capita against the upper half of OECD countries, %



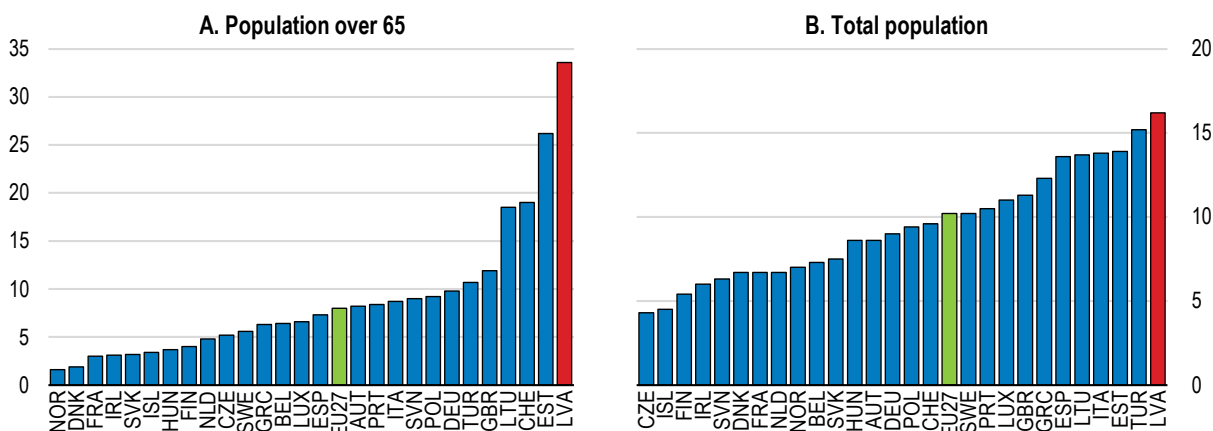
Note: Percentage gap with respect to the population-weighted average of the highest 19 OECD countries in terms of GDP per capita (in constant 2015 PPPs).

Source: OECD calculations.


StatLink  <https://stat.link/os1xaw>

Figure 1.3. The poverty rate is high, especially for the elderly

Poverty rate (set at 50% of median disposable income) after taxes and transfers, %, 2019



Source: Eurostat.

StatLink  <https://stat.link/y81cx9>

Against this background the main messages of this Survey are:

- The economy is expanding, with growth in 2021 above potential rates thanks to supportive fiscal policy settings and accommodative Euro Area monetary policy. However, substantial uncertainty persists. Accordingly, fiscal support targeted on businesses and households hit by those restrictions should be maintained. A credible fiscal strategy to prepare for ageing and climate challenges should be devised.
- Policy should have an increased focus on inclusion and environmental sustainability. There has been clear longer-term improvement in the quality of life for the average Latvian, but income and other gaps remain sizeable. Greater public outlays on pensions, affordable housing and health and long-term care are called for but should be paid for by revenue increases on a variety of tax bases. The future pension burden should be alleviated by further programmed increases in the

pension-eligibility age. While some of the funds for health care may be found in further efficiencies in the hospital network, much more funding is needed for preventive measures, primary and home care and mental health treatment. Environmental outcomes and the transition to carbon neutrality also require greater policy attention.

- Focusing on exports is key for Latvia's growth strategy, given its demographic outlook. However, Latvia's export market share for goods and services has underperformed. This may be attributable to the industrial structure, with exporters relying on low labour costs rather than innovation. Nonetheless, Latvia is in a good position to make the necessary structural changes, as considerable EU funding will be available in the coming years. To promote export growth and diversification and attract more sophisticated FDI, it should focus mainly on three policy areas: the business environment (including infrastructure), skills and innovation.

The economy is recovering, but negative risks predominate

The COVID-19 crisis interrupted Latvia's gains in income and employment. GDP per capita rose from 62% of the OECD average in 2015 to about 71% in 2021. Prior to the crisis the unemployment rate had fallen to below 6 ½ per cent (its lowest rate in 10 years), while job vacancies were rising quickly. At the same time, the macroeconomic context appeared balanced, with inflation largely under control and prudent fiscal policies in place. In the aftermath of the COVID-19 outbreak, unemployment peaked at about 8.7%, with a larger hit to women's hours worked than men's (Ciminelli, Schwellnus and Stadler, 2021^[2]). The newly unemployed were mainly young adults from Riga. Still, the decline in GDP was smaller than in most OECD countries due to a relatively mild first wave of COVID-19 and resilient demand for Latvia's main export goods such as wood, agricultural products and electronics.

Despite a stronger and deadlier second wave, the hit to activity was less severe than from the first wave. Private spending picked up starting in the spring of 2021, as people and firms first adapted to remaining restrictions and then reacted to their elimination. In addition, it was supported by a steep rise in wages, attributable to increases in the statutory minimum wage in January 2021 and in public-sector pay (notably of medical and teaching staff), as well as shortages in skills-intensive sectors such as ICT and professional services. By the second quarter of 2021 real GDP had already regained its pre-crisis level. In the third quarter of 2021, GDP growth slowed again, partly because pandemic-related measures and slow vaccination rollout caused activity in some sectors to remain subdued.

GDP held up well also in the fourth quarter of 2021 even with a month-long lockdown. GDP in the fourth quarter of 2021 was nearly unchanged with respect to the third quarter, and GDP in 2021 in total was up by 4.8%. Private consumption declined due to constrained spending options and higher prices. Export growth slowed but remained robust, and in December 2021, the value of goods exported was 36% higher than a year before, led by mineral products, chemicals, base metals and wood products. The sectors that grew most rapidly in 2021 were information and communication technology, financial services and health care. In 2021, investment in machinery was robust compensated for a significant decline in housing because of unfavourable weather conditions and higher costs. After declining steadily from June 2021, the seasonally adjusted unemployment rate increased slightly as from October 2021 to 7.3% in January 2022. The requirement to be vaccinated to work in some sectors might have prevented faster gains in employment, as could skills mismatch. Inflation has been in positive territory only since March 2021 and reached 7.4% year on year in January 2022, driven mainly by rising housing, food and natural gas prices, while the corresponding figure for core inflation (excluding food, energy, alcohol and tobacco) was 3.7%.

Strong economic growth is projected, but downside risks remain substantial. According to the latest OECD Economic Outlook (December 2021), GDP is expected to grow by 3.6% in 2022 and 4.8% in 2023 (Table 1.1). Goods exports will remain robust, despite global shortages of some key components and elevated shipping costs. The sectors most dependent on face-to-face contacts (such as travel and air transport) are predicted to recover more slowly, with important effects on the rest of the economy. An

acceleration of capital spending supported by EU funds, including the Recovery and Resilience Facility (RRF), is expected to support medium-term growth. Headline inflation will start slowing gradually in 2022 before rising again in 2023 as the labour market tightens.

Uncertainty is exceptionally high, with substantial downside risks to activity and vulnerabilities (Table 1.2), including those associated with the ongoing pandemic. A major COVID-19 wave began in the late summer of 2021, leading to the imposition of a three-month state of emergency on 11 October. Another wave got underway at the end of 2021 and has peaked only in mid-February 2022. Other downside risks include geopolitical and trade tensions and the process of deglobalisation that might be encouraged by the COVID-19 crisis, which could challenge supply-chain management, impose additional costs on firms and hurt productivity growth worldwide. This could lead to higher inflation in Latvia, notably in the building sector, given the strength of wage gains in a context of lack of capacity, especially of qualified labour. Inflation could be structurally higher than expected, as prices converge with those of wealthier trading partners.

Table 1.1. Macroeconomic indicators and projections

Annual percentage change, volume (2015 prices)

	2018	2019	2020	Estimates and projections		
	Current prices (billion EUR)			2021	2022	2023
Gross domestic product (GDP)	29.2	2.5	-3.8	4.8	3.6	4.8
Private consumption	17.3	0.2	-7.4	4.8	4.2	5.6
Government consumption	5.3	3.4	2.6	4.4	1.9	2.0
Gross fixed capital formation	6.4	6.9	0.2	3.0	6.2	7.4
Housing	0.7	3.8	-1.9	-14.6	5.0	4.3
Final domestic demand	29.0	2.3	-3.8	4.2	4.2	5.3
Stockbuilding ¹	0.3	0.9	0.0	5.0	-1.1	0.0
Total domestic demand	29.4	3.1	-4.0	9.2	2.9	5.1
Exports of goods and services	17.9	2.1	-2.2	6.2	5.1	4.4
Imports of goods and services	18.1	3.0	-2.5	13.5	4.0	4.8
Net exports ¹	-0.2	-0.6	0.2	-4.2	0.6	-0.4
Other indicators (growth rates, unless specified)						
Potential GDP	..	3.0	2.8	2.7	2.8	2.8
Output gap ²	..	0.0	-6.2	-4.7	-4.0	-2.0
Employment	..	0.1	-1.9	-2.9	2.2	1.3
Unemployment rate (% of labour force)	..	6.3	8.1	7.5	6.6	6.2
GDP deflator	..	2.6	-0.1	6.7	4.1	2.7
Harmonised consumer price index	..	2.7	0.1	3.2	4.9	2.7
Harmonised core consumer price index ³	..	2.2	0.9	1.9	3.8	2.7
Household saving ratio, net (% of disposable income)	..	0.1	9.1	12.9	8.2	4.9
Current account balance (% of GDP)	..	-0.7	2.9	-3.3	-2.1	-2.3
General government financial balance (% of GDP)	..	-0.6	-4.5	-8.7	-5.4	-3.9
Underlying government primary financial balance ²	..	0.1	-1.3	-6.2	-4.2	-3.9
General government gross debt (% of GDP)	..	48.1	56.1	61.7	65.4	67.3
General government gross debt (Maastricht, % of GDP)	..	36.7	43.3	49.0	52.6	54.6
General government net debt (% of GDP)	..	11.6	16.9	24.0	27.6	29.6
Three-month money market rate, average	..	-0.4	-0.4	-0.5	-0.5	-0.5
Ten-year government bond yield, average	..	0.3	-0.1	0.0	0.0	0.1

1. Contribution to changes in real GDP.

2. Percentage of potential GDP.

3. Harmonised index of consumer prices excluding food, energy, alcohol and tobacco.

Source: OECD Economic Outlook 110 (December 2021) and updated historical data.

Table 1.2. Potential vulnerabilities of the Latvian economy

Vulnerability	Possible outcome
Renewed major global pandemic.	This would most likely lead to new containment measures that would reduce economic activity and employment and worsen the public finances. The impact on the external balance would be unclear.
Geopolitical risks eventuate or global trade tensions deepen.	Geopolitical tensions or disruptions to trade could jeopardise exports and investment.
Deglobalisation results in the disruption to or even dismantling of some supply chains.	Even though Latvia is not a major player in GVCs (Chapter 2), its economic integration in Europe means it would suffer from stagflationary effects.

There are a number of factors influencing the medium-term strength of the expansion and the pace of living-standard convergence with more affluent nations. Foremost among these is the ongoing demographic shrinkage (and the associated loss of agglomeration benefits) from natural population decline due to a low fertility rate and negative net migration (though official projections show this to be reversing to a small net population gain in the coming few years). This downward pressure has been limited thus far because of the absorption into the working-age population of a modest baby boom in the 1980s but should begin to bind seriously going forward. Labour supply could also be limited by the poor health of some groups, notably older working-age men, whose harmful lifestyle choices – most prominently heavy alcohol consumption – limit their capacity for work in too many cases (see below).

Some traditional activities are also facing or are likely to confront negative structural shocks. In particular, the markets for trans-shipment of Russian commodities (notably coal) for re-export through Latvian ports as well as for east-west financial transactions from the former Commonwealth of Independent States are likely to be eventually lost. In addition, there are threats to the trucking sector from the EU-proposed Mobility Package I, which would require that vehicles return to their country of origin every eight weeks starting 21 February 2022; to the forest products sector from the EU Biodiversity Strategy for 2030; and to a broad swath of the economy from the gradually worsening (mainly indirect) effects from climate change and from the policy uncertainty surrounding how that will be dealt with.

On the other hand, there are considerable opportunities if the appropriate policy changes are made. Such reforms and investments would place Latvia's entrepreneurs in a better position to seize the chance to move up the value chain, notably in food (such as dairy) and wood products, where downstream integration has been quite limited thus far, and to promote expanded exports in innovative products and services held back by a lack of R&D (Chapter 2). Considerable EU and national funding amounting to an average of around 6% of GDP per year is available that could help to address structural challenges, assuming good project selection and execution: from the Recovery and Resilience Fund, part of which is to be allocated to a National Reindustrialisation Plan; from Cohesion Funds; from the Common Agricultural and Fisheries Policies; and from deemed new domestic fiscal space (see below). But some of these funds would also best be spent on tackling the drivers of the major equity challenges Latvia faces.

Fiscal and tax policies need to focus on supporting both growth and inclusion

Fiscal policy has moved robustly to counter the pandemic

On the eve of the COVID-19 pandemic at end-2019 Latvia's general government deficit was less than 1% of GDP and its Maastricht debt 37% of GDP. With considerable assets (mainly in the form of currency and deposits), Latvia's net public debt was less than 12% of GDP, and its sovereign credit ratings had improved. While almost three-quarters of its public debt is held by non-residents, none is denominated in foreign currency.

To counter the pandemic the authorities extended substantial policy support, albeit less than in most other OECD countries (Figure 1.4), largely because less was needed in the absence of a severe first wave of COVID-19 in Latvia in the spring of 2020. The 2020 deficit increased by 4 percentage points of GDP and

debt by around 6.5 points. Most of the fiscal expansion is judged to be cyclical. However, late in 2020 the authorities made more substantial moves to shore up business and household finances; these have caused a sharp increase in the deficit (Box 1.1). It also took steps to counter the effects of surging energy prices late in 2021.

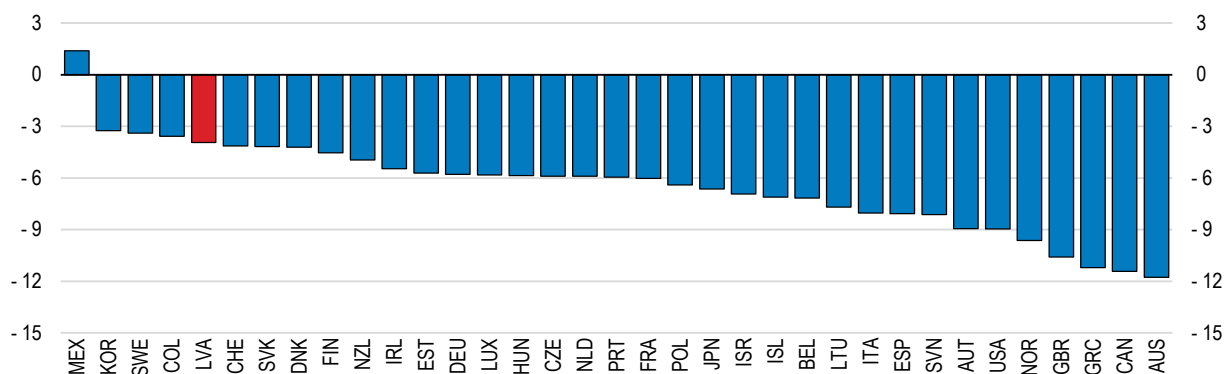
Box 1.1. Measures taken by Latvia to mitigate the COVID-19 crisis

Early in the crisis, the authorities developed “Latvia’s Strategy to Mitigate the Negative Impact of the COVID-19 Crisis”, published on 26 May 2020. Wisely, the Strategy did not focus solely on overcoming the short-term effects of what would prove to be a downturn of unknown duration and severity. It went further and described the medium-term measures that would align with the government’s goals. There were to be five “action lines”: human capital, innovation, business environment for export capacity, access to finance and infrastructure; and these were to be implemented in three phases: economic stabilisation, reorientation and growth. The Strategy served as the basis for the follow-on National Industrial Policy Guidelines for 2021-2027, which was released in August 2020. That document set specific and ambitious quantitative objectives for exports and R&D for 2023 (when stabilisation and reorientation were assumed to be completed) and 2027.

The most recent (October 2021) update on support measures in 2020-22 can be found in Republic of Latvia ((Republic of Latvia, 2021^[3]), Table A). According to Ministry of Finance data from early January 2022, total support including sectoral budget financing, personal benefits, tax payment deadline extensions, loans and guarantees, and spending of additional EU funds amounted to 4.4% of GDP in 2020, 7.2% of GDP in 2021 and 3.3% of GDP planned in 2022. The main items in 2021 have been: 1) a one-time payment of 500 euros for each child (which cost EUR 188 million); 2) a one-time payment of 200 euros for retirees and people with disabilities (which cost EUR 110 million); 3) extra spending for health care (EUR 559 million, including EUR 165 million in bonuses for doctors) and transport (EUR 228 million); and 4) business loans for working capital worth 30% of gross compensation in October-November 2021 up to a ceiling of 100000 euros per month available to firms whose turnover was down at least 20% or 30% (depending on other criteria) from the corresponding period of 2019/2020 (EUR 513 million thus far). Substantial short-time work compensation benefits (EUR 136 million) and wage subsidies (EUR 33 million) were also disbursed. In all, an estimated 6.9% of GDP was provided in 2021 (Republic of Latvia, 2021^[3]).

Figure 1.4. Fiscal support in the first year of the pandemic was adequate

General government financial balance, % of GDP, change between 2019 and 2020, % pts



Source: OECD Economic Outlook 110 database.

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According to 2022 budget projections, baseline economic assumptions result in a deficit of 4.8% in 2022, 2.1% in 2023 and 1.3% of GDP in 2024, following 9.3% in 2021, and see Maastricht debt at 51.7% of GDP at the end of 2022, almost 15 percentage points above pre-pandemic levels. The budget includes measures to fund additional public investment and COVID-related measures in 2022 (0.8% of GDP for each), but spending as a share of GDP will fall by 4.2 percentage points, of which 1 point is in health and education. Two key redistributive policy measures were included. First, there was an increase in the non-taxable minimum in the personal income tax system from 300 euros per month (330 euros per month for pensioners) to 350 euros per month in January 2022 and then 500 euros per month in July 2022, at a budgetary cost of 153 million euros (almost a half per cent of GDP) annually once fully implemented. Second, family benefits were increased to up to 100 euros per month per child for households of four or more children (less for smaller families) at a cost of 91 million euros per year (0.3% of GDP).

Nevertheless, there are grounds for caution in assessing the fiscal outlook in the short and medium terms. First, the budget assumes a steady and sizeable acceleration in potential growth of a full percentage point in the coming few years, much of it in 2022. This allows the projected pickup in actual growth to be absorbed without as much pressure on resources and thus on domestic interest rates. Second, fiscal demands are multiplying, including for lower taxes on labour and more pay for health-care workers and teachers (see below). Third, the impact of further extensions of the COVID-19 crisis could prove more costly for the budget. The Fiscal Discipline Council early on predicted that debt could exceed 50% of GDP already in 2022, an outcome now shared by the latest *OECD Economic Outlook* and the official budget forecast. Finally, interest rates could rise earlier than expected, forcing up debt service. The latest EU Debt Sustainability Monitor (February 2021) placed Latvia as one of 11 countries that are at short-term risk of fiscal stress, though it foresaw no medium- or long-term risks, despite the continuing population shrinkage and ageing. Latvia has had a system of fiscal rules for a number of years (Box 1.2), and they have been fully complied with for the most part (Bova and Manescu, 2020^[4]). Owing to the COVID-19 crisis the European Union's (and Latvia's) rules have been in suspension since 2020, and this will be the case again in 2022. Otherwise the Fiscal Discipline Law would have required the central government to take the tightest of its various fiscal rules in order to set its spending ceiling. Of course, with its Maastricht debt at around 50% of GDP (and net debt much smaller still), Latvia is well below the ceiling of 60% of GDP. Discussions are underway at the EU level as to what should be implemented in 2023. There are a variety of proposals on the table, but two worthy of mention include a call for an increase in the Maastricht debt ceiling to 100% of GDP in combination with a spending rule in line with trend output growth (Francová et al., 2021^[5]) and the replacement of fiscal rules by standards plus a stochastic debt sustainability analysis (Blanchard et al., 2021^[6]). Latvia may want to return to even tighter national fiscal rules in order to maintain a sound fiscal position, reduce policy pro-cyclicality and enhance public spending efficiency.

Box 1.2. Latvia's fiscal framework

Prior to their suspension in 2020, Latvia had a complex set of fiscal rules, notably: 1) the EU maximum general government deficit of 3% of GDP and a target structural budget balance of -0.5% of GDP; and 2) a maximum real general government spending increase (net of interest, EU funds, smoothed capital outlays, cyclical unemployment spending and discretionary revenue measures) that does not exceed average potential GDP growth over the decade ending in year t+4. This is then subjected to a separate "inheritance rule" from the previous Medium-Term Budget Framework based on the latest growth of certain spending items like pensions, social spending, EU funds and interest that can shift the ceiling by no more than 0.1% of GDP.

Besides deciding what to do with the considerable EU funding that will be available in coming years and to ensure spending bottlenecks are avoided (Box 1.3), the authorities need to devise a credible fiscal strategy, including effective associated fiscal rules, to almost eliminate the structural deficit if they wish to restore flexibility to handle future unexpected shocks and control debt in the long term (Figure 1.5). The

pace of consolidation implied in the short term and the small deficit permitted thereafter (0.3% of GDP, in line with the government's medium-term objective) are key to achieving this (even though government debt is not quite stabilised), while at the same time allowing the financing of several equity-enhancing spending demands on the budget as well as foreseeable future spending pressures related to climate change and the low-carbon transition, and ageing. The latter will be felt largely only on health and long-term care (all of these are discussed below). The present policy settings assume that (gross) public pension replacement rates will shrink from 55% to 20% over the coming half century, which seems difficult to sustain, even accounting for the system of funded private pensions that will provide about a third of future pension income. Nevertheless, if non-contributory old-age benefits are raised in line with median incomes every year starting in 2023, as planned, that will impose a rising fiscal cost, though it will prevent worsening old-age poverty. Part of the fiscal strategy should also be to improve spending efficiency. That is being enhanced by an inter-agency spending review process that has been underway since 2016 and has generated EUR 341 million in cumulative savings. The scope of the review each year is defined and approved by the government as is the destination of any funding reallocations. It has also involved the adoption of best-practice tools for budget openness and accessibility, which inform citizens in an interactive and visible way about the areas in which and the extent to which taxpayers' money is being spent and what results are expected.

Box 1.3. Substantial government investment is expected, supported by EU funds

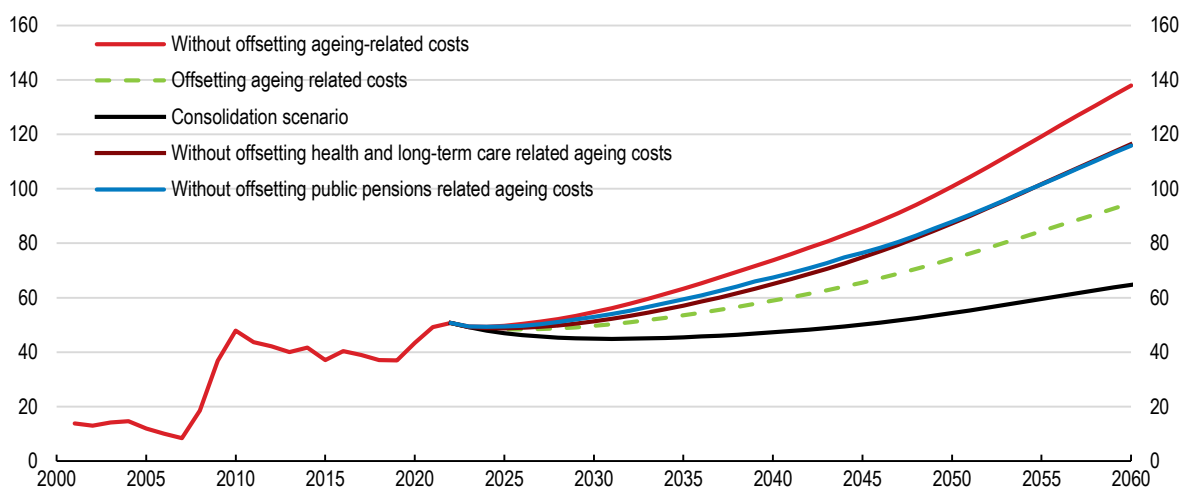
Latvia is expected to receive a substantial amount of EU resources from 2021 to 2027. The lion's share is expected to come from the Cohesion Funds (almost EUR 5 billion, about 17 per cent of 2020 GDP). In addition, Latvia is one of the largest recipients of grants under the Recovery and Resilience Facility (RRF): EUR 2.02 billion (about 6.7 per cent of 2020 GDP), of which EUR 1.85 billion has been already approved. The remainder will be allocated in 2023 based on the economic situation. According to the Ministry of Finance, government investment is planned to reach its peak in 2024 and then decline gradually. These funds will have a large effect on real GDP: an IMF simulation suggests that an increase in capital expenditure of ½ per cent of GDP per year could increase real GDP growth by 0.7 per cent above baseline projections over the medium term. Accordingly, it would be wise to ensure sufficient fiscal space exists in the national budget to take up the slack of declining EU support after 2024.

A significant share of the RRF funds will be devoted to climate change and digital transition. The authorities intend to allocate 37% for climate-related measures, 20% for the digital transition, 20% for reducing inequality, 11% for health care, 10% for economic transformation and 2% for promoting the rule of law. Several issues should be addressed to ensure an efficient allocation of funds. First, as the Fiscal Discipline Council has argued, the use of these funds should be coordinated with other national planning documents, especially the National Development Plan, to avoid spending bottlenecks, create synergies and boost effective multipliers. Second, all outlays should be subject to rigorous cost/benefit analysis and preferably be justified by assessing their strategic payoff. Third, the authorities should aim to reduce efficiency gaps in the public expenditure process, particularly on project appraisal and management of Public-Private Partnerships. Fourth, to avoid overheating in the construction sector, Latvia should make it easier to issue work permits for construction employees from outside the European Union and support firms embracing digital technologies that increase labour productivity (Chapter 2).

Source: (IMF, 2021^[7]).


Figure 1.5. A fiscal consolidation strategy is needed to prepare for ageing pressures

General government debt, Maastricht definition, as a percentage of GDP



Note: The offsetting-ageing-costs scenario assumes a primary general government balance of -1% of GDP from 2024. The without-offsetting-ageing-costs scenario assumes that increased spending on health, long-term care and pensions will add 1.8 percentage points of GDP to annual government spending at the peak in 2055 and 1.6 percentage point of GDP by 2060, in line with European Commission (2021). An increase of 0.8 per cent of GDP by 2060 is due to a rise in spending on health and long-term care, and another 0.8 per cent is due to a rise in public pension spending that is greater than the increase in the contributions. The consolidation scenario assumes a primary balance of -0.3% of GDP from 2024, in line with the medium-term objective of the government.

Source: OECD Economic Outlook 110 database; (Guillemette and Turner, 2021^[8]); (European Commission, 2021^[9]).

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Box 1.4. Quantifying the GDP and fiscal impact of proposed structural reforms

The estimated impact of some key structural reforms proposed in this *Survey* are calculated below using historical relationships between reforms and growth in OECD countries (Table 1.3). As these simulations abstract from detail in the policy recommendations and do not reflect Latvia's particular institutional settings, the estimates should be seen as purely illustrative.

Table 1.3. Illustrative economic impact of some reforms proposed in this survey, after 10 years

	GDP per capita (%)	Through employment	Through productivity
Spending on active labour market policies, per employed, as a share of GDP, is increased to reach approximately 75% of the level of the OECD average	1.4	0.9	0.5
Business R&D spending is increased by 0.2% of GDP	0.3	-	0.3
The pension age is increased by half a year	0.5	0.5	-
Tax increases to fund the extra spending	-0.4	-0.2	-0.2
Total	1.8	1.2	0.6

Note: All reforms are assumed to be implemented immediately.

Source: OECD Long-term model and J. Arnold (2008), "Do Tax Structures Affect Aggregate Economic Growth?: Empirical Evidence from a Panel of OECD Countries", *OECD Economics Department Working Papers*, No. 643, OECD Publishing, Paris.

The following estimates (Table 1.4) roughly quantify the long-run fiscal impact of selected structural reforms proposed in this *Survey*. Since the assessment of the reform impact of recommendations on GDP is estimated in a budget-neutral way, it already incorporates any negative effect of GDP of tax

increases described in this box. The fiscal estimates below do not take into account any consequent effects of reforms on GDP and hence fiscal revenues, because these seem too uncertain. The sum of the reforms is deliberately deficit-reducing because this Survey calls for eventual fiscal tightening.

Table 1.4. Illustrative budget impact of recommended fiscal/structural reforms

Measure	Fiscal balance effect (% of GDP)
Deficit-increasing measures	1.5
Increase the Guaranteed Minimum Income and taper its withdrawal ¹	0.4
Boost spending on Active Labour Market Policies, notably in training ²	0.2
Increase spending on health and long-term care	0.5
Provide more public funding for affordable rental and social housing, and/or enrich housing benefit ³	0.2
Provide more means-tested financial support for tertiary students	0.1
Improve wages and conditions for researchers, and provide incentives to collaborate with industry	0.1
Offsetting tax measures	2.2
Increase effective corporate income tax rates	0.3
Increase personal tax progressivity ⁴	0.2
Increase selected excise taxes and remove subsidies for the energy sector ⁵	0.3
Increase excise tax on undertaxed forms of alcohol, smoking tobacco and other products containing nicotine	0.1
Increase real property tax, implement a gift/estate tax and/or deem capital gains to be realised at death ⁶	0.5
Accelerate efforts to fight informality and tax evasion	0.8

Notes: The policy changes assumed for the estimation are the following:

1. The Guaranteed Minimum Income is increased to 20% of the median income with a tapering of the withdrawal, a variant of the calculation in (European Commission, 2018_[10]). 2. Spending on active labour market policies as a share of GDP (0.18%) is increased by 0.2 percentage points to reach approximately 75% of the level of the OECD average (0.48%); see Figure 1.11 below. 3. Public funding for housing allowances as a share of GDP (0.05%) is raised to the OECD average (0.27%), for example. 4. Progressivity of the personal income tax is increased, as described in (Rastrigina, 2019_[11]). 5. Changes in the energy tax regime consist of harmonising the tax rate for diesel, oil products and gasoline, removing subsidies for natural gas and raising excise on heating fuel. 6. The gap in property tax as a share to GDP between Latvia (0.9%, according to OECD *Revenue Statistics*) and the OECD average (1.9%) is halved, for example.

Source: OECD calculations.

Fiscal policy could also do more to reduce poverty

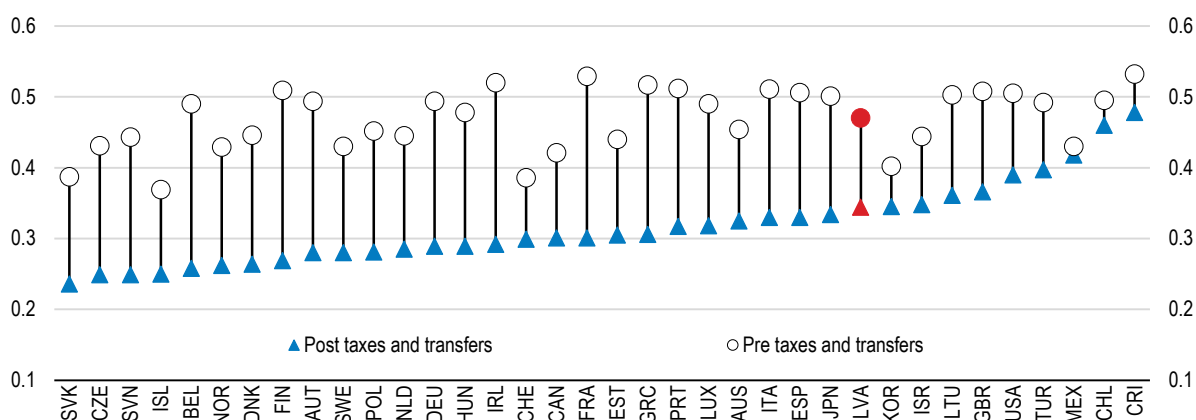
As described above, Latvia has an unequal distribution of income and wealth. Only the poorest 2% of the population are classified as “needy”, as distinct from “low-income” households, whose definition is locally determined within a range. Fiscal redistribution only moderately reduces disparities in market incomes, less than in a majority of OECD countries (Figure 1.6). The first channel for income redistribution is the progressivity of public spending in the form of cash transfers to households (apart from in-kind social spending on education and health care, which are excluded from such analysis). However, social benefits are low in relation to GDP, below Lithuania’s (though catching up) and well below Estonia’s. There is also a tax-free Guaranteed Minimum Income to which all are entitled as a form of social welfare, but it remains modest, despite very recent increases: it is the amount needed to reach a threshold defined in 2021 as 109 euros per month for the first person and 76 euros per month for each subsequent member of the household. It is subject to an assets test; various forms of income and assets are exempt from inclusion; and it is granted for either three or six months, though renewals are allowed. The 2019 *Economic Survey* recommended 0.5% of GDP be devoted to raising it to 40% of median income (rather than the much lower level of officially defined “needy” income) for those who cannot work (20% for those who can) so as to lower poverty by 9 percentage points (OECD, 2019_[12]).

The second main mechanism for redistribution is through taxation. Latvia’s GDP share of corporate income tax is one of the lowest in the OECD. The logic is to attract business activity, notably in the way of foreign

direct investment. The tax, levied only on distributed profits, is borne mainly by the affluent, as opposed to the growing GDP share of taxes on goods and services (now fifth-highest in the OECD), which are slightly regressive (though tax systems' distributional effects should be judged in combination with the benefits side of the ledger). The global agreement on minimum effective corporate tax rates could lead Latvia to collect more corporate income tax once the European Union issues the resulting directive that implements the Pillar Two rules (OECD, 2020^[13]): indeed, recent private estimates point to a gain of 100 million euros (over 30%) if the internationally agreed floor rate is 15% (Barake et al., 2021^[14], Table 2). Latvia's statutory personal tax rates have been somewhat progressive only since 2018, with little evidence thus far on the impact of that change. Currently tax-based redistribution comes through the Solidarity Tax of 25% imposed on individual income earned above the threshold for payment of social insurance contributions (in 2021 above 62800 euros), though this is paid by very few taxpayers. Indeed, the proceeds of the Solidarity Tax in 2021 are forecast to be only 57 million euros (0.2% of GDP). Progressivity is achieved by the presence of a differentiated non-taxable minimum, a tax allowance that is not available to those earning above a certain income threshold, currently 1800 euros per month. In principle, greater progressivity of personal income tax rates (though that would be likely to encourage tax evasion and avoidance and dull work incentives more generally), a higher Solidarity Tax rate or a larger non-taxable minimum could all increase fiscal redistribution in the medium term. In any case the amount of redistribution achieved by the tax and transfer system should be monitored regularly.

Figure 1.6. Taxes and transfers do not moderate income inequality much

Household income distribution, Gini coefficient¹, 2019 or latest available year



1. Scale from 0 "perfect equality" to 1 "perfect inequality", Source: OECD Income Distribution database (IDD).

StatLink  <https://stat.link/xk9yun>

Much of Latvia's income disparity is geographically determined (see below). The east of the country is much poorer than average. Three-quarters of the take from the personal income tax goes to the municipalities, which would seem to allow them to handle such challenges. However, the potential to overcome them is constrained by taxing entirely based on residence (which is a common practice among OECD countries). One result is that increasingly the city of Riga lacks a lucrative tax base compared to the surrounding Pieriga region, home to many commuters.

Finally, there are some missed opportunities to achieve a fairer distribution of income and wealth and gain tax revenues as well. First, recurrent property tax is low compared to the OECD average both relative to total tax revenues as well as GDP. The previous Survey called for increasing it to the average GDP share in the OECD, which implies an increase of 0.8 percentage point of GDP. However, the authorities believe that low recurrent property taxes are a crucial determinant of competitiveness, at least with its Baltic

neighbours: Estonia has no such tax at all, while Lithuania's is zero for those whose homes have cadastral values of less than EUR 150000. They also fear that many homeowners could not afford any further tax burden, having acquired their homes for paltry sums when they were privatised at independence. Yet, competitiveness considerations are likely to pertain only to those applied to business properties, and a revenue-raising reform could avoid taxing low-value residential properties by having a minimum threshold below which such houses are not taxed. Secondly, the redistributive effectiveness of the tax system is limited by the lack of a gift or estate tax in Latvia (OECD, 2021^[15]), though personal income tax is levied on recipients other than the spouse and children of the donor/deceased. Furthermore, unrealised capital gains are exempt at death and transferred with a step-up in basis (the unrealised capital gain is not taxed possibly over multiple generations). Latvia could either impose a more complete system of gift/estate taxation or deem all capital gains to be realised at death (as is done in Canada, for example) or at least not allow a step-up in basis (as is done in Australia) to avoid intergenerational transfers that yield increasingly concentrated wealth. Admittedly, however, it is unclear how much additional revenue this would raise despite high administrative costs, and it might have modest negative effects on saving incentives.

Table 1.5. Past OECD recommendations on taxation and spending

Topic and summary of recommendations	Summary of action taken since 2019 Survey
Raise more taxes from the taxation of real estate and energy. Ensure that energy taxes are uniform across fuels and uses.	Energy taxes are heavily constrained by cross-border shopping, but scope exists to increase taxes on natural gas, diesel and home heating fuels over time. The authorities see property taxes as equally constrained by competitiveness concerns as well as affordability problems for many who acquired their homes at independence.
Phase out the microenterprise tax regime.	Its features are being made less attractive: applicable rates are being raised in 2021; no new firms are being admitted; only unincorporated firms are able to access it; and their employees are now subject to personal taxation. However, salary restrictions are being abolished. The number of declarations and employees has fallen sharply in the past few years to below 20000 and 34000, respectively, per quarter.
In the longer run consider further steps to make the personal income tax more progressive.	In 2018 a progressive tax schedule was introduced. It has three rates of 20%, 23% and 31%. But the system overall does not achieve much redistribution. Another important source of tax-based redistribution is the differentiated non-taxable minimum, which is being raised from 300 euros per month (330 euros per month for pensioners) in 2021 to 350 euros per month for the first half of 2022 and then 500 euros per month in the second half.

The financial system is sound, but credit provision could be improved

Banks, especially the larger ones, are in good financial shape

Latvia's banks are well capitalised, have ample liquidity, sound profitability and moderate costs. None were allowed to pay dividends last year during the COVID crisis. Yet a number of banks that had previously focused on serving foreign customers, in particular from CIS countries, have been continuing to feel the loss of that business in recent years. The sector's assets began to fall in 2016 (though the declines have ended in the pandemic with the rise in household deposits and banks' participation in the ECB's TLTROIII operations). At the same time nonbanks, notably fintechs (see below), have been gaining market share, presumably by providing more competitive pricing. However, intermediation has been weak, and credit constraints are widespread.

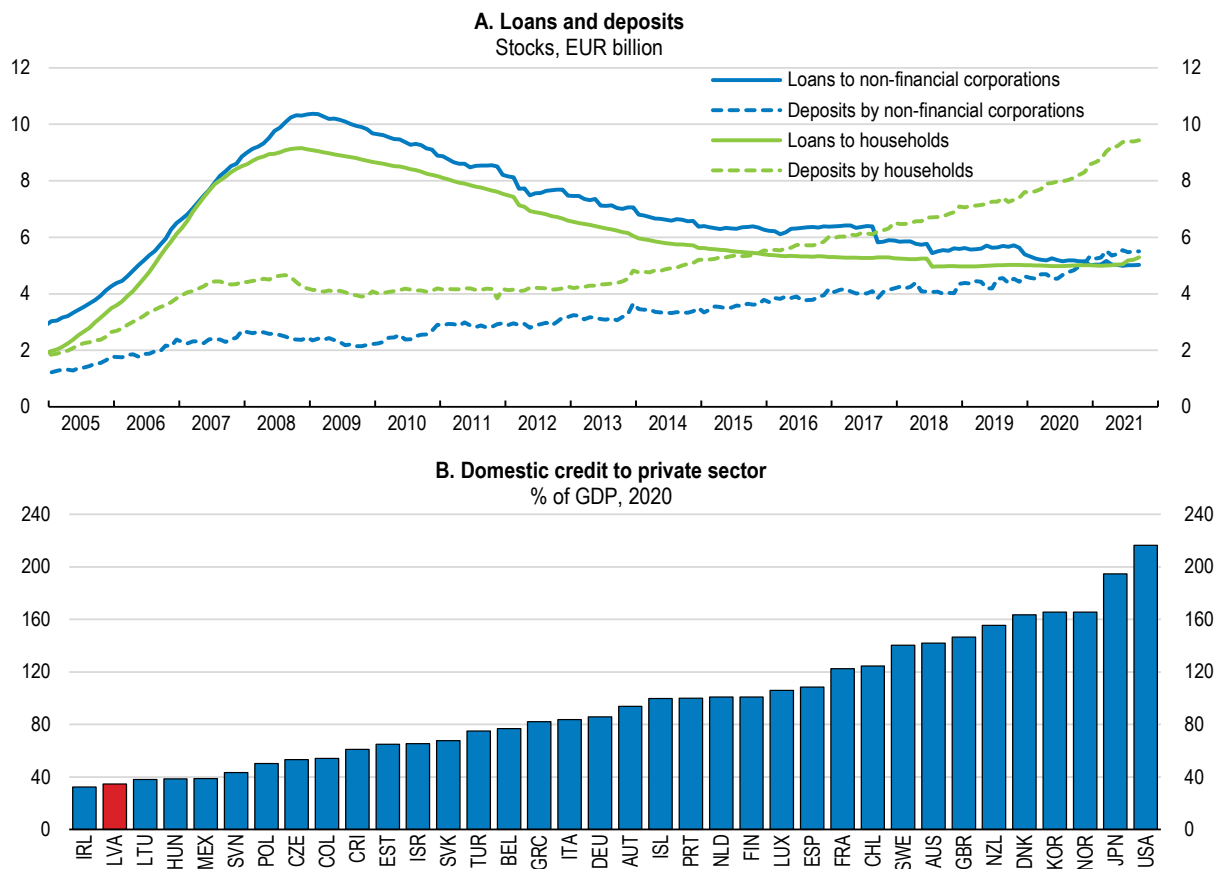
Credit growth is modest

The Global Financial Crisis hit the Latvian economy hard, its financial system in particular. One sign of the ensuing strain was the failure of Latvia's second-largest bank in 2018, while another is still visible in the form of substantial financial-risk and credit aversion. Most Latvian households and firms take on little debt and try hard not to fall behind in their repayments. Banks maintain tight credit standards and high credit spreads in their credit-evaluation models despite marked improvement in the business environment.

However, there is still EUR 500 million in payday loans outstanding, though that has been shrinking; the regulatory ceiling on the interest rate on such loans is 0.07% per day (29.1% per annum).

The growth in credit demand has long been weak, as exemplified by the outstanding stock of loans to nonfinancial corporations (NFCs), which has been falling year on year since the end of 2019, while their household counterpart has been largely unchanged for some time now (Figure 1.7). On the other hand both NFCs and households have seen double-digit growth in low-risk deposits over that period, as spending has been curtailed and involuntary saving has accrued because of government-imposed pandemic-related restrictions. Households' debt-service ratio is low and fairly flat across income, wealth, age and household-size classes. Overdue loans (30-90 days) have been rising slightly for NFCs in recent quarters but are still trending down for households, as well as for foreign clients for whom they are still high. Nonperforming loans are the lowest in a decade at 4.7% for the top four banks in 2020 but much higher than that for their smaller rivals. These outcomes do not appear to have been attributable to the debt-service moratoria introduced in the wake of the pandemic, nearly all of which expired by mid-year 2021: early indications are that no significant change in asset quality has been observed since then.

Figure 1.7. The banking system is not providing much credit to the economy



Source: Bank of Latvia; World Bank, WDI database.

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Nonetheless, there are some signs that credit supply remains impaired. One is the relatively high lending rates: for example, rates on new loans to nonfinancial corporations in 2020 were more than double those in the average euro-area country. Furthermore, Latvia (like its Baltic neighbours) is among a small number

of such countries which have not seen a significant decline in the past five years. In principle, this could be explained by the associated risks, but recent Bank of Latvia research shows that the quality of Latvian banks' loan portfolios, their funding costs and other conventional factors thought to affect lending rates do not go far in explaining them (Benkovskis, Tkacevs and Vilerts, 2021^[16]): indeed, lending rates faced by Baltic nonfinancial corporations are among the highest in the euro area, once such factors are accounted for.

Access to credit was tight prior to the pandemic and is likely to be still so. The latest ECB Household Finance and Consumption Survey found that 8.8% of all households were credit-constrained in 2017, fifth most among the 20 countries included. Especially hard hit were larger and younger households, renters and those still paying off mortgages, and those having low net wealth and who are without tertiary education (Bank of Latvia, 2020^[17]). Although getting credit was ranked relatively highly by Latvian firms (15th) in financial-sector stability by senior executives in autumn 2020 (Sauka, 2021^[18]), access to finance was a major barrier to investment in mid-2020 cited by 14% of 370 firms surveyed by the European Investment Bank (2020^[19]), compared to the EU average of 6%. Dissatisfaction with the cost of external finance was expressed by 16% of firms, well above the 5% average EU outcome, and with the amount of collateral demanded by lenders by 14%, double the EU-average share. Not surprisingly, micro and small firms were less satisfied than their larger counterparts. Low debt-recovery rates in bankruptcy proceedings no doubt force up lending rates (Chapter 2).

The government's response to the structural challenges of overcoming the nation's lag in capital markets and building a culture of investment, including in green finance, in part through supporting fintech development, as well as the global move to greater digitalisation in the sector came in its Financial Sector Development Plan 2021-2023. These goals overlap substantially with improving financial literacy, which is now the subject of efforts starting with children in kindergarten. OECD evidence shows that Latvian adults have satisfactory financial knowledge, but below-average behaviour and attitudes (OECD, 2020^[20]); men seem to have worse outcomes than women.

Fintech has the potential to lessen the access problems just described and intensify competition with traditional finance providers, but how much it could lower borrowing costs is still unclear. It has been developing steadily in Latvia. Progress has occurred thanks in part to the European Union's Revised Payment Services Directive, which largely took effect in January 2018 and was designed to encourage both competition and innovation in a digitalising world. The sector had 91 start-ups in Latvia as of spring 2020 (Swedbank, 2020^[21]), but only eight had more than 50 employees. Surveyed firms cited the ease of doing business, the talent pool, friendly regulation and government support most frequently as their reason for setting up in Latvia. Their main complaints were about available sandboxes and incubators/accelerators, even though there are 13 incubators in Latvia. Many pointed to the difficulty of hiring IT specialists who were mostly seen as unavailable or lacking the required skills (Chapter 2).

The allocation of capital is also determined by business exit. In that regard Latvia has a bankruptcy system that favours liquidation (see Chapter 2). Yet it also has benefited from a number of other recent reforms that should prove constructive in the medium to longer term (Table 1.6).

Table 1.6. Past OECD recommendations on the allocation of capital

Topic and summary of recommendations	Summary of action taken since 2019 Survey
Improve the quality and speed of court judgements through training and specialisation of judicial staff.	The Economic Court started its work 31 March 2021 and had already reviewed 85 cases by early September. Its judges were selected in a five-round procedure. A new Latvian Judicial Training Centre is to be established, financed by RRF funds. Other procedural changes are being implemented according to recommendations made in early 2021 by the State Audit Office.

Progress is being made in the long battle against informality and corruption

Informality in the labour market is severe

Informality has been a long-standing problem in Latvia (OECD, 2019^[12]) (Sauka and Putniņš, 2021^[22]). It manifests itself primarily in underreporting of hours worked and wages paid (so-called “envelope wages”), rather than people working completely off the books, i.e. without a contract (even though such workers are 10.9% of the total, compared to 8.3% in Lithuania and 5.7% in Estonia) (Sauka and Putniņš, 2020^[23]). Estimates of the size of the underground economy vary from 16.6% (Medina, Schneider and Fedelino, 2018^[24]) for 2015 to 25.5% (Sauka and Putniņš, 2021^[22]) for 2020, up moderately from the previous year, possibly because of the pandemic. The government’s goal is to reach the EU average of 17% by 2022.

A research programme began at the Ministry of Finance in 2020 to help inform a future action plan. It should attempt to assess the motivation for such practises, including the role of policy settings in taxation and mandatory contributions, and labour market laws and regulations (as well as tougher enforcement). For example, France’s experience with reducing informality in home services by offering a tax credit to employer households has been quite successful.

The payoff from greater formalisation would of course be higher tax receipts but also likely better training opportunities and working conditions and more reliable pension records (which would help to curb old-age poverty). The State Revenue Service (SRS) believes the personal income tax gap to be around 17% overall but an estimated 30.7% in construction in 2019, though that is down from around 40% in 2015 (Sauka, 2020^[25]). In that sector, in addition to a 2019 agreement with employers to pay minimum hourly and monthly wages, a special system has required all workers to clock in and out of work with a computer chip since February 2020. Otherwise, the SRS makes use of banking information to look for disparities between outlays and declared income and maintains a permanent working group on the strategic risk of “envelope wages”. In 2025 electronic invoicing will be mandatory for all transactions between businesses. There is also a tax gap for VAT, whose size has fallen sharply since 2010. Sauka and Putniņš (2020^[23]) estimate that 8.0% of all enterprises in Latvia are unregistered, compared with 9.2% in Lithuania and 4.0% in Estonia.

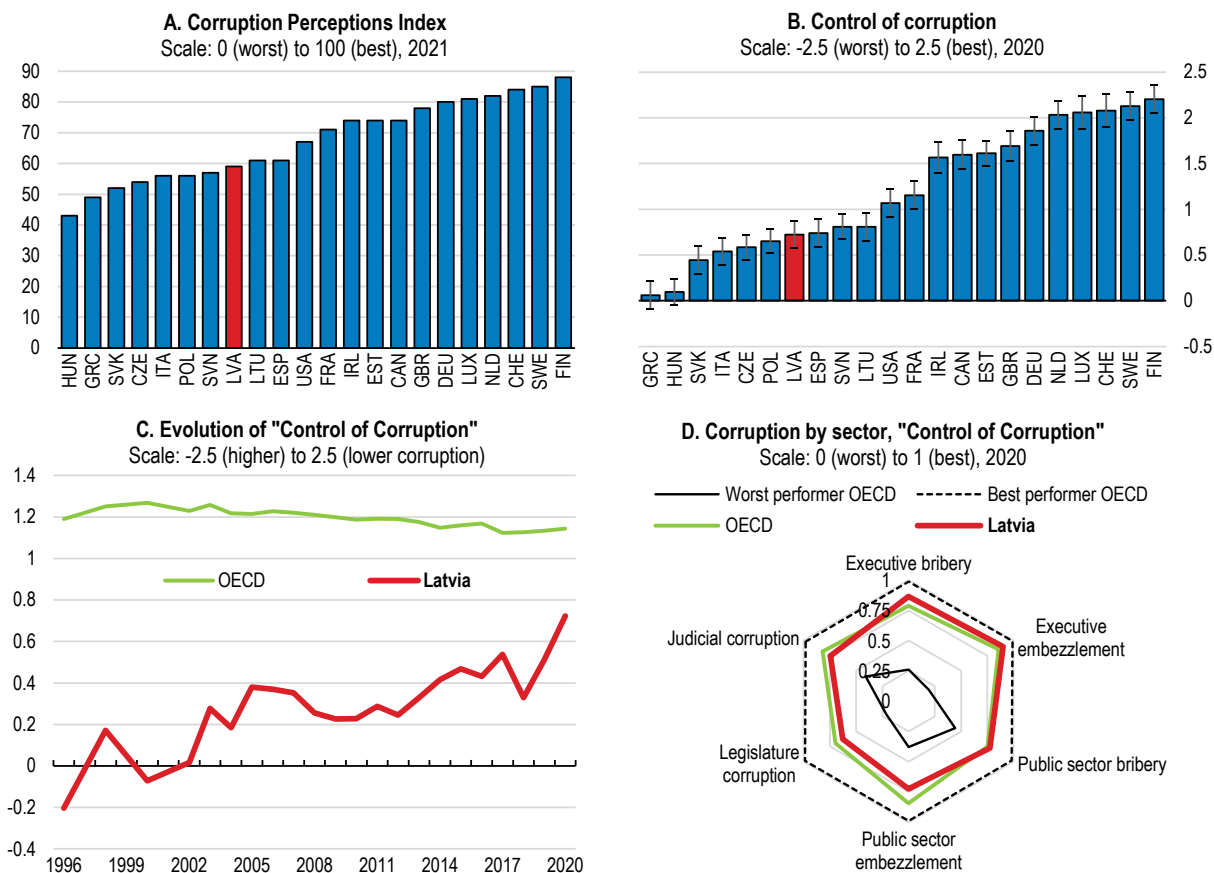
The penalties for tax evasion are now severe, and this greater latitude should be fully utilised in practise, with vigorous enforcement of not only tax but labour laws and regulations as well. If the amount evaded exceeds about 25000 euros, it is considered a criminal offense with up to 10 years of imprisonment. One other form of potential evasion has been banned: it has been illegal to use cash in real estate transactions since May 2019. As well, transporting over 10000 euros across the border has required a declaration since July 2019. Finally, a Plan to Reduce the Shadow Economy is in the process of being adopted by the government (Republic of Latvia, 2021^[26]). It aims to shrink the share of the shadow/informal economy to the average share observed among EU countries, which, according to one estimate, would entail a decline of 3.6 percentage points of GDP (about 18% of the total shadow economy) and describes in some detail 41 measures in five action areas. A review of progress is due in 2023.

Corruption and bribery are also still seen as longstanding problems

Progress has been made in fighting corruption, but the problem remains more severe than in most other OECD countries (Figure 1.8). This is reported to be especially true in some local governments. Combating corruption was included in the National Development Plan, with indicative funding of 74 million euros over the seven years to 2027. The Plan’s objective is to enhance the citizenry’s satisfaction with the way democracy works, its participation in civic life, its perceived ability to influence political outcomes, its trust in the courts, police and the prosecutor’s office and the speed of court proceedings. Trust in government in 2019 remained low, better only than in Costa Rica and Mexico among OECD countries. The latest Corruption Perceptions Index by Transparency International showed that Latvia’s score has moved up 3 points in the last two years to a ranking of 36th out of 180 (joint 26th among 37 OECD countries)

(Transparency International, 2021^[27]). Its most recent Global Corruption Barometer showed that in autumn 2020 81% of Latvians surveyed viewed corruption as a big problem (compared to an EU average of 62%), 66% thought the government was doing a bad job in fighting it (49%), 49% feared reprisals for reporting corruption (45%), and only 13% thought the government takes their views into account in its decision-making (30%), the lowest of any EU country. On the other hand, fewer people thought that the problems had worsened in the last year than elsewhere (20% compared to 32%).

Figure 1.8. Corruption is a serious albeit diminishing problem



Note: Panel B shows the point estimate and the margin of error. Panel D shows sector-based subcomponents of the "Control of Corruption" indicator by the Varieties of Democracy Project.

Source: Panel A: Transparency International; Panels B & C: World Bank, Worldwide Governance Indicators; Panel D: Varieties of Democracy Project, V-Dem Dataset v11.

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In recent years Latvia's Corruption Prevention and Combating Bureau (KNAB) has been under-resourced. Yet political and public support is strong, and it has now been given the funding needed to increase its total staffing by an eighth and to raise average monthly remuneration by 37% by 2023, making it easier to hire and retain high-quality personnel. In 2020 it initiated 39 criminal proceedings, of which 15% were for money-laundering violations. For the first time two cases were prosecuted for bribery of foreign public officials. This was described in the OECD Phase 3 Two-year Follow-up Report for Latvia (adopted 15 October 2021) (OECD, 2021^[28]), which reported that the OECD Working Group on Bribery – which had made 44 recommendations to Latvia in its 2019 Phase 3 report – judged that 16 recommendations had been fully implemented, 19 had been partially implemented and 9 had not been implemented. Additionally, several cases for bribery involving high-level national public officials are pending.

KNAB and the State Revenue Service will need to coordinate their efforts to utilise their available resources and legal powers to change the culture and drive out the social acceptability of such practises. KNAB is establishing an online whistleblowing platform following the implementation of a whistleblowing law covering both public and private sectors in May 2019. It is also making greater efforts to educate the public about the negative impacts of corruption so as to reduce tolerance of it. It commissioned a survey of 421 firms and 1001 private individuals in February 2021, which found that in the past two years about a fifth of each sample had considered using a bribe of a public official. For individuals, that was mostly in health care, to find a government job or in dealing with real estate matters, while for businesses the most common contexts were in settling construction-related issues, public procurement and obtaining permits and licenses. Most entrepreneurs felt that bribery had declined in the last four years but many called for more severe penalties for anyone involved in bribery, for public officials to be appointed in open competitions and for greater openness and transparency in lobbying public officials and control of procurement procedures. However, care should be taken not to impose excessive administrative barriers in procurement processes, which are already rather slow.

Similar research published by the European Commission in 2020 following December 2019 fieldwork showed that 10% of surveyed Latvians made an extra payment in the context of health care, double the EU average (European Commission, 2020^[29]). Cash payments were seen as sometimes or always acceptable by 25% of those surveyed, compared to an EU average of 16%, gifts by 57% (EU average 23%) and doing a favour by 38% (23%). The problem of corruption was seen as widespread by 47% of respondents in granting building permits, 45% in public procurement, 42% in policing and customs and 39% in health care. In 2020 the Architects Council of Europe found that most of those it surveyed across the European Union deemed the current anti-corruption measures in the procurement system based on EU Directive 2014/24 to have been ineffective. Accordingly, the government adopted an action plan to improve the public procurement system in February 2020 to enhance transparency; it is considering whether to centralise large and complex public procurements and is in the process of rolling out new tools to monitor procurement risks and creating a database of existing contracts and amendments. This should include future procurement needs, so that as much light as possible is shed on the relevant processes. Finally, Transparency International Latvia recently called for bolder reforms at the prosecution services and a comprehensive lobbying regulation and – even though the State Revenue Service has been empowered to bar from office public officials for conflicts of interest, whose definition has been widened and more clearly defined – an upgrade of the interest- and asset-disclosure system of high-level public officials (DELNA, 2021^[30]). Indeed, a draft law on lobbying has been under development by a working group in the parliament since October 2019, and an associated public consultation has recently been held, but no date has been set for a final vote to adopt the law, which might be implemented following the next parliamentary elections in 2022.

A major judicial policy focus in recent years has been the so-called MONEYVAL process of the Council of Europe regarding Anti-Money Laundering (AML) and Counter-Terrorist Financing (CFT) measures. In July 2018 the relevant body's Mutual Evaluation Report found Latvia not to be fully compliant with 34 of the 40 Financial Action Task Force recommendations, though there were no cases of outright non-compliance. Latvia was therefore subjected to enhanced follow-up procedures. By the time of the first follow-up report in December 2019 (Council of Europe, 2019^[31]) it was re-rated as largely compliant for all 11 recommendations for which the original classification had been only "partially compliant" and fully compliant for one other previously only largely compliant. It remains in enhanced follow-up with a further report due this year. As a result of this progress Latvia was not put on the FATF grey list in 2020. The process of improving internal-control systems, including risk-based supervision of customers, has nevertheless been unrelenting, driving down non-resident bank deposits to less than 7% of the total from as much as 55% at the end of 2014.

Table 1.7. Past OECD recommendations on informality, corruption and bribery

Topic and summary of recommendations	Summary of action taken since 2019 Survey
Continue the engagement of social partners in the fight against informality through sectoral agreements.	The State Revenue Service signed seven new cooperation agreements in 2020-21 with sectors with a significant shadow economy, while six were renewed with changed terms, bringing the total to 39.

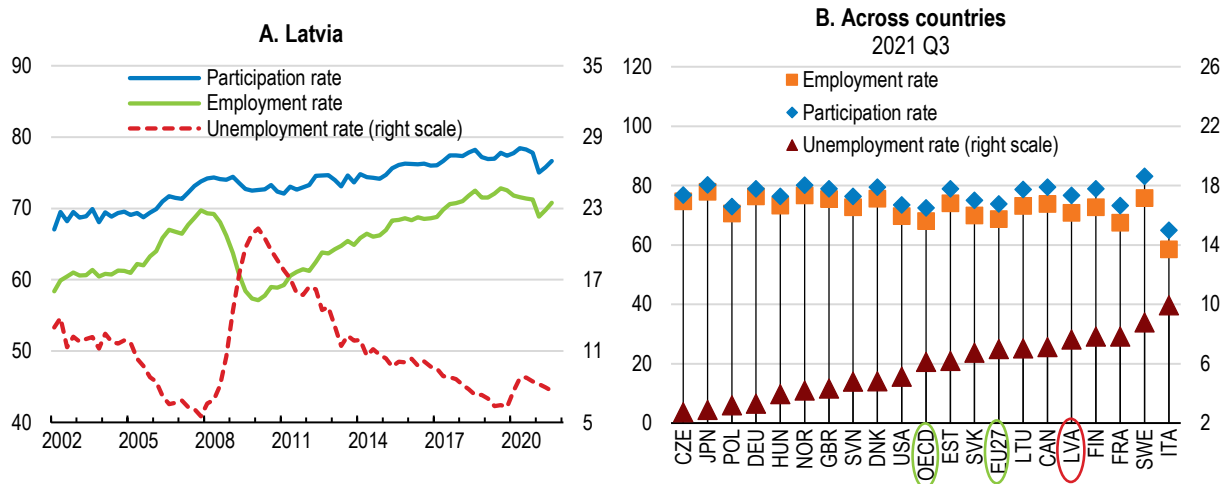
Labour market participation is high, while social protection is modest

Latvia's labour market has historically been characterised by high participation (though not as high as in its Baltic neighbours), above-average employment rates but mid-level joblessness (the record low was 5.4% in 2007). However, regional disparities abound (see below), and skills mismatches are significant, necessitating greater employer involvement in training than elsewhere (see below). The employment rate (20-64) edged down to 77.0% in 2020, which is still comparatively high. The only age group that has below-EU-average employment rates are the under 25s. In 2020 16.8% of 20-24 year-olds were not in employment, education or training (NEET), above the OECD average of 15.8%. However, that is well down from over 20% in 2017, in part because of the extension of the EU-financed "Youth Guarantee", which has shown good results.

The labour market has been performing in line with the product market since the outbreak of the pandemic. Unemployment rose sharply in the wake of the restrictions and closures, with youth and seniors the worst hit (Figure 1.9). Large numbers of workers were also placed on furlough, with generous government support by Latvian standards until mid-2021 eliciting fears in some quarters of raised income expectations that would reduce tightening labour supply. Downtime benefits averaging 974 euros per month were offered as from November 2020 to 55200 recipients, a smaller share of the workforce than in Latvia's Baltic neighbours; the total amount paid out was EUR 65 million, following about EUR 57 million during the pandemic's first wave. Registered unemployment (which is traditionally lower than that measured by the LFS) averaged 7.7% in 2020, but mismatch was indicated by the number of vacancies, which reached around 3.5% just before the pandemic before falling back to about 2.3% since then.

Figure 1.9. Employment is high, but so is unemployment

All persons aged 15-64, seasonally adjusted, %



Source: OECD Short-Term Labour Market Statistics database.

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Remote working during the pandemic has been obligatory in public administration but only recommended in the private sector. According to official data, it reached a peak of 22.6% in early 2021, well below the 2-3% reported by Eurostat for the years prior to the pandemic. Eurostat reports Latvia's share in 2020 (4.5%) was much lower than in some other EU countries, which averaged 12.0%.

Securing an adequate supply of labour

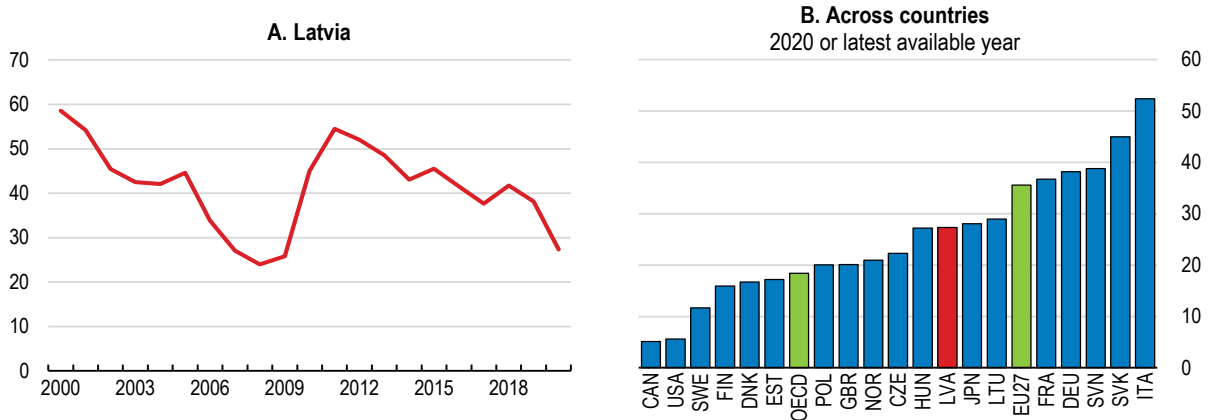
The key longer-term challenge in the labour market is securing an adequate supply of labour in view of ongoing population shrinkage (see below). Part-time workers do not look like a promising source of greater labour supply. Their share was only 7.3% of total paid employment in 2019, and informal work may mean the true rate may be even lower. The tax rate on shifting from part-time to full-time work in 2019 (that is working more hours) varied from 25% for minimum-wage workers to 36% for those on average wages, which is below the OECD average, so the tax wedge would not seem to be a major barrier to shifting if the demand for labour is sufficient. Nevertheless, direct labour force evidence shows the involuntary part-time share to have been 20.9% in 2020, higher than the OECD average of 15.5%.

Only about half of all jobless workers are eligible for the contributory and degressive unemployment benefit, having not contributed long enough or at all to the system. Replacement rates start out at 50-65% (depending on the number of years of insurance contributions). The benefit is normally available only for eight months – lowered from nine at the end of 2019, when the degressivity was also sharpened; declines now occur every two months, reaching 55% after six months. The savings were shifted to paying for higher minimum old-age pensions and basic and minimum disability pensions – though an extra four months was added in the form of a temporary unemployment assistance benefit until mid-2021 at a flat rate of 180 euros per month to handle the poor prospects of finding a job during the pandemic. The self-employed are not eligible for this benefit but can still use the public employment service. Those who are not eligible for it must fall back on the Guaranteed Minimum Income, which is below the poverty line. Prior to the latest increases welfare payments for a single person without children (a couple with two children) were equal to 22% (32%) of median disposable income, similar to Lithuanian levels (18% and 40%) but less than Estonia's (29% and 38%). By OECD standards the effective tax rate on returning to work after receiving benefits in 2019 was comparatively moderate (78.1%) for those on the minimum wage but a very high 88.6% for those on the average wage, discouraging labour market re-entry. Therefore, it is appropriate that the benefit not be available for too long.


Nevertheless, long-term unemployment is relatively high, despite trend declines for nearly a decade: the share of the jobless who have been out of work for more than a year was 28% in 2020, compared to under 20% in Estonia and in the average OECD country (Figure 1.10). The long-term unemployed are provided with individualised support including mobility support of four months for moves exceeding 15km, addiction treatment and training.

Figure 1.10. The long-term unemployment share is relatively large

Long-term unemployed (over one year), % of total unemployed



Source: OECD Labour Market Statistics database.

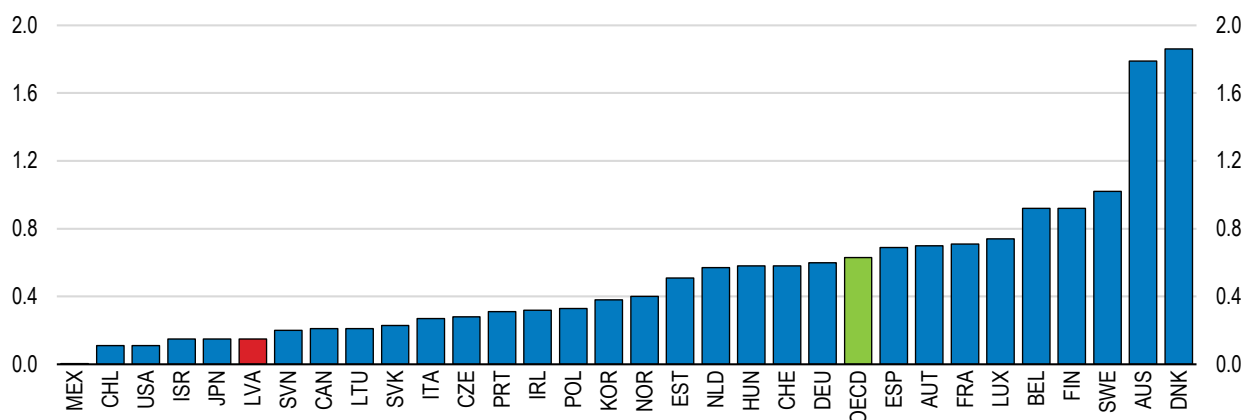
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In 2018 Latvia spent less than 0.2% of GDP on active labour market policy measures (Figure 1.11). These used to focus on public-sector employment schemes but have shifted to strengthening work incentives and rehabilitation of the long-term unemployed mainly through training vouchers. A recent OECD assessment found that training vouchers for the unemployed were effective in raising the chances of the trainee finding a job and the income that goes with it, especially if combined with other measures such as mobility support but would be more effective if dispensed for a longer duration (OECD, 2019^[32]). On the other hand wage subsidies for the disabled did not lead to better labour market outcomes.

Employment outcomes can also suffer when wage gains outpace trend increases in productivity. Minimum wages have recently been increased to 500 euros/month; previously minimum wages were earned by around 18% of all workers. This is still only two-fifths of average wages, which have trended up sharply over the past decade: yet labour's aggregate share of income has risen from 44% in 2011 to 60% in 2020 (a much larger rise to a higher level than in its Baltic neighbours), as real wage gains have steadily exceeded productivity growth, in line with the so-called Balassa-Samuelson effect. While one in four workers is covered by collective agreements, union membership is much lower. Negotiations are mainly at the firm level, but in a few instances contractual agreements have been extended throughout the sector, which is automatically implemented if a sufficient number of employees are covered; this applies, for example, to the minimum wage of 700 euros/month recently negotiated in the construction sector.

Figure 1.11. ALMP spending is low

Active labour market policy (ALMP) spending, % of GDP, 2019



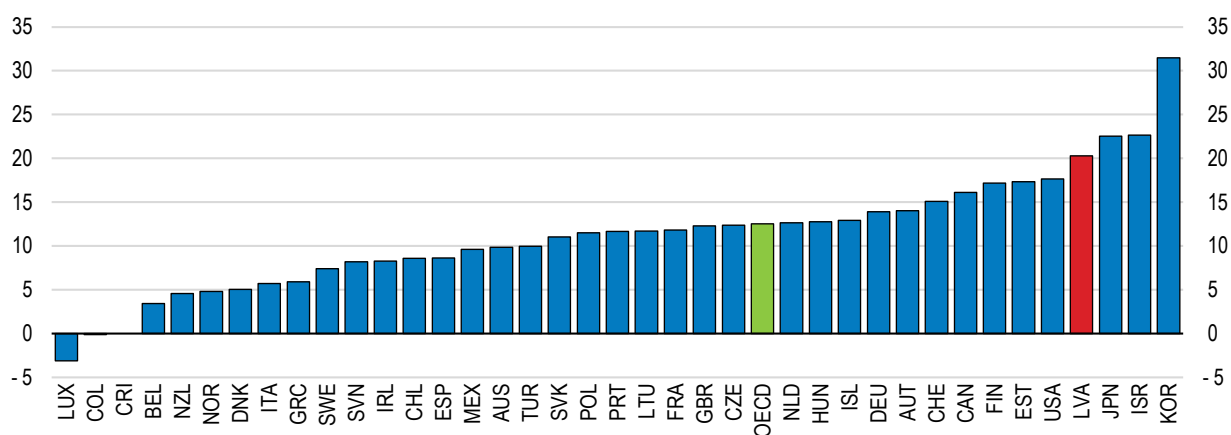
Source: OECD Labour Market Statistics database.

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A final potential source of additional labour supply is women. However, Latvia's female employment rate is already much higher than the EU average and the shortfall to the male rate smaller. Yet women's work incentives are dented by the low average wages they face. Latvia's gender wage gap has been increasing since about 2000 and by 2020 had risen to 22.3% (according to national data), among the highest in the European Union and fourth in the OECD (Figure 1.12). Latvia was one of only six OECD countries whose gap has grown over those years. Gaps are somewhat larger for full-time than for part-time workers and for those in the private sector than their public-sector counterparts. They are largest for those in the middle of the age distribution (smaller for youth and seniors).

Figure 1.12. The gender wage gap for full-time employees is comparatively large

Gender wage gap, median wages, full-time employees, 2020 or latest available year



Source: OECD Employment and Labour Market Statistics database.

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Although some of the gap follows from female career choices, recent evidence points to the comparatively large role for presumed discrimination in determining Latvia's gap (Ciminelli, Schwellnus and Stadler,

2021^[2]), though the Labour Law imposes equal pay for work of equal value. Social attitudes towards working mothers are less favourable than in neighbouring countries, though the latest edition of the Gender Equality Index (for 2020) shows Latvia at 62.1, below the EU average of 68.0 but above all other eastern Member countries except Slovenia. Moreover, the government adopted a plan “On the Promotion of Equal Rights and Opportunities for Women and Men 2021-2023” last August, which will focus on achieving equality in the labour market and education, on preventing gender-based violence and on gender mainstreaming in sectoral policies. As well, while women continue to have unbalanced caring responsibilities, net childcare costs are among the lowest in the OECD, yielding good incentives for second earners with children to enter the labour force and putting downward pressure on the gap (Ciminelli, Schweltnus and Stadler, 2021^[2]). There are some other usual policy levers for mitigating this problem: closer monitoring and public attention at the firm level (pay transparency) and developing a system of role models to tackle gender stereotypes and encourage girls to enter high-pay occupations (OECD, 2021^[33]). According to responses to the recent OECD Gender Pay Transparency Questionnaire, Latvia has required public employers to report monthly on their pay levels by gender since 2018, but no such obligation exists for private employers. In neither case is there any requirement to conduct gender pay audits.

The ageing population calls for pension-system adjustments

The population is shrinking rapidly

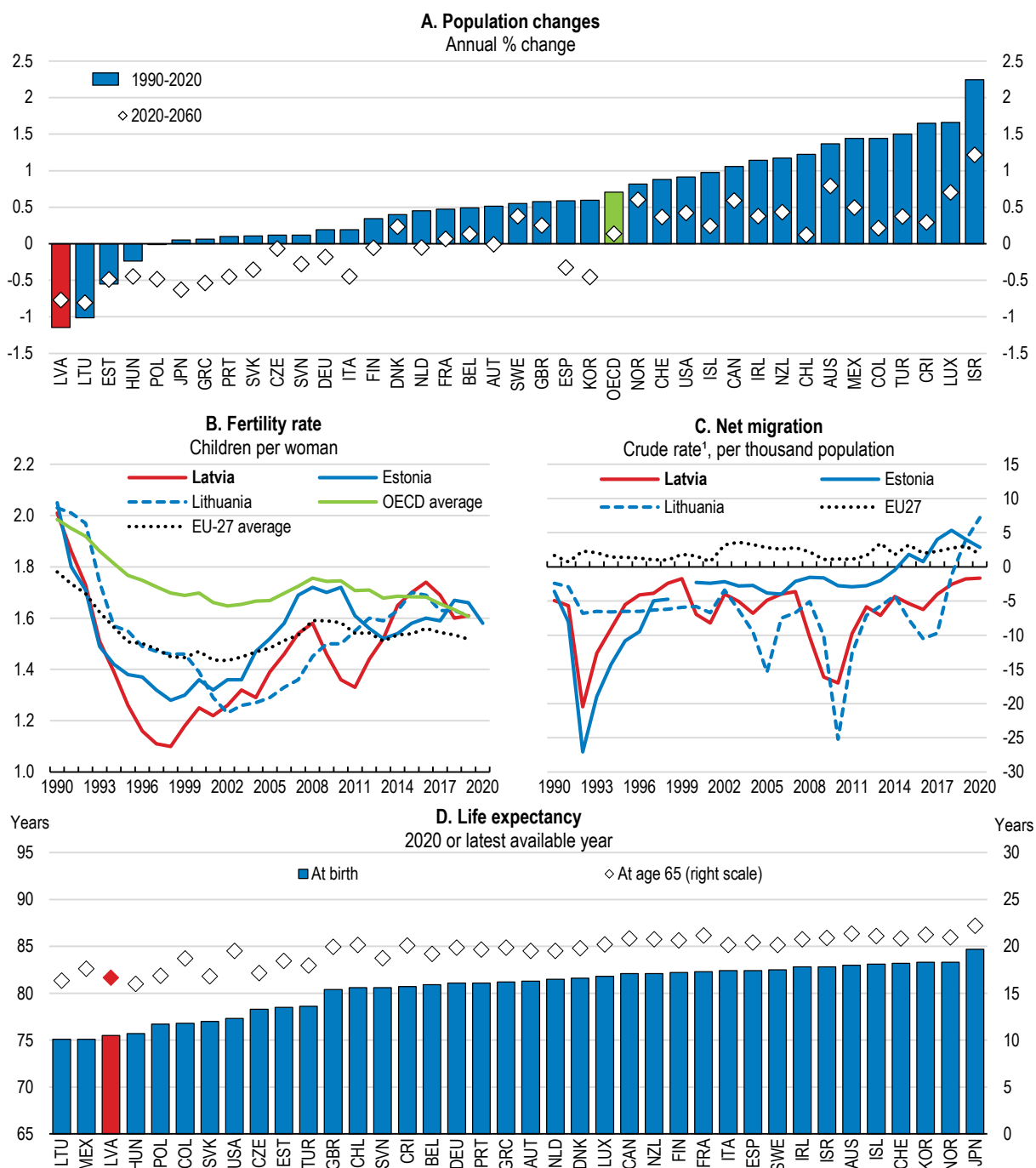
Latvia's population has been shrinking since it peaked at 2.7 million in 1990, reaching 1.9 million in 2020 (Figure 1.13, Panel A), an average rate of decline of over 1% per annum. How much more decrease is to be expected varies across different sources, and none have been updated for the impact of the pandemic on fertility (down), mortality (up) or net migration (probably less negative as people decided to return to their families in the crisis). While national projections show only modest further falls out to 2040, much larger drops are predicted by the United Nations and by Eurostat for 2060 and 2100. There is a fairly strong likelihood that the population will have halved in the 70 years following its peak.

The causes for this decline are twofold: first, a low fertility rate, which reached a low of 1.1-1.2 in the late 1990s, but then recovered somewhat thanks to a stabilisation in the average childbearing age, owing to improving economic-development outcomes, as well as, possibly, public family-support measures (especially childcare subsidies); and, second, steady net emigration, only modestly offset by lengthening life expectancy (Figure 1.13, Panel D). Life expectancy at birth has risen by about five years over the past 20 years, but overall and at age 65 it remains among the shortest in the OECD. Official projections predict a further lengthening of life expectancy at birth by 5.2 years by 2040.

Latvian residents have been leaving the country in fairly large numbers ever since its independence from the USSR; initially, many of those were Soviet Union soldiers, and subsequently others were Russian speakers returning to the Commonwealth of Independent States, though that flow has been falling. The principal destination countries have more recently been the members of the European Union since Latvia joined it in 2004. The migratory outflow has eased off over the past decade owing to Latvia's healthy per capita income growth, which has allowed steady catch-up in living standards. Indeed, net migration in 2020 (-3150) was the smallest since independence, and Ministry of Economy projections foresee it offsetting up to 30% of natural shrinkage, yielding modest net immigration in the coming years, as in its Baltic neighbours.

The government has recently begun to recognise the demographic potential of the nearly 400000-strong diaspora, as was recommended in the last *Survey*: they have become the object of a three-year plan involving seven ministries to persuade especially families with children to return to the home country, mainly outside the Riga region. Immigration is another source of labour supply. EU citizens can enter easily, often being posted from abroad, but others must pass a labour-market test and have a job offer paying at least 1000 euros per month. The government should consider fast tracking prospective immigrants in key occupations, such as those in IT or engaged in R&D (Chapter 2).

Figure 1.13. The population has been falling and is expected to continue to do so



1. Including statistical adjustment.

Source: United Nations (2019), *World Population Prospects: The 2019 Revision*, Online Edition; OECD Family database, <https://www.oecd.org/els/family/database.htm>; Eurostat database; OECD Health Statistics database.

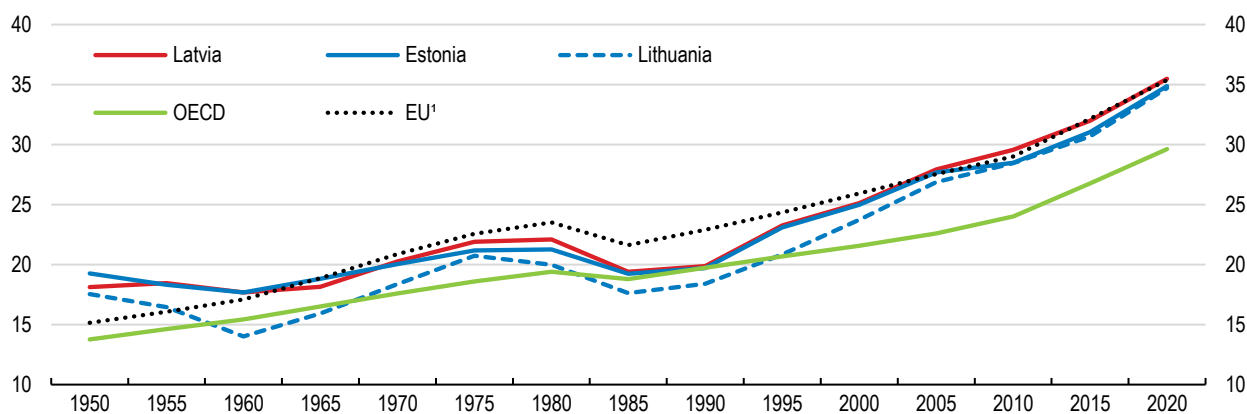
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The population has also aged

The economic effects of this challenging demographic outlook are manifold. The most obvious is probably what is commonly referred to as an ageing population, most often measured by the old-age dependency ratio (the share of adults, here taken as 20 and over, that are aged 65 and over) or its counterpart called the “demographic burden” (which is the ratio to only working-age adults rather than all adults) (Figure 1.14). That ratio began to rise sharply from below 20% in the late 1980s and by 2020 had reached 35.5%, one of the higher ratios in the OECD. In the United Nations’ medium variant it will rise by more than a percentage point per year in the 2020s before slowing and then peaking at 61.5% in 2060, still fairly high, but well below the most aged among OECD countries.

Figure 1.14. The “demographic burden” has been rising steadily

Number of individuals aged 65 and over per 100 people aged 20-64



1. Countries that are both members of the OECD and the European Union.

Source: United Nations (2019), *World Population Prospects: The 2019 Revision*, Online Edition.

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Demographic decline is an unfavourable context for economic vibrancy and growth. But beyond the recovery from the current crisis, shortages of qualified labour caused by a shortfall in labour supply exacerbated by a lack of adult training could prove crucial, especially in certain sectors and for certain skills: Latvian employers are said to be already short of over 2000 university Information Technology graduates per year, for example. Again, the number of young Latvians in the 20-24 age cohort fell by around 60% from the 1980s to 2020, especially after 2008. With much larger cohorts of people in their 60s, OECD calculations show that the population of working age is shrinking by around 1% per year. Further out the situation looks likely to improve slightly due to a modest rebound of people in the early 2030s before falling back again around 2040. But the demographic decline is also causing weakness in domestic demand, placing even greater emphasis on growing exports as a potential source of sales (Chapter 2).

Depopulation has fallen most heavily on rural areas, resulting in big regional disparities

Depopulation has a regional aspect as well with significant development ramifications. Before the ageing trend had got underway in around 1990 and still around 2000, Riga was the Baltic/Nordic region’s largest city, bigger than Stockholm, Oslo or Helsinki, for example. But the population has fallen 18% since then, and it has dropped back to fifth now, in part because of this “hollowing out” that is also being caused by migration to the suburbs (called the Pierīga region, the only part of Latvia enjoying population growth). Beyond the greater Riga region, the almost half of Latvia’s population living elsewhere has shrunk sharply, despite the government’s considerable efforts to attract residents and economic activity there through a local government equalisation fund worth EUR 119 million (0.4% of GDP) in 2019, for example. These

grants are linked to municipal personal income tax receipts, rather than the local cost of public service provision, thereby reinforcing inequality (OECD, 2019_[12]). The hardest hit is the poor, south-eastern region of Latgale, which could lose 22% of its 2016 population by 2030, according to the think tank CERTUS. People are leaving such regions purportedly due to their low wages and poor job opportunities.

Disparities across regions are large in most measurable dimensions. This includes GDP per capita, which varied from 171% of the national average in the Riga region to 47% in Latgale in 2018. The ratio of the GDP per capita in the most affluent commonly defined region (TL3) to that in the least affluent region in 2018 was nearly three, one of the largest among 27 OECD countries (OECD, 2020a, Figure 2.9). Gaps are also sizeable in terms of unemployment rates, which in 2020 varied from less than 6% to 9.5% across the six regions, and trade openness (OECD, 2020_[34]), Figure 2.14). At-risk-of-poverty rates also follow such average income differences, with outcomes varying from about 15% in the capital region to over 40% in Latgale. Rural regions generally have smaller schools, and that means both less income for teachers and significantly worse standardised academic test results both on national and international tests such as PISA (CERTUS, 2021_[35]). The gap carries through to tertiary attainment rates, which are much higher in the Riga region (around 48%) than in others (as low as 30%). Similar disparities exist in the availability of professional medical practitioners, where Riga is far better supplied than average and the surrounding Pieriga far less, and in COVID-19 vaccination rates (see above). As well, good-quality housing is lacking in many outlying areas (see below). On the other hand, digital (broadband) infrastructure seems evenly distributed across the country and is therefore not a barrier to business location decisions.

According to its Regional Policy Guidelines 2021-2027, the government's objective is to foster balanced regional development, with all regions achieving per capita GDP of at least 75% of the national average in the next 20 years. The NDP2027 calls for spending about 0.4% of GDP per year to achieve that goal. One shortcoming of this quantitative target is that it does not consider workers who commute to places with higher productivity and wages, as regional GDPs are calculated according to residence, not place of employment. However, admittedly most commuting is around major cities, so a regional policy priority is to create high-productivity, high-wage jobs in less developed regions, obviating the need for commuting.

One helpful change just made was a mid-2021 territorial reform that is resulting in substantial local government amalgamation. Municipalities are responsible for 28% of all Latvian government spending and have important responsibilities in economic development, education, health and social care. The latest reform has cut their number down from 500 in 2009 and 119 in 2020 to 43 henceforth, with a minimum size of 3100 inhabitants rather than 1000 heretofore. Administrative costs are aligned with municipality size, with obvious scale-economy potential; the quality of local governance is an issue in some places. More use could be made of integrated municipal governance mechanisms, especially for the greater Riga area, in public transport, for example. The latest reform is based on a strategy of concentrating economic activity around national and regional development centres and ensuring the availability of high-quality public services based on demographic trends, including affordable housing, as well as enhancing mobility. Official transport policy for 2021-2027 calls for rail to be the backbone of the multimodal passenger-transport system, with buses used only where traffic cannot justify the use of trains.

More importantly, greater use of the municipal equalisation system should be made and nationally-funded permanent support instruments will need to be developed, as local municipalities have little funding available for local economic development and affordable housing, which is a precondition to attract population. Many face the closure of their high schools and hospitals as well as the need to pay for the development of their streets and roads. The central government could consider relocating some of its national agencies in full beyond Riga to other cities as a way to kick start economic activity in such locations and to lower the carbon footprint of government buildings. However, experience from similar actions in the United Kingdom, Norway and Korea shows that agency productivity is likely to be severely impaired for several years due to the refusal of many staff members to accept the relocation. This proposal has also to

be evaluated in light of the recent rise of remote work and e-governance trends. The system of regional governance could also be improved, as well as further amalgamation of municipalities ensured, having in mind that, even after the latest territorial reform, in some cases development planning is still divided between cities and their neighbouring municipalities, making further amalgamation of jurisdictions within common areas of economic activity or strengthening cooperation mechanisms across local governments attractive.

The implications are that, besides the just discussed effects on labour supply and regional development, ongoing population shrinkage will have direct impacts on:

- the structures of spending and most likely of output as well: services' share will gain at the expense of goods and consumption relative to investment (notably in the form of housing) as the elderly have already accumulated sufficient goods but need more personal care and recreation;
- the need for public services in the form of health (notably for the treatment of dementia) and long-term social care (see below);
- the call upon budgetary and other transfers in the form of pension provision;
- less deleterious anthropogenic effects on the environment and natural resources; and
- negative effects on productivity gains, agglomeration effects and business dynamism, which some research shows to be relatively small for Latvia in the years 2014-35 (Aiyar, Ebeke and Shao, 2016^[36]).

Adjusting the pension system is key to address these demographic pressures

At first glance a country with a particularly aged population distribution will have difficulty in pension provision to its elderly unless substantial resources have been accumulated, possibly in the form of pension reserves. Latvia cannot claim to have done that in any way: its current account of the balance of payments has been negative for most of the past 20 years, for example – though with a clear trend improvement – while its Net International Investment Position has been negative and increasingly so until 2011 when a trend reversal occurred: latest Eurostat data show it at -31% of GDP. Unlike many OECD countries today, Latvia's elderly are poorer than average.

In order not to place an excessive burden on the working-age population the nation's current public pension system (introduced in 1996) provides only a fairly basic income to pensioners. It comprises a notional defined contribution scheme plus a funded defined contribution component that is allocated 30% of contributions (which total 20% of income). The still maturing funded part was worth 2.1% of GDP at end-2020 – lower than in most other OECD countries with a funded component – and earned a low average return of 2.4% in real terms in 2020, less than the median of 4.5% and about half that in Latvia's Baltic neighbours (OECD, 2021^[37]). Average rates of return realised in the last 15 years have been slightly negative in real terms, in large part because of high management fees incurred. However, following a 2017 reform such fees in the second-pillar funds have been cut by nearly two-thirds to below 0.5% per annum.

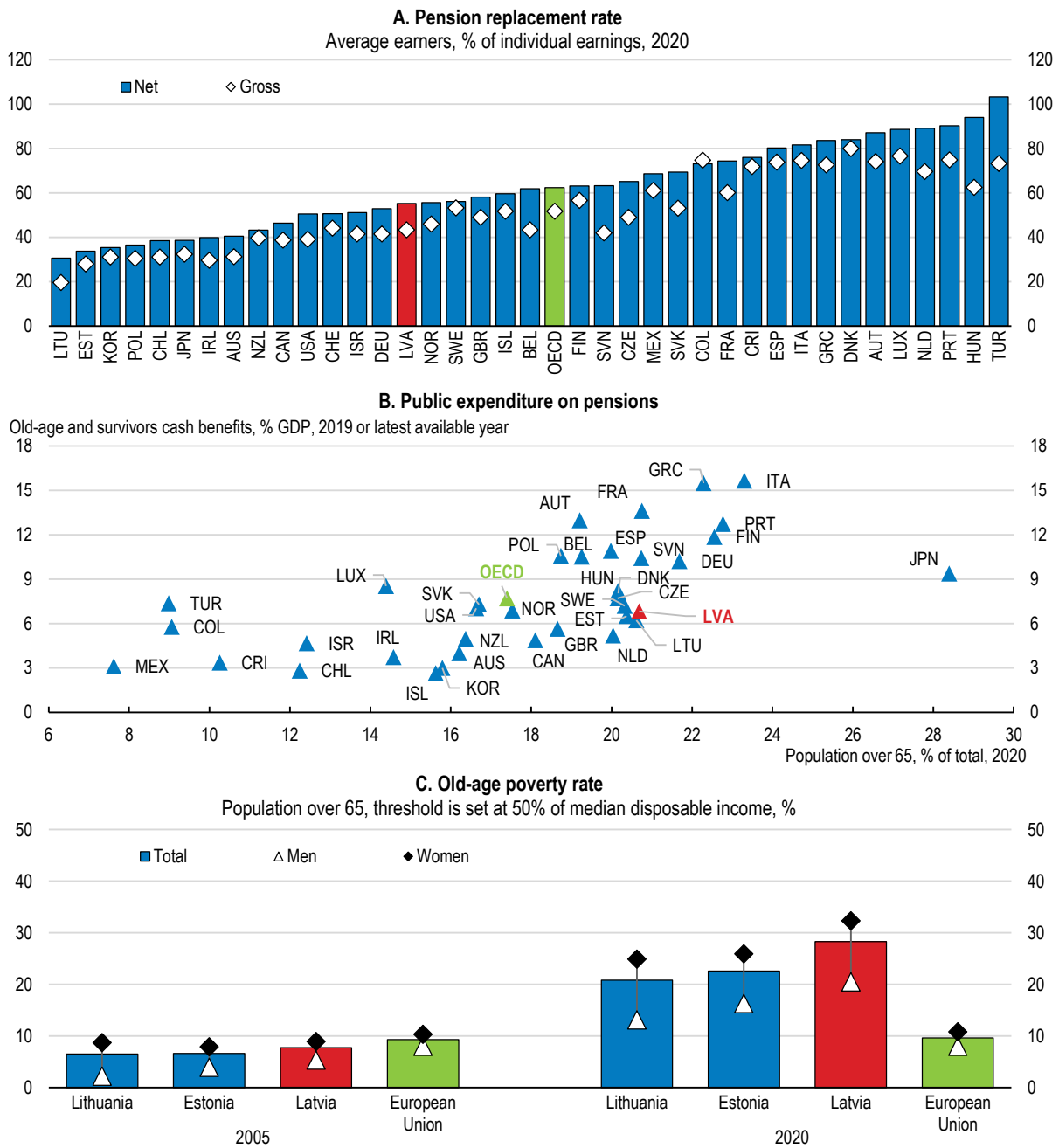
Pension adequacy is a growing concern. Future net pension replacement rates for full-career workers starting their careers in 2018 were estimated at 54.3%, less than the OECD average of 58.6% (Figure 1.15, Panel A). Looking forward, gross contributions as a share of GDP will fall by 1.6 percentage points over the next half century as population and employment shrink, while gross pension payments will rise by 1.0 percentage point owing to 2.2% of GDP in mandatory private pensions. Someone with 40 years of contributions retiring at age 65 in 2059 could expect a pension worth only 41.7% of their pre-retirement net income. Furthermore, most people – especially men – do not enjoy long pensions because of low life expectancy at age 65. Finally, the system overall implies little redistribution: replacement rates are fairly constant across earnings levels.

Coverage is also limited: one needs to have 15 years of contributions to get an ordinary pension, and that is set to be raised to 20 years in 2025, contrary to the earlier OECD recommendation to lower the minimum contribution period (OECD, 2018^[38]). Those failing to reach that mark get a basic pension, which was fixed at 64 euros per month from 2006 to 2021 when it rose to 109 euros, though there is a separate Guaranteed Minimum Income available to all age groups and a minimum pension for those surpassing the minimum contribution period. The self-employed are also treated differently from dependent employees: if they avail themselves of the option to pay only the minimum mandatory contribution (which they overwhelmingly do, as in Poland, Slovenia and Spain), their penalty compared to an average-wage employee is 46%, more than double the OECD average of 21% (OECD, 2019^[12]). At mid-year 2021, however, a system of mandatory minimum social insurance contributions was implemented for everyone (including the self-employed) with a base equal to the minimum monthly wage. Cushioning for career breaks is quite limited: only eight months at most for unemployment spells and 18 months for child rearing. Safety-net benefits for the elderly and minimum pensions were frozen for the years 2009 through 2012 and then kept constant in real terms from 2013 to 2019, during which time real wages rose substantially. However, there was a sharp rise in 2021, following a more moderate increase in 2020. For other public old-age pensions, indexation occurs annually for pension amounts up to 50% of the previous year's average monthly wage (currently 470 euros). Compensation is provided for the rise in consumer prices plus a share of real increases in the wages included in the contribution base. The share starts at 50% for those with less than 30 years of contributions and rises in stages to 80% for those with at least 45 years of contributions.

Public old-age pension spending was 7.1% of GDP in 2020. About 7% of recipients received less than 150 euros per month (although substantial increases were granted in January and October 2021). This has resulted in the second-highest (relative) old-age poverty rate in the OECD (Figure 1.15, Panels B and C). Relative poverty among the elderly has risen considerably since the freezing and is particularly prevalent for women (39%, compared to 20% for men); besides the aforementioned treatment of career interruptions for parenting, the latter may also be partly attributable to modest survivor benefits, which had until recently been limited to a lump sum worth two months of the deceased person's pension but has been raised to a half-pension (including supplements) for a year. High elderly poverty is also due to the fact that ordinary pensioners have not shared (much) in real income growth, as their pensions have been indexed for inflation but little (until recent years) for real wage gains. Ensuring such enrichment on a regular basis (as is planned starting in 2023), along with longer working lives and possibly higher contributions, would avoid further rises in old-age poverty.

Another policy that is being relied on to restrain the pension burden on the budget and to mitigate the decline in labour supply is to lift the pension age, which is being raised by three months per year from its current level of 64 to reach 65 by 2025. But there are no official plans to continue that effort thereafter. It is key to maintain that trajectory and to automatically link the retirement age to life expectancy, as seven other OECD countries have done, so as to remove the need to pass legislation on a recurrent basis. Of course, automatic adjustment mechanisms do not solve all pension financing problems (OECD, 2021^[39]), Chapter 2). In Latvia's case, with short life expectancy at age 65 and a poorly resourced health-care system the downside is that many retirees will enjoy only a brief retirement, especially if they are in low-income groups and/or live in regions that have especially short life expectancy. In any case the disability/occupational rehabilitation systems need to be strengthened to help those who can work to keep working and those who cannot to be adequately supported.

Figure 1.15. Pension spending is low, and old-age poverty rates are high



Source: OECD (2021), *Pensions at a Glance 2021: OECD and G20 Indicators*; United Nations (2019), *World Population Prospects: The 2019 Revision*, Online Edition; Eurostat database.

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Health-care performance has been improving, but more needs to be done

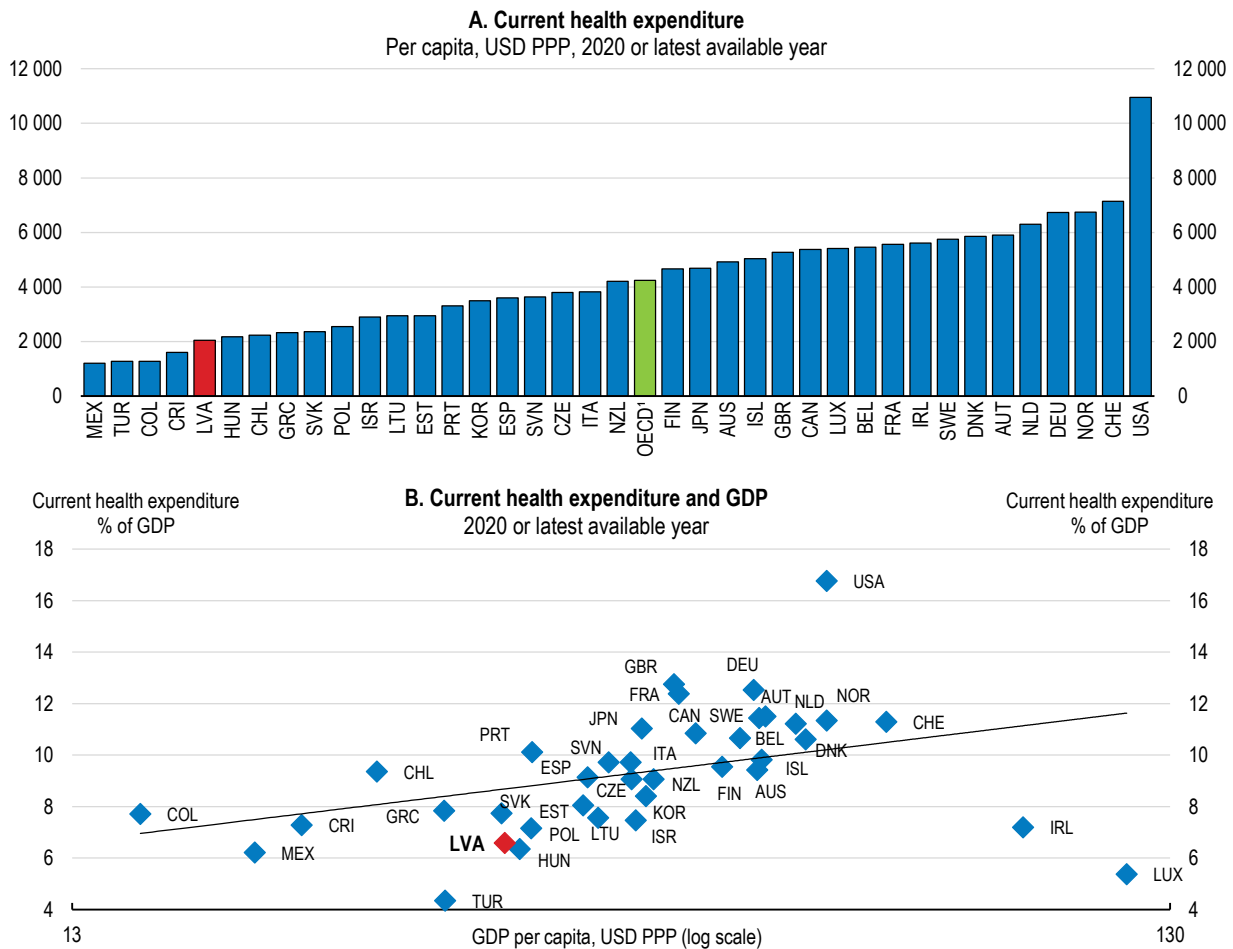
Overall health spending is low, contributing to short life expectancy and other ills

The broad outlines of Latvia's health-care system include universal coverage, largely general tax-financed provision, a purchaser-provider split and a mix of public and private providers. However, in a number of dimensions outcomes are sub-standard, notably patient satisfaction.

In 2019 health-care spending per capita remained relatively modest, even in comparison with its Baltic neighbours (Figure 1.16, Panel A). While per capita spending has risen by 57% since 2010, it was still the lowest in the European Union and only about half OECD-average levels (in PPP terms). Even though some of the lack of spending is explained by Latvia's low level of per capita GDP and the related low price level, health-care spending as a share of GDP (at 6.2% in 2021, the second lowest in the OECD) is also low (Panel B). Spending by the Ministry of Health rose sharply during the pandemic but is budgeted to fall back to near pre-pandemic shares of GDP in the coming few years. A high share of spending (26.5%) was allocated to pharmaceuticals, in part because of high generics prices and, until recently, insufficient incentives for their use (OECD, 2020^[40]). However, regulations that entered into force in April 2020 seem to have been effective in capping the prices of costly generics (they can be no more than double those of the cheapest alternatives), encouraging the use of cheaper drugs and lowering patient co-payments: brand-name products can no longer be more than 30% of any doctor's annual prescriptions.

Low spending has important implications for economic resilience and is one important reason for poor healthy (total) life expectancy at birth, which is among the lowest in Europe at 50.6 (70.1) years for men and 52.2 (79.7) years for women; for the population as a whole life expectancy at birth was 75.7 years in 2020, about five years less than the EU average but five years more than in 2000, one of the European Union's fastest gains (Figure 1.17, Panels A and B). The gender gap in life expectancy is the second largest in the European Union and almost double the EU average gap of 5.2 years; but women especially suffer from chronic diseases and disabilities. Gaps in life expectancy are also much larger than average at age 30 between the least- and most-educated groups (Murtin et al., 2017^[41]) (OECD, 2019^[42]). The National Development Plan 2021-2027 (NDP2027) hopes to extend healthy life expectancy at birth for men and women to 55 and 57 years by 2027 with indicative cumulative funding for "human-centred health care" of 558 million euros (an average of about ¼ per cent of GDP), of which about three-quarters is from EU funds; however, some funding that is allocated to other purposes will also influence life expectancy outcomes, those confronting air quality, for example (twice as many Latvians die from ambient air pollution as in the average OECD country). In any case, this is an ambitious goal with significant budget implications: meeting it would require almost double the pace of improvement achieved since 2000. Finally, life expectancy at age 65 for women is one of the lowest in the OECD, while for men it is the second lowest of all (Panel C).

Figure 1.16. Health-care spending is low per capita and in relation to GDP

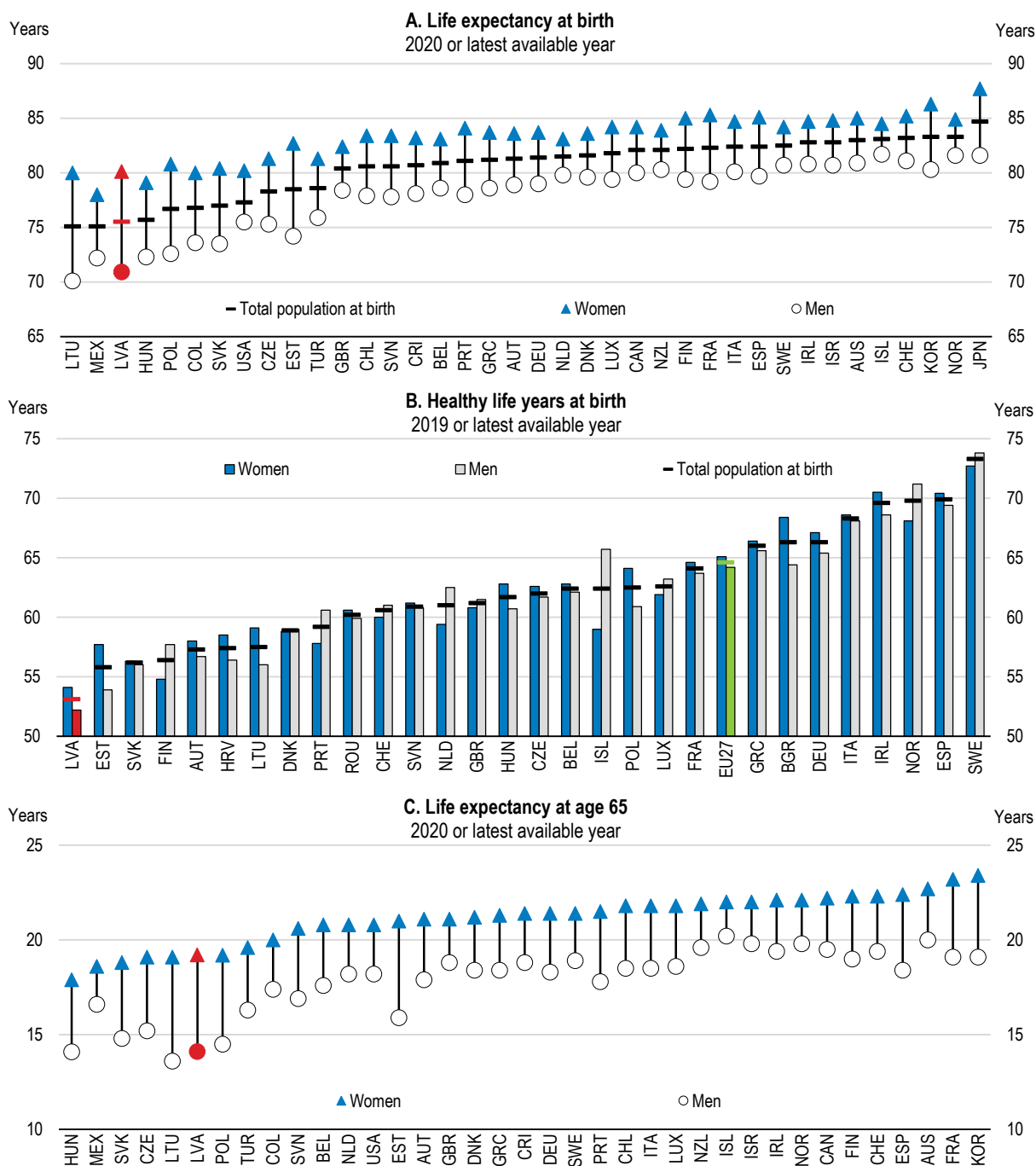


1. Unweighted average of OECD countries.
Source: OECD Health Statistics database; OECD National Accounts database.

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Longer-term cost pressures will no doubt worsen progressively over time with the ageing of the population because of the resulting need for more and more costly medical procedures (both technologies and pharmaceuticals) and social care, notably for the rising share of those with dementia, as well as the effects of “Baumol’s disease”, which implies that service-sector wages will rise faster than economy-wide productivity, especially in a catch-up economy. The government is beginning a pilot project for the provision of integrated care for dementia patients; it needs to be adequately resourced. The number of people waiting for a place in long-term care institutions nearly tripled in the four years to end-2019, reaching 11.6% of available capacity. Annual per capita spending on long-term care in 2018 was only 61 euros, a small fraction of the 588 euros allocated on average in the European Union ((OECD, 2019_[42]), Figure 9).

Figure 1.17. Life expectancy is low, notably for men



Note: Healthy life years are defined as the number of years spent free of long-term activity limitation (this is equivalent to disability-free life expectancy).

Source: OECD Health Statistics database; Eurostat database.

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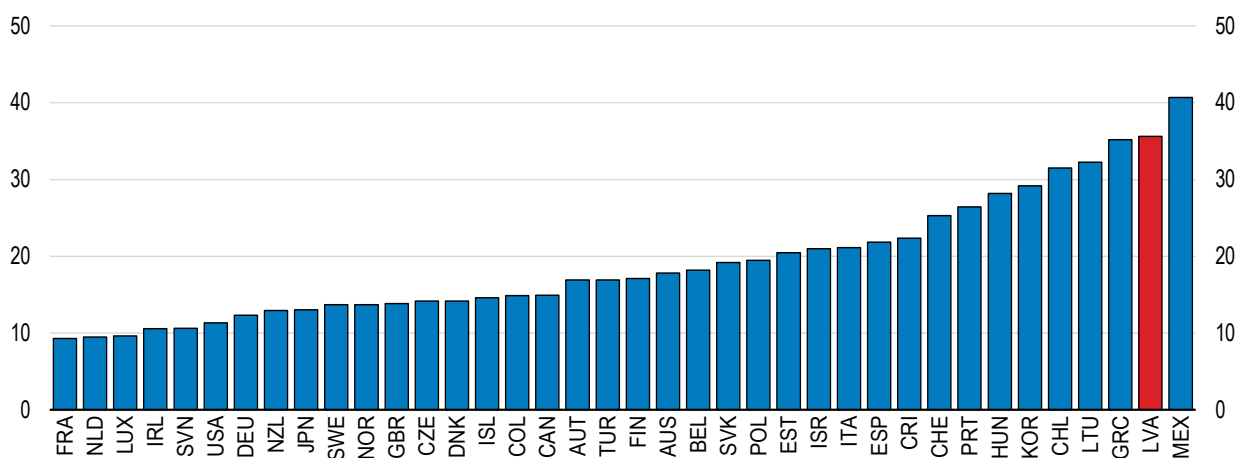
The low quality of care and substantial unmet needs also signal a need for improvement

There are several other aspects to the health-care system's need for upgrading:

- Treatment quality remains an issue: in the most recent (2018) data for preventable and treatable mortality outcomes per hundred thousand population were 326 and 196, respectively— double the EU average figures of 160 and 92; in 2019 the sum (labelled as avoidable mortality) fell to 405, still double the OECD average of 199. Those numbers have improved more rapidly than the EU average since 2011, and some of the gap is no doubt due to the poor quality of the air in terms of fine particle concentrations (see below).
- Few Latvians believe they are in good health: according to EU-SILC data, in 2019 only 47.1% of the population aged 16 and over self-reported their health as at least good (the EU average was 68.6%), including only 12.6% of the over 65s. The gap of 44.3 percentage points between adults in the top and bottom income quintiles is 23 percentage points larger than in the average OECD country (OECD/European Observatory on Health Systems and Policies, 2021^[43]).
- Self-reported unmet needs for medical examination and care (because of cost, distance or waiting lists) are widespread, though falling: in 2019 they were experienced by 4.3% of the population (8.8% for the lowest-income quintile and 1.3% for the highest), a substantial improvement from 16.1% in 2011, but still greater than the EU average of 2.0%, no doubt in part because of the narrow coverage of the public insurance system, which includes aggregate quotas of available care. Access problems are concentrated in rural areas because of an uneven geographic distribution of providers, at least general practitioners.
- There is a longstanding problem of heavy out-of-pocket payments: in 2020 they amounted to about 36% of total health-care costs, highest in the European Union, which has generated considerable accessibility and well-being gaps across income categories (Figure 1.18). Although there is an annual cap (EUR 570) on individual mandatory contributions, as many as 15% of households experience catastrophic levels of health spending. National efforts should be more ambitious than the NDP2027's objective of lowering the out-of-pocket share to 33% by 2027.

Figure 1.18. Households' out-of-pocket health-care spending is high

Households' current out-of-pocket expenditure on health care, % of total, 2020 or latest available year



Source: OECD Health Statistics database.

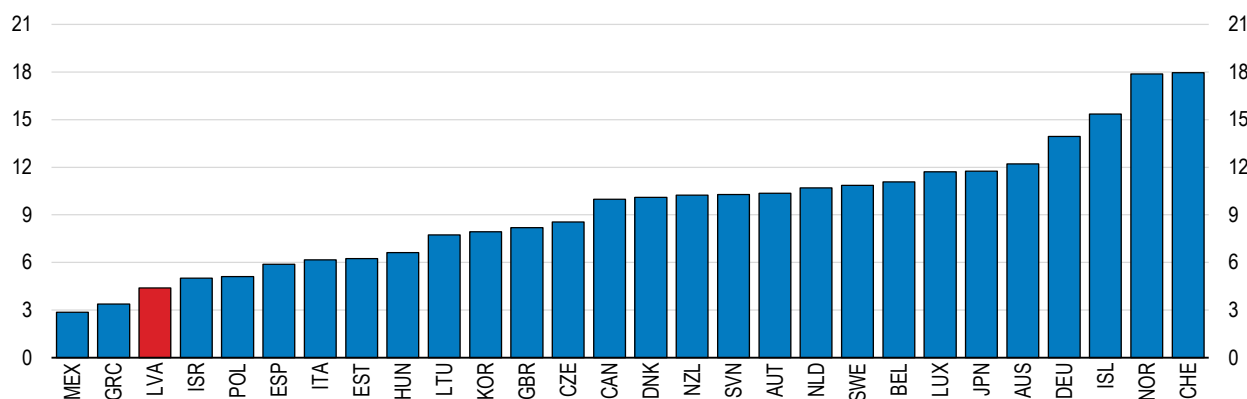
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A lack of resources has implied low numbers of medical personnel and long wait times

A lack of qualified medical personnel is probably one of the main reasons for low life expectancy, the large number of preventable deaths and long wait times. Doctors per 1000 population numbered 3.3 in Latvia in 2019, compared to 3.5 in Estonia and 4.6 in Lithuania, while nurses were only 4.4, below Estonia's 6.2, Lithuania's 7.7 and an OECD average of 8.8 (Figure 1.19). The demography of medical professionals is also daunting: for example, the overall share of doctors aged over 65 is almost 30% and as much as 42% in one specialty. The number of practising nurses has plunged more than a quarter since 2006, leading to a recent modernising reform of nursing studies and careers and a near-doubling in state-financed physician residency places over the last five years. Another possible avenue for boosting practitioners quickly is to encourage delayed retirement through bonuses, for example. National data show a sharp improvement by the beginning of 2020 in numbers of practising doctors and a modest rise for nurses and medical assistants. Nevertheless, across all medical disciplines around a quarter of registered professionals are not practising. Shortages have been caused by what until recently had been extremely low compensation levels. This resulted historically in fewer young people entering some forms of medical training, although Latvia has recently been training among the most doctors per capita in the OECD. It had also led to significant numbers of professionals emigrating to seek a better standard of living, as well as others leaving their discipline mid-career for other jobs.

Figure 1.19. Latvia has few practising nurses

Practising nurses, per 1 000 population, 2019 or latest available year



Source: OECD Health Statistics database.

StatLink  <https://stat.link/owsegu>

The NDP2027 seeks to raise the number of doctors per 1000 population to 3.45 in 2027 and the number of nurses to 4.6. This would allow more annual patient consultations per capita (about six, compared to 7.6 on average in the European Union) and shorter wait times. For some types of surgery and specialists' consultations available data seem to indicate significant shortening of queues in recent years prior to the pandemic. However, pre-COVID wait times remained long for elective surgery, rehabilitative care and specialist consultations. The combination of even moderate co-payments and long wait times caused in part by the aforementioned quotas has encouraged the development of private health care: the share of hospital beds in private institutions, for example, rose from 3.3% in 2000 to 10% in 2016, where it has since remained.

Most importantly, however, pay has been boosted sharply in the last few years, for example by a cumulative 44% for doctors (to an average of 1862 euros per month). A target-salary model has been developed but not yet approved by the government. Proposed annual increases would average some 10-12% for doctors and nurses. In total, these measures would cost a total of EUR 730.6 million (over 1/2 per cent of GDP) over the coming four years. This could be effective in attracting young people into these professions, so long as they are not excessively focused on seniority premia and working conditions are not too burdensome. However, a much lower allocation was made available in the 2022 budget, which will allow annual increases of only 4.4% for doctors and 4.7% for nurses.

Health-care spending efficiency could be enhanced

In addition to devoting more resources to health-care spending could be made more efficient. A recent assessment has argued that the system is too hospital-centred and would benefit from shifting resources to more primary and home care as well as community-based services (OECD/European Observatory on Health Systems and Policies, 2021^[43]). Hospital rationalisation has been underway for some time, and the authorities feel that there is no longer any need to pursue that effort. Indeed, the number of hospitals fell from 156 to 63 since the late 1990s, but no further progress has been made in the last decade, in contrast to Luxembourg, for example, where the number has fallen steadily by a cumulative 40% to half Latvia's level. Yet normalising for population Latvia has a mid-range number of hospitals by OECD standards. There is, however, a surfeit of hospital beds – though that has shrunk over time – as well as lower bed occupancy and longer average hospital stays than in top-performing countries. Whether those excess beds have been a boon during COVID-19 is uncertain, as they may not have been sufficiently equipped nor staffed.

Digitalisation in the sector is proceeding in line with more advanced countries: for example, doctors' appointments can be made online (though the share doing so, 8%, is lower than almost anywhere else in the OECD), as can filling prescriptions. However, telemedicine seems to have been underdeveloped prior to the COVID-19 pandemic.

Another efficiency-enhancing service delivery innovation that has been successfully adopted in a number of other OECD countries, at least in urban settings, is team delivery of outpatient care (Box 1.5). Team-based care offers many potential advantages, including expanded access (more office hours and shorter wait times); more effective and efficient delivery of additional services that are essential to providing high-quality care, such as patient education, behavioural health, self-management support, and care coordination; increased job satisfaction for practitioners; and an environment in which all medical and nonmedical professionals are encouraged to perform work that is matched to their abilities (Schottenfeld et al., 2016^[44]). The authorities should pilot such an approach in Latvia.

Box 1.5. Team delivery of health care

For over 20 years now one of the key underlying themes of health-care reform in advanced countries has been adopting more integrated forms of service delivery, especially in primary care. One of the main forms this has taken is adopting a team-based approach to care, involving multiple practitioners from different professions working collaboratively to provide care. The hope was that this would generate clear gains in the quality of care, even if not in costs. Indeed, a recent meta-study examined 167 articles in the literature and concluded that this approach leads to a perceived improvement in the quality of care, increased patient satisfaction and enhanced access to care (Baxter et al., 2018^[45]). Some evidence also exists that it leads to fewer medical errors (Rosen et al., 2018^[46]).

The OECD has also advanced multi-disciplinary team practice as a key component in delivering successful care in the context of the ongoing pandemic, along with innovative roles for health professionals, integration with community health services, use of digital technology and application of well-designed incentives (OECD, 2021^[47]). In particular, it cited experience with such care in France, Iceland, Ireland, Slovenia and the United Kingdom as evidence of its effectiveness.

Shifting towards more preventive measures

One way to improve health outcomes before is by implementing preventive measures. Overall, public health and prevention accounts for only 2.2% of Latvia's total health-care budget, compared to an EU average of 3.1%. Despite big improvements in recent years, cancer screening rates are still well below EU norms: for example, only 39.1% of 50-69 year-old women had been screened in the past two years, compared to 61.7% in the average OECD country. Another preventive measure is vaccination. As discussed above, Latvia's COVID-19 vaccination speed has lagged behind other countries' (see above), and its vaccination of seniors against influenza could improve, but it has been more successful in vaccinating against childhood diseases. A pre-pandemic assessment also concluded that Latvia suffers from generally poor control of communicable diseases (OECD, 2019^[42]): for example, HIV rates are among the highest in the European Union, even though they have trended down. In sum, greater efforts must be made to encourage the public to participate in such preventive measures after ensuring they are covered by the relevant public insurance scheme.

As in many other countries, the maintenance of good mental health does not receive adequate attention either, even if a population mental health survey has recently been promised. Suicide rates are amongst the European Union's highest.

Lifestyle-related risk factors are heavy, calling for more aggressive policy actions

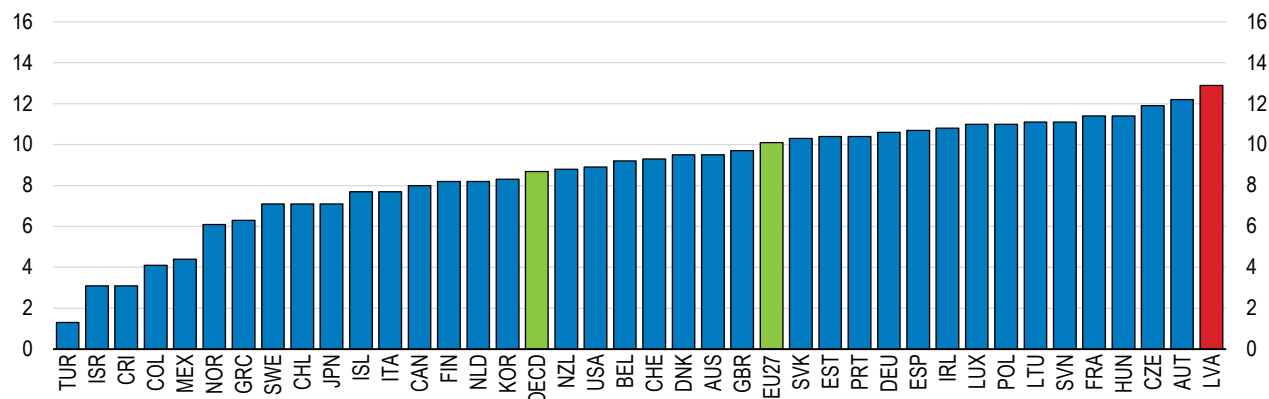
Lifestyle-related risk factors (including air pollution) accounted for 43% of all Latvian deaths in 2019, well above the EU-average share. Most of that gap is from dietary factors, which cause 24% of all deaths compared to only 17% in the average EU country (OECD/European Observatory on Health Systems and Policies, 2021^[43]). Hence, a multi-pronged approach to confront this problem should be followed, including public awareness campaigns. A key component would be to make full use of excise taxes to discourage unhealthy behaviours. These have been shown to be effective in reducing Latvian purchases of cigarettes, beer and vodka (Pļuta et al., 2020^[48]). As with motor-vehicle fuels, recourse to excise taxes is constrained by cross-border shopping, given the proximity of a border for most residents (Pļuta et al., 2020^[48]). In most cases they are currently similar to rates imposed in Latvia's Baltic neighbours. There are nonetheless a few items for which current non-energy excise tax rates are lower than in neighbouring countries and could be readily raised, notably on distilled alcoholic beverages (spirits), beer from small breweries and smoking tobacco. In any case the excise tax rates on all types of alcoholic beverages and all tobacco and nicotine-containing products should be reviewed regularly and revised in line with national fiscal and public-health objectives.

Average annual alcohol consumption per adult in Latvia (12.9 litres) is high, well above the other Baltics' and half again as great as the OECD average (8.7 litres). The gap is due to men, who consume an average of 20.9 litres (Figure 1.20). The result is that nearly 20% of men 15 and over were alcohol dependent in 2016, the OECD's highest share (OECD, 2021_[49]), Figure 2.9). It does not help that alcohol has become 26% more affordable since 2013, in contrast to quasi-stable affordability in Latvia's Baltic neighbours (OECD, 2021_[49]). The estimated impact on health expenditure (+3.7%), life expectancy (-1.6%) and future productivity and GDP (-3.6%) is not trivial (OECD, 2021_[49]). The seriousness of the situation elicited a government National Action Plan on the Consumption of Alcoholic Beverages and Limitation of Alcoholism 2020-2022, adopted in July 2020. It will restrict advertising and availability of alcoholic beverages as well as quantity discounts, implement content labelling requirements on alcoholic beverages, including warning labels (for example, on driving or consumption by pregnant women), and improve alcohol addiction therapy and rehabilitation services, among other steps. The legislative process has begun in order to implement several measures included in the National Action Plan. Minimum unit pricing is one further measure that should be considered in the future. OECD (2021_[49]) outlines a comprehensive policy package costing only 1.4 euros per person annually, which would generate over 22 euros per person in estimated economic benefits. It finds that reducing consumption to just 1-1.5 drinks a day would have a significant impact on life expectancy, health-care spending and real incomes.

Nearly a quarter of adult Latvians (22.6%) smoke daily, down from a third in 2000 but still well above international averages (the OECD average is 16.5%); the habit is much more prevalent among men than women and more closely aligned with education than in other EU countries. The strategy of Latvia's Ministry of Health for coming years is to develop and implement several tobacco-control policies – regulating tobacco-free nicotine patches and heating product devices, evaluating whether to require plain packaging for tobacco and nicotine-containing products and developing a state-funded smoking-cessation programme.


Figure 1.20. Alcohol consumption is the OECD's highest in per capita terms

Litres of pure alcohol consumed per person aged 15+ per year, 2019 or latest available year



Note: The EU and OECD averages are unweighted.

Source: OECD Health Statistics 2020.

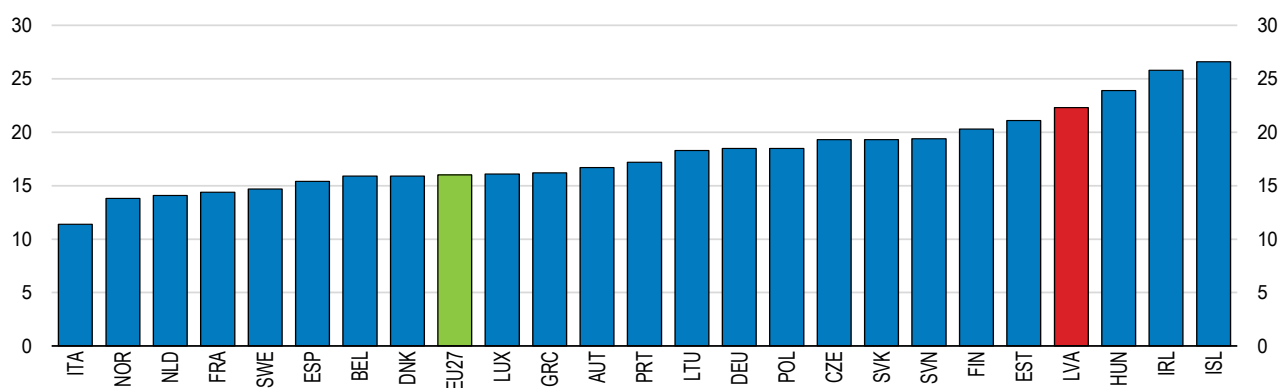
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Obesity among adults is also worse than average EU levels: in 2019, 22.3% of adults were considered obese (third highest in the Union and more than six percentage points above the EU average), and nearly 38% more were overweight (Figure 1.21). Besides a lack of physical exercise by two in five adults, poor nutritional habits are common, notably a pronounced deficiency of fruit and vegetables in the diet (Latvians eat the least fruit per capita and second-least vegetables per capita in the European Union) and the widespread consumption of non-alcoholic sweetened beverages. Latvia has imposed a tax on such

beverages since 2000, currently set at 7.4 euros per 100 litres. The tax has helped to lower the average daily intake of such beverages among children, especially girls, but it has been much less effective among adults. It is likely that EUR 0.025 per serving is just too little to have any real impact. In 2022 the tax is scheduled to be almost doubled to 14 euros per 100 litres for drinks whose sugar content exceeds 80g per litre. However, this should be reconfigured to include the equivalent in sugar substitutes, which are arguably just as harmful to human health outcomes. And, in the context of the forthcoming Public Health Guidelines for 2021-2027, more will need to be done to educate the population about the importance of diet and lifestyle, including physical activity, in maintaining good health. This could usefully include a system of warning labels on food products that are high in their content of salt, sugar and saturated fat as was first implemented in Chile in 2016 and Israel in 2017, which could save almost 500 lives per year and EUR 150 million in outlays as well.

Figure 1.21. Adult obesity is higher than in most other European countries

Self-reported obesity, % of total population (adults), 2019 or latest available year



Note: Obese population is the population with a BMI (Body Mass Index, weight/height²) over 30 kg/m².

Source: Eurostat EHIS 2019; OECD Health Statistics 2021.

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Table 1.8. Past OECD recommendations on health care

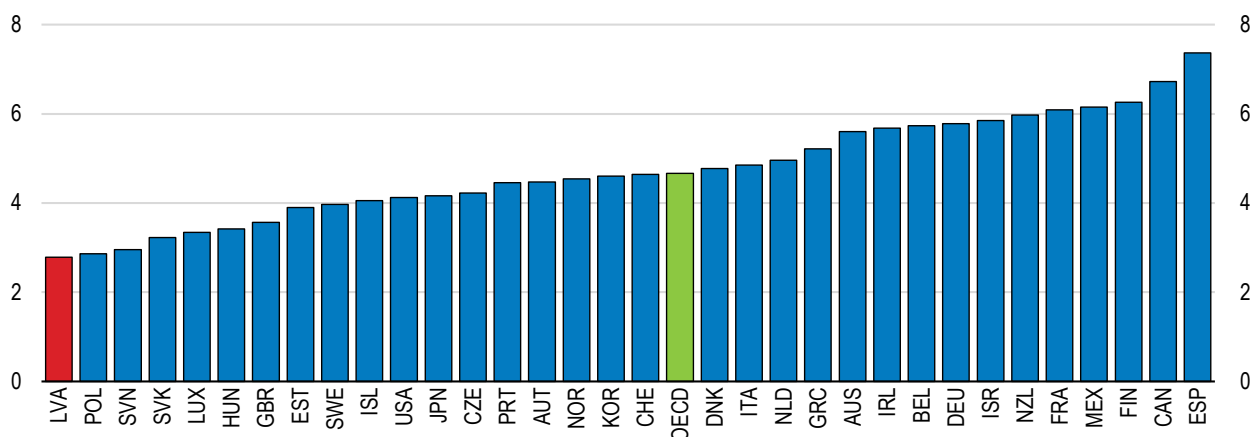
Topic and summary of recommendations	Summary of action taken since 2019 Survey
Reduce out-of-pocket payments, especially for the low-income population	Small adjustments were made to the co-payments applicable to doctor's and specialist's visits in January 2020. Co-pays for drugs were also reduced sharply as from April 2020 by requiring greater use of generics and lowering the prices of 388 reimbursable medicines. The definition of needy persons for whom no co-pays are applied has been relaxed. Some disabled people will be exempt from co-pays as well from 2022. However, the problem of a lack of available budget-financed care forces patients to buy services in the fee-paying sector at much higher prices than the applicable co-payments.
Deliver preventive care more effectively by expanding the activities nurses and pharmacists are allowed to carry out, notably in rural areas where services are scarcer.	A new designation of General Care Nurse is to be established by 2022. They would have broader competencies in therapeutic, surgical and outpatient care and could work independently to diagnose patient-care problems, give counselling, and provide, evaluate and analyse the quality of patient care. Plans are also afoot to allow pharmacists to provide vaccinations, which they currently cannot do. However, understaffing persists among nurses.

Much of the housing stock is crowded, old and in poor condition

Housing affordability and quality are pressing challenges in Latvia (OECD, 2020_[50]). A long-term well-resourced comprehensive strategy is needed to tackle them. Its housing stock is ageing and in some cases lacks some basic amenities: almost 9% of households had no private access to an indoor flush toilet in 2020, and 10% lacked a bath or shower. Few residential buildings have been constructed since 2010, almost none outside Riga and Pieriga. This is of course partially due to the shrinking population, but that does not explain the lack of total units built: only 3315 in 2019, for example, compared to Estonia's 7014 and Lithuania's 12577. Indeed, there are on average only 1.2 rooms per person, a third less the OECD average, and overcrowding is significant (34.2% in 2018), surpassed only by Slovakia, Poland and Mexico among OECD countries and compared to an OECD average of 11% (OECD, 2020_[50]). At around 2% housing investment as a share of GDP has been among the lowest in the OECD for most of the last 20 years (Figure 1.22). While there are about 25-30% more housing units than households, there are many vacant units in remote areas where demand has fallen as people have migrated to regional centres and the Riga region (see above). Land-use governance stands out as especially restrictive in Latvia, resulting in housing supply that seems fairly unresponsive to demand.

Figure 1.22. Housing investment has long been a small share of GDP

Housing investment, % of GDP, average 2000-20 or to latest available year

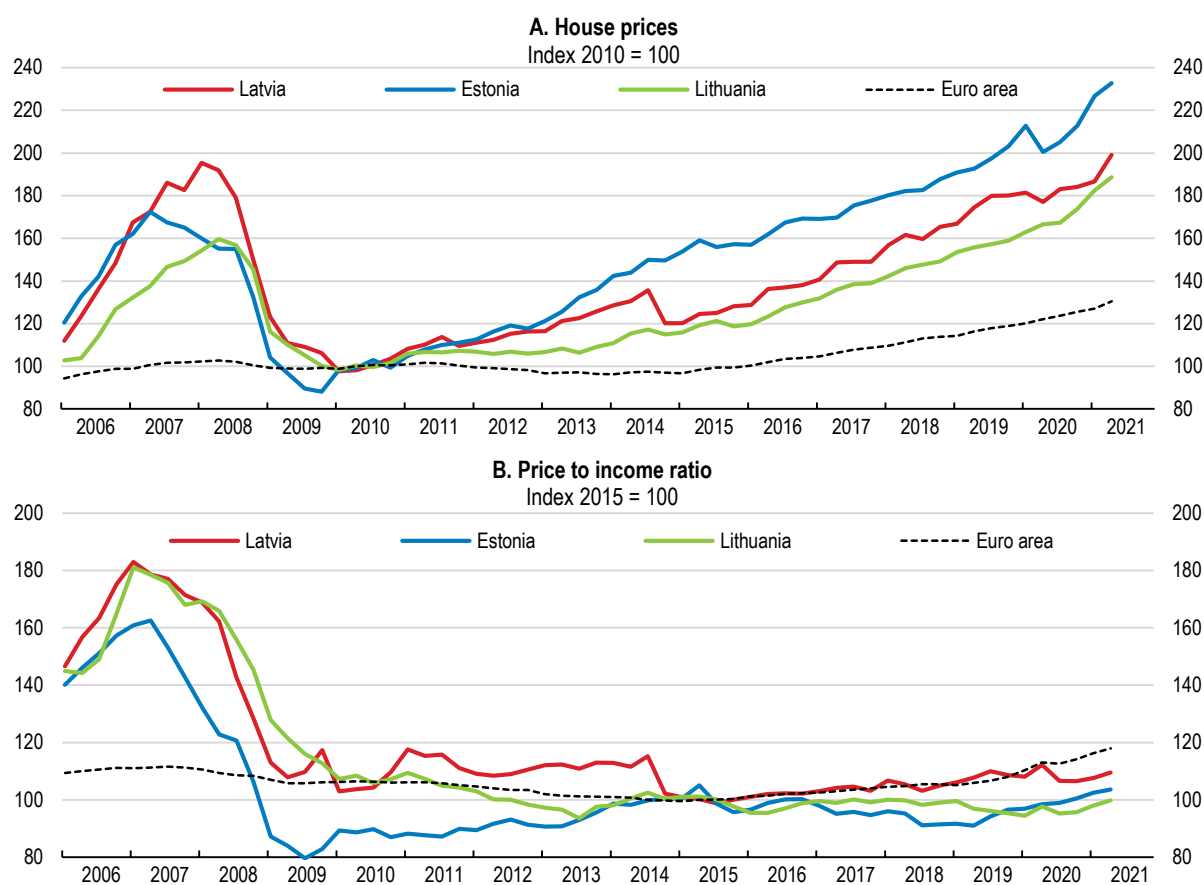


Source: OECD National Accounts database.

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As regards affordability Latvia has a “missing middle”: those who are too poor to afford a mortgage on a 75 square metre apartment but too affluent to be eligible for housing benefit (see below). These neglected households are believed to comprise about 44% of the total (OECD, 2020_[50]). Banks are unable to offer mortgage amortisation beyond 15 years (without taking substantial interest-rate risk), which is too short for many borrowers. The result is that mortgage claims are modest in relation to GDP. House price increases have outpaced the OECD average over the past decade, but that followed a large decline in the Global Financial Crisis, and in real terms prices have only just reached their 2007 peak (Figure 1.23). Many owner-occupiers in 2017 could also not afford to undertake necessary maintenance measures (OECD, 2020_[50]), but a maintenance-support long-term loan programme has been recently implemented with a fixed interest rate of 3.5% per annum. On the other hand, affordability is bolstered by the low average level of recurrent residential real estate taxes. Cadastral values are supposed to be updated every four years. The next update is provided for by recent amendments to the State Immovable Property Cadastre Law adopted by the Parliament on 6 June 2021, which entered into force on 12 July 2021. That Law provides that the Cadastral Value Base for 2025-2028 shall be approved by 30 June 2023 and shall apply for the calculation of cadastral values from 1 January 2025.

Figure 1.23. House prices have only just recovered from the plunge during the GFC



Note: The price-to-income ratio is given by the ratio of nominal house prices to nominal household disposable income per capita.

Source: Eurostat; OECD Housing prices database.

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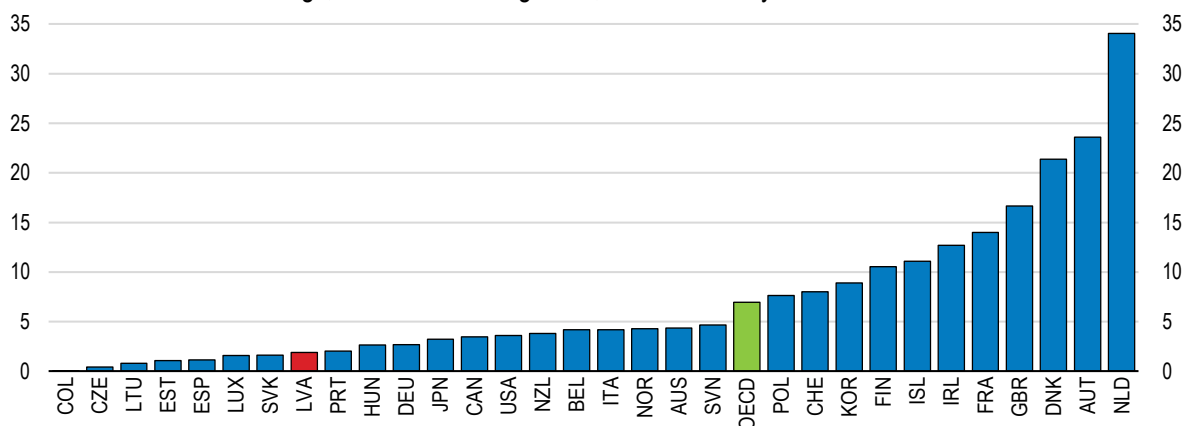
In addition, the private and social rental markets are both thin (Figure 1.24), resulting in weak labour mobility and households remaining in low-quality or unsuitable housing (and hence lower well-being). Despite evidence of long average commutes (36.5 minutes per day, compared to an OECD average of 30.5 minutes), over a recent five-year horizon only 9.7% of households had moved (Causa and Pichelmann, 2020^[51]), Figure 3.1) – compared to an OECD average of 21.6% – of which only 0.5% for job-related reasons. This contributed to the rise in job-vacancy rates in the years leading up to the pandemic. One constraint on the supply of private rentals might have been landlord-tenant regulations, which have historically provided too little protection for landlords; a new regime went into effect in May 2021 (OECD, 2020^[50]). On the other hand the stringency of rent controls is in line with that seen in the typical OECD country. In any case, the lack of good-quality housing for staff is said to be discouraging foreign investors from locating their operations in many parts of the country.

Only 43000 households receive the tax-free housing benefit, which represents 7% of all households and 18% of those in the bottom income quintile. Housing benefits are available to both qualified needy households and non-needy, low-income households. Total spending in 2020 was only EUR 13.3 million. As a share of GDP this is among the OECD's lowest (Figure 1.25). Monthly average payments ranged from 14 euros for non-needy, low-income single persons to 26 euros for multi-person households. However, a reformed system took effect at mid-year that is projected to boost eligibility to around 65000 persons and have uniform national benefit levels. It is normally granted for three months, unless there is no working-age person in the household, in which case that is doubled to six months. The same

list of income disregards applies as to the Guaranteed Minimum Income (see above). Despite such parsimony, the housing cost overburden rate (the share of low-income households paying more than 40% in rent) is mercifully low: 14.2% compared to an OECD average of 35.2%. Homelessness is also not a major problem. The nation's 14 homeless shelters are operated by urban municipalities, mainly Riga. In 2019 0.36% of the population (largely men) occupied such institutions, 58% of whom had addiction problems.

Figure 1.24. Social rental housing is a small share of the total

Number of social rental dwellings, % of total housing stock, 2020 or latest year available

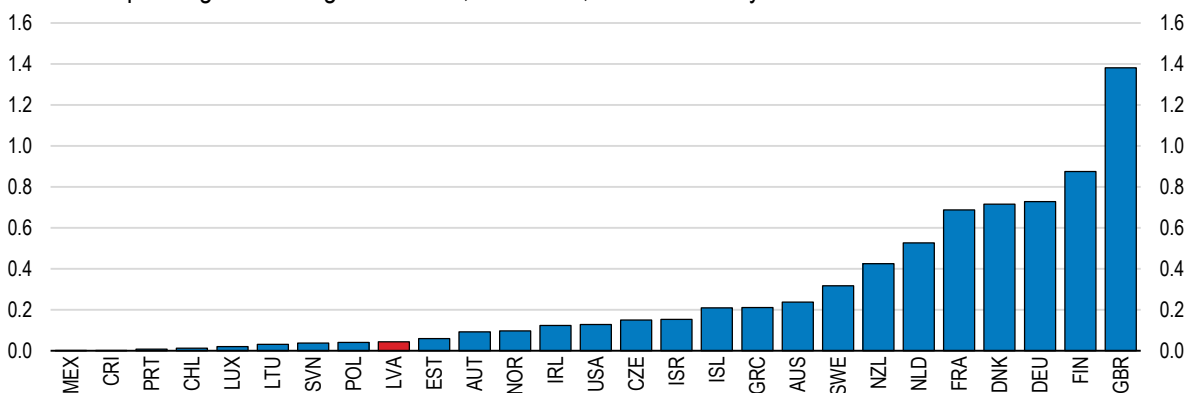


Source: OECD Affordable Housing Database. <http://www.oecd.org/housing/data/affordable-housing-database/>

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Figure 1.25. Public spending on housing allowances is modest

Government spending on housing allowances, % of GDP, 2020 or latest year available



Source: OECD Affordable Housing Database. <http://www.oecd.org/housing/data/affordable-housing-database/>

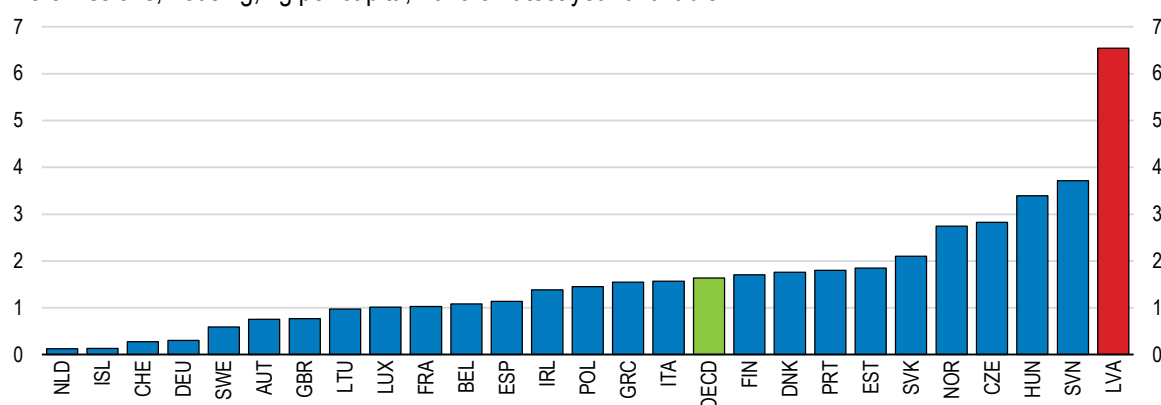
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The National Development Plan 2021-2027 included indicative funding of 480 million euros (about 0.2% of GDP) to achieve progress in lowering the share of households in financial distress due to housing, living in unsatisfactory conditions or on municipal housing assistance registers, as well as in raising the share of those in “renewed” housing, the number of new apartments commissioned and of units with improved energy efficiency. Enhancing housing-sector energy efficiency is a significant challenge, as it is well below the OECD average, and much of the stock is heated mainly by biomass (wood), creating about two-thirds of all fine-particle emissions and resulting in housing-sector fine particle emissions per capita that are four times the OECD average (Figure 1.26). In the short term, as recommended in OECD (2020_[50]), using seed

money from the ERRF, the government intends to create an affordability fund of 43 million euros for long-term loans and 30% grants for at least 700 affordable rental housing units for the missing middle, with half of rental payments going to future affordable housing construction projects once the loan is repaid (revolving funds). Using Multiannual Financial Framework (MFF) funds the government also plans to spend 61 million euros to provide 85% grants to municipalities to build and renovate 1800 units and plans to create a programme to make construction loans for rental buildings with market rents. It has already begun to offer purchase grants worth 8000-12000 euros (depending on the number of children and whether or not the house is energy efficient) on homes worth no more than 250000 euros to larger families under the “Balsts” programme.

Figure 1.26. Housing-sector fine particle emissions are the OECD's highest

PM 2.5 emissions, housing, kg per capita, 2018 or latest year available



Note: The “Housing” category includes the sub-categories: Housing, water, electricity, gas and other fuels, and Housing-other.

Source: Air emission accounts, OECD Environment Database; OECD National Accounts database.

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It could also provide incentives to get housing associations or cooperatives off the ground, even though that would probably pay off only in the longer run. Sweden is an example of a country that has a long and successful history of using such affordable housing vehicles, and a German cooperative (Living in Metropolises SCE) is setting up a pilot project in Jelgava (LIM - Living in Metropolises SCE, 2021^[52]). Another option is to implement a rent-to-buy programme, as advocated by the Local Government Association. In any case all municipalities should have well defined housing strategies, notably Riga, so as to avoid unforeseen strains driven by market forces. Urban densification should feature prominently in such strategies to lower energy consumption in line with climate-change policy requirements.

Table 1.9. Past OECD recommendations on housing policies

Topic and summary of recommendations	Summary of action taken since 2019 Survey
Encourage housing management agencies to initiate and manage energy-efficiency investment for a large set of buildings and provide lower-income homeowners with grants covering up to 100% of the costs.	ALTUM, the public development finance agency, is managing funds of EUR 201 million for energy efficiency investments in 989 residential buildings, co-financed from the 2014-20 ERDF planning period. In addition, a new instrument worth EUR 229 million is being developed for the subsequent 2021-27 planning period.
Introduce means-tested tax incentives for the refurbishment of basic amenities.	No action taken.
Provide more public funding for affordable rental and social housing.	A new long-term financial instrument is being developed to finance 700 low-rent apartments outside the Riga area. It will support developers with a long-term loan and a grant element and require co-financing of 5% of eligible costs. A new EU-financed support scheme for social housing worth EUR 61 million including 15% local co-financing is also being designed to renovate 1200 apartments and build 600 new units. Priority will be given to places with housing queues and a range of community-based social services.
Require housing developers to allocate a proportion of their dwellings as affordable units.	No action taken. Considering potential fairness issues, if this would make housing more expensive for other buyers, the authorities favour direct state purchases.

Latvia needs to address some major environmental challenges

In its recent National Development Plan for 2021-2027 the Latvian government chose “Nature and Environment” as one of the 18 directions it wishes to pursue and allocated it indicative funding of 1.37 billion euros for the period, almost 0.7% of GDP. Ten associated indicators were selected for monitoring purposes covering climate change, air pollution, water quality, municipal and hazardous waste disposal, protected areas and ornithological biodiversity.

Recent progress in dealing with climate change has been limited, and air pollution is bad

Latvia’s National Energy and Climate Plan 2021-2030 was adopted early in 2020, mapping out a path of reduced emissions and greater use of carbon sinks to achieve a national 2030 target of total GHG emissions (without the land use, land-use change and forestry – LULUCF– sector) 65% below 1990 levels and an additional target for non-ETS activities of -6% compared to 2005 so as to reach carbon neutrality by 2050. However, reaching that goal would still require a much faster rate of decline after 2030 than in the current decade. Moreover, in 2021 the European Union agreed to raise its 2030 commitment by 15 percentage points, so greater ambition and hence less backloading by Latvia would seem to be called for. Separately, in February 2021 Riga signed the Paris Climate Declaration and joined other European cities in a “race to zero”, with a goal of getting to neutrality already by 2030.

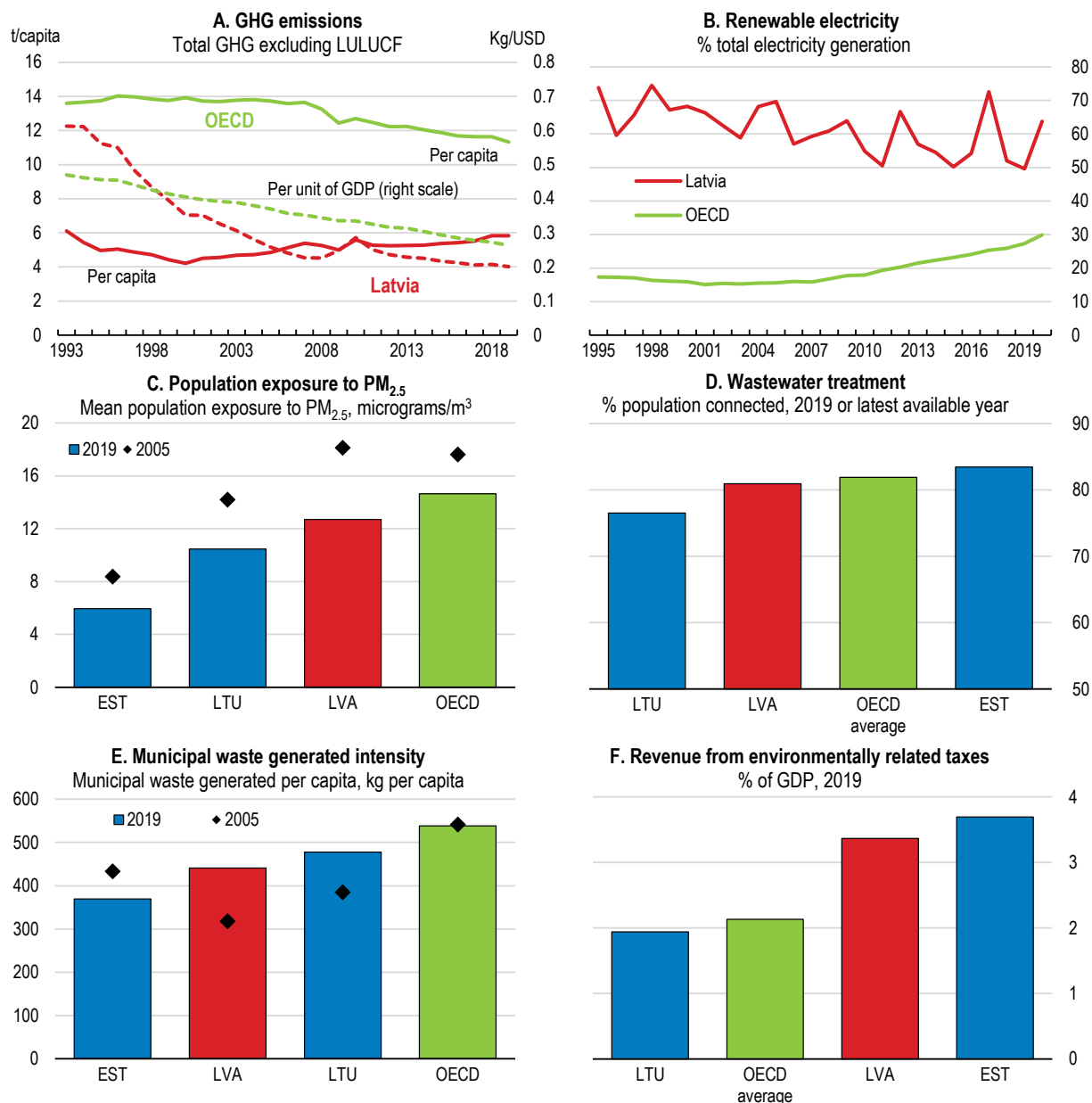
The 65% national GHG emissions reduction was almost entirely achieved by the year 2000; since then emissions have risen steadily, although they are still below the OECD average both per capita and in relation to GDP (Figure 1.27, Panel A). There has also been a turnaround with respect to LULUCF account related to increased forest harvesting and ageing forest stands. Most emissions (the European Union’s second-highest share) are outside the European Union’s Emissions Trading System’s coverage – notably transport (30%, compared to an OECD average of 24%) and agriculture (20%, compared to an OECD average of 10%) (Figure 1.28) – and thus currently subject to a small but increasing carbon tax, which began at EUR 4.5 per tonne in 2019 and will reach EUR 15 per tonne in 2022. The European Union has decided to broaden its carbon tax regime as part of its updated climate framework; this will help Latvia to achieve decarbonisation more effectively.

Overall, Latvia’s effective carbon tax rates in 2018 were only 29% of the estimated global carbon cost of 60 euros per tonne in 2020, better than the OECD’s worst performers at around 17% but well behind the leader (Switzerland) at 69% (OECD, 2021^[53]). Empirical research has shown that for every 10 euros such rates reduce carbon emissions by 7.3% over time; accordingly, if Latvia were to move to the leading (Swiss) position (alternatively, the full current cost of carbon), its emissions could fall by around 18% (31%). Part of the reason for Latvia’s low effective rates is the subsidies it grants to fossil fuels (Fossilfuelsubsidiestracker.org). Admittedly they had more than halved by 2019 from a recent peak of USD 356 million in 2013, primarily because of falling tax expenditures for natural gas. However, natural gas still enjoys a sizable direct budgetary transfer, and tax expenditures for petroleum products have rebounded somewhat since 2016.

Twelve associated actions were identified in the Plan, including improving the energy efficiency of buildings, greater use of negative emissions technologies in power generation, boosting the use of renewables in transport, greening the tax system, and modernising infrastructure and integrating regional markets for both electricity and natural gas by increasing interconnection capacity (which will enhance competition and energy security and independence, already much improved by a halving of the import share since 1990). A total of about a hundred measures were listed (from three to fourteen per action) as well as various horizontal measures. Indicative costs for these measures total EUR 8.26 billion or almost 4% of GDP per year. Implementing all these measures will be challenging. An assessment of progress is due in 2022. Special attention will be needed for the agriculture sector, which is responsible for a much higher share of emissions than the global average (Climate TRACE, 2021^[54]). This will not be easy due to Latvia’s large share of high-emitting drained organic soil (peat land) and the fact that many agricultural

emissions are hard to reduce with current technologies, but a greater focus on crops requiring less fertiliser would be helpful.

Figure 1.27. Environmental indicators tell a mixed story



Source: OECD Environment Statistics database.

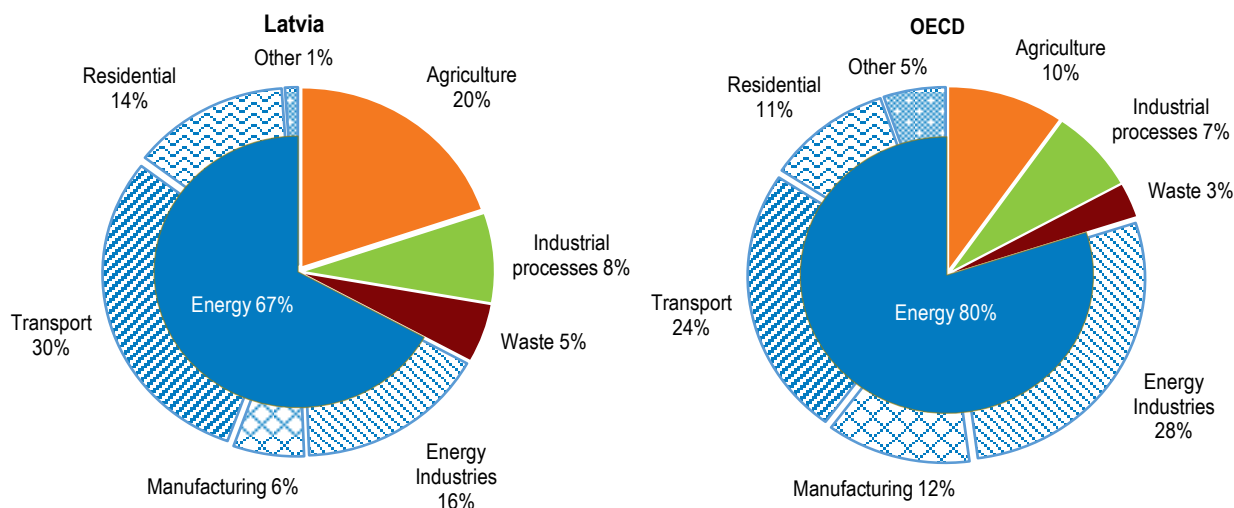
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Conserving energy is a key component of achieving carbon neutrality. Latvia is working to progress in that dimension by, for example, modernising the fleet of Air Baltic, its national carrier. Significant changes are also planned for the railway sector, notably the implementation of the Rail Baltica project with Estonia and Lithuania, which is a greenfield investment to link the Baltic states with the rail network in the rest of Europe. Besides complete electrification to avoid carbon emissions, its construction will use the newest technologies and materials and will satisfy stringent safety requirements. More of the existing rail system should be electrified as well, given the fairly low carbon content of Latvia's generating capacity. In addition,

RRF funds will be appropriately used to reduce emissions, including by overhauling transport in the Riga metropolitan area to fund investments in clean public transport infrastructure, including rail, trams, electric buses and cycle lanes.

Figure 1.28. Latvia's GHG emissions are attributable relatively heavily to agriculture and transport

GHG emissions (excluding land use, land-use change and forestry), share, %, 2019



Source: OECD, Green Growth Database.

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Another way is to shift away from fossil fuels to renewables, whose share in electricity production has averaged around 60% in recent years, much higher than in the OECD on average (Figure 1.27, Panel B). The bulk of that is hydro power. Until recently, Latvia had no solar capacity to speak of, partly because of a lack of sunshine but possibly also because of heavy administrative barriers. A first large-scale solar heating system was commissioned in 2019 in Salaspils. While solid biofuels have been expanding over the past decade, notably in district heating, the climate change effect of this renewable is uncertain and probably small. The government expects to move substantially into wind power generation, notably through procurement auctions, most prominently for 700-1000 MW of offshore capacity (ELWIND) (covering up to 20% of total electricity consumption) by 2030 jointly with Estonia. However, public acceptance of measures that would result in higher prices is low because of previous mistakes in designing the system of feed-in tariffs that lacked transparency and resulted in concerns about corruption. Latvia should also consider making greater climate-related disclosure mandatory at least for public enterprises if not all larger private firms, as recommended by the Financial Stability Board's Task Force on Climate-related Financial Disclosures (2020^[55]).

Fine particle pollution, even if down by around 30% since 2000, remains serious: two-thirds of the population is exposed to hazardous levels of such particles. The average exposure is more than double Estonia's, for example (Figure 1.27, Panel C), resulting in very high death rates due to air pollution and shorter life expectancy (see above). Emissions from residential heating are especially high (see above), and greater efforts to encourage switching away from wood burning (and the small amount of coal) for home heating would be appropriate.

Under the terms of the government's April 2020 Latvian Air Pollution Reduction Plan 2020-2030, this problem will be tackled in several ways. A modest budget of 23 million euros for extra monitoring and new industrial boilers has been established for the seven-year planning period. The annual road tax is being aligned with the amount of carbon emissions caused by the vehicle, but other vehicle emissions are

currently neglected (although changes to the law are being considered), and this system is applied only to newer vehicles (because of a lack of data), whereas a large majority of the car fleet is over 10 years old. Moreover, as all transport-sector emissions are related to vehicle use, distance-related tax bases (such as fuel purchases) are likely to be superior in internalising these externalities. Some incentives are also promised for zero-emissions vehicles, and local initiatives are also possible. In 2021-23 the tax on various pollutants from stationary sources is being raised. Yet the tax on natural gas used as vehicle fuel is being reduced; even if it is less polluting than petrol and diesel, this runs counter to enhancing incentives for complete decarbonisation.

Progress is being made in water treatment, but solid waste disposal and biodiversity remain challenges for the future

Water quality in Latvia has room for improvement, including in terms of the availability of safe drinking water and the reliability of its water supply (LV PEAK, 2020^[56]). The biggest source of water pollution is nutrients from diffuse sources, mainly farms. As well, only around 89% of the urban population is connected to centralised wastewater treatment services according to national figures (though an unknown share of the wastewater that is not connected to a centralised treatment system is also treated), but a number of EU-supported projects are underway to raise it to 92%. The reasons for the less-than-complete coverage are sparsely populated areas, population shrinkage and poverty (sometimes pipes are built to the property line, but the homeowners cannot afford the connection). OECD data show the share of wastewater treated at 80% in 2018 (Figure 1.27, Panel D). A further wastewater investment management plan was adopted in November 2020 to cover the period to 2027. Local water companies are in many cases too small to operate at efficient scale; but some consolidation is expected following the latest territorial reform (see above). Indeed, an in-depth assessment of the costs and benefits of establishing a single national company should be undertaken.

Solid waste produced has experienced a steady rise since the turn of the century, reaching 418 kg per capita in 2019, up by an average of 3.6% per year since 2013, in line with real per capita growth (Figure 1.27, Panel E). “Natural resource tax” is imposed on almost all packaging materials. The rate varies from 0.24 euro cents per kg for paper, cardboard and wood to 2.2 cents for polystyrene; these rates are much lower than those imposed, for example, by Estonia (which vary from 0.6 cents for glass to 2.5 cents for plastic, polystyrene and metal). Packaging recycling has risen sharply in recent years to over 18% of the total. Higher tax rates would also encourage producers to find ways of reducing the amount used and could be applied to imports as well.

About two-thirds of Latvia’s solid waste is unsorted. Latvia has no incineration capacity: municipal solid waste is either recycled or put into landfill. Waste management is handled by 10 regional bodies, which will become five in 2022, allowing more scale economies. There is a new Latvian Waste Management State Plan for 2021-2027 whose cornerstones include waste prevention and recycling. Recycling will be encouraged by extending separate collection systems for glass, paper and bio-waste, but based on the polluter pays principle, there is also a tax of 65 euros per tonne on anything placed in landfill (or eventually incinerated); this will be raised to 95 euros by 2023. The proceeds of this tax will help the waste-management sector finance its operations and investments it needs, estimated at nearly 550 million euros through 2035.

Protected land area covers about 18% of the country, near the Baltic average but well below the OECD European average of 24.6%. Latvia has not fulfilled all its obligations under the EU Habitats Directive and is subject to a number of infringement cases. Furthermore, with its recent Biodiversity Strategy for 2030 the European Commission is proposing that all Member States move toward an objective of protecting 30% of land. While pressures on Latvia to raise the amount of protected land area are therefore considerable and with declining population some increases seem reasonable, going that far would probably have a negative impact on its forest products industry, especially if it failed to move up the value chain. The intensity of use of Latvia’s forest resources has risen considerably over the past decade.

The tax system is fairly green, with environmental taxes at 3.4% of GDP in 2019, compared to only 1.5% in the average OECD country (Figure 1.27, Panel F). Besides joining its fellow EU members in imposing higher carbon taxes, taxation could in principle improve environmental outcomes by reducing the relatively favourable treatment provided to diesel-powered vehicles, although in practical terms there are effective limits from the tax level imposed by Latvia's Baltic neighbours. Similar competitiveness concerns apply to the taxation of diesel used for machinery in agriculture, but Latvia has gone further than EU requirements in terms of the effective rate applied and imposing crop-varying volume limits per hectare cultivated. Another area where Latvia could raise its excise taxation to cut pollution is on heating fuels, which is still low in carbon-price terms. In addition, congestion charging should be considered for Riga as an additional lever to discourage the use of private cars in favour of alternative modes including public transport. One variant could involve the creation of more dedicated bus lanes, which private cars could use upon payment of a toll. Revenues could be allocated to public transport investments. This approach would enable the benefits of a pricing mechanism in travel demand to be obtained with less vocal public and political opposition (Cohen-Blankshtain, Bar-Gera and Shiftan, 2020^[57]). In principle, non-market mechanisms could also be used to achieve climate-change goals, but the tools to achieve that (regulations and product standards) are mostly within the purview of the European Union.

MAIN FINDINGS	RECOMMENDATIONS (Key recommendations in bold)
Supporting the recovery and setting appropriate policies for sustainability and equity	
The vaccination rate has accelerated since the summer, reaching nearly 70%, close to the EU average.	Continue efforts to accelerate vaccinations.
The national and EU budget rules look set to be suspended again for 2022. Budget balances are still feeling the effects of the COVID-19-related recession in 2020-21. Public debt is likely to reach 50% of GDP by 2023. Annual spending reviews have been underway for five years.	Maintain targeted short-term fiscal support to vulnerable households and the sectors hardest-hit by COVID-19 related restrictions. Devise a credible fiscal strategy, including effective associated fiscal rules, to prepare for ageing and climate challenges. Continue the process of annual spending reviews. Ensure effective implementation of projects financed by RRF funds, and coordinate the process with other national planning documents.
Latvia's tax and transfer policies provide little in the way of redistribution of income and wealth, whose inequality is severe. Old-age poverty is high. The Guaranteed Minimum Income is insufficient to live off. Geographic disparities are pronounced.	Review minimum income thresholds on a regular basis, and raise the benefits for vulnerable groups, notably the elderly. Raise additional tax revenues in a growth-friendly and progressive manner, through residential property, environmental and capital taxation. Make greater use of municipal equalisation to lower disparities.
Long-term unemployment is high. Active labour-market measures are insufficient. Only about half of the unemployed are eligible for unemployment benefit.	Raise active labour market spending. Lengthen the period for which training vouchers are available, at least for young adults. Expand eligibility for unemployment benefits.
The gender wage gap of 22% is among the highest in the European Union and has risen considerably since 2011. The government has just adopted a plan for equal rights and opportunities for women.	Shed more light on gender pay gaps by sector and employer, notably in public firms, and continue efforts in addressing gender-specific perceptions and enforcing anti-discrimination legislation.
Revising pension, health care and housing policies to enhance social welfare	
The demographic outlook looks set to continue to worsen. The ageing burden is set to fall mainly on retirees as pension replacement rates fall.	Continue to raise the retirement age beyond 2025 by automatically linking it with life expectancy.
Public health care spendings low relative to GDP, even allowing for Latvia's low per capita income level. Out-of-pocket spending is unusually high, and indicators of treatment quality (such as preventable and treatable mortality) and patient satisfaction (including unmet needs) are poor. Long-term care is a small share of total spending. Risky behaviours are widespread, especially in the form of heavy alcohol consumption, and obesity is prevalent.	Boost public health-care spending, and improve access to state-funded medical services and drugs to cut out-of-pocket expenses. Train and hire more nurses than currently planned. Consolidate the hospital network, and make greater use of digitalisation in the health-care sector. Increase health-care spending on preventive measures, primary and home care, mental health treatment and long-term care. Raise excise taxes to curb alcohol consumption and smoking, and better inform the public of the benefits of improving diets and exercising.
Much of Latvia's housing is old, of poor quality and subject to overcrowding. A lack of affordable housing is a widespread problem.	Ensure effective implementation of the National Development Plan's housing objectives, notably by raising the supply of affordable and social housing and improving home-heating systems.
Devising policies to enhance environmental sustainability	
Latvia has a number of sub-standard environmental outcomes. Carbon emissions have risen steadily since 2000, and effective carbon tax rates are well below the estimated global cost of such emissions. Agriculture is responsible for a fifth of total GHG emissions, double the OECD average share. Air quality is especially poor because of severe fine particle pollution. Water quality suffers from diffuse nutrients pollution and less-than-complete centralised wastewater treatment. Protected land area is limited.	Gradually raise effective carbon tax rates in sectors not covered by the EU-ETS, phasing out natural gas subsidies and redistributing revenues towards the poor. Follow through with national plans to lower emissions from agriculture. Encourage greater use of renewables in electricity generation, and increase system inter-connection in both electricity and natural gas. Fight fine particle pollution by more stringent regulations and tighter enforcement of heating-system standards. Raise tax rates on packaging and on heating fuels (which is still low in carbon terms) in line with the latest European Commission proposal on energy taxation, while providing compensatory means-tested transfers. Aim for more complete wastewater treatment by consolidating local water companies, possibly into a single national firm.
Strengthening investment and fighting corruption to accelerate convergence	
Latvians have avoided increases in private indebtedness, limiting risks. Yet problems exist of accessing finance for borrowers both in terms of cost and the amount of collateral demanded.	Build a more investment-intensive culture by, for example, better financial literacy for all age groups and greater competition in the financial sector from non-banks, notably fintech firms.
Labour market informality, tax evasion, bribery and official corruption are seen as longstanding problems. Perceptions suggest that conditions have improved.	Continue to fight corruption, increase transparency in public procurement processes and enforce the heavy penalties for tax evasion and bribery that existing legislation allows. Adopt the Plan to shrink the shadow economy, and ensure its effective implementation.

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2 Boosting productivity and incomes through capitalising on export opportunities

Zeev Krill, OECD

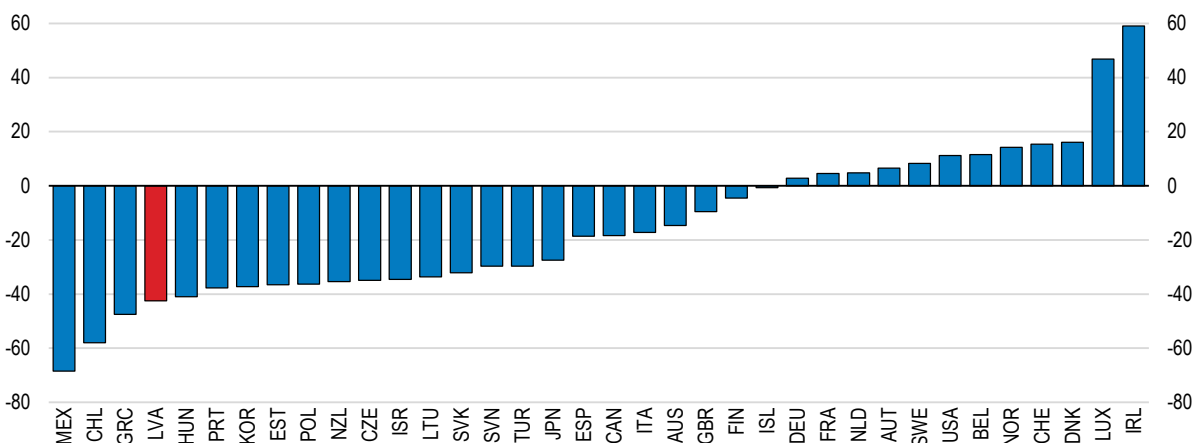
As a small economy with a shrinking population Latvia needs to rely on external markets to foster productivity and growth. Nevertheless, Latvia's export performance has been weak in the last two decades. This may be attributable to its industrial structure, which is still dominated by low- and medium-low-tech firms, so that exporters rely on low labour costs rather than innovation. Business R&D spending as a share of GDP is low and has remained static. Insufficient workforce skills, weak incentives to invest in innovation activities and poor transport infrastructure restrict the ability of Latvian firms to compete, innovate and grow. To promote export growth and diversification, Latvia should improve the business environment for all firms and the governance of state-owned enterprises, intensify managerial skills, strengthen business networks and concentrate its export support on firms entering new markets. Enhancing work-based learning would help unleash the potential of the current pool of employees and facilitate the transformation to more complicated production processes. Increasing financial aid for graduate students, giving schools more flexibility in setting wages, exposing more students to advanced curricula, targeting especially students from poor socioeconomic backgrounds and enabling more non-EU citizens to work in Latvia would all help boost the number of entrepreneurs, innovators and high-skilled workers.

Latvia could foster productivity and income growth by increasing exports

Productivity growth will continue to be the main driver of Latvia's convergence to the living standards of advanced OECD countries (OECD, 2017^[1]). Productivity growth rates have been declining since the Global Financial Crisis, and the convergence with the EU average has slowed. Nevertheless, catch-up has continued, albeit at a slower pace than in neighbouring Lithuania (Chapter 1). The hourly productivity gap with the top half of OECD countries is still about 40% (Figure 2.1).

Figure 2.1. The labour productivity gap with the best performers is still large

Gap in GDP per hour worked against 18 richest OECD countries, PPPs, population weights, %, 2019



Source: OECD (2021), *Economic Policy Reforms 2021: Going for Growth*, OECD Publishing, Paris.

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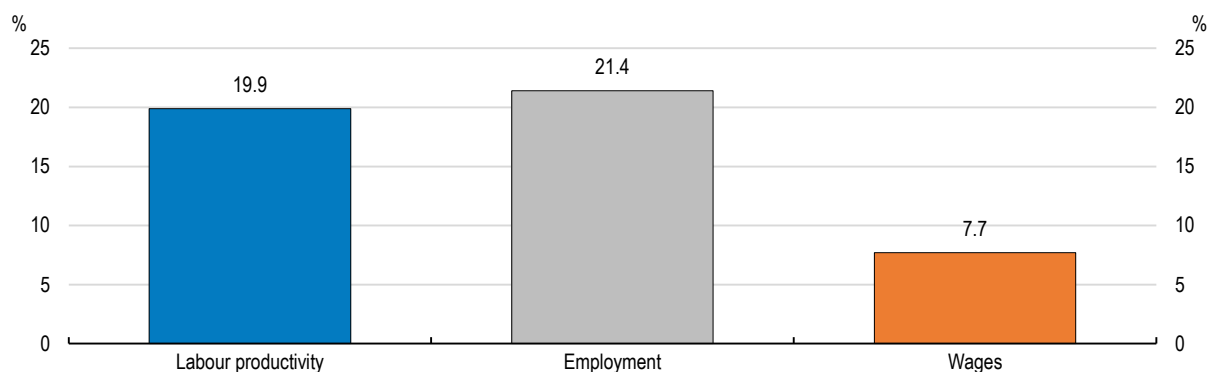
As a small economy Latvia could foster productivity growth through deeper international trade. Countries that have been able to increase their exports-to-GDP ratio over time have also simultaneously managed to improve labour productivity. This is particularly the case for catch-up economies such as the Central and Eastern European countries (OECD, 2019^[1]). Further shifting the economy's orientation to the external sector may be especially beneficial for Latvia, as rapid population ageing will continue to constrain domestic demand, besides limiting the prospects for any contribution from labour supply to output growth (Chapter 1). Likewise, it could improve opportunities for young skilled workers who often leave Latvia, looking for better jobs in other EU countries (OECD, 2019^[2]).

Even between firms with initially similar levels of productivity, size and age, those that start exporting also enjoy substantial productivity improvement at the same time compared to those that do not enter export markets (Figure 2.2) (OECD, 2017^[1]). Gains in productivity and employment are particularly large when exports are related to participation in knowledge-intensive activities, such as Information and Communication Technologies (ICT) and professional services, found in the upstream of Global Value Chains (GVCs) (Benkovskis et al., 2017^[3]). Greater exports and GVC participation generally boost productivity, as closer interactions with foreign buyers and suppliers often involve knowledge transfers, intensive use of high-quality imported inputs and specialisation in niche products. GVC integration, which typically involves attracting FDI, increases business demand for skilled workers and creates higher paying opportunities. However, participation requires upfront investment such as training employees to comply with quality standards, and this acts as an entry barrier for small and less productive firms (OECD, 2017^[1]). GVC involvement may also create or exacerbate inequalities, especially between skilled and unskilled workers as well as between regions hosting high-value exporters and those that do not. Providing a large

share of the population and the country with the opportunity to participate in the external sector is, therefore, essential for boosting economic welfare.

Figure 2.2. Beginning to export leads to gains in productivity, employment and wages

Differences in productivity, employment and wages in 2014 between exporting and non-exporting firms three years after export entry



Note: The chart describes these differences by comparing the export entrants only with the subset of non-exporting firms that are initially as productive and large as the export entrants are.

Source: Beňkovskis et al. (2017), "Export and productivity in Global Value Chains: Comparative evidence from Latvia and Estonia", *OECD Economics Department Working Paper*, No. 1448, December, OECD Publishing, Paris.

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This chapter discusses the export-related challenges Latvia faces, focusing on promoting export diversification, enhancing infrastructure and the business environment, improving relevant skills and boosting R&D and innovation from their present low base. Box 2.1 illustrates the importance of these factors for the modernization of export activities, using the Czech Republic as a case study. The main findings and recommendations are summarised at the end of the chapter.

Box 2.1. The transition of the Czech Republic from limited to advanced GVC participation

Countries participate in GVCs in different ways, but there are also regularities in the type of GVC integration and the way countries upgrade their participation. Based on 1990–2015 data, the World Bank classifies countries according to their types of GVC participation: (1) commodities; (2) limited manufacturing; (3) advanced manufacturing and services; and (4) innovative activities. Due to low backward participation (see below) and innovation activities Latvia is classified as a country with limited GVC participation, while most OECD countries are classified as advanced. The basic preconditions for upgrading to advanced GVC participation are political stability, lower trade costs, advanced logistics services and a highly skilled workforce. Improvements to education and employability policies are needed due to the rising demand for technical, engineering and managerial skills. Still, as many of these skills are firm-specific, a regime that is open to foreign skilled labour and provides incentives to invest in training is also needed. At the institutional level the shift demands attention to contract enforcement and protection of intellectual property.

The Czech Republic successfully moved from limited manufacturing GVCs in the 1990s to advanced manufacturing and services GVCs in the 2000s and to innovative GVC activities after 2010. Several factors help explain these transitions. Geographical proximity to Austria and Germany and the supply of skilled, low-cost labour made the Czech Republic an attractive FDI location. In the 1990s its share of high- and medium-skilled workers was almost identical to Germany's, while its average labour costs were less than a third of German levels. Moreover, on top of being open to FDI, the pull factor for foreign

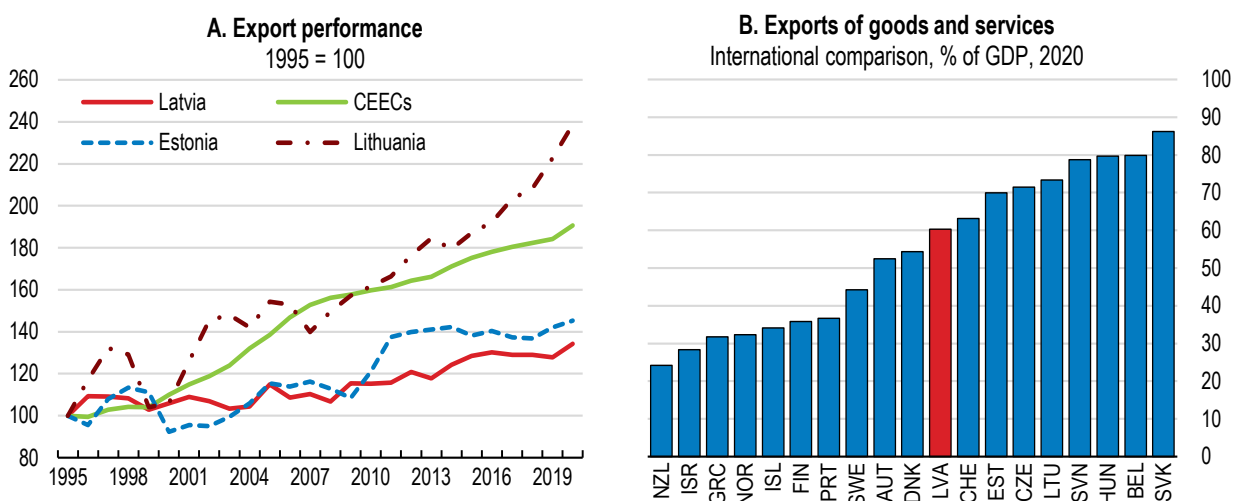
investment was enhanced by a well-developed infrastructure and increased expenditures on education relative to GDP. This led to strong FDI inflows, particularly in automotive manufacturing and business services. Although average manufacturing import tariffs were already low in the early 1990s – at around 5% – they had fallen to less than 2% by 2000. During the 2000s the country emphasised skills-upgrading and innovation. Internet use rose, the share of high-skilled workers climbed further, and R&D expenditure grew from 1.1% of GDP in 2000 to 1.9% in 2015. The largest business R&D expenditures are made by foreign-controlled enterprises. Nevertheless, government expenditures on R&D have more than doubled since 2000. The skilled workforce and the availability of high-quality suppliers are major reasons for the country’s continuing attractiveness to German and other multinationals.

Source: (World Bank, 2020^[4]), (Vičková and Antal, 2015^[5]).

Export performance has been weak, but promising trends have emerged

Latvia’s exports have progressed, but much room for expansion remains. The share of enterprises that export is higher in Latvia than in many European countries, and exports of goods and services have grown in line with GDP in the last decade. Still, Latvia’s export market share – an indication of its competitiveness – has expanded only slowly (Figure 2.3, Panel A), and its ratio of exports to GDP is below that of many comparable small OECD economies (Panel B). Even though Latvia’s participation in GVCs has advanced since the Global Financial Crisis, it is still relatively low (Figure 2.4), particularly the foreign value-added embedded in gross exports (a measure of backward participation). The large number of small and micro firms in Latvian manufacturing and their mostly low-tech orientation could explain its low and static extent of backward participation in GVCs. On the other hand, the increase in forward participation (measured by the domestic value added share of foreign final demand) could be explained by the growing importance of services in total exports (see below), as services often have important forward linkages (Ignatenko et al., 2019^[6]). More robust integration in GVCs would offer opportunities for boosting productivity through knowledge transfer and intensive use of technologically advanced inputs (OECD, 2017^[11]).

Figure 2.3. Latvia’s export performance has been weak compared to neighbouring countries

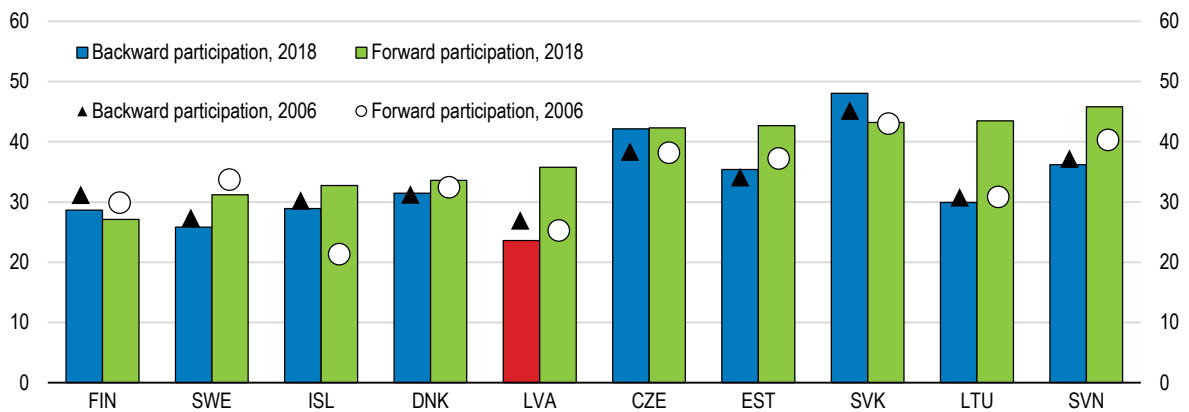


Note: Export performance is measured in volume terms as actual growth in exports relative to the growth of the country’s export market. CEECs is calculated as an unweighted average of Czech Republic, Hungary, Poland, Slovak Republic and Slovenia.

Source: OECD Economic Outlook database.

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Figure 2.4. Latvia's participation in GVCs has remained limited



Note: Backward participation is measured by the foreign value added share of gross exports. Forward participation is measured by the domestic value added share of foreign final demand.

Source: OECD Statistics on Trade in Value Added.

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This weak export performance may be attributed to two major factors. First, labour costs have increased considerably faster than labour productivity and compared to labour costs in the average EU country (Figure 2.5), leading to a deterioration in cost competitiveness, given Latvia's adoption of the euro in 2014. In the last decade, its relative unit labour costs have risen more quickly than in all other OECD countries, except Iceland. Second, in contrast to the trend in high-income OECD countries, Latvia has not moved towards producing products that have experienced the fastest expansion in world demand (such as pharmaceuticals) but often require high R&D spending. In contrast, production remains specialised in mature and relatively low-complexity products (see below). Therefore, the share of Latvia's export value in which at least one big emerging market is also specialised is high (Araujo, Chaux and Haugh, 2018^[7]).

Figure 2.5. Labour costs have increased faster than labour productivity

Annual average percentage change



Note: Labour productivity refers to real GDP per hour worked and labour compensation to average compensation per hour worked (deflated by the GDP deflator). CEECs is calculated as an unweighted average of Czech Republic, Hungary, Poland, Slovak Republic and Slovenia.

Source: OECD Productivity database.

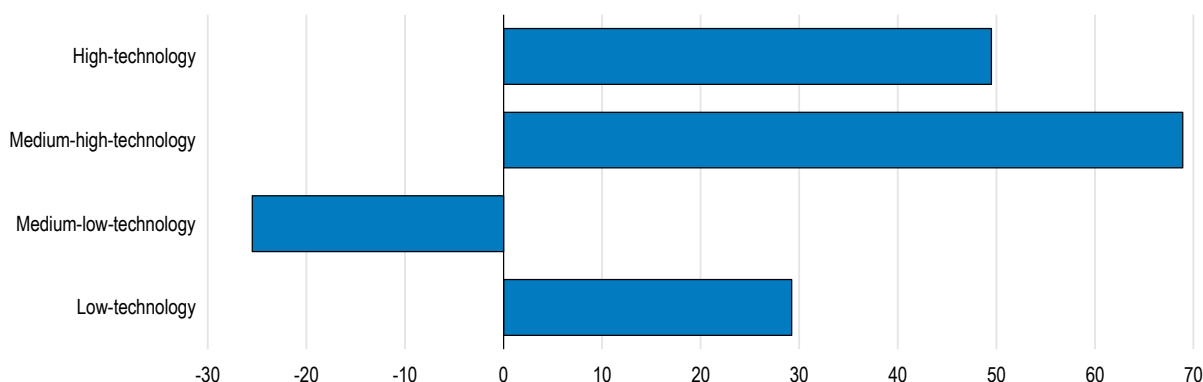
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Low-tech sectors still dominate Latvian manufacturing

Low-tech sectors still dominate Latvian manufacturing. Exports and productivity in high- and medium-high-tech sectors have been growing faster than those in lower-tech-intensive sectors (Figure 2.6). In particular, the shares of computer, electronics and optical products, motor vehicles and electrical equipment in total manufactured exports have doubled since 2010. However, the contribution of high- and medium-high-tech sectors to productivity growth remains small due to their small share in output (Figure 2.7) and employment. Reallocation of labour and capital will be crucial for future labour productivity growth, as labour productivity in high-tech industries is almost twice the manufacturing average (LV PEAK, 2020_[8]). Direct investments by multinational enterprises may allow Latvian firms to benefit from the transfer of advanced knowledge and management methods. The stock of inward foreign direct investment (FDI) in Latvia as a percentage of GDP is higher than in the OECD on average after increasing steadily from 2008. Still, manufacturing FDI is concentrated in sub-sectors with relatively low technological intensity (LV PEAK, 2020_[8]). Improving skills as well as the business environment and the quantity and quality of infrastructure (see below) will help Latvia attract FDI and increase backward participation in GVCs.

Figure 2.6. Exports in high- and medium-high-tech sectors are growing fast

Export growth rates in manufacturing by technological intensity, %, 2013-19

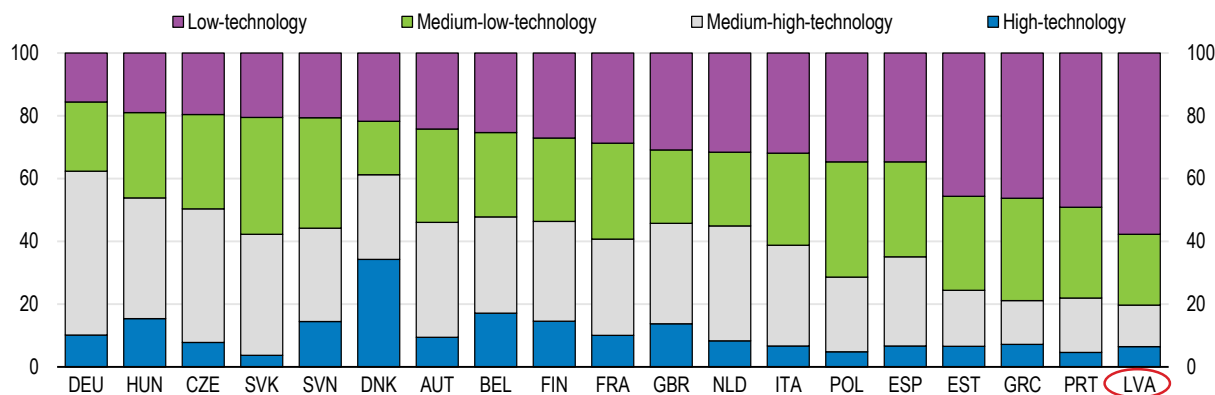


Source: OECD calculations based on data from the Central Statistics Bureau of Latvia.

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Figure 2.7. The structure of Latvia's manufacturing is still dominated by low-tech industries

Gross value added in manufacturing by technological intensity, current prices, %, 2018



Note: Based on Eurostat aggregation of the manufacturing industry according to technological intensity, based on NACE Rev.2.

Source: Eurostat.

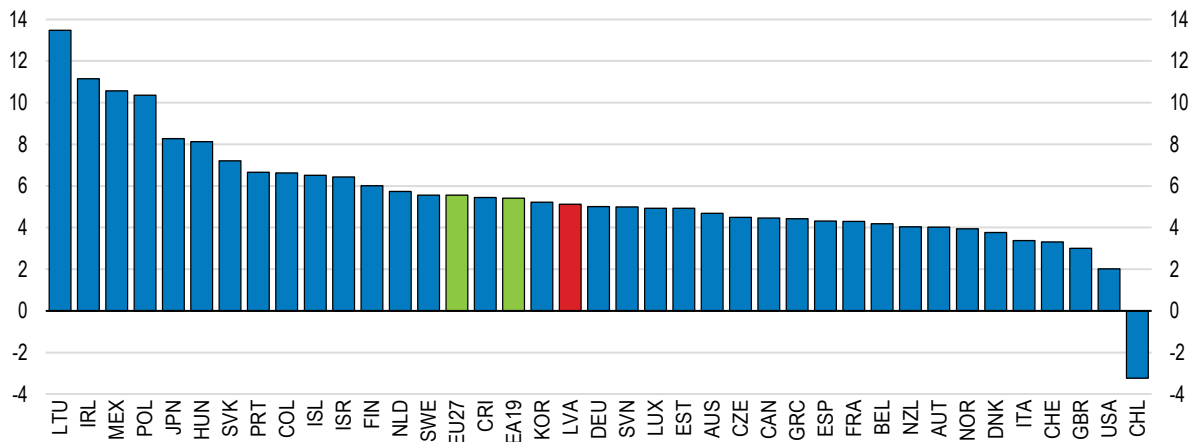
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Growth of services exports has been slow

Services export growth picked up after 2012, and the share of services in total exports increased until the pandemic interrupted tourism. Nonetheless, the increase was slow compared to neighbouring countries (Figure 2.8), and Latvia has not gained global market share in services. The share of services in economic activity has risen over time in most OECD countries, and population ageing is likely to underpin a further shift in global demand towards services (OECD, 2015^[9]).

Figure 2.8. There has been moderate growth in services exports

Exports of services, annualised growth rate, 2011-2019, %



Source: OECD National Accounts database.

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The main reasons for the relatively slow growth in services exports are a decline in transit traffic from the Commonwealth of Independent States and in the financial services of banks specialising in serving non-EU depositors, following a tightening of anti-money laundering regulations (see Chapter 1). In 2020, the value of financial services exports reached its lowest value since 2004. At the same time the transportation sector is going through structural changes and is unlikely to grow fast in the coming years (Box 2.2). In contrast, ICT services exports have grown rapidly (Figure 2.9) (see below).

Box 2.2. The poor outlook for the transportation sector

Latvia possesses a strategic location on the shore of the Baltic Sea and at the centre of the Baltic countries. This has underpinned a large transportation sector, responsible for about 40% of exports of services.

Nonetheless, the transportation sector is unlikely to grow fast in the coming years. With the volume of freight (especially coal and oil products) transported by rail and through ports declining, the sector was struggling even before the COVID-19 outbreak (Figure 2.8). The decline in cargoes is attributed to a reorientation of Russia's transit flows to its own local ports and the gradual global movement towards more sustainable resources, which implies falling demand for energy cargoes, particularly coal. Transport by rail, which is closely linked to port operation, has slowed as well. Nonetheless, it could improve after the Rail Baltica project is completed in five to ten years. Together with the construction of an intermodal freight terminal, this could solidify the role of Latvia as a regional freight transportation centre.

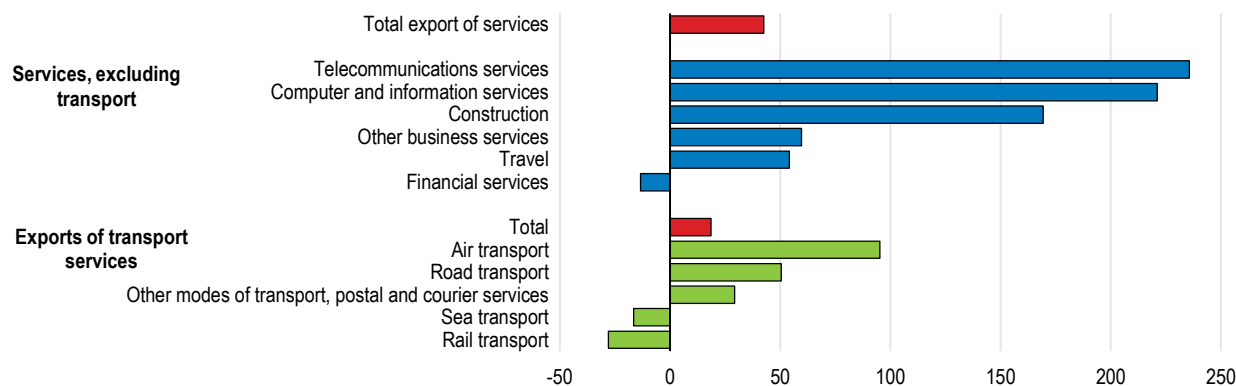
The pandemic has brought additional challenges to the sector. In 2020 the volume of cargo handled by Latvia's ports declined by 28%, led by energy cargoes. Due to physical distancing requirements and other pandemic-related mobility restrictions, demand for passenger transport by air collapsed (CBS, 2021^[10]) and is expected to recover only slowly.

A set of legal acts laying down uniform EU rules for international road transport within the Union's boundaries (the Mobility Package) is likely to reduce the competitiveness of Latvia's freight transport, mainly because it requires that vehicles return to their registration country on a regular basis (Bank of Latvia, 2020^[11]), and Latvia is far from the geographic centre of the continent. According to national calculations, the currently registered fleet of vehicles for commercial transportation could decrease by about 10% because of this new regulation.


The main priority of the Latvian transport sector is diversification to reduce dependency on traditional cargoes. Despite the fall in energy cargoes, other types (such as grain, containers, etc.) have grown. In 2019 there were already more employees in industrial production companies than in cargo-handling terminals in three main Latvian ports. Passenger traffic and the number of cruise ships entering ports were on an upward trend as well. In addition, Latvia should make sure that the modernisation of its rail infrastructure and rolling stock effectively improves safety and regional passenger mobility as well as reduces its carbon intensity and the negative environmental impact of road transport.

Figure 2.9. Exports of transport services were weak already before the COVID-19 outbreak

Exports of services, current prices, 2012-18 %, change



Source: Central Bank of Latvia.

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Exports of goods have been resilient since the COVID-19 shock

Despite the pandemic Latvia was able to expand its overall exports of goods in 2020. They were supported by both the structure of Latvia's trading partners, which experienced smaller-than-average contractions during the crisis, and its export product composition, with relatively heavy concentration on items such as wood, food and electrical equipment, which enjoyed robust demand during the pandemic. However, the trend in services exports has been different: they have seen only a slow recovery from the deep fall in activity observed in the second quarter of 2020. Nonetheless, the hit to services varied substantially. As in many other countries, exports of travel services were hurt most severely and could reach only a quarter of the 2019 level annualised in the last quarter of 2020. Meanwhile, the demand for other services, e.g. telecommunications services, has continued to increase during the pandemic. Moreover, the demand for goods and services that enable digital transformation is expected to rise further.

Promising developments in the ICT sector

The ICT sector is continuing to provide a positive contribution to Latvia's exports and GDP growth. Its shares in GDP and employment are higher than the OECD averages (Figure 2.10), and its labour productivity is almost double that of the aggregate non-financial business sector. In 2020, despite the pandemic, ICT firms' profitability improved, and the number of jobs in the sector remained almost unchanged (Krasnopjorovs, 2021^[12]). Still, there is scope for further growth, as its share in total employment is much lower than in Estonia, for example, and sectoral labour productivity is low compared to most OECD countries (Panel E).

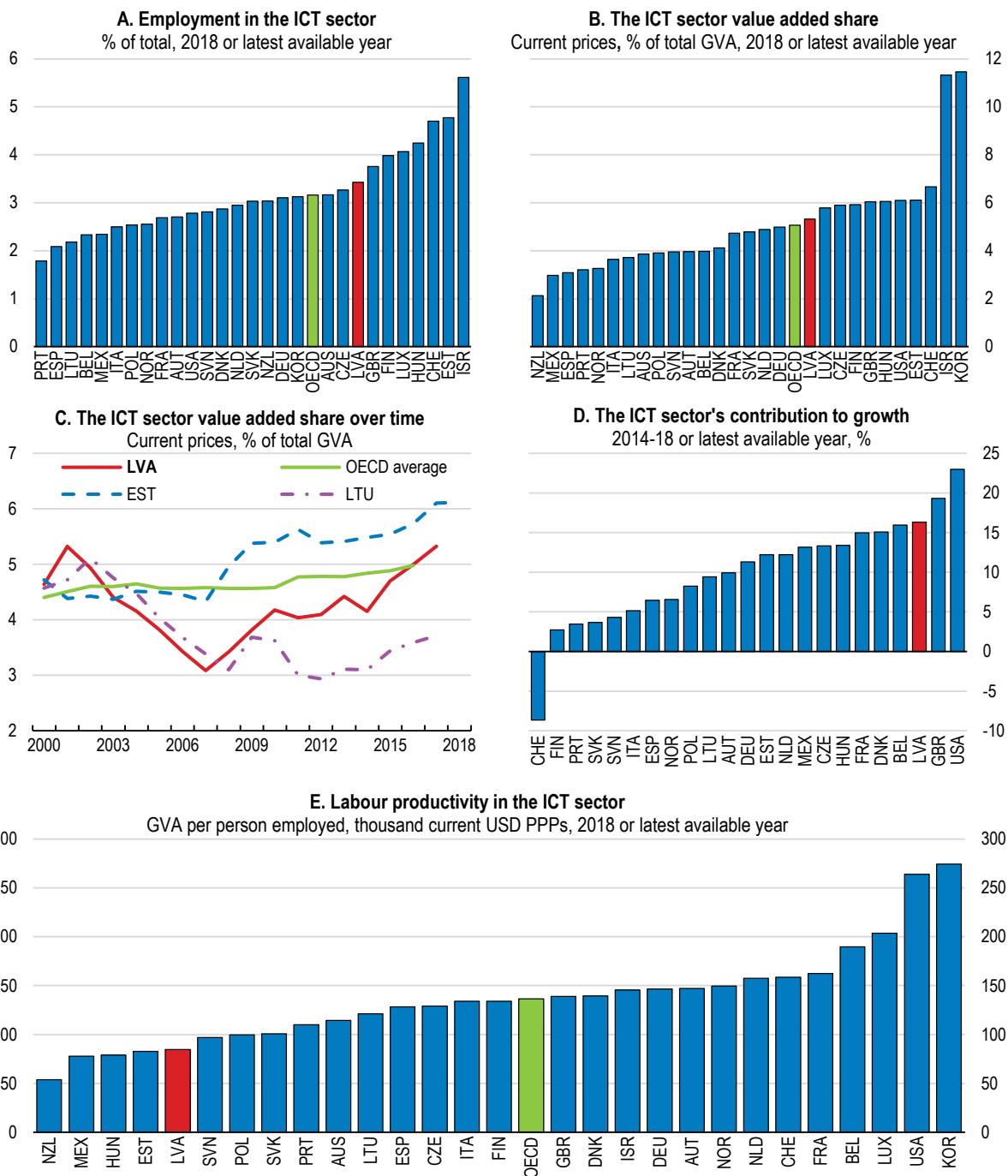
The development of a technology-oriented start-up ecosystem is promising. High entrepreneurial skills help the steadily growing start-up community, which includes more than 400 registered start-ups, mainly around Riga-based universities. The share of ICT-sector employees working for high-growth enterprises – 36% in 2018 – is significantly above the EU average (23%). Many key building blocks of a start-up ecosystem are in place. For example, 13 incubators run by the Investment and Development Agency (LIAA) offer training, mentorships and grants for start-ups for a maximum of four years. Additionally, the government helps the sector by lowering early-stage costs (see below). Still, some ecosystem elements, such as a venture capital (VC) market, are largely missing. In 2019 venture capital investments were at least 10 times smaller than in Estonia, while later-stage ventures were practically non-existent. Scaling up later-stage funding is crucial to keeping promising start-ups in Latvia and continuing to contribute to high-skilled job creation. More institutional investor involvement in funding start-ups, as in the United States, could be one way to boost funding; the government should examine approaches to make investment conditions more attractive to such investors.

Promoting export growth and diversification

Latvia's export performance could improve either if more firms begin exporting (extensive margin) or existing exporters increase current exporting or do not stop exporting (intensive margin). The 2017 *Economic Survey* (OECD, 2017^[11]) underscored the importance of the extensive margin. It showed large performance advantages of exporting firms (Figure 2.1 above) and highlighted key factors increasing a firm's probability of becoming an exporter: high labour productivity and capital intensity, access to credit, having managers or employees who previously worked for MNEs or exporting firms and higher foreign capital shares. In addition, young and larger firms are characteristically more likely to start exporting. Nonetheless, enhancing export performance by existing exporters and their survival are crucial to export growth as well. In fact, between 2011 and 2018, Latvia's growth and volatility of merchandise exports were driven mainly by the increase in exports by incumbent firms and their failure rate (Box 2.3). Three major mechanisms through which current exporters could expand are: adding new products to their export basket, entering new destination markets and increasing export duration/survival.

Figure 2.10. The ICT sector contributes greatly to GDP growth

ICT sector performance



Note: OECD is an unweighted average of available OECD countries. ICT sector includes ISIC Rev.4 divisions 26 (computer, electronic and optical products), 61 (telecommunications) and 62-63 (IT and other information services).
Source: OECD calculations based on OECD STAN Database and OECD National Accounts Database.

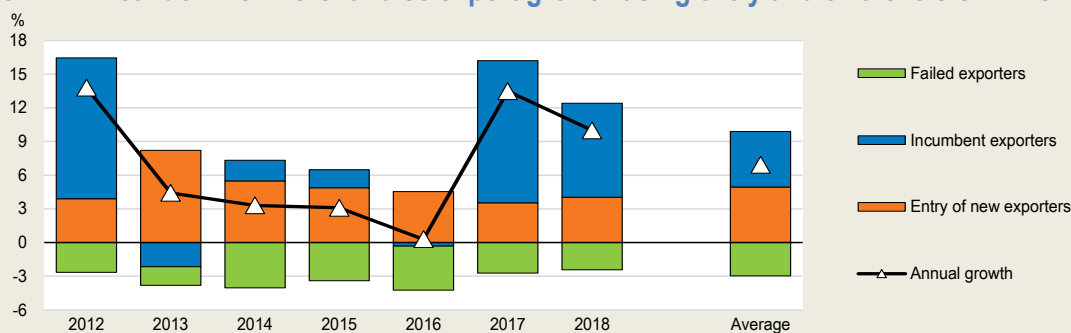
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Box 2.3. Firm-level analysis of Latvia's recent export performance


A joint research project by the Bank of Latvia and the OECD (Benkovskis et al., forthcoming^[13]) disaggregates Latvia's gross merchandise export growth into three main components using data on 4697 (in 2012) to 5690 (in 2018) exporting firms that employed about 30% of all workers in Latvia: (1) firms that established new export products and destinations (Entry), (2) firms that have maintained and expanded their trade relationships (Incumbent) less (3) firms that have stopped exporting or narrowed their trading partners (Exit/Failed).

Latvia's exports of goods increased between 2011 and 2018 by an average of 6.9% per year (Figure 2.11). The contribution of new exporting firms to export growth was large and relatively stable. Over the same period firms that started exporting contributed about 5 percentage points to the average annual growth rate and incumbent firms that increased exports contributed another 5 percentage points. The contribution of incumbent firms explains most of the volatility of export growth between years, while exit of exporting firms reduced the value of the export basket by 3 percentage points on average.

Figure 2.11. Breakdown of merchandise export growth using entry and exit levels of firms



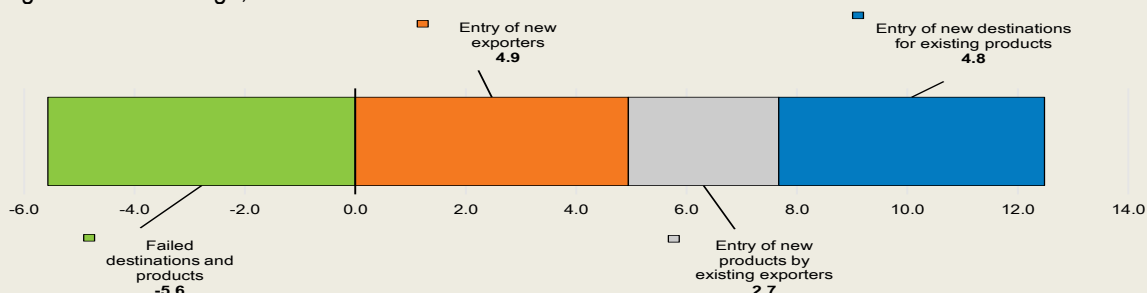
Source: K. Benkovskis, P. Jarrett, Z. Krill, O. Tkacevs and N. Yashiro (forthcoming), "Determinants of firm and product survival in external markets", *OECD Economics Department Working Papers*, OECD Publishing, Paris.

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Breaking down export growth by products and destinations (Figure 2.12) highlights the role of incumbent exporters and their survival, as firms that export a specific product can enter or exit from a foreign market. Adding new destinations and products to the existing firms' export basket contributes about 7.5 percentage points to the average annual growth rate. Exiting from destinations lowers the annual growth rate by close to 6 percentage points. Expanding exports to new markets and holding on to existing markets are, therefore, crucial for improving export performance.

Figure 2.12. Breakdown of merchandise export growth using entry and exit levels of product-destination pairs

Average annual % change, 2012-18



Source: K. Benkovskis, P. Jarrett, Z. Krill, O. Tkacevs and N. Yashiro (forthcoming), "Determinants of firm and product survival in external markets", *OECD Economics Department Working Papers*, OECD Publishing, Paris.

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Expanding export product diversity and complexity

Increasing export diversification into new products that are more complex can help raise incomes and strengthen resilience (Box 2.4). Countries that have limited productive knowledge tend to suffer longer and deeper recessions (Hausmann and Hidalgo, 2010^[14]). Also, exports of more complex products tend to last longer (see below). Sixty-five new products were added to Latvia's export basket from 2003 to 2018, contributing an estimated USD 952 in income per capita in 2018 (Atlas of Economic Complexity, 2021^[15]). Still, the corresponding contributions of new products in Lithuania (USD 1080) and Estonia (USD 1280) were larger.

Box 2.4. The Economic Complexity Index

The Harvard Growth Lab's Economic Complexity Index (ECI) is based on the concept of productive knowledge – or the tacit ability to produce a product. Countries that are home to a great deal of productive knowledge, particularly complex specialised knowledge, are able to produce a broad range of sophisticated products. Determining a country's economic complexity depends not only on the absolute number of products that it produces, but also on the ubiquity of those products (the number of countries that export the product) and the sophistication and diversity of products those other countries produce.

The complexity of a country's exports is found to accurately predict current income levels. The initial level of the ECI was found to be a significant and positive determinant of subsequent GDP per capita growth, controlling for human capital, natural resource exports and convergence effects through the initial level of GDP per capita (Araujo, Chalaux and Haugh, 2018^[7]). Therefore, growth can be driven by a process of diversifying knowhow to produce a broader and increasingly complex set of goods and services.

Latvia's position in the Economic Complexity Index has remained relatively stable over the last decade (Figure 2.13). In 2018, many of its goods exports were classified as low-complexity products, such as basic wood products, food and metal processing (Figure 2.14). Low-complexity products that experienced slow export growth from 2008 to 2018 include but are not limited to: mineral fuels, oils and waxes, and fertiliser. Conversely, electrical and industrial machinery, which are high-complexity products, experienced rapid export growth.

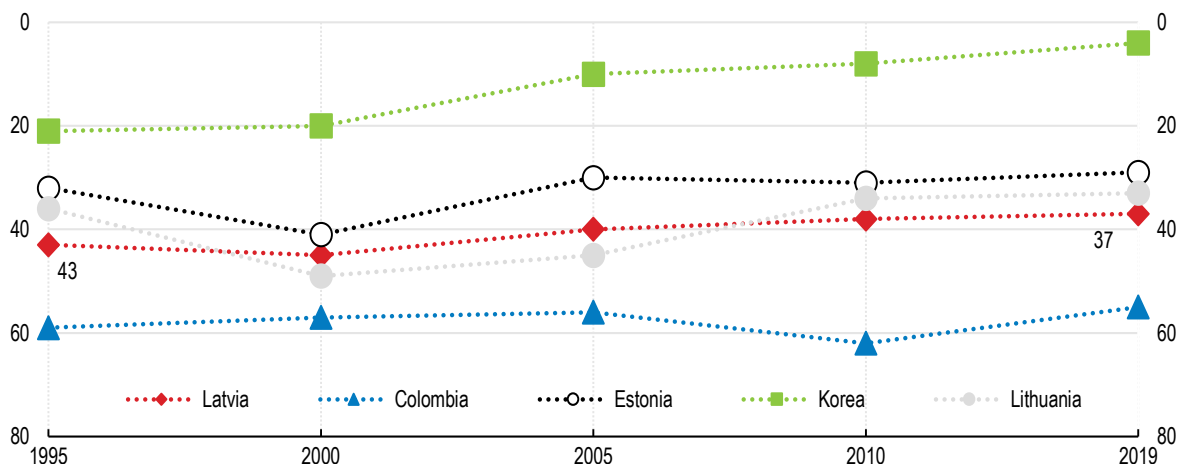
Revealed comparative advantage analysis shows that the range of products in which Latvian manufacturers specialise has broadened (Figure 2.15), and the quality of its exports (as proxied by prices relative to global averages) has improved (Figure 2.16). The increase in the number of products in which Latvia enjoys a comparative advantage is similar to developments in Lithuania, Estonia and the southern European periphery countries. However, Latvian manufacturers did not move into the fastest growing markets that bring larger gains in export performance (Araujo, Chalaux and Haugh, 2018^[7]) and still rely on low labour costs rather than on innovation.

The likelihood of firms introducing new products can be predicted through their specific characteristics. Every year about 40% of existing Latvian exporters add a new product to their export basket, a figure that has remained relatively stable over time. In two-thirds of these cases the firm introduces more than one product. Incumbent exporters tend to penetrate new markets with more complex products. Nonetheless, when incumbent exporters introduce a new product, they tend to do so with a smaller value than new exporters. Younger, larger, foreign-owned and more productive firms have a higher likelihood to introduce a new export product, as well as firms with a high share of re-exports, those already exporting towards many destinations and those with a large share of employees under 35. In contrast, participating in EU-financed programmes aiming at either increasing integration with external markets or introducing new

products and technologies has not been found to directly boost exports significantly (Benkovskis, Tkacevs and Yashiro, 2018^[16]).

Figure 2.13. Latvia's exports' complexity has remained limited

Economic Complexity Index (ECI) ranking over 133 countries, from 1 (most complex) to 133 (least complex)

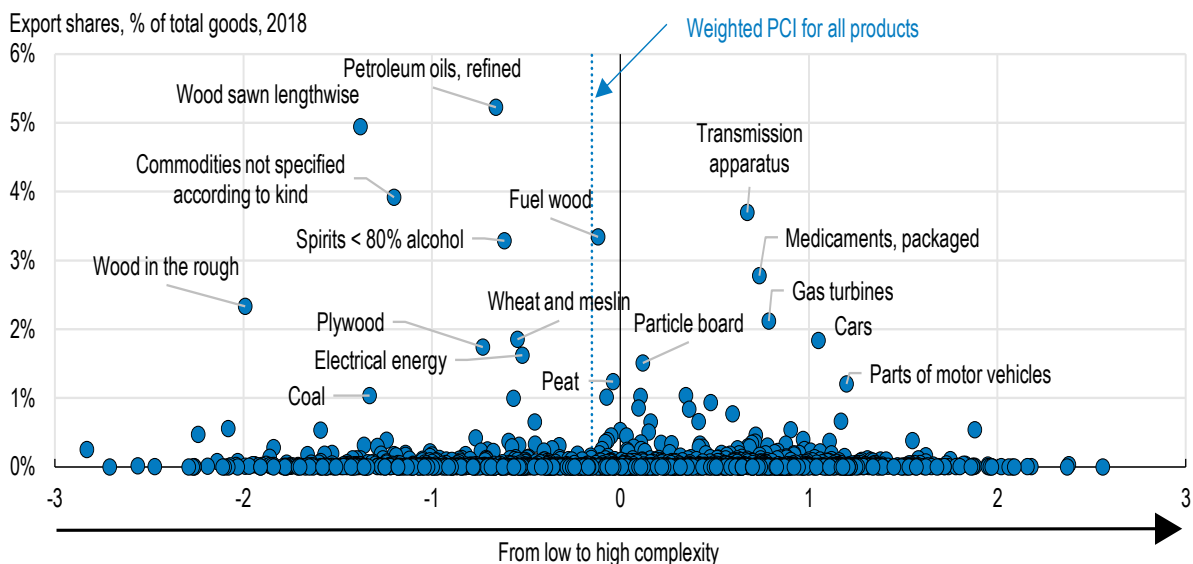


Note: The Economic Complexity Index is a ranking of countries based on the diversity and complexity of their export basket. High complexity countries are home to a range of sophisticated, specialised capabilities and are therefore able to produce a highly diversified set of complex products. The mathematical formula for calculating economic complexity can be found at <https://atlas.cid.harvard.edu/glossary>. Source: The Atlas of Economic Complexity, Harvard Growth Lab. <https://atlas.cid.harvard.edu/>

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Figure 2.14. Latvia exports many low-complexity products

Product Complexity Index (PCI)

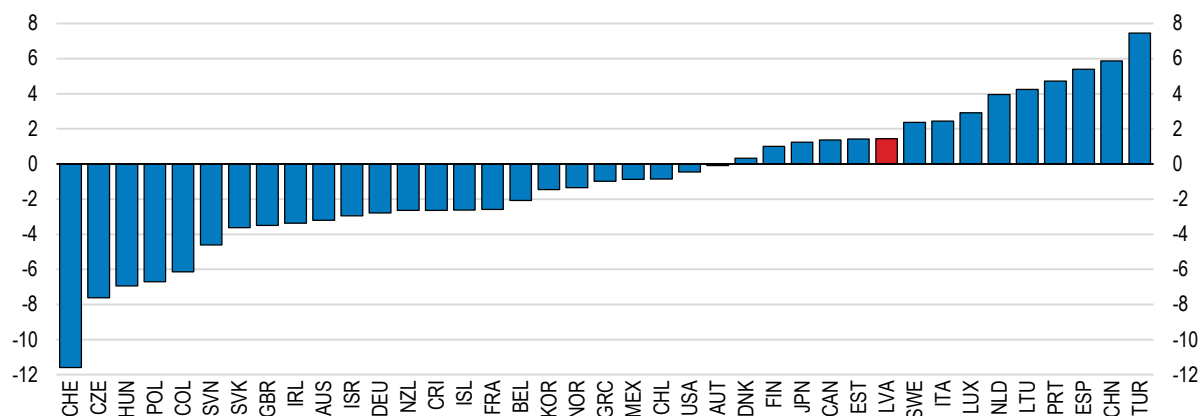


Note: PCI is calculated based on how many other countries can produce the product and the economic complexity of those countries. Source: The Atlas of Economic Complexity, Harvard Growth Lab. <https://atlas.cid.harvard.edu/>

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Figure 2.15. The number of products in which Latvia specialises has broadened

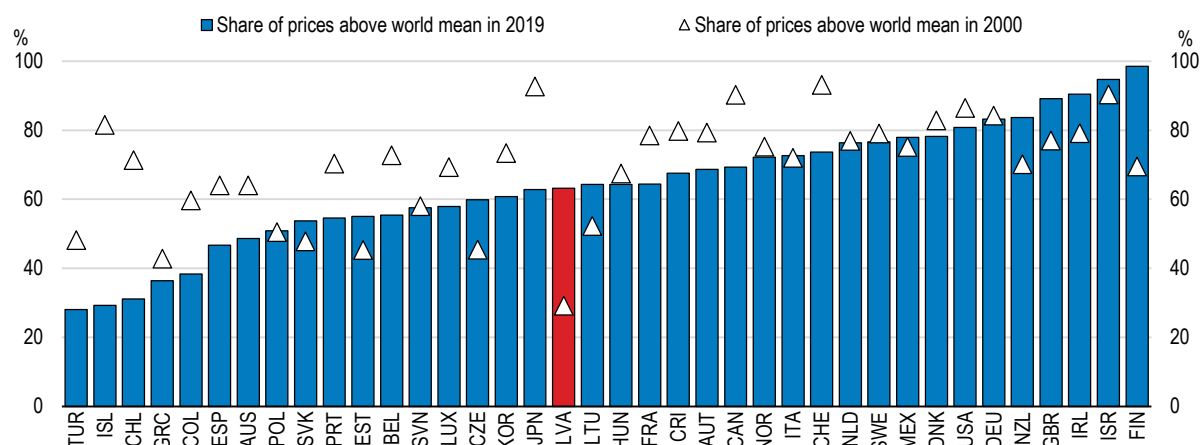
2000-2019 change in the share of products with a revealed comparative advantage greater than zero, %



Note: the share of products with a revealed comparative advantage relative to the total number of products exported by each country. A country has a revealed comparative advantage when the export share of a product in its export basket is higher than the corresponding share of this product in world exports. The figures are calculated using the six-digit Harmonised System product level that comprises 4350 different products. Source: OECD calculations as described in (Araujo, Chalaux and Haugh, 2018^[71]).

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Figure 2.16. The quality of exported products has improved substantially since 2000



Source: OECD calculations as described in (Araujo, Chalaux and Haugh, 2018^[71]).

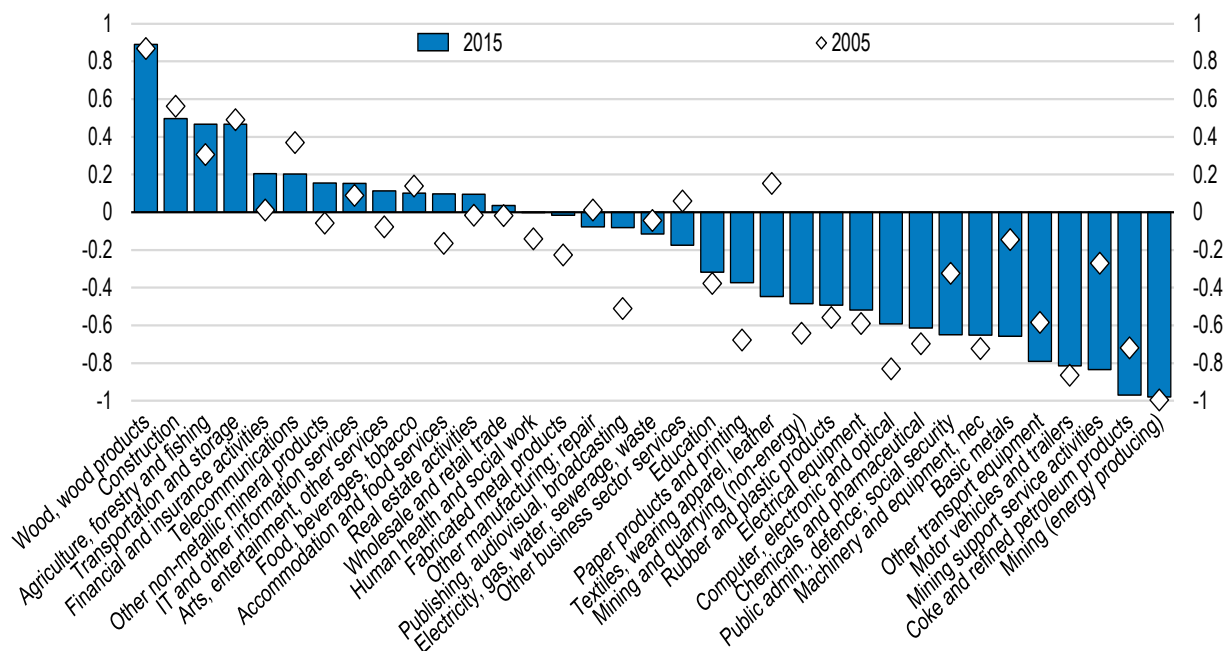
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Along with the reallocation of capital and workers, upgrading production in traditional industries where Latvia has a comparative advantage through innovation activities is needed to increase productivity growth. Latvia's position according to the Economic Complexity Index suggests that existing knowhow offers firms many opportunities to diversify into related products. For example, exports of wood and its products, which constitute about 20% of total exports, grew relatively fast until 2015, revealing a clear comparative advantage (Figure 2.17). Taken together with the absolute advantage of having vast amounts of forested land, this suggests a high potential for future growth. However, due to foreign competition and the rise in labour costs and in automation, traditional wood-product manufacturers will find it difficult to compete without moving up the value chain and producing more complex products. Signs of positive dynamics are emerging, as new technologies help transform raw materials into exportable products. For example, in recent research collaboration the Forest Sector Competence Centre, the Latvian State Institute of Wood

Chemistry and the privately owned company Latvians Finieris have developed a new process to obtain betulin on an industrial scale. Unrefined betulin is used in cosmetics, and by-products of the process to obtain betulin can be used to replace formaldehyde as a glue for wood composites or as mineral fertilisers (OECD, 2021^[17]).

Figure 2.17. In 2015 Latvia had a comparative advantage in the wood-products sector

Latvia's revealed comparative advantage



Note: Revealed comparative advantage (RCA) of exports in value added terms. The calculation in value added terms takes into account GVC linkages. In particular, exports of a given sector are considered irrespective of whether they are directly exported or embodied in the exports of downstream sectors. See (Miroudot and Cadestini, 2017^[18]) for details. The RCA in the figure is normalised to [-1;1].

Source: OECD (2021), *Going Digital in Latvia*, OECD Reviews of Digital Transformation, OECD Publishing, Paris, <https://doi.org/10.1787/8eec1828-en>.

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The transition to a greener economy is bringing new export opportunities. In 2018 the environmental economy contributed 2.5% to Latvia's GDP, which is more than in most EU countries; partially due to large and growing exports of products and services that help either protect the environment or preserve the stock of natural resources (such as renewable energy) (Eurostat, 2021^[19]). Nonetheless, labour productivity in environmentally friendly sectors is low, as in the economy as a whole. Latvia spends a relatively large amount of its government R&D budget on environment and energy-related research. Still, the weak innovation capabilities in academia and the business sector (see below) are a drag on the environmental economy.

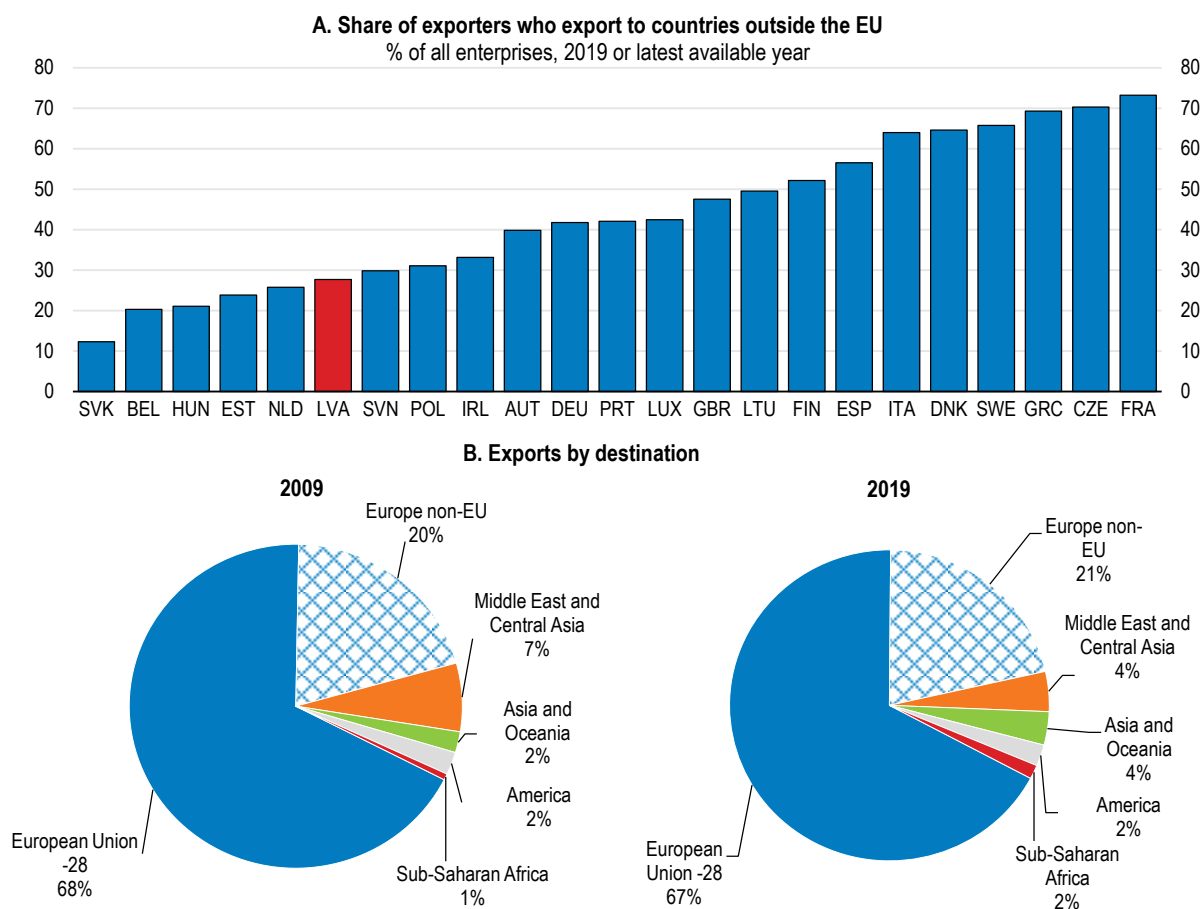
With the global economy recovering and the Covid-19 pandemic containment measures eased, the tourism sector is expected to recover gradually. Before the pandemic hit, Latvia was an emerging tourism destination thanks to its many natural resources and rich cultural heritage. Tourism exports were about 5% of total exports and 17% of service exports while providing 77100 jobs, 8.5% of total employment. The number of hotels and other accommodations grew significantly, with a large increase in the number of hostels. The majority of inbound visitors stayed in Riga. Nevertheless, the sector has experienced some challenges: the average daily spend per tourist is low compared with the EU average and Estonia, acute seasonality negatively affected business turnover, especially in the accommodation sector (the average

occupancy rate in the low season dropped to as little as 30%), and there is a need to reduce the shadow economy in the sector. Latvia has justifiably set the Meetings, Incentives, Conferences and Exhibitions (MICE) and the wellness/health tourism markets as key priorities to minimise the effects of seasonality (OECD, 2020_[20]). To improve service quality standards, a focus on improving the education and skills of service providers is another priority. Therefore, enhancing training and life-long learning (see below) could be crucial to the growth of this sector in particular.

Expanding exports to new markets

Latvia should look into expanding exports to new markets, given the weakening demand from the country’s current main export markets. Latvian firms usually start exporting to the European Union, as it is a proven gateway with fewer regulations. However, the share of exporters exporting outside Europe is small (Figure 2.18), and in general, Latvia’s export destination composition has hardly changed since 2009. For example, only about 1% of exports of goods and services are to China, much below most EU countries’ share. Latvia’s main export markets are Lithuania, Estonia, Russia, Germany, Sweden and the United Kingdom. The OECD is projecting potential GDP of these six economies to increase by only about 1.9% a year in the years 2021-2023, compared with, for example, 5.2% in China and 5.4% in India.

Figure 2.18. Exports outside Europe are small



Source: OECD Trade by Enterprise Characteristics database; IMF, DOTS database.

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Support for companies trying to enter distant markets helps spread the risk of relying too much on a few markets and can pave the way for future exporters. Firms trying to enter distant markets face unique challenges. Aside from regulatory barriers, sometimes they must tailor their products for different consumer preferences. In these cases entry barriers are larger than usual and limit opportunities to increase exports. The foreign representative offices of the Investment and Development Agency of Latvia (LIAA) help to link Latvian entrepreneurs to buyers in 18 countries including crucial GVC hubs like the United States, Japan and China. Still, more resources should be allocated to help firms enter distant markets. In addition, the public development finance agency ALTUM provides export-credit guarantees that cover commercial and political risks for up to two years, thus lowering risks for exporters. However, much of the money is used to support exports to other former Soviet Union countries like Belarus, Ukraine and Russia that traditionally imported from Latvia due to its proximity. Therefore, the benefits of these guarantees are limited. Prioritising support for firms entering distant markets in future support expansions would help to diversify Latvia's export basket and increase the return on this government assistance.

Export promotion activities could help Latvian firms take more risks when trying to penetrate foreign markets with more complex products or exporting to new destinations. In Denmark export promotion activities by a government agency facilitate entry into export markets and the continuation of export activity, especially for small firms, and the benefits have been shown to greatly outweigh the costs (Munch and Schaur, 2018^[21]). Small firms face entry barriers on foreign markets, which require an upfront investment to learn about market conditions, identify distribution channels and search for foreign partners. Hence, export promotion activities can improve the performance of smaller firms to a greater extent than their larger counterparts.

Sustaining exports through increasing product complexity

Factors that have been found to increase exports' survival are as follows: entering foreign markets with products experiencing strong world demand; high labour productivity and profitability before entering the foreign markets; introducing a product that is similar to products within the existing export basket of the firm; and exporting more complex products. However, switching to exporting more complex products can be challenging. In the case of firms that are already exporting, introducing a more complex product reduces survival rates. Exporters of food, chemicals and pharmaceuticals tend to survive longer than exporters from other industries (Benkovskis et al., forthcoming^[13]).

Upgrading the skills of exporters' employees and knowledge about export markets would help Latvia ensure the continuity of trading relationships and progress towards exporting more complex products with greater technical requirements. Latvian firms with a larger share of young employees enjoy higher survival on the external market. This could be seen as an indication of the importance of skills and knowledge, which in Latvia's case are more plentiful in younger cohorts. As the share of small firms in Latvia is large, pooling resources and building a community of managers who learn from one another (see also below) can help to sustain exports. In Switzerland, for example, a non-profit private association relying on a network of national and global partners support Swiss firms, SMEs in particular, in identifying and exploiting market opportunities abroad and helping innovative foreign companies establish themselves in Switzerland. The association (Switzerland Global Enterprise) provides information about international market developments, professional workshops and legal clarifications. In addition, it acts as a broker for business contacts and creates awareness of Swiss products and services abroad (Switzerland Global Enterprise, 2020^[22]).

Diversifying the supplier base to improve resilience

Although value chains have continued to operate during the COVID-19 crisis, disruptions have reignited the debate on the risks associated with the reliance on foreign suppliers and international production networks. Improving the robustness and resilience of value chains can be achieved by diversifying the

supplier base and using better risk-management strategies at the firm level. Multinational enterprises often develop control towers that give real-time information, which allows for efficient management of risks (Miroudot, 2020^[23]). However, for small firms, gathering and analysing the relevant information may be excessively costly. Authorities and employer associations can support firms' preparation for the next possible crisis by collecting and sharing information on potential bottlenecks, by developing stress tests and emergency planning for essential supply chains and by promoting the use of digital technologies to improve information systems for risk management (OECD, 2020^[24]) (OECD, 2021^[25]).

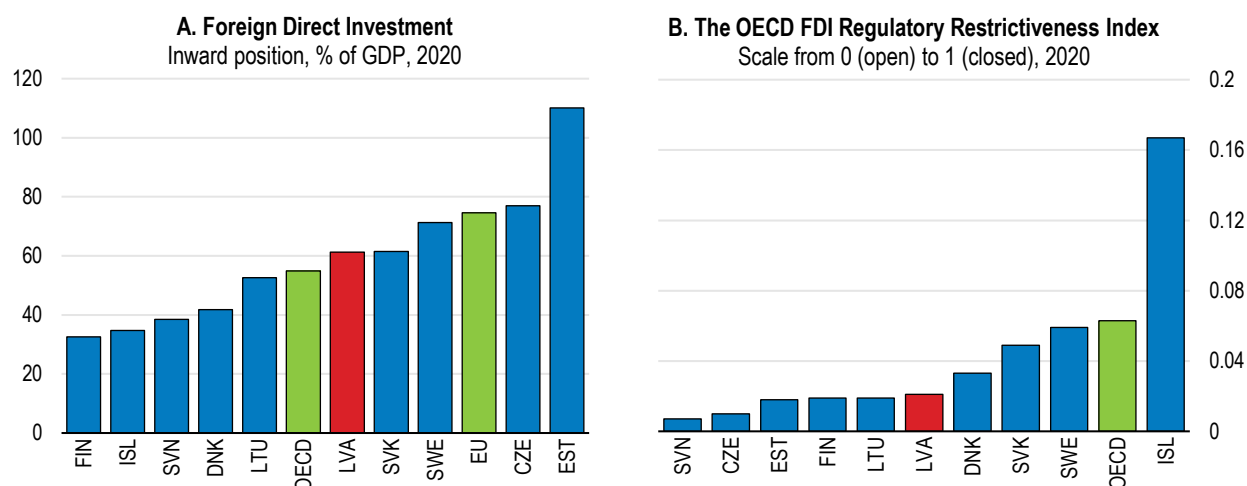
Latvia is in an excellent position to make the necessary structural changes, as considerable EU funding is available (Chapter 1). To promote export growth and diversification it should focus mainly on three policy areas: the business environment and infrastructure, skills and innovation.

Improving the business environment and infrastructure


Maintaining efforts to improve market regulations for all firms

Policies to improve product-market competition and the business environment that will attract FDI would help Latvia to increase backward GVC participation from its current low base. Inward FDI is an important determinant of backward participation in GVCs (Kowalski et al., 2015^[26]). Overall, statutory restrictions on FDI in Latvia are low (Figure 2.19), and its attractiveness is supported by an efficient customs system (European Commission, 2020^[27]) and laws and regulations that are easy to access and understand (Vitale et al., 2020^[28]). Latvia is also among the best performers in the OECD Services Trade Restrictiveness Index. Moreover, as in other Eastern European countries, corporate taxation – both the effective average tax rate and revenues as a share of GDP – is low. Still, room for improvement exists.

Figure 2.19. FDI inward position is high, while FDI Regulatory Restrictiveness is low



Note: The inward FDI stock is the value of foreign investors' equity in and net loans to enterprises resident in the reporting economy.
Source: OECD International Direct Investment Statistics database; OECD FDI Regulatory Restrictiveness Index database.

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Latvia's score in Transparency International's Corruption Perceptions Index has gradually increased in recent years but still lags behind most OECD countries (Chapter 1). The establishment of the new Economic Court in 2021 will help improve legal procedures, reduce the time spent in court and change perceptions regarding corruption. To improve the knowledge of judges regarding economic issues and financial crimes, the dedicated training for staff working in economic courts should continue. Establishing a state training centre, as planned, will help ensure the uniformity of training. Additionally, as mentioned in the 2019 *Economic Survey*, a strong engagement with the diaspora can alert emigrants to opportunities to invest, do business and help promote Latvia as a destination for foreign investment (OECD, 2019^[2]). In 2021 the government approved a strategic plan for strengthening the relations with the diaspora, which includes concrete actions to foster relations with entrepreneurs and researchers.

In order to level the playing field, Latvia should maintain efforts to reduce the bureaucratic costs of doing business and improve market regulations for all firms. In 2021 it introduced a fast-track Green Corridor for investment in priority industries that are part of the Smart Specialisation Plan (ICT, bio-economics, smart materials, photonics, biomedicine and smart energy), as well as in Global Business Services centres and in strategic projects that are carried out by other sectors. Almost all administrative procedures related to opening and running a business are being simplified for the chosen projects – including receiving construction permits, getting work permits for foreign workers, renting or acquiring state-owned real estate and benefiting from state-supported training programmes. This fast-track is open to both local and foreign companies. Reducing administrative barriers is welcome; however, policy should aim to optimise regulation regardless of industry.

Latvia has undertaken several important reforms to improve its insolvency framework (OECD, 2019^[2]) (IMF, 2021^[29]). Still, the debt recovery rate is low, which makes loans to businesses issued in Latvia riskier than in most euro area countries. Based on data from four Eastern European countries, including Latvia, the IMF found that an increase in the recovery rate by 10 percentage points is associated with an increase of annual total factor productivity growth by 0.4 percentage point (IMF, 2019^[30]). Economies where reorganisation is the most common insolvency proceeding also have the highest recovery rates. The purpose of reorganisation is to allow the debtor to overcome its financial difficulties and resume business operations. However, currently the Legal Protection Proceedings, the main instrument of formal insolvency-related procedures for reorganisation, do not seem to fulfil that function. The number of cases where a plan for reorganisation is concluded is limited, suggesting that in many cases the procedure is used just as a delaying tactic against creditor action. Promoting creditor participation and rights could increase the share of reorganisation among insolvency procedures. For example, Latvia could change the framework that allows a creditor to file for insolvency of the debtor, but only for the purposes of liquidation (World Bank, 2021^[31]); although this possibility risks creating a favourable environment for bad-faith creditors. In addition, Latvia should continue implementing the EU restructuring directive and simplify debt reorganisation through out-of-court and hybrid reorganisation procedures (IMF, 2021^[29]). Having a well-functioning legal framework can act as a catalyst for contract-based restructuring, which is important, given the large share of out-of-court procedures and their low costs (EBRD and PwC Latvia, 2020^[32]).

Competition has recently moved up the policy agenda. The Competition Council gained 64% in added resources in 2021 (including a rise in the number of posts from 50 to 56) and more salary flexibility to improve its hiring and reduce staff turnover. It is expected to be made financially independent from the Ministry of Economics. Its enforcement powers are being enhanced by implementing the European Union's recent ECN+ Directive, including competitive neutrality (preventing distortions caused by public administrative bodies and disallowing competition restrictions in public procurements), in force since 2020.

While the micro-enterprise tax regime is rightly being restricted, the development of a technology-oriented start-up ecosystem in Latvia has been promising since the relevant legislation was implemented in 2017 (and amended in 2020). The administrative requirements imposed on new firms are among the lowest in the OECD (Vitale et al., 2020^[28]), and start-ups are allowed a special advantageous regime for social insurance contributions, zero personal taxes, wage subsidies for highly qualified employees and taxation of stock options only at realisation (and then only at a rate of 23%). However, the value of the state aid involved cannot exceed EUR 200000 per case in any three-year period according to EU *de minimis* rules. From 2017 to 2021 75 applications have been approved for a total amount of EUR 350 million within the framework of state aid for start-ups, with an increase in the number of applications in 2021 (50 new companies have applied). A systematic review of the main barriers is needed as well as improving communication regarding all support measures available for start-ups.

Strengthening SOEs governance to improve their effectiveness

The scope of state-owned enterprises (SOEs) in Latvia is among the largest in the OECD. They account for 13% of total enterprise assets, about 6% of turnover and 5% of employment. SOEs tend to dominate the energy and transport sectors but also feature heavily in other sectors, such as construction. Some SOEs have diverse and often strategic collaborations with selected research and higher education institutions. Nonetheless, SOEs' R&D spending is low (Cross-Sectoral Coordination Centre, 2020^[33]), similar to private firms (see below). In line with OECD best practice, Latvia regularly assesses the rationale for state ownership, and by implication whether individual SOEs should be privatised. Selling SOEs to private investors should occur when the rationale for state ownership is no longer fulfilled. However, the privatisation of wholly owned SOEs has almost come to a halt (OECD, 2019^[34]), and no further full privatisation of any of the 67 SOEs is planned, despite the high costs involved with having such a broad scope for their coverage (Masuch et al., 2018^[35]), as indicated by the OECD Product Market Regulation indicators for 2018. Likewise, the use of capital markets to attract investors is limited.

Currently, 11 ministries, one public institution and one SOE (Public Asset Manager Possessor) manage SOEs, with a coordination function housed in the Prime Minister Office's Cross-Sectoral Coordination Centre (CSCC). The Cabinet of Ministers sets strategic objectives, while the capital-shareholding ministries and supervisory boards set annual financial and non-financial objectives (OECD, 2018^[36]). Nonetheless, room for improvement exists in terms of target setting and monitoring SOEs' performance. For example, there is no unified standard in terms of transparency and accountability regarding the performance of SOEs, and targets are often set below past performance levels (KPMG Baltics, 2019^[37]). Centralisation of all SOEs into a single holding entity – in line with the 2015 OECD Guidelines on Corporate Governance of State-Owned Enterprises (OECD, 2015^[38]) – could help clarify their objectives and lead them to have a more active role regarding innovation activities (Gasparin et al., 2021^[39]), for instance by investing in risky and innovative projects related to the green transition and digital transformation. Additionally, it could help monitor performance and ensure the ownership of SOEs is entirely separated from the state's other roles as regulator and policy maker. This entity could be either a specialised ownership company or a designated government ministry. In Finland, for example, the Ownership Steering Department in the Prime Minister's Office is responsible for state ownership policy (OECD, 2018^[36]). In Korea the institute responsible for exercising the ownership function rewards SOE employees and CEOs according to the enterprise's innovation performance (OECD-Asia Network on Corporate Governance of SOEs, 2020^[40]). Introducing classification of SOEs into groups according to their objectives could be a stepping stone towards a centralised ownership model (KPMG Baltics, 2019^[37]).

The government acknowledges the role of state-owned enterprises in boosting business R&D and innovation (see below). Accordingly, a new initiative is planned – a Shareholder’s Expectation Letter – to clearly communicate the direction of state-owned enterprises towards investment in R&D and innovation.

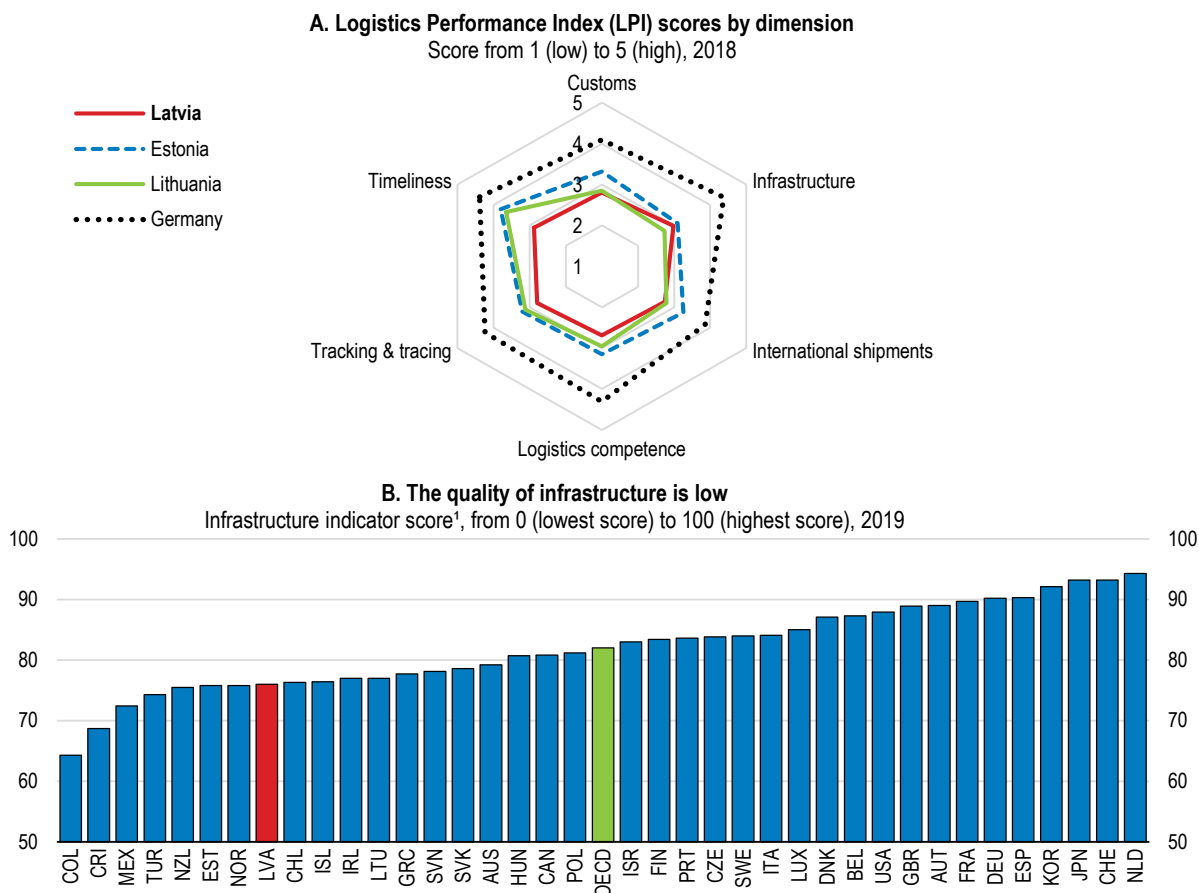
Improving connectivity through better public transport

Efficient domestic markets for services are needed to underpin participation in GVCs and attract FDI. Global production networks rely on well-functioning transport, logistics, communication and other business services to move goods and coordinate production (OECD, 2015^[9]). However, according to the practical experience of logistics professionals, Latvia’s logistics performance lags behind its peers (Figure 2.20, Panel A). The quality of logistics services, the ability to track and trace consignments and the frequency with which shipments reach consignees on schedule are poor (World Bank, 2018^[41]). On the other hand, Latvia is performing well in deploying high-speed broadband networks, although differences in connectivity persist between urban and rural areas. There are also concerns about competition in the fixed broadband market, where the incumbent’s share is about 55%, compared with 40% in the European Union on average (OECD, 2021^[17]).

The quality of overall infrastructure, as perceived by Latvian business leaders, has much room for improvement (Figure 2.20, Panel B). The Rail Baltica project will upgrade the public transport system and integrate the Baltic States with the European rail network. On the other hand, electrification of the current train lines is low (OECD, 2019^[2]), contributing to avoidable emissions. Nonetheless, due to the fall in freight traffic, the national railway company cancelled at the beginning of 2020 its previously planned projects to electrify the country’s railway network. New discussions are underway to consider implementing electrification using EU funds.

Despite recent progress, the quality of road infrastructure in the country is well below the EU average (European Commission, 2020^[42]). Most roads are single lane. Road mortality is among the highest in the OECD (OECD, 2019^[43]). The extensive length of the Latvian road network relative to its small population makes it difficult to maintain road quality (LV PEAK, 2020^[8]). Therefore, the selection of new infrastructure projects should be conducted carefully, prioritising roads with high traffic intensity. As mentioned in the 2019 *Economic Survey*, multiple-lane roads connecting the largest regional cities to Riga and capitals of neighbouring countries would help promote tourism, trade and safety (OECD, 2019^[2]). The national road development strategy for the years 2020-2040 aims to make Riga more accessible by creating a main road network that would allow reaching the outskirts of Riga from all other major cities within two hours. In this plan about 1000 kilometres of main roads are earmarked for an upgrade (currently, the total length of main roads is about 1700 km). Although most of the construction works will take place after 2035, reconstruction of roads is planned already in the period 2020-2030 within available limited financial resources. The large amount of planned investments highlights the need for efficient project selection. Applying the same evaluation procedures to guide the selection of transport projects funded by the state budget as used for EU-funded projects would help ensure high-quality investments in the road network (OECD, 2017^[1]).

Figure 2.20. The quality of infrastructure is low, and logistics performance lags behind peers



1. The Infrastructure indicator of the Global Competitiveness Index 4.0 assesses the quality and extension of transport infrastructure (road, rail, water and air) and utility infrastructure (electricity and water).

Source: World Economic Forum, *The Global Competitiveness Report 2019*, http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf; World Bank, *The Logistics Performance Index 2018*, <https://lpi.worldbank.org/>.

StatLink  <https://stat.link/ehbs65>

Improving connectivity with Riga, particularly by public transport, should remain a key priority. In 2019 more than half of employed people in Latvia travelled more than 30 minutes from home to work, which is the highest share in the European Union. The trend towards low-density development in the suburbs and the concentration of high-wage jobs in Riga city help to explain this outcome (OECD, 2017^[1]). Long commuting times and low residential mobility (Chapter 1) contribute to skills mismatch by making it more difficult for Latvian firms to find skilled workers who themselves struggle to reach better jobs. Reducing skills mismatches could significantly improve productivity (McGowan and Andrews, 2015^[44]) and export performance in Latvia, given the fast recovery in job vacancies and the shrinking population. As more than 60% of job vacancies are in the Riga region, reducing commuting time to Riga is crucial.

Although lower than in other European cities, congestion around Riga is noticeable – especially on the bypass roads (A4 and A5) – resulting in unpredictable traffic flow and an increase in pollution. Setting up transport hubs in Pieriga, with the possibility of leaving one's private vehicle in a car park and changing to public transport, would promote the use of railways, improve connectivity with Riga city and probably reduce overall emissions in the transport sector. To conduct such projects effectively coordination between Riga and municipalities in Pieriga region has to be improved. Establishing a metropolitan transit authority,

as in Paris, Barcelona and Rotterdam could help to prioritise investments, facilitate decision-making regarding regional linkages and promote common pricing systems, which make public transport more attractive. A metropolitan transit authority would also help redesign the transport system in line with sustainability principles. Authorities plan to introduce a single ticket for public transport and a real-time passenger information system by the end of 2023. Moreover, using RRF funds, they plan to upgrade five out of the 13 multimodal transport corridors in the Riga metropolitan area by 2026. A congestion-pricing mechanism should be considered as an additional lever to minimise the use of private cars and improve public transport infrastructures. For example, Latvia could create more dedicated bus lanes (DBL) and allow private cars to use them if they pay a toll. Revenues can be allocated to public transport investments. This approach may enable some of the benefits of a pricing mechanism in travel demand to be attained without vocal public and political opposition (Cohen-Blankshtain, Bar-Gera and Shiftan, 2020^[45]).

Improving skills to enhance export performance

Much is being done to overcome the shortcomings of the education system

A vital condition for boosting exports is a sufficiently large pool of workers with a high level of education and skills. Nonetheless, the most frequently cited long-term barrier for investment in Latvia is the availability of skilled staff. In 2020 88% of Latvian firms considered the availability of skilled staff as a major obstacle, compared with 73% in the European Union overall (EIB Group, 2020^[46]). Skills development begins with the education system. In early-childhood education Latvia performs admirably, with a mix of private and municipal pre-schools, enrolment of around 90% of three year-old children and a long-term objective to pay teachers the same hourly rate as those in primary and secondary schools, which should ensure that quality is high. Curricula at all levels of compulsory education are being reformed starting in 2019-20, with increased focus on transversal skills, digital and ICT skills, as well as competence in key subject areas, such as STEM and foreign languages. For the primary and secondary education system, greater school autonomy is being offered, an additional interdisciplinary standardised matriculation exam is being implemented for lower-secondary graduates, and upper-secondary schools are being consolidated, while the number of subjects is being cut to 13. Overall, Latvian 15 year-olds did quite well in PISA 2018 in mathematics but remain below average in sciences and reading and notably well behind their Estonian neighbours.

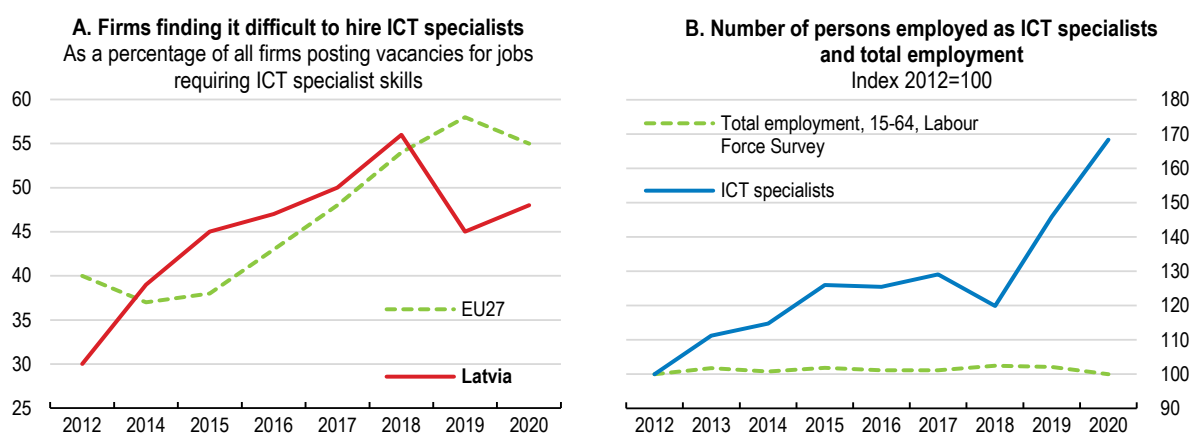
Teachers are benefiting from substantial salary increases so long as quality is maintained: starting in 2022, their target salary will be 900 euros per month based on an assumed 30-hour week. International comparisons show fewer annual hours of compulsory instruction time for Latvian children than in almost all other OECD countries at primary and lower-secondary levels: the shortfall from the average in 2019 was over 25% in primary education and about 14% for lower-secondary pupils. Funding will become more decentralised. In contrast with the current state, henceforth funding for teachers' payments will be transferred to local municipalities and then redistributed to individual schools in accordance with quality targets. For the moment there is no significant scarcity of teachers, but a problem of shortages in the sciences is predicted for around 2030 (see below).

The Recovery and Resilience Fund and other EU structural funds will provide increased funding and promote structural changes in the higher education system, including mergers of higher education institutions. A new funding model is being implemented along with new governing boards. Individual universities are to develop their own strategies and areas of specialisation, and the academic career model is being reformed. Judging by the ample labour-market returns to tertiary education the system has been performing well in providing graduates with relevant skills – graduate tracking has been underway for a couple of cohorts and shows that recent graduates begin their careers with incomes already substantially above average levels (about 23% above in the first year and 37% in the second) – although high returns also signify a lack of supply of graduates relative to demand.

A shortage in ICT and STEM skills has become an increasingly important constraint

Tackling ICT and STEM skills shortages remains a major challenge. Highly qualified employees are crucial for the continuing development of the ICT sector and for increasing business R&D and the future supply of researchers (see below). The share of ICT specialists in employment (3.1% in 2019) is low (about half of that in Estonia, for example), while the share of firms encountering difficulties in filling ICT vacancies increased at a slower pace than in the EU average (Figure 2.21, Panel A). Nevertheless, the number of ICT vacancies is high, the number of ICT specialists is rising much faster than total employment (Panel B), and digitalisation of non-ICT firms is boosting demand for ICT specialists. According to the Ministry of Economics' medium- and long-term labour-market forecasts, the shortage of highly qualified specialists in STEM disciplines may increase to 14000 by 2027, which is five times the current annual number of graduates with the relevant qualifications.

Figure 2.21. The number of ICT specialists is rising



Source: Eurostat.

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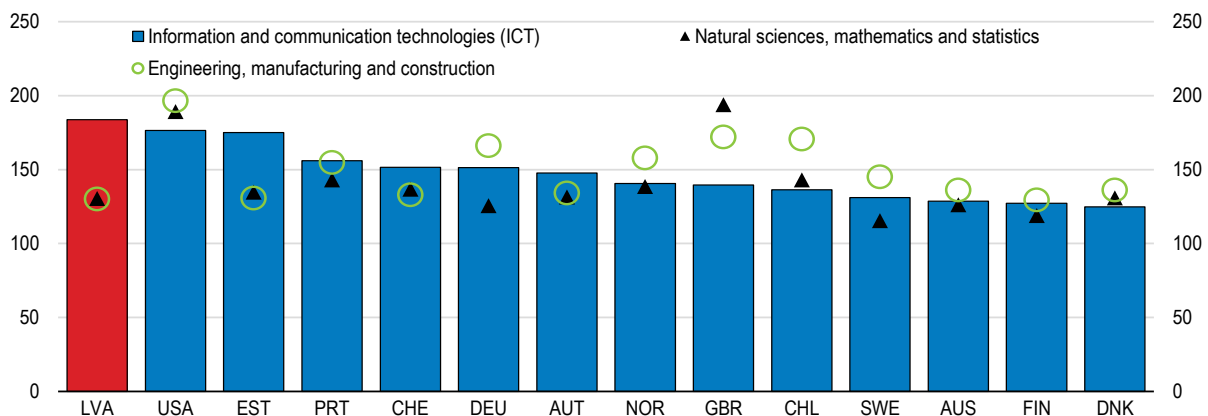
The most severe shortage seems to be for tertiary-educated ICT graduates (such as in computer science). ICT graduates enjoy a high wage premium (Figure 2.22), indicating a substantial demand for their skills, but there is a limited supply. The share of young adults with ICT (and STEM) degrees is below the OECD average, as well as those in Estonia and Lithuania. Latvia has introduced policies to increase the number of STEM students; in particular, the government shifted state-funded higher education places from the social sciences to STEM subjects. Therefore, about 80% of STEM students do not pay tuition fees, unlike in social sciences, where about 85% of students do so. These efforts appear to be bearing fruit. The share of ICT graduates in the total increased from 3% in 2013 to 4.6% in 2018, although it is still lagging leading countries such as Estonia (6.1%) and Finland (7%) (OECD, 2020^[47]). This increase did not come at the expense of other STEM fields.

Nonetheless, the absolute number of STEM graduates has decreased, in part as a consequence of a shrinking youth population (Chapter 1) but mainly due to high dropout rates. While the number of new entrants (at all levels of tertiary education) in natural sciences, mathematics and information technologies increased by 18% from 2013 to 2020, the number of graduates decreased by 26%. In Latvia high dropout rates exist across all fields of study (OECD, 2019^[48]) but are most severe in ICT. In 2020 the ratio of graduates to new bachelors students in natural sciences, mathematics and information technologies was only 26%, compared with 35% in engineering and 46% in total. Many students drop out in their first year and even within the first semester of their studies (Paura and Arhipova, 2016^[49]), suggesting that poor teaching, mentoring and matching between students and their field of study play a significant role, along with an inadequate preparation of secondary students for tertiary ICT courses. Encouraging higher

education institutions to work towards decreasing dropout rates by providing financial incentives to the institutions – while ensuring this measure does not lead to stricter admission requirements – could help to boost the number of graduates. In Israel, for example, funding of higher education institutions depends on the number of graduates. To tackle shortages of ICT graduates in Israel, financial incentives for higher education institutions to accept extra ICT students were enhanced in recent years, and the number of ICT students and graduates increased as a result. This approach leaves the decision regarding the optimal measures to implement to the institutions. For example, some could invest more in student support measures such as preparatory courses or student tutoring, while others could invest more in improving pedagogy. Additionally, Latvia should raise awareness of the importance of careers guidance among university management teams, as was recommended in the OECD Skills Strategy report (OECD, 2019^[50]), and better align education guidance provided in secondary schools and careers guidance offered in higher education. Careers guidance for students would help Latvia to decrease dropouts and reduce the relatively large skills mismatch (OECD, 2019^[2]).

Figure 2.22. ICT graduates enjoy a very high wage premium in Latvia's labour market

Relative earnings of STEM graduates, Education graduates = 100, 2017



Notes: Data refer to the field of study at the bachelor's level. For Latvia, the calculation is based on net income.

Source: OECD (2019), *Education at a Glance 2019: OECD Indicators*, <https://doi.org/10.1787/f8d7880d-en>

StatLink  <https://stat.link/8pfncz>

Another way to tackle this shortage is to provide students from related fields with information on labour market opportunities, should they add ICT courses to their studies. For example, relying on data from four US states, an OECD study showed that for certain ICT occupations, employers consider tertiary graduates with certain ICT skills from the fields of engineering, business management, marketing and related support services as adequate substitutes to an ICT degree (Brüning and Mangeol, 2020^[51]). Graduates from these fields may thus wish to acquire the relevant skills through additional courses, including online courses, during their studies or after graduation.

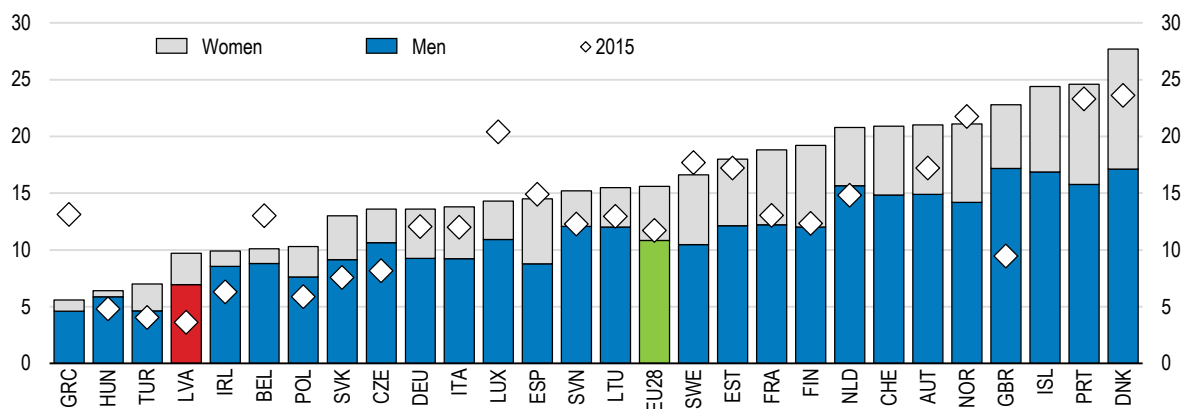
While women account for a large portion of the student population, they choose less often to study STEM subjects. Already in 2018 64% of higher education graduates in Latvia were women, the largest share in the OECD. Differences in preferences start at an early age. At 15 years of age only 0.5% of girls in Latvia wish to become ICT professionals, compared with 9.3% of boys. Making female role models more visible, fighting gender stereotypes in careers guidance and providing girls with mentoring and opportunities to interact with technology at earlier stages could help change gender-specific perceptions about ICT careers (OECD, 2019^[52]). In 2016 Riga Tech Girls was founded to encourage girls and women to develop digital skills and to establish a professional network of women in the ICT sector. Such initiatives should continue and focus on programmes for young girls. For example, a one-hour intervention in French secondary

schools by female scientists has increased girls' enrolment in the most selective and math-intensive STEM fields of study at university (such as computer science) by 20 to 30% (Breda et al., 2021^[53]). As ICT occupations often offer greater flexibility in working hours and many opportunities to telework, the gender pay gap among these occupations is generally relatively small (Goldin, 2014^[54]). Therefore, a change in gender-specific perceptions could also help reduce the total gender pay gap, which is wide in Latvia (Chapter 1).

The share of young adults who can programme is low, even though it has progressed significantly since 2015 (Figure 2.23). Latvia is currently reforming its national curriculum to give computational thinking higher priority. The new curriculum aims to develop digital literacy as a transversal skill across all study areas, with the basics of coding taught from primary school. However, given the strong demand for ICT skills in the labour market, attracting and maintaining ICT specialists as teachers may prove difficult. Latvia should allow schools to pay teachers of coding and computing an additional allowance to overcome the expected shortages and supply adequate training for teachers to ensure successful adoption of the new curriculum (OECD, 2021^[17]) (Box 2.5). In addition, Latvia should favour digital solutions that enable the best teachers to reach more students and create partnerships with ICT employers to allow ICT professionals to teach part-time. The latter will help to ensure curricula are labour-market oriented. In the Netherlands a programme of the Dutch National STEM platform (PTvT) increases STEM uptake in secondary education through one-on-one partnerships between more than 100 leading ICT firms and 40% of all Dutch secondary schools, with the objective of providing context to the curriculum (EU STEM Coalition, 2020^[55]). Moreover, to select suitable candidates for teaching and build a pool of skilled teachers, authorities should fully implement an entrance selection criteria and final assessment requirements in teachers education programmes, as recommended by the OECD Skills Strategy report (OECD, 2019^[46]).

Figure 2.23. Few young adults are able to programme

Share of 16-24 year-old individuals who can programme, %, 2019



Source: OECD Going Digital Toolkit. <https://goingdigital.oecd.org/en/indicator/54/>

StatLink  <https://stat.link/dmu56h>

Box 2.5. Policies for the development of teachers' ICT skills

Countries across the OECD have been tackling the need for teacher ICT training through a range of policies, from introducing compulsory training to national accreditation standards or certification for teachers. Denmark, for instance, has developed a voluntary Pedagogical ICT Licence that combines pedagogical knowledge of ICTs and basic ICT skills training. After initial implementation for in-service training, this license was expanded to initial teacher education and general upper-secondary education. While not mandatory, the licence is integrated into the curriculum of teachers who graduate from education colleges (OECD, 2019^[56]).

Teachers' training can take the form of traditional face-to-face or on-line courses. In Spain, France, Slovenia, Sweden and the United Kingdom, courses on digital education tend to progressively develop into on-line training. In France, most of the digital skills training courses are provided on-line, and, since 2014, 362000 teachers have been trained via digital platforms. Self-assessment tools may help teachers evaluate effectiveness and detect areas for improvement. In Finland, teachers can measure and analyse their use of ICT in teaching through an online self-assessment tool. It provides teachers, school and municipalities' representatives information on how their ICT usage compares to others (European Commission, 2019^[57]).

Integrating digital technologies into national testing could encourage teachers (and students) to enhance their ICT skills. In Finland, the national final test for upper secondary education has been gradually digitalised, becoming fully digital in 2019 (European Commission, 2019^[57]). Additionally, Finland created 2500 temporary mentoring positions to assist teachers in using new technologies and to promote using digital environments (European Commission, 2018^[58]).

Source: (OECD, 2019^[56]); (European Commission, 2019^[57]); (European Commission, 2018^[58]) in (OECD, 2020^[59]).

Facilitating the immigration of skilled workers

Encouraging Latvian nationals with an academic degree to return to Latvia would help it to reduce its labour shortages. Since 2018 consultants in regional municipalities have provided Latvians who wish to repatriate with information regarding employment opportunities, housing and education. Enhancing the use of online distance learning could help prepare expatriate children to study in Latvia. A greater potential exists in attracting students who study outside Latvia to return after graduation. Among Latvians who study abroad, about 30% declare that they may return to Latvia under certain circumstances, 15% that they will return for sure and about 55% that they do not intend to return (Kaša, 2019^[60]). Creating a database of Latvian students studying abroad and hosting information meetings in the main destinations, as is done with scientists, could help to reach students contemplating returning. Latvia should consider forgiving student debts or providing grants to international graduates who acquired qualifications for professions with high demand in the labour market.

Attracting talented workers from outside the European Union by loosening restrictions on work-based immigration would be another way to increase the supply of skilled workers and to help alleviate demographic headwinds that are shrinking the working-age population (Chapter 1). It could also boost innovation (Bloom, Van Reenen and Williams, 2019^[61]) and entrepreneurship and aid business and technology exchanges with immigrants' home countries. From a political economy point of view restrictions on work-based immigration reflect relatively negative attitudes towards immigration in general (European Commission, 2018^[62]). However, economically, Latvia would probably benefit from loosening its restrictions, especially for highly qualified workers. Currently, Latvia is among the least attractive OECD countries for talented migrants due primarily to its low income level (Tuccio, 2019^[63]). Still, Latvia's income level is higher than in most non-EU countries, so its attractiveness for workers from such sources is not negligible.

Latvia could be more open to skilled non-EU workers who show interest in immigrating. In 2019 the government approved a simplified procedure for obtaining a work permit on the basis of a long-term visa. In addition, the labour market test, which requires employers to post a job vacancy in order to prove that the position could not be filled domestically, was shortened to 10 working days. Moreover, foreign recruits for highly qualified positions may receive a work permit (EU Blue Card) at a lower salary threshold: 1.2 times the average wage, rather than the previous multiple of 1.5. This is an important step because, relative to other EU countries, the salary threshold made it difficult to qualify for a Blue Card in Latvia. The number of work permits issued to non-EU citizens rose from 4800 in 2015 to more than 12000 in 2020. However, only about 10% of these permits were for jobs with significant labour shortages. To attract highly qualified employees Latvia could engage in more active outreach to potential skilled migrants, such as through migrant centres or jobs fairs abroad, in order to match them with quality jobs in Latvia (OECD, 2019^[50]). Targeted outreach by Latvian employers may help to identify recruits who would not otherwise consider coming to Latvia. One possibility is to participate in EU-subsidised Skills Mobility Programmes. These low-risk programmes have helped Lithuania, for example, establish links with Nigerian firms and training institutions for recruitment of qualified workers for the ICT sector.

Exports of construction services have grown rapidly in the last decade, along with a rapid increase in productivity (LV PEAK, 2020^[8]). However, a shortage of qualified employees risks limiting the ability of the sector to grow further. Firms that export construction services will have to compete with firms operating in the local market for a limited number of qualified workers, while demand for construction services will no doubt increase in both Latvia and other Central and Eastern European countries due to the EU Recovery and Resilience Plan and other EU structural funds. Even before the crisis, a lack of qualified workers was observable (European Commission, 2020^[42]). The Ministry of Economics has introduced preferential conditions to attract highly qualified specialists, such as construction technicians and civil engineers from outside the European Union. The authorities should expand the list of favoured occupations to support public investments and export growth. In addition, they should support adoption of digital technologies that raise labour productivity.

Latvia should also make further efforts to attract foreign students, even if they are already fairly numerous. The US experience suggests that immigrants who first entered on a student visa have a large advantage over natives in wages, patenting and commercialising or licensing patents (Hunt, 2009^[64]). They are also more likely to start companies than natives with similar education. Latvia is making efforts to attract foreign students by improving the English-language skills of the current higher education teaching staff, developing new study programmes in English and attracting foreign teaching staff. However, labour market restrictions limit the effectiveness of these actions, as the State Language Law requires knowledge of Latvian for all occupations “if it is in the public interest” or if the worker must interact with clients directly. In 2019, the government cancelled the labour market test (defined above) for non-EU graduates who have already been employed during their studies, and continuing to work with the same employer. Latvia should relax State Language Law requirements and exempt all university graduates from the labour market test (OECD, 2019^[50]). In recent years access to the national labour market for international graduates was liberalised in the Czech Republic, Estonia, Ireland, Lithuania, Luxembourg, the Slovak Republic and Sweden. In Lithuania requirements regarding work experience and labour market tests were lifted, and in Estonia the (minimum) salary threshold was abolished for international graduates, and they were exempted from the immigration quota, even if they left the country and returned at a later date (European Commission, 2019^[65]).

Improving digital and management skills to increase uptake of digital technologies

The development of high-tech manufacturing requires sophisticated digital technologies, such as cloud computing, big data and artificial intelligence. Adoption of digital technologies can help SMEs integrate in global markets, as it reduces the costs associated with transport and border operations (OECD, 2021^[66]). Latvia’s digital infrastructures are well developed. Nevertheless, it lags behind most advanced OECD

countries in the adoption of sophisticated digital technologies as well as other ICT technologies, especially by SMEs (OECD, 2019^[2]) (OECD, 2021^[17]). Latvia has adopted a range of policy instruments to promote ICT usage by businesses (OECD, 2020^[67]); for example, the competence centres (see below) increase awareness of digital technologies and provide relevant training. In addition, many firms have gained experience with digital working methods during the pandemic and adapted their work organisation to digital technologies. Still, insufficient digital skills and complementary competences such as advanced management limit the capacity of Latvian firms to make the best use of available technologies.

The level of basic or above basic digital skills held by the public is well below the EU average. Only 43% of the population has at least basic digital skills – a measure based on activities performed by individuals on the Internet as well as using computers and other digital devices – compared with 58% in the average EU country. The government is tackling the need to improve digital skills by increasing support for adult training and updating school curricula. It has set targets to increase adult participation in education from 7.4% in 2019 to 12% in 2027 (see also below) and to improve the population share with basic digital skills to 70%. To ensure proper management of digital training programmes standardised data collection is required. Latvia should measure digital competency, instead of relying solely on a narrow definition of ICT usage. Latvia's participation in the next round of the OECD survey of adult skills (PIAAC) is a useful step.

High managerial skills are required to improve business processes and are associated with faster digital adoption and productivity gains (Bloom et al., 2019^[68]) (Sorbe et al., 2019^[69]). However, in Latvia relatively few firms are run by professional managers (rather than by family members), which can hinder the adoption of modern managerial approaches (OECD, 2021^[17]). Additionally, low-skilled managers might not have the most up-to-date information regarding trends in global demand, a factor that is associated with greater export duration (Benkovskis et al., forthcoming^[13]). Targeted learning programmes at managers in SMEs and SOEs would help to ensure that they are aware of digital technologies' potential and hence support worker training. Likewise, training managers would help improve digital security and privacy. In general, in micro-firms digital uptake relies more heavily on business owner or manager skills, awareness and perception of potential risks and benefits (Al-Awlaqi, Aamer and Habtoor, 2021^[70]). Therefore, training could leverage their digital uptake. Latvia could learn from the United Kingdom's Small Business Leadership Programme, which provides management training to small business leaders and aims to assist firms in strengthening local networks of business leaders, getting them signed up to mentoring programmes and promoting knowledge-transfer partnerships with academia (OECD, 2021^[66]).

Digital technologies create new opportunities to update and develop new skills throughout life, for instance, via distance and modular learning. Online courses allow flexibility for workers and savings to firms, especially in small companies where lack of time and funding are important barriers. Nonetheless, in 2019 Latvia had the second-lowest participation rate in online courses in the OECD (Figure 2.24). However, the pandemic caused a sudden acceleration of online learning, with effects that are likely to persist. For example, training through the digital platform Coursera was provided free to both the employed and the unemployed. This initiative has proved successful, and the unemployed have shown keen interest in digital and business courses. The government should accelerate its collaboration with education and training providers, employers, job-search agencies and digital-learning platforms to expand the use of distance and modular learning on the job and to define standards that better signal the quality of online courses.

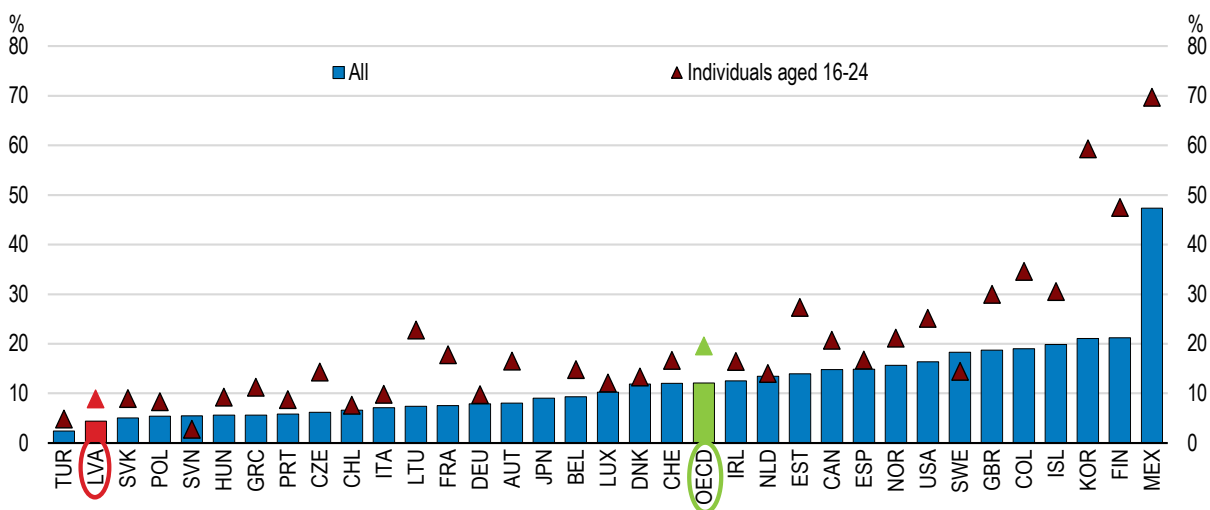
Enhancing adult education by establishing a training fund

Adult education could match skills supply to employer demands and improve employability and working conditions of older workers. According to the OECD Priorities for Adult Learning indicators, Latvia is ranked fourth in terms of urgency of getting the adult learning system ready for the future (OECD, 2021^[71]). There is room for improving foreign language skills, as English proficiency is still below that in most European countries (EF EPI, 2020^[72]). In addition, due to population ageing and structural changes in the economy, specific skills rapidly become obsolete, and firms report a lack of employees with high skills as a significant

barrier to investing (see above). Nonetheless, the EU Labour Force Survey shows that in 2020 only 6.6% of Latvian adults had participated in adult education on a monthly basis, compared with 9.2% in the EU average, both down from pre-pandemic outcomes. However, other surveys show more positive results, especially regarding non-formal adult education.

Figure 2.24. Participation in online courses is low

Percentage of individuals participating in online courses, in 2019 or latest available year



Note: Data refer to 2018 for Canada, Colombia, Japan and Mexico, 2017 for United States.

Source: OECD ICT Access and Usage by Individuals Database.

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Removing financial barriers to participation and motivating employers to offer quality training are important challenges in developing adult learning. A substantial share of adult learning happens within firms, but employers in Latvia are lagging in the provision of training. Enterprise investment in continuous vocational training as a percentage of total labour cost in Latvia (0.8%) is the lowest in the European Union (Eurostat, 2021^[73]). The cost of training is a significant hurdle: 46% of Latvian enterprises mention that cost is an important barrier to further expanding their training provision, compared with 35% on average in the European Union. Micro and small-sized enterprises, which employ approximately 57% of the Latvian labour force, are most affected, as they have less capacity to provide employee training than their larger counterparts and because training costs per employee decline with the number of participants. Introducing training levies, as suggested in previous reports on this issue (Maslo, 2017^[74]) (OECD, 2019^[50]), would help to tackle these challenges. Levy schemes are designed to pool resources from employers to pay for training and help to overcome employer concerns that other employers will poach staff in whom they have invested training.

Typical levy schemes are levy-grant schemes, levy-exemption schemes and cost reimbursement schemes (Box 2.6). OECD countries differ in the magnitude of levies and whether they depend on employer size and sector. In most cases levy schemes are set up within sectoral agreements, so strong tripartite relationships are an essential feature of successful systems (OECD, 2019^[50]). As recommended in the 2019 *Survey*, promoting the provision of joint training involving several firms would help micro and small firms to offer high-quality work-based training. When Korea implemented training levies in the mid-1990s, it suffered from a lack of SMEs' engagement. To address SME barriers to participation the Korean government grouped SMEs from similar sectors into training consortia. These were run by training specialists who conducted skills and training needs assessments for each SME, planned training programmes and then conducted evaluation studies upon an SME's completion of a training programme.

The programme had a significant positive impact on SME participation, and the proportion of SMEs using training funds increased from 11% to 55% in one year. Consequently, the programme was rolled out on a national level (OECD, 2020^[75]).

The advantages of levy schemes are that they do not require public funds and raise both awareness and commitment to providing training. They secure a stable source of funding, regardless of the business cycle and the availability of EU funds. However, a levy will increase the tax wedge –already high in Latvia – especially on low incomes, which risks damaging efforts to shrink the informal economy (Chapter 1). Therefore, as a complementary measure, the government should reduce employer social security contributions and rely more on property, corporate and excise taxes (Chapter 1). It may be easier to start the levy scheme in a particular sector or geographical area. This will improve the quality of training and allow better matching with skills shortages. Additionally, Latvia should strengthen the legislative framework for training policies, which is currently incomplete. The OECD and the Directorate-General for Structural Reform Support of the European Commission are co-operating to help Latvia design a new regulatory framework, which will support and incentivise employers to up-skill and re-skill their employees (OECD, 2021^[76]).

Box 2.6. Typical types of training levy

	Levy-grant schemes	Levy-exemption schemes	Cost-reimbursement schemes
Description	Payroll contributions are collected from employers and distributed as grants.	Employers are required to dedicate at least a certain percentage (e.g. 1%) of payroll towards training, or submit the equivalent to government.	Firms pay a compulsory levy, but can claim expenses back for any training costs incurred during the year.
Advantages	Higher grants can be given to firms with higher training expenses and made conditional on training specific skills relevant for labour market.	Marginal cost of training for employer is close to zero up to the amount of tax liability. Also, employers have freedom in planning training.	Low administrative burden. Employers have freedom in planning training.
Disadvantages	Require many case-by-case decisions, higher administrative costs. Grant application can be more burdensome for small firms.	Employers may opt out of training as it is easier to pay the levy than provide training.	In order to get money back employers may spend money on any type of training, regardless of quality.
Country examples	Italy, Poland, Korea, France, Netherlands, United States (Arizona Job Training Tax).	Hungary, Greece, Australia.	Denmark, Belgium.

Note: Countries often have hybrid schemes with funds raised through levies and distributed through grants and direct subsidies.

Source: OECD (2020), *OECD Skills Strategy Implementation Guidance for Latvia: Developing Latvia's Education Development Guidelines 2021-2027*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/23078731>; OECD (2019), *Getting Skills Right: Future-Ready Adult Learning Systems*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264311756-en>.

Increasing access to higher education

Despite high tuition fees, student loans are not a common practice in Latvia. The higher education attainment rate among young adults (25-34 year-olds) has increased from 32% in 2009 to 44% in 2019 and is now only slightly below the OECD average (45%). Nevertheless, Latvia has some of the highest tuition fees among European countries, although they vary widely across institutions. The majority of tertiary students enrol in public institutions where only one in three students pay fees for bachelor's programmes (OECD, 2019^[48]). Tuition fees are usually lower in regional higher education institutions than in Riga. Despite relatively high fees, fewer than 5% of students in Latvia took advantage of loans guaranteed by the government between 2017 and 2019, and in 2019 the average borrowing was around USD 2900 a year (converted using PPPs), compared with USD 5100 in Korea and USD 8300 in New Zealand, two countries with relatively similar tuition fees (OECD, 2020^[47]) (OECD, 2021^[77]). In 2020, Latvia introduced a new scheme aiming to facilitate access to loans by simplifying issuing procedures, by

providing no need for a second guarantor other than the state and increasing the cap for loan amounts. In addition, both full- and part-time students can now apply for the loans. These efforts increased the demand for the loans substantially, and the share of students who use them among those who pay tuition fees doubled. However, the amount foreseen in the medium-term budget for this new lending model might not be sufficient.

Opportunities to study at universities could be improved by increasing state funding dedicated to student loans. Student loans transfer the payment for education from when beneficiaries have little to no income to when they generally have greater income after graduation and may help reduce high dropout rates. In a few OECD countries (such as Norway) the government offers a combination of loans and grants, and academic performance is one of the criteria it uses to determine eligibility (OECD, 2020^[47]). Latvia should maintain the increase in the generosity of its student loans. In addition, it should consider expanding and prioritising grants to decrease the high dropout rates and ensure that access to higher education is not impaired due to the reduction of income resulting from the rise in youth unemployment (Chapter 1).

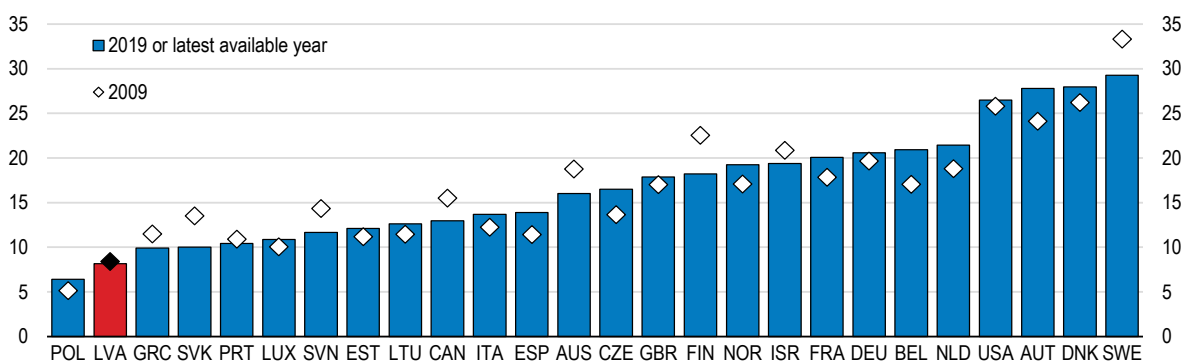
Increasing R&D and innovation from its low base

Latvia's innovation performance is poor


As a country moves toward high-income status, innovation becomes the main determinant of its GVC participation and productivity outcomes (see Box 2.1 above). Such status is normally delivered either entirely through services or in GVCs that are highly services-intensive (World Bank, 2020^[4]). The fact that Latvia's manufacturing exports are in the mature phase of their life cycle compared to many other OECD countries (Araujo, Chalaux and Haugh, 2018^[7]) also highlights the importance of innovation to sustain the future export performance of the economy. Nevertheless, its competitive advantage is still based on low labour costs, while innovation plays a relatively minor role, especially in the business sector. The ratio of technological equipment and intellectual property to GDP has increased marginally since its pre-2008 crisis level and remains one of the lowest among European peers (Figure 2.25). Patent applications per million inhabitants (17.4 in 2018) are among the lowest as well, perhaps also because SMEs lack knowledge on the registration process and its benefits.

Figure 2.25. Technology and intellectual property fixed assets remain low

ICT equipment and intellectual property fixed assets, % of GDP

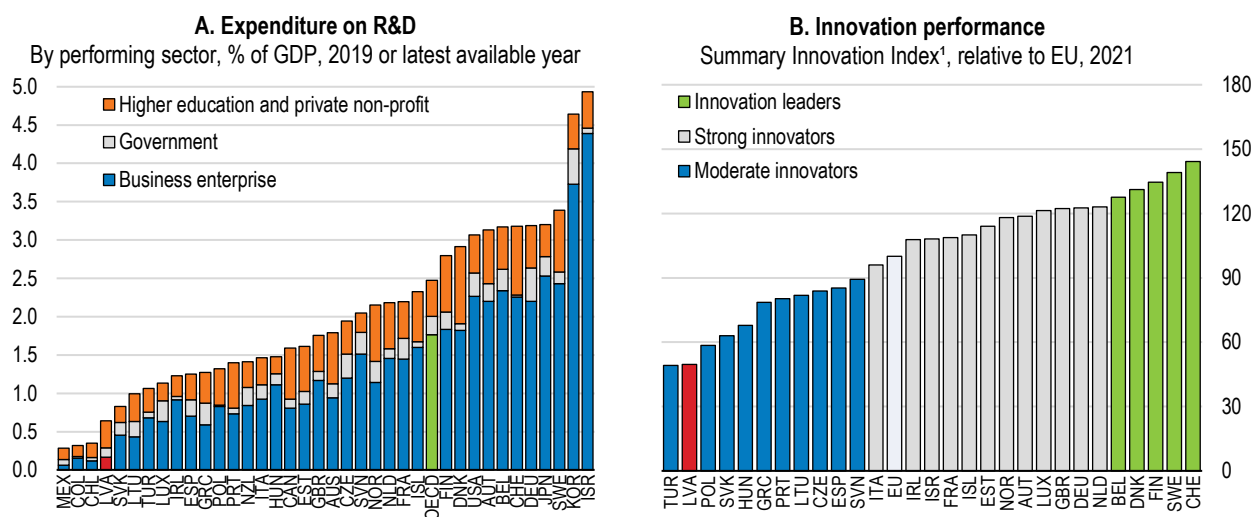


Source: OECD National Accounts database.

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Gross Research and Development (R&D) spending as a share of GDP, at around 0.7%, is only about a quarter of the EU average (Figure 2.26). It has remained relatively stable over the last decade, despite significant policy effort to increase it. The official target was to raise total R&D expenditures to 1.5% of GDP by 2020, and now it is set as the target for 2027. The share performed by the higher education sector has risen in recent years. At the same time, the business component – about a quarter of the total, compared to around half on average in the European Union – is still low, despite the implementation of several support programmes, including the competence centres (Box 2.7), innovation vouchers worth up to 25000 euros, innovation motivation programmes and various financial instruments. Measurement errors may explain low spending by private companies because there is a weak incentive for firms to accurately separate R&D from other expenses due to the way the tax system treats R&D expenditures. Tax incentives for R&D weakened significantly during the last decade (see below). Latvia has introduced a requirement for large and medium-sized companies to report R&D costs in detail in their annual financial statements to improve data accuracy and availability, starting with their annual reports for 2021. The large share of micro and small firms and the sectoral structure of the economy are other potential explanations for low business R&D spending. However, other small countries with many small firms (such as Finland) have succeeded in fostering innovation and R&D investment. Furthermore, Latvia's R&D spending was low in all economic sectors in 2015 (latest data), without exceptions (Figure 2.27); the closest result to the OECD average being in the field of electrical equipment, where Latvia has specialised in photonics. Weak incentives to invest in R&D, the underfunded higher education system and the minimal supply of researchers and STEM graduates seem to play bigger roles in explaining low R&D spending.

Figure 2.26. Innovation is weak



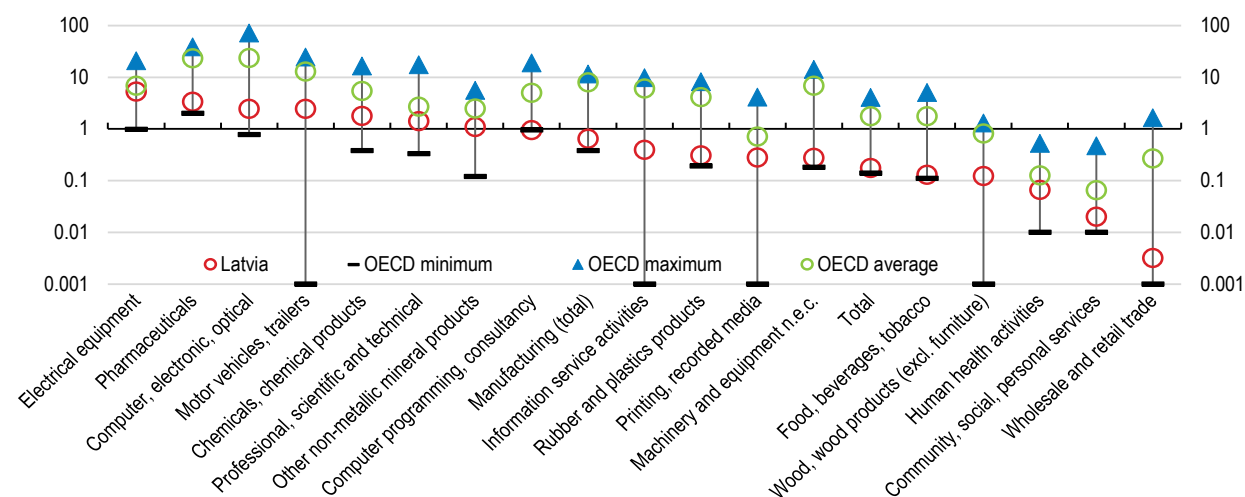
1. The colours show normalised performance in 2021 relative to that of the EU27 in 2021: green above 125%; grey: between 95% and 125%; blue: between 50% and 95%. Innovation performance is measured using a composite indicator, which summarises the performance of 27 different sub-indicators.

Source: OECD Main Science and Technology Indicators database; European Commission, *European Innovation Scoreboard 2021*.

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Figure 2.27. Latvia's R&D spending is low in all economic sectors

As a percentage of each industry's value added, 2015



Note: Logarithmic scale. Averages are weighted using value added in purchasing power parities (GDP). Data for Chile, Estonia, Hungary, Japan, Lithuania, Portugal and the United States are for 2014. Data for France are for 2016.

Source: OECD (2021), *Going Digital in Latvia*, OECD Reviews of Digital Transformation, OECD Publishing, Paris, <https://doi.org/10.1787/8eec1828-en>.

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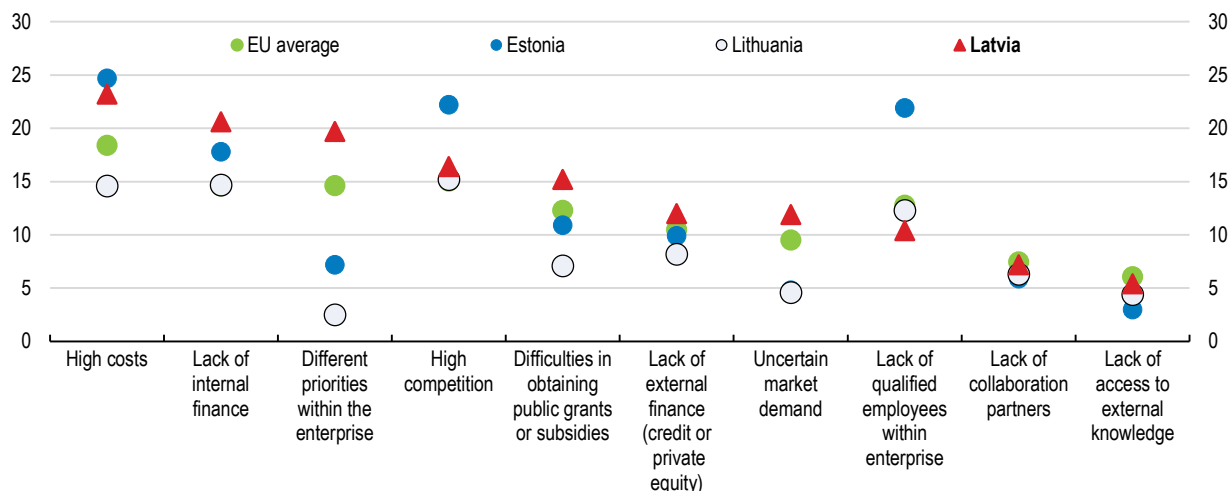
Box 2.7. The Competence Centres Programme

In 2010, Latvia launched the Competence Centre Programme, managed by the Ministry of Economics. These centres aim to promote applied research and frontier innovation in sectors aligned with the Smart Specialisation Strategy (bio-economy, bio-medicine, smart energy, smart materials and ICT) and help develop new products and technologies by fostering co-operation between the research sector and industry. Although the competence centres receive funding from the European Regional Development Fund, they are majority owned by the private sector. At least a quarter of their funding must be earmarked for experimental development. By the end of 2018, support was given to almost 150 firms to create or improve 174 products, with 175 masters and doctoral students involved in research and over 200 academic articles published. From 2022, the Competence Centres will be consolidated with the cluster programme – which supports the capacity of SMEs to engage in national and international markets – to facilitate collaboration between merchants and research, education and dissemination organisations at the local and international level.

As in many other OECD countries the lack of internal funding and the high perceived costs of innovating are two major factors most frequently cited by individual firms as hampering their innovation efforts (Figure 2.28). In 2018 33% of Latvian firms with at least 10 employees engaged in some kind of innovation activity, eight percentage points higher than in 2008. Still, the share remains among the lowest in the European Union and much lower than in Lithuania and Estonia. In Latvia high costs of innovation-related activities are perceived as an important limiting factor, especially among manufacturers, less so among firms within the services sector. In addition, difficulties in obtaining public grants and uncertain market demand seem to be more important in Latvia than for its peers. Difficulties in financing innovation projects are also a result of relatively high interest rates and unfavourable terms and conditions on bank loans (Chapter 1).

Figure 2.28. Lack of internal funding and high costs hinder innovation activities

The share of enterprises that state the factor has high level of importance in hampering innovation activities, %



Source: Eurostat Community Innovation Survey 2018, OECD calculations.

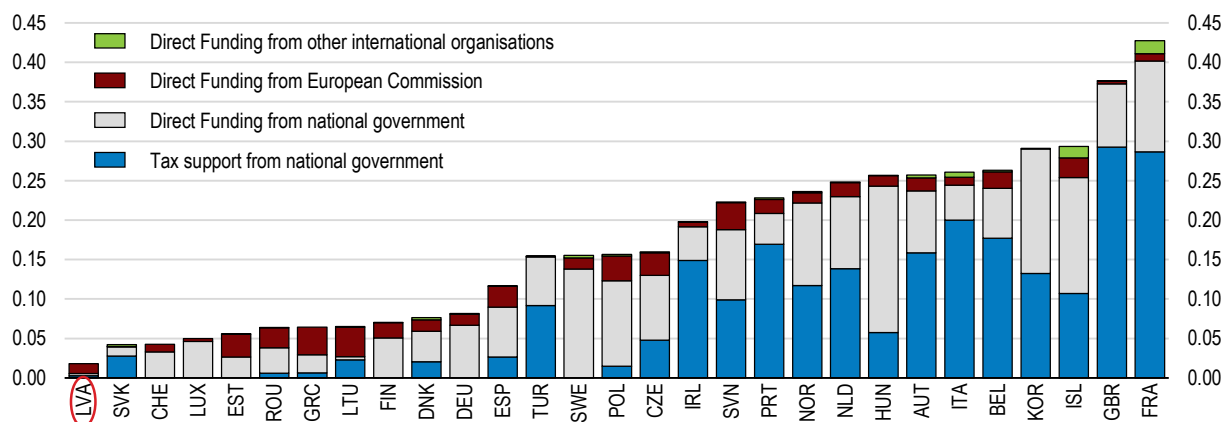
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Increasing the level of public support to business R&D

99. The financial benefit from R&D investment for the individual firm is lower than the benefit for the economy as a whole because of positive externalities. If one firm innovates, the resulting knowledge may spill over to other firms that either copy or learn from the original research without having to pay the full costs. Appropriate property rights ensure that innovating firms benefit from the R&D that they carry out. Still, difficulties in fully internalising the returns to innovation activities imply that private innovation efforts are likely to remain inefficiently low without subsidies. Likewise, the returns to financing R&D projects are subject to a high degree of uncertainty. Start-ups typically have little capital following their creation. It is hard for lenders to gather reliable information on the future profitability of these projects, and, as innovation is intangible unless embodied in capital equipment, firms have no collateral to pledge to banks in return for debt funding. The latter is a major obstacle in Latvia. In 2018 only 4% of Latvia's innovative firms obtained external debt to fund their innovation activities, and only 0.9% got equity, compared with 6.5% and 3.2%, respectively, in the European Union on average (Eurostat, 2018^[78]). Consequently, OECD countries often use financial-support instruments to increase R&D spending. Nevertheless, in Latvia, government support for business R&D is extremely low (Figure 2.29).

Figure 2.29. Low government support for business R&D

Direct funding and government tax support for business R&D, % of GDP, 2018 or latest available year



Source: OECD R&D Tax Incentives database.

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Latvia is among a minority of OECD countries that has not offered R&D tax incentives since the tax incentive for deductibility of R&D costs was abolished in 2018 (only three years after it was introduced). This is in contrast with the general trend among OECD countries. Over the last decade a majority have moved progressively towards tax-based support measures to incentivise business R&D (OECD, 2020^[79]), and across the OECD 55% of all R&D government support is provided through R&D tax incentives (OECD, 2020^[80]). Latvia's abolition of its R&D tax incentives was part of its 2018 Corporate Income Tax reform that (as in Estonia) taxes corporate profits only when they are distributed and not when profits are retained. Therefore, Latvia's tax code treats business R&D expenditures identically to tangible capital investment, even though R&D expenditures are much smaller than in most OECD countries and externalities from R&D investments are usually larger due to knowledge spill overs.

Enhancing the generosity of support for R&D spending while keeping it as broad-based as possible would help Latvia increase innovation activities and participation in GVCs. Internationally, a 10% fall in the price of R&D results in at least a 10% increase in R&D, while other outcomes such as patenting and labour productivity also increase following a reduction in taxes on R&D activities (Bloom, Van Reenen and Williams, 2019^[61]). The introduction of an R&D tax credit in Norway in 2002 stimulated not only R&D investments but also imports of intermediates, which are crucial to GVC participation, as firm-level R&D investments and imports are complementary activities (Bøler, Moxnes and Ulltveit-Moe, 2015^[81]). However, because in Latvia the corporate income tax is applied only to distributed profits, an already generous tax approach, the effect of tax incentives for R&D may be smaller. Still, the insufficient level of business R&D, lower direct funding than elsewhere (Figure 2.29 above) and high total gross fixed capital formation relative to GDP suggest that more should be done to make R&D attractive. At least, the 2018 tax reform needs to be evaluated to see if the identical treatment of R&D investment and other tangible forms is justified.

Currently, the majority of support for business R&D in Latvia takes the form of direct funding and tax incentives for hiring R&D staff in start-ups. For example, since 2017 innovation vouchers have been aimed towards micro, small and medium-sized businesses that develop new products or technologies. These upfront subsidies are attractive for riskier research, which is usually conducted by young and small firms that are more likely to be operating at a loss or financially constrained. Small firms indeed appear internationally to respond more positively than their larger counterparts to business support policies (Crisciolo et al., 2019^[82]). Nevertheless, the share of innovative firms and R&D expenditures in Latvia is

low both for small and larger firms (those with more than 50 employees). Therefore, Latvia should consider increasing the current level of support, along with steps to enhance the supply of researchers, and to rely more on indirect funding. Indirect funding is less dependent on the discretionary decisions of government officials and favours firms already performing R&D. Support could be given in the form of refundable tax credits. This kind of support seems appropriate to Latvia because of its unique corporate income tax system. However, Pillar II requirements in the global minimum tax reform might argue for more government grants instead. Significant support for R&D can also be made with public funding, including from European Structural Funds and the Recovery and Resilience Facility.

Additionally, Latvia could incentivise R&D spending by anchoring innovation criteria more firmly in public procurement. Latvia changed its Public Procurement Law in 2017 to increase the impact of public procurement on innovation development and make more efforts to raise awareness for innovative procurement in the public sector. Still, the integration of strategic objectives in the public procurement process is relatively new, and the inclusion of environmental and innovation selection criteria is not highly developed. The World Economic Forum's Global Competitiveness Report 2017-2018 (the latest covering this matter) stated that Latvia's government procurement of advanced technology products takes 119th place among 144 countries, although reporting errors in filling in the questionnaire might have contributed to this poor result. Nevertheless, given the importance of government procurement – about 11.5% of GDP prior to the pandemic (OECD, 2019^[83]) – Latvia should maintain efforts to anchor innovative thinking at management level. In Germany innovation-oriented public procurement has resulted in higher sales of innovative products by companies receiving contracts (Czarnitzki, Hünernund and Moshgbar, 2020^[84]).

Working in partnership with LIAA, the OECD's Observatory of Public Sector Innovation (OPSI) is developing approaches to stimulate anticipatory innovation (Tönurist and Hanson, 2020^[85]) in Latvia by testing ways to enable businesses, research institutions, civil society and government to collaboratively develop innovation strategies and coordinated action in response to anticipated opportunities and risks. This project is ongoing throughout 2021 and 2022 and will build up knowledge on the roles of government bodies in innovation ecosystem management.

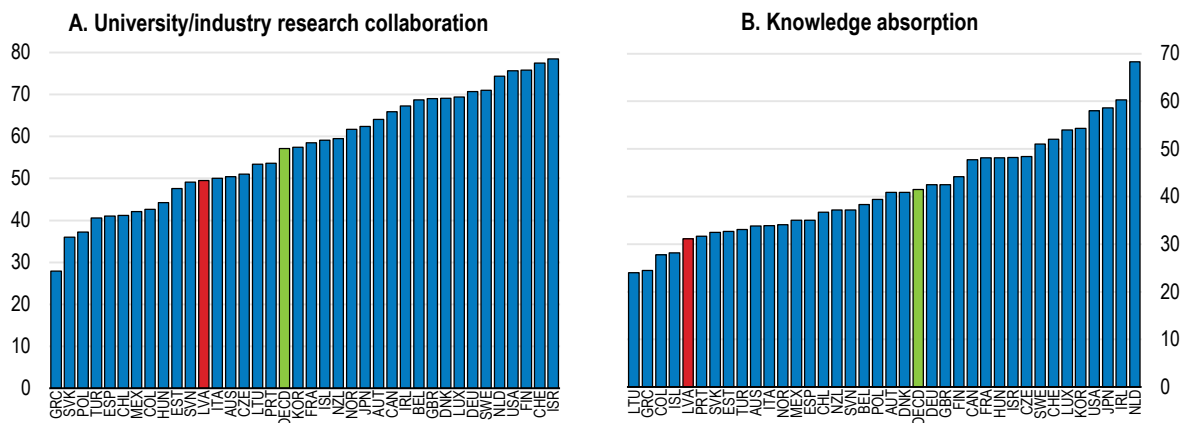
Fostering knowledge transfer through stronger incentives

The transfer of knowledge and technology from research institutes to firms remains limited, with little mobility between the two sectors and weak knowledge absorption by firms (Figure 2.30). The likelihood of national R&D leading to commercial opportunities in Latvia is perceived by experts as low (Bosma et al., 2020^[86]).

Financial benefits for academic researchers play a crucial role in promoting intellectual property creation and academic entrepreneurship. Academic faculty respond to royalties both in the form of cash and research support (Lach and Schankerman, 2008^[87]). After Norway moved towards a model where the university holds majority rights of patents, both entrepreneurship and patenting rates by individual researchers halved (Hvide and Jones, 2018^[88]). Still, as taxpayers finance universities and provide the infrastructures and staff needed to innovate, a fair share of revenues should belong to these public institutions. In addition, there are potential complementarities between institution-level and researcher-level investments, including through the motivation of the institutions to establish technology-transfer offices. Thus, it is essential to find the right balance of rights between scientists and higher education institutions. In 16 out of 33 OECD countries for which information is available, universities themselves set the rules in revenue-sharing schemes. Where national guidelines exist, the share for researchers is often set between 33% and 50%. Latvia is a notable outlier, as all revenue accrues to the universities, dampening incentives (OECD, 2019^[89]).


Figure 2.30. The transfer of knowledge and technology from research institutes to firms is limited

Global Innovation Index 2020, scores from 0 to 100



Note: Panel A: Results show the average answer to the survey question: 'In your country, to what extent do people collaborate and share ideas between companies and universities/research institutions?' Panel B: The knowledge absorption index is a composite indicator that measures how good economies are at absorbing and diffusing knowledge. It is based on the following indicators: intellectual property payments as a percentage of total trade; high-tech net imports as a percentage of total imports; imports of communication, computer and information services as a percentage of total trade; net inflows of foreign direct investment relative to GDP; and the share of research workers.

Source: Global Innovation Index 2020, <https://globalinnovationindex.org>

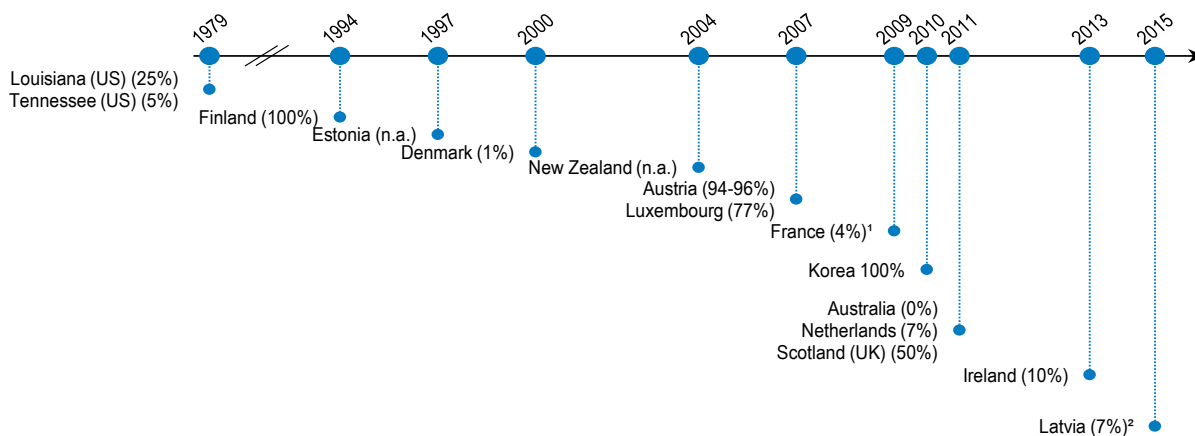
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A major challenge to university-business cooperation is the low level of funding. Both academics and higher education institution representatives place lack of funding as the top barrier to greater cooperation with firms, even though several support programmes are available (see below) as well as government support for applied research. This concern is significantly greater than the EU average (Ejubovic et al., 2019^[90]). Total and R&D expenditures per full-time student are low compared with Lithuania and Estonia and did not increase from 2012 to 2017 (latest available data), despite declining student numbers (OECD, 2020^[47]). Performance-based funding, introduced in 2015, rewards universities engaging in research with businesses. Nevertheless, stronger incentives to collaborate with industry would be welcome. The share of higher education institutions' funding subject to reaching performance targets is only 7%, where as in Austria the share is 95% and in Finland and Korea 100% (Figure 2.31) (OECD, 2019^[89]).

To manage the limited resources better there is room for further consolidation of higher education institutions. The consolidations that occurred after 2014 were mostly effected at the administrative level without reallocating any researchers (OECD, 2019^[2]). Latvia still has considerably more higher education institutions than Estonia and Lithuania. In addition, the quality of research – measured by the share of publications in the top 10% of most cited documents and international collaboration – is low compared with most other EU countries (OECD, 2021^[17]). Concentrating research funding in a smaller number of institutions would allow the formation of institutions with a deeper pool of expertise (OECD, 2021^[17]), improve research quality and facilitate knowledge transfer. The pooling of resources in the agreed smart specialisation areas may provide a base for gradual change in this direction.

Figure 2.31. Financial incentives to collaborate with industry could be stronger

Year of introduction of performance contracts and shares of universities' institutional block funding involved



1. In France the share involves 4% of operating costs of French Higher Education Institutions (HEIs), excluding payroll. France introduced contracts between the State and higher education institutions already in 1989. In 2007 they established compulsory multi-year performance contracts with the objective of fostering a strategic dialogue between the State and HEIs, taking into account their newly gained autonomy. In 2009, the first multi-year performance contracts were concluded.

2. In Latvia performance-based funding was introduced in 2015 (so-called 2nd-pillar funding for HEIs). It is a separate envelope of the State budget for which HEIs compete. The allocation of this funding depends on their annual performance compared to that of other HEIs.

Source: OECD (2019), *University-Industry Collaboration: New Evidence and Policy Options*, OECD Publishing, Paris. <https://doi.org/10.1787/e9c1e648-en>

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Latvia could also foster knowledge transfer through changes in the governance of its higher education institutions. In most OECD countries university governance structures include a board as the main decision-making body with private-sector participation in 25 OECD countries, but not in Latvia. Participation in boards enhances the propensity of institutions to cooperate with industry and support knowledge transfer. In most cases business representatives are from large firms, but some countries such as Iceland and Ireland also include SME representatives (OECD, 2019_[89]).

Monitoring and evaluating knowledge-transfer activities would help to improve performance over time. Dedicated agencies are increasingly important for systematic evaluation and monitoring of university performance, and in 2019 19 OECD countries (excluding Latvia) had such dedicated agencies (OECD, 2019_[89]). Dedicated agencies have also proven successful in supporting academic staff in identifying industry challenges and marketing their solutions to them. The new graduate tracking system, which uses administrative data, could help assess the transfer of knowledge activities, especially by publishing PhD and STEM graduates' outcomes in the labour market.

Latvian academics are convinced of the importance of collaborating with businesses on research and training. However, in 2017 (latest data available) they considered their knowledge about business needs, their networks and the support to undertake university-business collaboration as lacking (Ejubovic et al., 2019_[90]). Latvia has set up a Single Technology Transfer Centre to foster industry-science cooperation that uses technology scouts who promote collaboration between researchers and entrepreneurs on a daily basis. These centres also offer grants for research that result in commercialisation (maximum of EUR 300 000 per project). Likewise, innovation vouchers provide funding for private companies to acquire services from scientific institutes. However, the mobility of researchers and PhD students from academia to the private sector remains low. For example, since the introduction of innovation vouchers in 2017, only five companies out of 92 recipients have implemented projects that include the attraction of researchers. As in France and Ireland, mobility schemes for advanced students and researchers could increase collaboration. Short placements may increase company awareness of

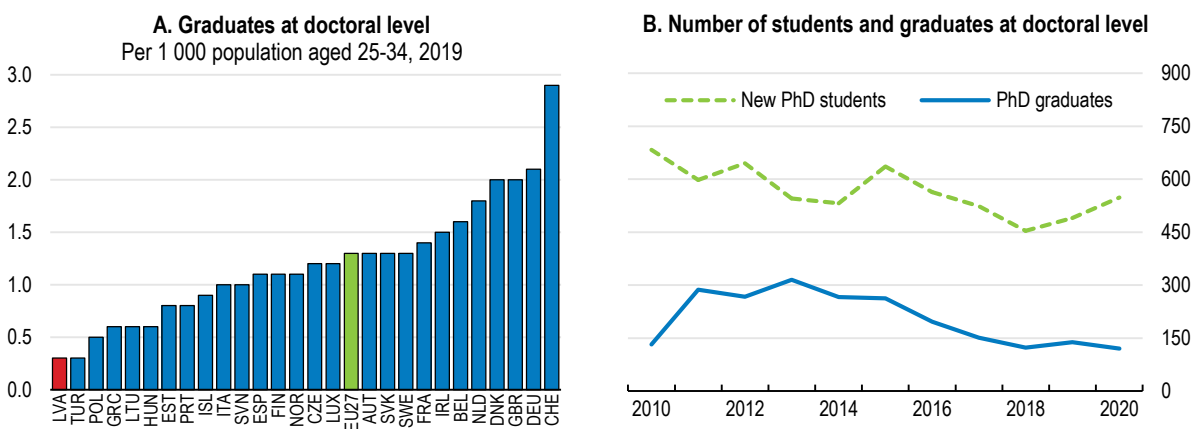
technology-transfer possibilities and build networks, while longer placements may lead to permanent employment of researchers in private firms (European Commission, 2020^[91]). Similarly, more work-based learning opportunities in advanced programmes – e.g. writing a final dissertation in a company – would create a greater exchange of knowledge between academics and industry representatives.

To promote cooperation between industry and research institutes, LIAA introduced several new measures. For example, the Latvia Technology Business Centre aims to support SMEs in creating an innovative business by offering free training and funding product prototypes. To improve the implementation of these initiatives, the state institutions responsible for support measures should have more freedom to determine remuneration policy for their employees. For example, they could be given a status other than that of a state institution, which limits remuneration possibilities.

Attracting and retaining PhD students

Latvia lags the OECD average in terms of numbers of researchers, PhD students and STEM graduates (see above). Without actions to increase the supply of high-quality researchers, it will be extremely difficult to boost R&D spending substantially. Therefore, the government aims to raise the number of full-time equivalent researchers from 6000 to 8000 by 2027. The starting point is dire: the number of PhD students and graduates is the lowest in the European Union (Figure 2.32, Panel A), and there are over 1000 scientists currently older than 65 who are likely to retire within the next decade (European Commission, 2020^[91]). After researchers' salaries were increased substantially in recent years, the government, justifiably, aims to introduce a tenure-track system and to abolish the distinction between academic (mainly teaching) and research positions in higher education institutions. These improvements in working conditions should help to attract more PhD students.

Figure 2.32. The number of PhD graduates is low and decreasing



Source: Eurostat database.

StatLink  <https://stat.link/ift63y>

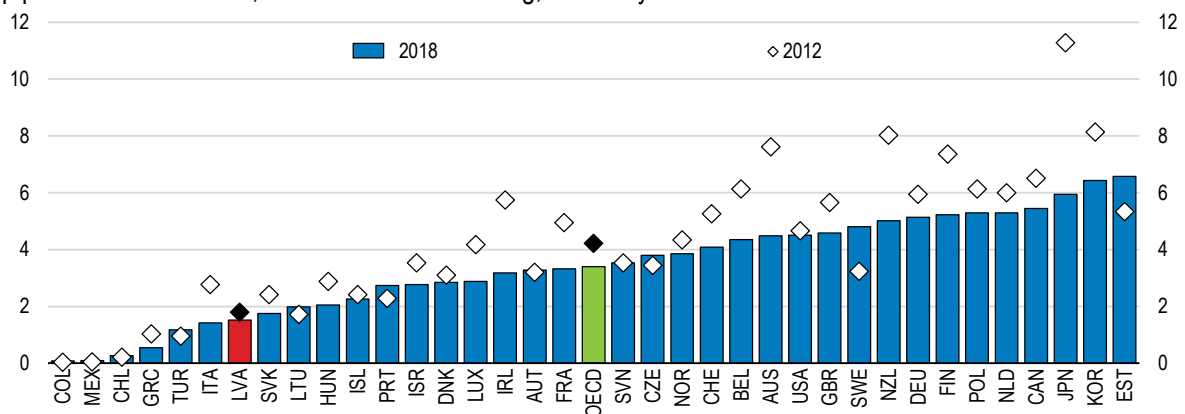
Nonetheless, further efforts to improve scholarships are needed, especially for attracting and retaining PhD students in STEM fields. The number of PhD graduates in Latvia has been declining in recent years, and doctoral student dropout rates are high (Figure 2.32, Panel B). The ratio of graduates to new PhD students is less than one third, implying a high dropout rate. Due to inadequate scholarship grants, most PhD students take up full-time jobs with no direct connection to their studies and, as a result, do not have sufficient time to work on their dissertations (European Commission, 2020^[91]). These financial challenges are particularly present in specific fields of study with high alternative wages such as ICT. Consequently, the share of STEM doctoral students among the small total number of PhD students in Latvia is lower than in either Estonia or Lithuania (Eurostat, 2020^[92]).

To boost the number of researchers and research quality, Latvian research institutions would have to attract foreign and Latvian scientists currently working abroad. Only 2% of higher academic staff working in Latvia have foreign citizenship, compared with 6% in Estonia, and about 15% of Latvian researchers are currently working abroad. The negligible share of foreign academic staff hurts the ability to improve the quality of research by increasing international collaboration (OECD, 2017^[11]). For example, in computer science, the share of scientific publications resulting from international collaboration is the OECD's lowest and less than a third of the share in Estonia (OECD, 2021^[17]). Any improvement in working conditions would help to attract more scientists from abroad. Raising transparency and openness during the selection process and reducing language barriers are needed as complementary measures. Currently, advertising of most vacancies is only in Latvian, and many have Latvian language requirements (European Commission, 2020^[91]). To attract top Latvian researchers working abroad Latvia should consider a more proactive approach. In Israel a dedicated centre aims to absorb immigrant scientists and returning residents by financing part of their wages for two years. Besides, the centre provides special scholarships for doctoral and post-doctoral studies as well as consulting and accompaniment services for Israeli scientists returning from abroad. Nonetheless, such efforts should keep in mind the positive effect from Latvian scholars working abroad due to their role as links between Latvian and non-Latvian researchers and firms.

Nurturing top performing high school students could help create a larger supply of PhD candidates and inventors in the future. Even though Latvian 15 year-olds' PISA scores are similar to the OECD average, the share of top performers is low (Figure 2.33). Programmes that expose more students to more advanced curricula, targeting in particular underprivileged regions, students and minorities, may help to boost the number of top performers (Van Reenen, 2020^[93]). For example, in Boston public schools students who do well on third-grade test scores are placed in a programme that provides them with a dedicated classroom with high-achieving peers, advanced literacy curricula and accelerated math in later grades. Rigorous research found that this programme boosts education outcomes, with gains primarily for minority students (Cohodes, 2020^[94]). Another set of policies is around mentorship, which could have high potential if targeted at young people who are normally less exposed to high innovation environments (e.g. the aforementioned mentorship by women scientists for girls).


Figure 2.33. The share of top performers in PISA is low

Top performers in science, mathematics and reading, % of 15 year-old students



Note: Top performers in science, mathematics and reading are students who achieved the highest level of proficiency (i.e. Levels 5 and 6) on the OECD's PISA assessment.

Source: OECD (2014), *PISA 2012 Results: What Students Know and Can Do* (Volume I, Revised edition, February); OECD (2020), *PISA 2018 Results* (Volume I).

StatLink  <https://stat.link/8lize0>

MAIN FINDINGS	RECOMMENDATIONS
Strengthening competitiveness and promoting export diversification	
The range of products in which Latvian firms specialise has broadened, and the quality of products has increased. Still, production is concentrated in low-complexity products, and few exports go to outside the EU. Statutory restrictions on FDI are low.	Strengthen business networks to support SMEs throughout their internationalisation process. Prioritise companies trying to enter distant markets in future support expansions.
Improving infrastructure and the business environment	
Banks apply high interest rates, partly due to the low debt-recovery rate. The number of cases where a debt restructuring plan is used is insufficient.	Fully transpose the EU restructuring directive, including simplifying corporate debt restructuring through out-of-court and hybrid procedures.
A special tax regime for start-ups was implemented recently, but usage is limited.	Conduct a systematic review of the barriers that prevent more start-ups from using the special regime, and supply entrepreneurs with more information on available support measures.
The scope of SOEs is among the largest in the OECD. Inefficiencies occur due to a large number of entities that manage SOEs. SOEs do not represent a driving force for R&D investments. The use of capital markets to attract resources for investment is low.	Centralise the SOEs' ownership model. Increase participation of private investors in SOEs.
Despite recent progress, the quality of road infrastructure is well below the EU average, causing high road mortality. The government plans to upgrade most main roads by 2040.	Improve cost-benefit analysis and the selection process for new infrastructure projects, prioritising road safety.
The average commuting time is the highest in the EU, contributing to regional skills mismatches in the labour market. Congestion is concentrated around Riga city.	Establish a metropolitan transit authority, and set up transport hubs in Pieriga. Consider using congestion pricing mechanisms to minimise the use of private cars and to finance improved public transportation.
Enhancing the skills needed to boost export performance	
Demand for ICT specialists is rising fast, while ICT graduates enjoy a high wage premium. However, high dropout rates, low female participation and a paucity of young-adult programmers limit supply alignment.	Provide schools with more flexibility in setting teacher wages to address recruitment difficulties for some subjects. Supply schools with adequate teacher training in ICT. Increase careers guidance to promote more STEM studies, especially for girls. Facilitate skilled-worker immigration.
Student loans are not common despite high tuition fees. Tertiary dropout rates are high.	Boost student financial aid and provide appropriate financial incentives for tertiary institutions to increase their graduation rates.
Exports of construction services have grown rapidly, but a shortage of qualified employees risks limiting the ability of the sector to grow.	Facilitate issuing of work permits for construction employees from outside the EU, and support the adoption of digital technologies that help alleviate labour shortages.
A low level of basic digital skills is limiting the uptake of advanced digital technologies, which could overcome labour shortages in key sectors. Participation in adult education is improving, but participation in online courses is still insufficient.	Accelerate government collaboration with training providers to support the skills needed for the adoption of digital technologies. Continue cooperation with digital learning platforms to expand distance learning. Increase training for managers within small firms and SOEs.
Employer-provided training is insufficient, and many small firms do not have the capacity to provide training.	Establish training funds based on tripartite social dialogue.
Lifting R&D and innovation from their present low base	
Business R&D spending is low and has remained static in recent years, while patent applications are among the lowest in the EU; simultaneously, government support to R&D is insufficient.	Improve the financial incentives for business R&D after evaluating the impact of the 2018 corporate tax reform.
The transfer of knowledge and technology from research institutes remains limited with insufficient knowledge absorption by firms. The share of higher education institutions' funding subject to reaching performance targets is only 7%.	Increase the share of tertiary funding that is performance-based. Further consolidate existing higher education institutions. Include representatives of the private sector, including SMEs, in research institutes decision-making bodies.
Financial benefits from innovation activities for individual academic researchers are limited.	Allow academic researchers a share in royalties earned from their research.
Latvia lags the OECD average in terms of numbers of researchers, while the number of PhD graduates has fallen to a low level. Foreign researchers are scarce. The share of top performers in PISA is low.	Increase both scholarship grants and other financial support for graduate students. Introduce programmes that expose more students from underprivileged regions, backgrounds and schools to advanced curricula.

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OECD Economic Surveys

LATVIA

Latvia has enjoyed continuing catch-up in per capita incomes with the more affluent OECD countries through the pandemic, despite slow progress in vaccination. Fiscal policy has handled the health-system challenges while protecting jobs and firms but could do more to ease inequality and poverty, especially among the elderly. Latvia's population has been shrinking for decades and will continue to do so. This means it must focus on increasing employment among those of working age. That implies a need to tackle the large gender wage gap that is discouraging women's labour force participation, delay retirement and keep everyone in good health. Nevertheless, public health-care spending is low, causing heavy out-of-pocket expenses, many unmet needs and, along with widespread poor lifestyle choices, short life expectancy. Looking ahead, further economic progress will depend on easing the supply of credit; overcoming remaining labour-market informality and official bribery and corruption; and encouraging greater exploitation of export-market opportunities. Enhancing export performance calls for redoubled efforts to boost skills of youth and adults so that digitalisation can proceed quickly, reforming the innovation system to intensify business and university R&D activities, improving transport infrastructure and the governance of state-owned enterprises, and smoothing the business environment for all firms.

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