Diagnostic of Estonia, Latvia and Lithuania

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Country diagnostics are a European Bank for Reconstruction and Development (EBRD) tool for identifying the main obstacles to entrepreneurship and private-sector development and for shaping the Bank's strategic priorities and project selection in new country strategies. Each diagnostic informs the EBRD's policy engagement with the authorities in that country.

A country diagnostic assesses the progress and challenges of the country in question in developing a sustainable market economy. Private-sector development and entrepreneurship are at the heart of the Bank's mandate in the regions where it operates, but the private sector faces a range of problems and obstacles in all economies where the EBRD invests. The diagnostic highlights the key challenges facing private companies and shows where each economy stands vis-à-vis its peers in terms of the Bank's six qualities of transition – competitive, well governed, resilient, integrated, green and inclusive – noting the main deficiencies and gaps in each.

The diagnostics draw on a range of methodologies and best practice for assessing how big various obstacles are. Extensive use is made of in-house expertise across the EBRD, along with surveys such as the Business Environment and Enterprise Performance Survey (BEEPS) and the Life in Transition Survey (LiTS), as well as other cross-country surveys and reports from institutions such as the European Commission, Eurostat, the International Monetary Fund (IMF), World Bank and World Economic Forum (WEF). For some countries, the diagnostics also draw on specially commissioned studies of selected issues that are critical to private-sector development in those countries.

The diagnostics are led by the EBRD's Country Economics and Policy team, drawing substantially on the expertise of sector, governance and political experts in the Economics, Policy and Governance department (EPG) and consulting widely with relevant experts across the EBRD when preparing the final product. The diagnostics are shared with the EBRD Board during the country strategy process.

The views expressed in diagnostic papers are those of the authors only and not of the EBRD.

For more information, see: https://www.ebrd.com/publications/country-diagnostics.

Outline of the diagnostic

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1. Executive summary

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Since declaring independence in the early 1990s, the three Baltic states, Estonia, Latvia and Lithuania, have been undertaking an ambitious reform programme to liberalise and stabilise their economies, as well as to strengthen their institutions, culminating in eurozone accession for all three. Their income convergence with advanced economies was among the fastest in central Europe and the Baltic states (CEB), but slowed after the global financial crisis. The private sector is vibrant, thanks to a conducive business climate, while the governance of state-owned enterprises (SOEs) is among the best in the CEB region.

This report identifies four key constraints on private-sector development in the three Baltic states:

- **Firms, especially in Latvia, are not investing and innovating enough to support the transition to a high-value-added economy.** Structural changes have spurred productivity growth, but the countries' economic structures remain less advanced than those of their CEB peers. The service content of exports is high, but the high-added-value content of goods exports remains rather low. Small and medium-sized enterprises (SMEs) dominate the Baltic economies, but their innovation and digitalisation potential, particularly in Latvia, remains below the European Union (EU) average.
- **Insufficient access to alternative sources of finance limits economic resilience and encumbers broader productivity growth.** Capital-market funding for the private sector remains limited, while bank financing has been declining. The pan-Baltic capital market is starting to take shape and the introduction of more new products, including a single regional index classification, would create a greater investor base, especially from abroad.
- **Significant effort is required, particularly in Estonia, to meet the 2030 energy and climate targets.** The energy efficiency of the residential sector has improved, but is still high, while the transport sector remains a key polluter. Waste infrastructure remains weak in Estonia and Latvia, while the circular economy is below the EU average in all three states.
- **Ensuring enough skilled talent to support the transition to a sustainable market economy remains a challenge.** Negative demographic trends are exacerbating labour shortages caused primarily by emigration. Structural unemployment is relatively high in Latvia and Lithuania, despite record labour-market participation. Inequality, including at regional level, is more pronounced than the EU average.

2. Political economy

2. Political economy

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The three Baltic states – Estonia, Latvia and Lithuania – are the most advanced economies and democracies among the former Soviet states. Since regaining independence in 1991, reforms to establish free markets swept across the Baltic countries, leading to the creation of liberal market economic systems in each. Democratisation happened early and rapidly, providing political and institutional support for economic reform early on. All three Baltic states joined the EU and the North Atlantic Treaty Organization (NATO) in 2004 and became members of Schengen on its inception in 2007.

In contrast to the stable transition progress made in each country since 1991, political instability and electoral volatility are a common feature. Governments in all three countries have a tendency to be unstable and short lived. Despite the fractious nature of Baltic politics, however, there has been a consistently high degree of pro-EU policy continuity across the board. All three Baltic states are parliamentary republics with multi-party systems, and coalition governments tend to be the norm. All three countries have presidents as the head of state, but in Estonia and Latvia, this is largely a ceremonial role, with the president chosen by parliament. In Lithuania, the president is elected directly and has a greater impact on the political process, albeit with limited powers.

Geopolitical instability and demographic changes associated with emigration are currently the main challenges facing the political economy of all three Baltic states, in addition to the challenges brought about by the Covid-19 pandemic.

Estonia

Prime Minister Kaja Kallas of the centre-right Reform Party has led the government since January 2021. The Reform-led government is a coalition with the centre-left Centre Party, which led the last two governments. This collaboration of the two main political parties has a strong majority in parliament. Although the two parties are usually in opposition, the overriding needs of the country in the face of the coronavirus pandemic brought them together. Prime Minister Kallas, Estonia's first female head of government, formed a gender-balanced cabinet with a progressive programme prioritising an environmental agenda.

Estonia consistently ranks highly – and above its Baltic neighbours, for the most part – in various indices of institutional effectiveness. Since independence, Estonia's political economy has been underpinned by its impressive ability to reach political consensus. Estonia also has a pluralistic and free media and is deemed to have professional civil-service standards and a lower prevalence of corruption than other former Soviet states. Estonia benefits from a high-quality public administration and continues to reform local government to ensure better quality of services. Estonia's digitalisation policies, which aim for "zero bureaucracy", have also reduced the administrative burden on both the public and private sectors. Its judicial system is independent and the legal system generally functions well.

2. Political economy

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Latvia

Latvia's political landscape is characterised by a largely centrist approach and a high degree of unpredictability, with significant churn among political parties. Political personalities are often more important than party affiliation in Latvia. Individual politicians can switch parties or create new ones, and voters' political allegiance will follow.

The current coalition government led by Prime Minister Krisjanis Karins of the centre-right New Unity alliance, which took office in January 2019, consists of four parties. The other governing parties are the right-wing National Alliance (NA), the centre-right New Conservative Party (JKP) and the liberal Development/For! Alliance (AP!). The government currently lacks a majority, relying on independent members of parliament for support.

Overall, the quality of institutions in Latvia is on par with the regional average but weaknesses remain. The improvements in institutional quality to date are down to the comprehensive restructuring of Latvia's civil service during the country's accession to the EU. Its particular strengths in the competence of its officials and the quality of its public services. However, there are still some weaknesses in regulatory quality and the public administration. Public-sector reforms have been continuing, but the pandemic has affected implementation. Local authorities and SOEs remain bloated and have issues when it comes to efficiency. SOEs also have problems in the area of governance, which the government is working with partners to remedy. Perceptions of corruption have affected the institutional landscape in Latvia. Significant financial and money-laundering scandals were revealed in February 2018 and, since then, the Latvian authorities have moved swiftly to undertake urgent reforms in this area, with some success.

Lithuania

Lithuania's political environment has been volatile since independence. The Lithuanian electorate has voted against the incumbent government in every post-communist election. Because of this political instability, there has been a lack of policy continuity on issues from energy to transport infrastructure.

Prime Minister Ingrida Simonyte has led a centre-right coalition government since the October 2020 elections. The government is a coalition between the conservative Homeland Union-Lithuanian Christian Democrats (TS-LKD) and two smaller centre-right liberal parties, the Liberal Movement and the Freedom & Justice Party. The government holds a narrow majority in parliament.

Reforms of Lithuania's public administration have been slower than those in Estonia and Latvia, but it is now catching up. The country undertook comprehensive public administration reform in preparation to join the EU. Since then, there have been further reforms and the competence and quality of the civil service continues to improve.

Perceptions of corruption remain a problem in Lithuania at all levels of state governance and public administration. Anti-corruption measures are being undertaken to comply with the Organisation for Economic Co-operation and Development's (OECD) transparency guidelines and recommendations, however. Improvements are still needed with regard to the enforcement of decisions and dispute resolution.

3. Growth performance and private-sector overview

3. Growth performance and private-sector overview

3.1. Income convergence with advanced economies was among the fastest in the CEB region, but slowed after the global financial crisis

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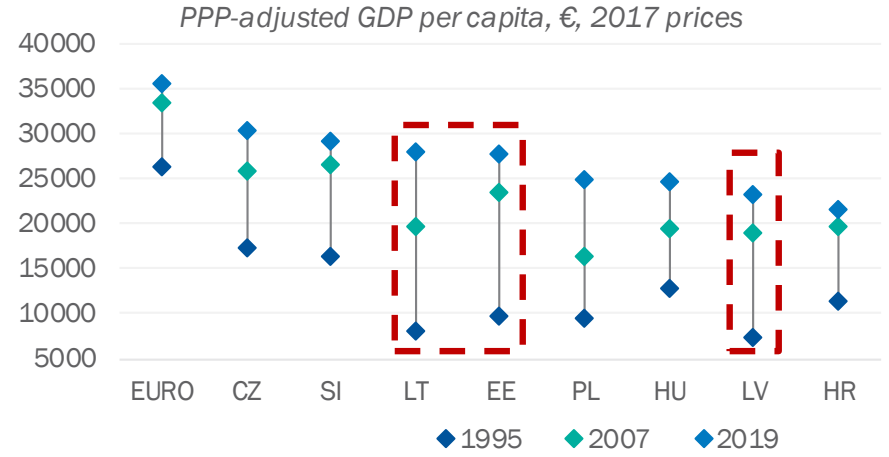
Estonia, Lithuania and Latvia have seen the greatest progress in CEB since the start of transition

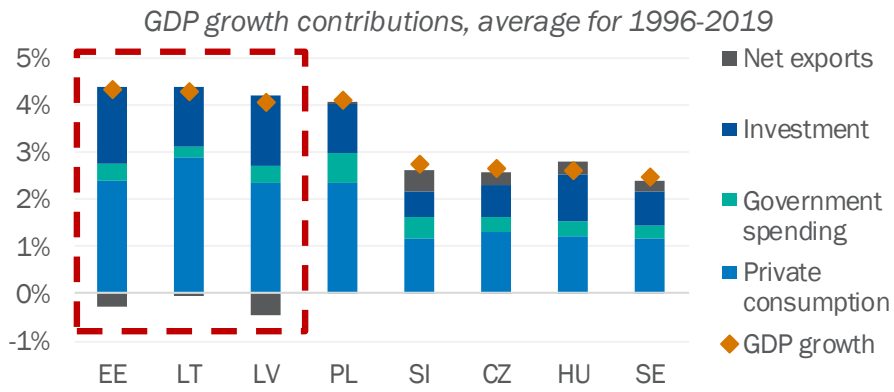


Source: World Bank (2020a); authors' calculations.

Income convergence with the EU average has been among the fastest in the CEB region. After declaring independence, the three Baltic states embarked on an ambitious reform programme of liberalisation, macro-stabilisation and institutional strengthening, culminating in eurozone accession in 2011 for Estonia, 2014 for Latvia and 2015 for Lithuania. In 2000, the countries were at about 39 per cent of the EU GDP per capita average in purchasing power parity (PPP) terms. In 2019, Estonia was at 84 per cent, Lithuania at 82 per cent and Latvia at 69 per cent (Eurostat, 2020b). Since 1996, all three states have grown at remarkable rates (see bottom left-hand chart). Latvia has not managed to maintain a similar growth rate since 2009, however, widening the gap to Estonia and Lithuania. Growth volatility has been somewhat higher in the Baltic states than in other CEB economies amid more pronounced boom-and-bust periods.

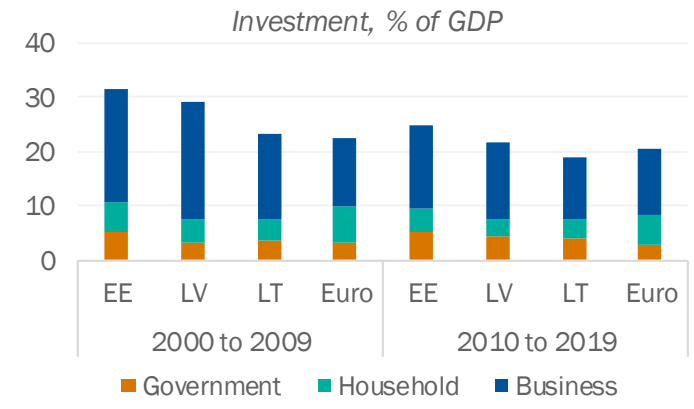
Capital deepening and productivity growth drove output expansion during transition. Despite slowing after 2009 amid feeble EU growth, capital deepening drove GDP growth in Lithuania and Latvia. In Estonia, total factor productivity (TFP) contributed most to output growth from 1996 to 2016 (Levenko et al., 2019; see slide 4.1.2). Investment as a share of GDP, historically stimulated by significant foreign direct investment (FDI) flows, fell more than 7 percentage points after the crisis in Latvia, almost 7 percentage points in Estonia and more than 4 percentage points in Lithuania, while the eurozone decline was about 2 percentage points (see chart below). Labour productivity growth also fell significantly, but remained at levels allowing convergence (see right-hand chart below).

Domestic demand made the largest contribution to growth

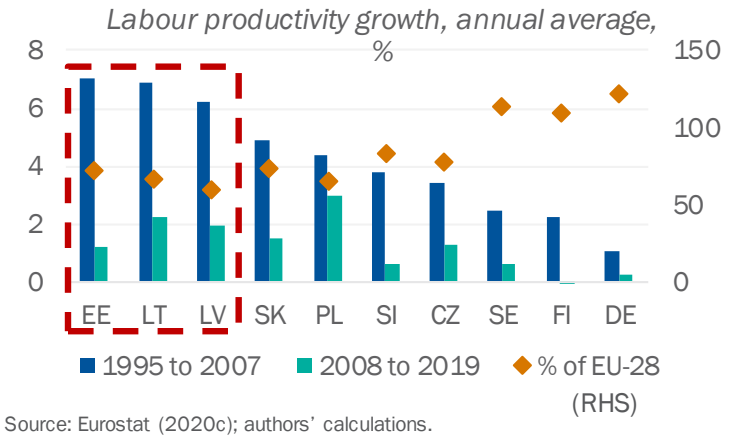


Source: Eurostat (2020a); authors' calculations.

Investment and labour productivity growth have slowed since 2009



Source: Eurostat (2020a); authors' calculations.



Source: Eurostat (2020c); authors' calculations.

3. Growth performance and private-sector overview

3.2. The Baltic growth model has relied on FDI and trade to stimulate productivity and domestic welfare

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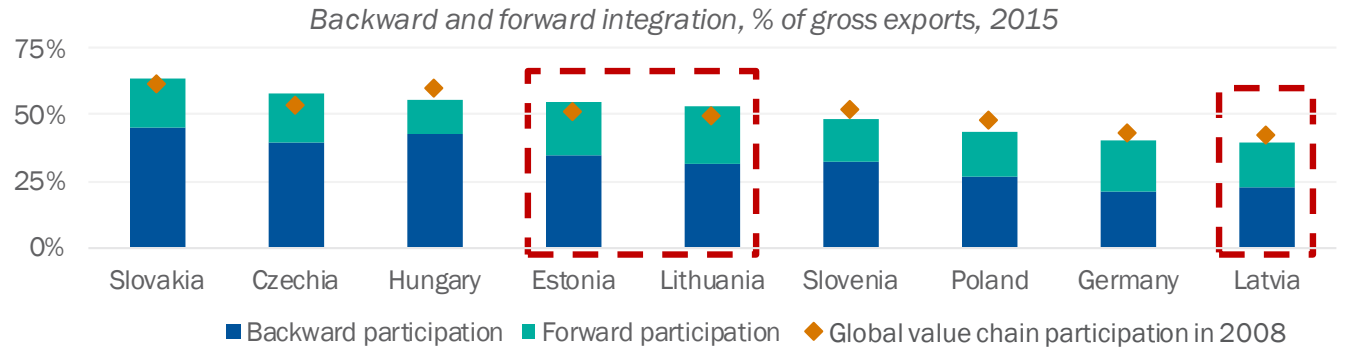
The region's impressive productivity growth has been supported by significant capital inflows and the dissemination of technology and know-how. The Baltic states benefited from significant FDI inflows prior to 2009, which caused an overheating of their economies and unfavorable external balances, with Estonia recording the largest FDI stock at about 97 per cent of GDP, followed by Latvia at 56 per cent and Lithuania at 44 per cent in 2019 (UNCTADstat, 2020). The financial sector, manufacturing and trade received most FDI inflows (see slide 4.1.4).

Foreign trade increased substantially, but has recently exceeded GDP growth only in Lithuania. All three Baltic states undertook comprehensive trade liberalisation reforms, including free trade agreements with the EU by 1995, which decreased the relevance of the Russian market (see top right-hand chart). Real exports tripled between 1996 and 2008 to reach 78 per cent of GDP in Lithuania, 73 per cent in Estonia and 60 per cent in Latvia in 2019 (Eurostat, 2020a) (see more on slide 4.1.3).

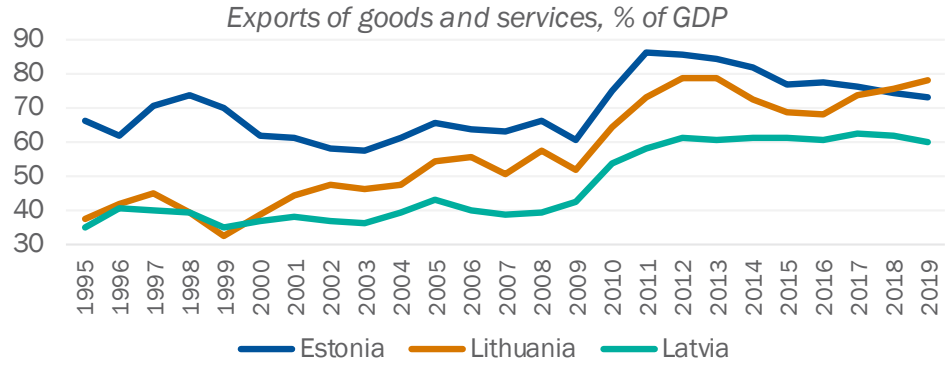
The Baltic states are highly integrated into global value chains, but lag some CEB peers. Higher global value-chain integration has contributed to a pickup in productivity growth at both firm and sectoral level (Bahn et al., 2020). Since the financial crisis, global value-chain integration has stagnated in the region, with Latvia the laggard among the Baltic states (see chart below). Latvia has a relatively low import content in its exports, meaning it sits in the earlier stages of supply chains, potentially limiting its domestic value-added potential (see more on slide 4.1.4).

Latvia lags Estonia and Lithuania in terms of global value-chain integration



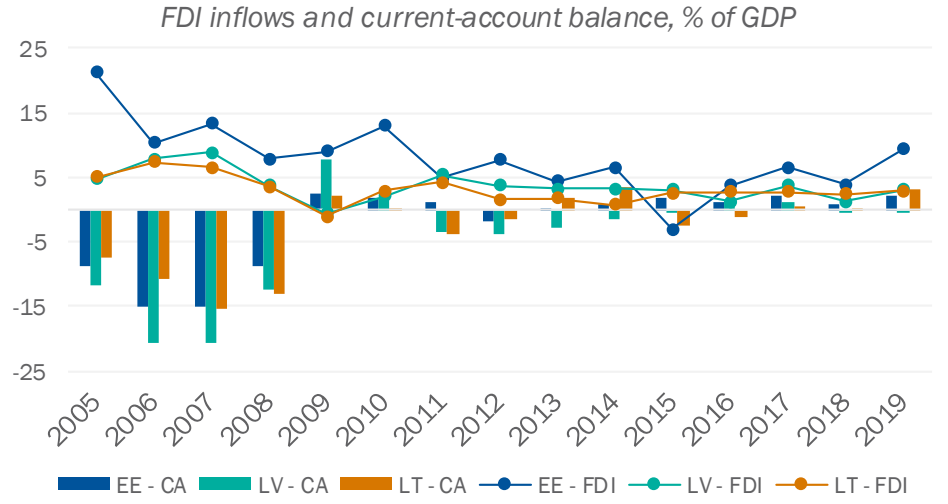
Source: OECD (2020a), authors' calculations.

Export growth slowed after 2015, except in Lithuania



Source: Eurostat (2020a).

FDI inflows plateaued, stabilising external imbalances



Source: Eurostat (2020e).

3. Growth performance and private-sector overview

3.3. Demographic challenges and a tight labour market require a focus on improving labour productivity and inclusion

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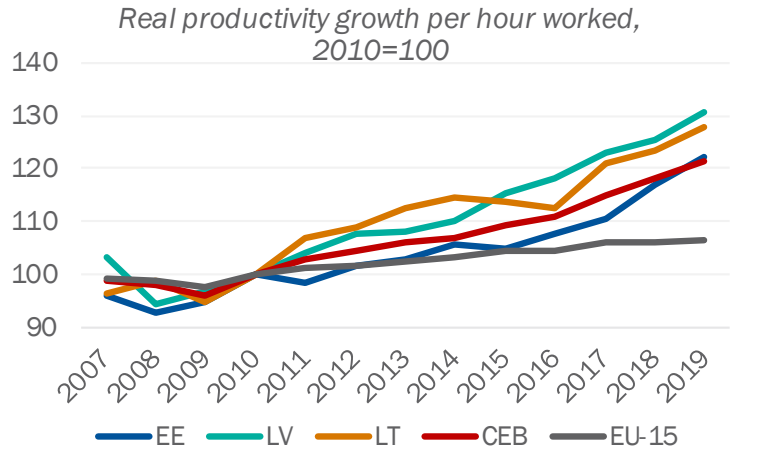
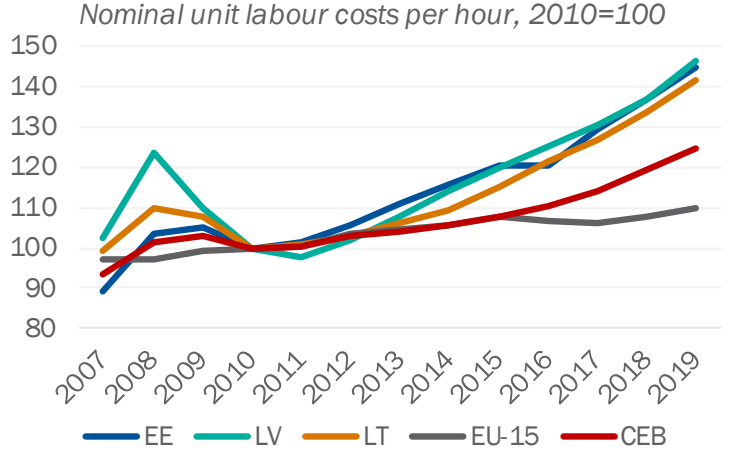
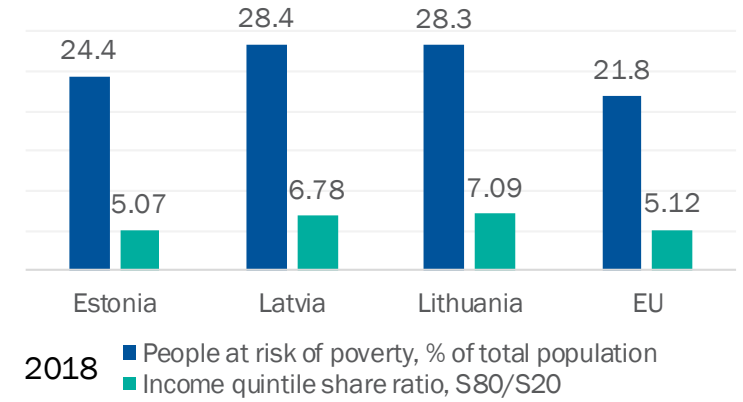
Faster GDP growth enabled the Baltic states to close the labour productivity gap to CEB peers …



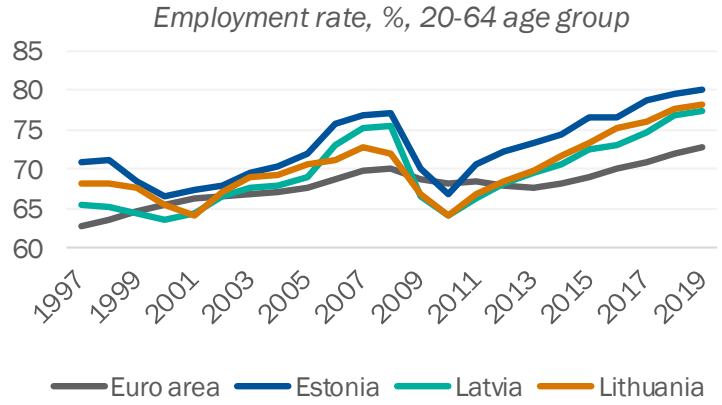
… but faster wage growth could hamper efforts to bridge the productivity gap to the eurozone …



… while income inequality and poverty remain high



Employment levels have skyrocketed



Sources: Eurostat (2020c; 2020g; 2020f); authors' calculations.

Labour market issues are pressing. The three states have lost a significant share of their populations since independence amid mass emigration to western Europe. Compared with 1990, Estonia has lost 16 per cent of its population, Lithuania 25 per cent and Latvia 28 per cent (Eurostat, 2020f). With a booming economy since 2017, employment rates have risen to record highs, amplifying labour shortages (see bottom right-hand chart). Demographic shifts, driven by population ageing, are expected to continue. Moreover, skills mismatches and labour shortages were consistently recognised as key issues by stakeholders consulted for this report (see section 4.4).

Wage growth has been robust in recent years, outstripping productivity. Authorities in all three states have consistently approved increases in the minimum wage (for example, from €400 to €555 per month in Lithuania in 2019) and public-sector wages, boosting average wage growth above productivity growth (see top right-hand chart). This caused a slight shift from the previous regional growth model based on trade and investment to one based on domestic consumption, driven by rising incomes. This accelerated wage growth without accompanying improvements in productivity could lead to imbalances in future, as seen in other countries.

Despite recent improvements, the Baltic states remain quite unequal. Apart from improving the social safety net to remove existing income inequalities, better access to the labour market, education and healthcare would mitigate inequality of opportunity. Poverty levels remain quite elevated, especially for vulnerable groups, such as the elderly, and at regional level, especially outside the capital cities (see bottom left-hand chart and more on slide 4.4.4).

3. Growth performance and private-sector overview

3.4. The private sector is vibrant, thanks to a conducive business climate. Latvia lags on innovation activity.

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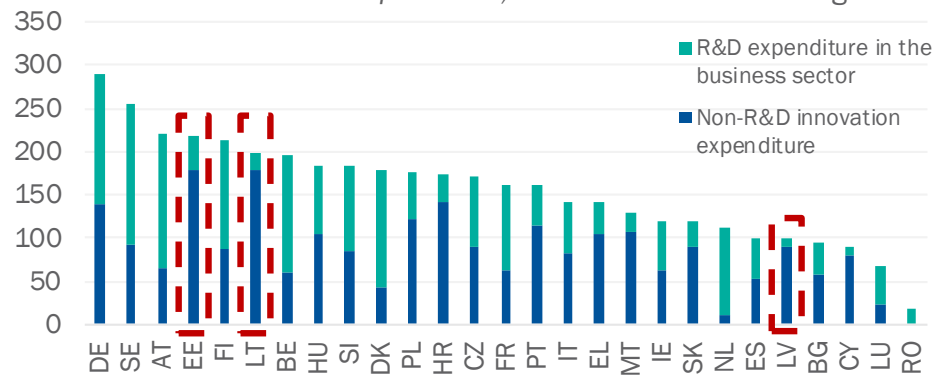
R&D remains low despite high levels of innovation expenditure

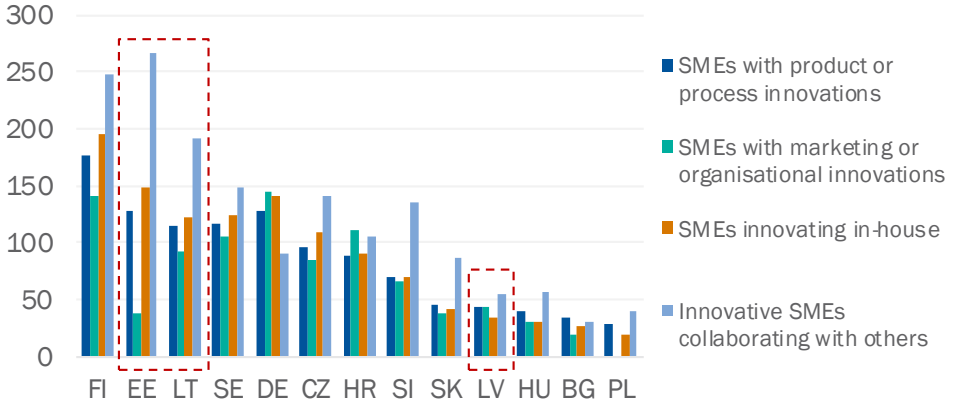
R&D and non-R&D expenditure, relative to 2019 EU average



Source: European Commission (2020a); authors' calculations.

SMEs in Latvia innovate less than in Estonia and Lithuania

SMEs' innovation performance, relative to 2019 EU average



Source: European Commission (2020a); authors' calculations.

Moving from centrally planned economies, the three Baltic states have come a long way in establishing a conducive business climate. The three states have been praised for improving the ease of doing business, while product market regulation is above the OECD average. Nevertheless, insolvency regimes and the informal economy remain a constraint, particularly in Lithuania and Latvia, respectively. The persistence of preferential tax rates for micro-firms could also discourage firms from growing in Lithuania and Latvia, according stakeholders consulted for this report (see more on slide 4.1.8).

The innovation ecosystem has developed, but remains modest compared with advanced peers, particularly in Latvia. Compared with 2012, Lithuania and Latvia made the largest and third-largest gains among EU member states in terms of innovation performance, but remain at the lower end in the EU rankings (European Commission, 2020a). In 2019, Estonia ranked 11th on the European Innovation Scoreboard (EIS), around the EU average, while Lithuania was 19th and Latvia 23rd among all EU member states (European Commission, 2020a). In terms of SME performance, small Estonian and Lithuanian firms are more innovative than the average EU SME on the dimensions set out in the ESI, while Latvian firms are lagging (see bottom left-hand chart and slide 4.1.5).

Research and development (R&D) expenditure remains subdued and relies on EU funding. All three states are below their 2020 targets for R&D spending as a share of GDP, with private R&D remarkably low and highly concentrated. Estonia reported R&D spending of 0.6 per cent of GDP in 2018, Latvia 0.3 per cent and Lithuania 0.3 per cent (also see the top left-hand chart). Public R&D spending has underpinned overall R&D spending thanks to EU funding. Recent efforts to increase R&D intensity, including by adopting comprehensive new strategies, is a positive step towards enhancing innovation potential (see slide 4.1.6).

Latvian firms, especially SMEs, are less digitised than their peers in advanced economies. Despite above EU-average entrepreneurial activity and fast-growing firms (especially in information technology (IT) and fintech), business digitalisation levels in Lithuania and Estonia are at the EU average, while Latvian firms are at the lower end of the bloc, according to the Digital Economy and Society Index (DESI) compiled by the European Commission (European Commission, 2020b). The index aggregates indicators of the digitalisation of firms such as use of e-commerce, cloud computing and big data tools, to rank EU firms (see more on slide 4.1.6).

3. Growth performance and private-sector overview

3.5. State has reduced its involvement in the economy over time, but retained its presence in key sectors

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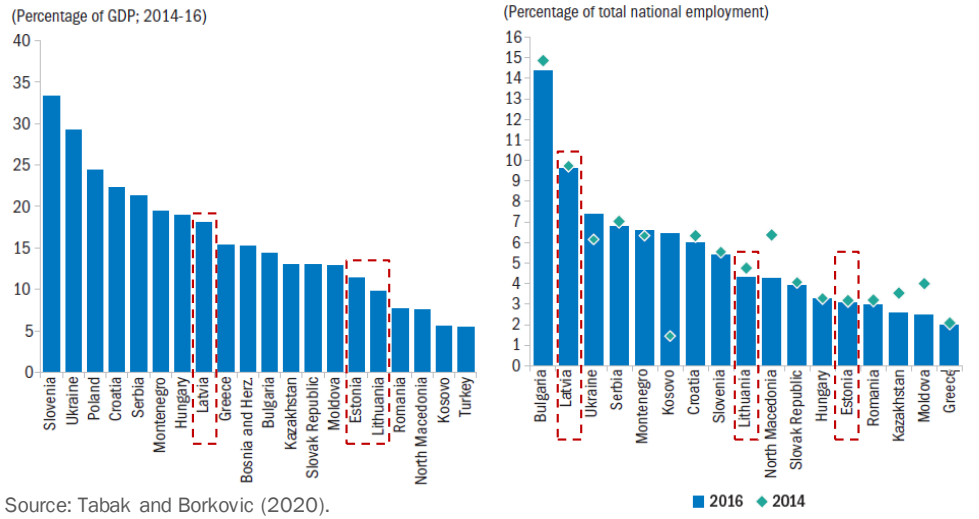
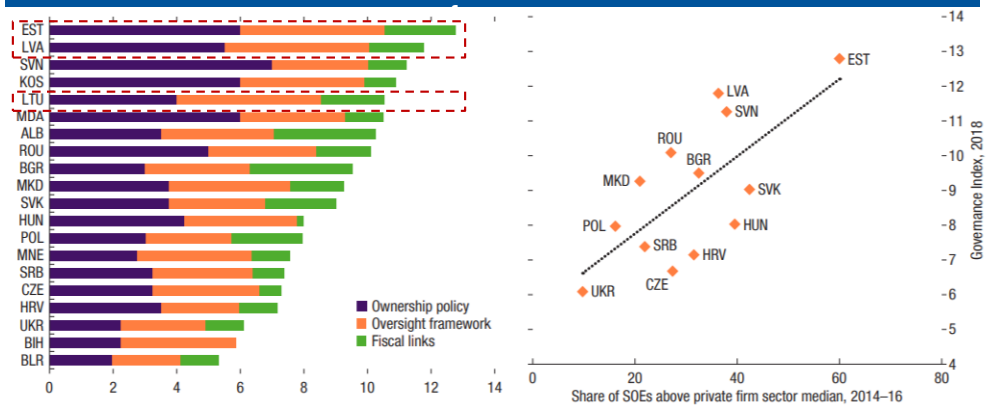
SOE revenues as a share of GDP and employment vary



Source: Tabak and Borkovic (2020).

High governance standards are correlated with better



Source: IMF, 2019.

Public finances have been in good shape thanks to prudent fiscal policy and the legacy of currency boards. In the aftermath of the global financial crisis, driven by a desire for eurozone accession, the three states embarked on a path to stabilise their budgets following significant economic overheating prior to the crisis. As a consequence, Lithuania has managed to maintain budget surpluses for the past four years, while Estonia has the lowest public debt in the EU, at 8 per cent of GDP in 2019. Latvian public debt came in at 37 per cent of GDP at the end of 2019, while Lithuania's public debt stood at almost 38 per cent of GDP – though it is expected to increase significantly in 2020 (see more on next slide).

SOEs are less pervasive than in some CEB peers, but the state's presence is quite strong in Latvia and in network services. Latvia and Lithuania are at the lower end in CEB in terms of number of SOEs, with fewer than 50 enterprises per million inhabitants, compared with Slovenia at about 260 (IMF, 2019). At the same time, Estonian SOE assets account for about 40 per cent of GDP, similar to Latvia and Lithuania, while SOEs are also among the largest firms in all three countries (Tabak and Borkovic, 2020). In terms of employment, Latvian SOEs employ almost 10 per cent of the labour force (see top left-hand charts).

Governance of SOEs in the Baltic states is among the best in the CEB region. Driven by more robust corporate governance frameworks implemented in recent years, including on ownership policy and financial oversight, SOEs in the Baltic states have been performing better than those in the broader region in terms of revenue per employee (see bottom left-hand charts). For instance, following reforms carried out with the support of the OECD in 2011-12, targeting transparent reporting, ownership policy, and board oversight, Lithuanian SOEs' corporate governance frameworks have generally improved (OECD, 2015a). In Latvia, an OECD (2015b) review noted gaps in ownership policy, the role of board of directors and better monitoring and reporting. Still, in a diagnostic consultation interview with the Baltic Institute of Corporate Governance, it was highlighted that the governance of most listed SOEs had improved, with gaps remaining in municipal enterprises. In terms of performance, SOEs are on average less profitable than their private counterparts, particularly in the transport sector in Latvia and Lithuania and other services (IMF, 2019).

Baltic e-governance and the digitisation of public services are among the best in the EU. Estonia, a pioneer in e-governance, but also Lithuania and Latvia, has one of the most advanced systems of delivering public services online in the EU. The DESI Index ranks Estonia 1st, Latvia 5th and Lithuania 6th in the EU on the e-government subcategory (European Commission, 2020b). This has contributed to the efficient and transparent delivery of public services, enhancing the business environment.

3. Growth performance and private-sector overview

3.6. The Baltic economies have been relatively resilient to the Covid-19 crisis

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Box 1. Baltic economies – the case for more integration?

On their independence, the Baltic states embarked on a fairly similar transition path, focused on democratisation and liberalisation. Similar economic structures and policy choices brought about a correlation in cycles and overall growth patterns, including during the global financial crisis of 2008-09 (Poissonnier, 2017).

As small, open economies with declining populations, the three states, despite their cultural and economic differences, have increased their economic cooperation, for example, through the pan-Baltic capital market, the Baltic Energy Market Interconnection Plan, and Rail Baltica. Moreover, trade and labour mobility suggest the existence of a relatively integrated regional economy. Other promising avenues for further integration are offshore wind farms, grid development, gas-market integration and greater regional business activity.

Box 2. Covid-19 impact on the Baltic states

The Baltic economies went through a relatively mild downturn in 2020. The Baltic economies proved more resilient than the average EU economy in 2020, with exports and investment the key mitigating factors. All three governments implemented significant fiscal support packages that helped alleviate the shock to the labour market and overall demand. Even so, as of mid-2021, unemployment rates were still above pre-crisis levels in all three countries, though wage growth remained robust, supporting the consumption recovery.

Growth remained strong in 2021. In Estonia, a recovery in exports and investment and higher government spending led to GDP growth of 8.4 per cent year on year (y/y) in the first half of 2021. The increase in private consumption was also boosted by accumulated savings, with additional growth likely due to ongoing pension reform. In Latvia, a recovery in manufacturing, services and consumption contributed to GDP growth of 4.5 per cent y/y in the same period. In Lithuania, the same drivers spurred growth of 5.2 per cent y/y, bringing GDP above pre-pandemic levels.

Medium-term growth will be supported by EU funds. Thanks to the EU's Recovery and Resilience Facility, the Baltic states will have the opportunity to step up public investment in key areas, such as green transition and digitalisation. The Latvian and Lithuanian plans have already been approved, with the first disbursements made in September 2021. Latvia will receive €1.8 billion and Lithuania €2.2 billion, while €983 million has been earmarked for Estonia.

Table 1. Key macroeconomic indicators

		Estonia					Latvia					Lithuania				
		2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
GDP growth	per cent, y/y	5.8	4.1	4.1	-3.0	9.0	3.3	4.0	2.5	-3.6	4.5	4.3	4.0	4.6	-0.1	4.5
CPI inflation	per cent, average	3.7	3.4	2.3	-0.6	4.5	2.9	2.6	2.7	0.1	3.2	3.7	2.5	2.2	1.1	4.6
Real wage growth	per cent, average	3.1	4.1	5.1	3.6	6.7	4.8	5.7	4.3	6.1	6.7	4.3	7.2	37.2	9.0	5.1
Government balance	percentage of GDP	-0.5	-0.6	0.1	-5.6	-3.6	-0.8	-0.8	-0.6	-4.5	-9.5	0.4	0.5	0.5	-7.2	-4.1
Public debt	percentage of GDP	9.1	8.2	8.6	19.0	18.4	39.0	37.1	36.7	43.2	48.2	39.1	33.7	35.9	46.6	44.5
Current account balance	percentage of GDP	2.3	0.8	2.5	-0.3	-1.1	1.3	-0.2	-0.7	2.9	1.1	0.5	0.3	3.5	7.3	2.6
Net FDI	percentage of GDP	-3.9	-4.8	-3.9	-10.4	-3.8	-1.9	-2.2	-2.9	-2.2	-5.1	-2.0	-0.5	-2.3	-1.1	-0.7
External debt	percentage of exports	115.5	100.6	100.3	136.1	116.3	229.6	200.8	194.7	206.0	189.3	117.1	100.1	85.1	96.3	79.6
Private sector credit	percentage of GDP	64.4	62.6	60.2	65.2	63.0	43.5	38.0	36.6	35.6	35.5	41.0	40.5	39.6	37.8	38.0
Nominal GDP	EUR bn	26.9	30.5	31.0	30.7	34.8	30.4	34.4	34.3	33.7	36.3	47.6	53.7	54.7	56.5	61.6

Sources: CEIC, IMF WEO, EC. 2021 values are forecasts.

4. Key obstacles to sustainable private-sector development

4.1. Productivity growth and innovation

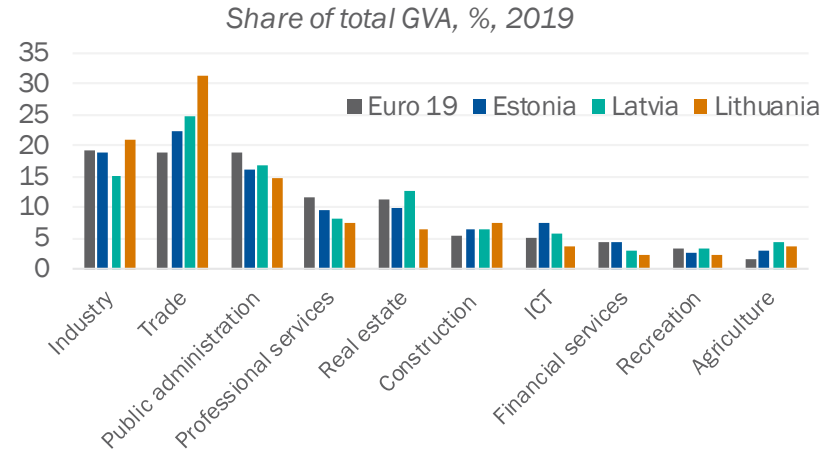
Baltic firms, especially in Latvia, are not investing or innovating enough to support the transition to a high-value-added economy

4.1. Productivity growth and innovation

4.1.1. Structural changes have boosted productivity growth, but Baltic economic structures remain less advanced than those of their CEB peers

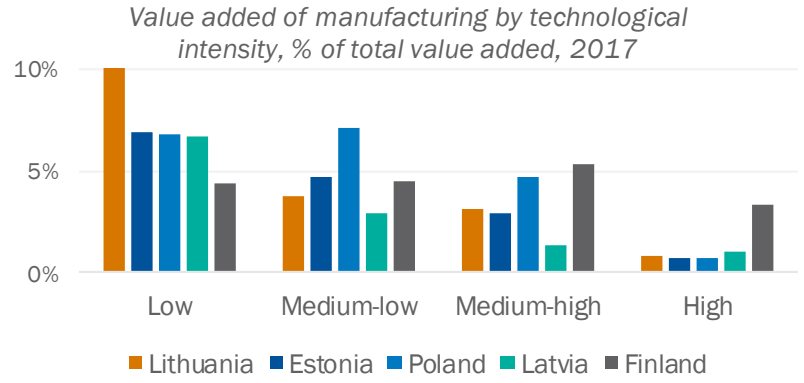
European Bank
for Reconstruction and Development

Economic structure of the Baltic economies is still fairly traditional, despite significant changes



Source: Eurostat (2020i); authors' calculations.

Low-technology manufacturing dominates



Source: Eurostat (2020j); authors' calculations.

The economic structure of the Baltic economies has significantly changed in the transition period, with the allocation of labour and capital to more productive sectors. The Baltic states inherited a industrial base that proved to be uncompetitive in market conditions and suffered as supplies from the former Soviet Union decreased. In addition to industry (see top left-hand chart), agriculture has also its share of gross value added decline across the Baltic economies.

Industry as a share of GDP grew significantly in Estonia and Lithuania, but remains below the eurozone average in Latvia. Industry as a share of the overall economy has decreased in all three countries since 2010, thanks to the accelerated growth of services. Still, the absolute size of the manufacturing sector has increased by more than 50 per cent in Estonia and Lithuania. It has grown around 30 per cent in Latvia, somewhat lower than the CEB average. Manufacturing thus accounted for about 10 percent of GDP in Latvia in 2019, below the 13 per cent share recorded in Estonia and the 16 per cent ratio posted by Lithuania (Eurostat, 2020i).

Manufacturing is dominated by low-tech industries. Compared with their CEB peers, which have manufacturing sectors concentrated on the automotive industry and other advanced manufacturing, the Baltic states have a smaller share of medium technology-intensive manufacturing. Compared with advanced economies, the greatest gap is in high-tech industries (see bottom left-hand chart). Indeed, Lithuania had the largest share of low-tech manufacturing to total valued added in the EU in 2017.

Economic complexity index ranks the Baltic economies fairly low. The three economies fare worse than their CEB peers in terms of economic complexity, according to the 2018 Economic Complexity Index, which measures the diversity and knowledge intensity of the export basket (with Estonia in 28th place, Latvia in 34th and Lithuania in 31st, compared with Hungary in 9th place, Slovenia in 10th and Slovakia in 15th) (The Growth Lab at Harvard University, 2019). Their relatively low positions are partly down to their lower shares of high-tech and knowledge-intensive exports than their CEB peers. Still, the countries have made progress over the past five years, with Estonia moving up two positions, Lithuania climbing five positions and Latvia rising three.

The information, communication and technology (ICT) sector is growing significantly in Estonia, while construction has a more prominent role than in 2010. In Estonia, the contribution of information and communications technology (ICT) to gross value added (GVA) has increased significantly, by about 50 per cent, since 2010, while volumes have increased 2.5-fold (Eurostat, 2020i). Its 7.6 per cent share of total GVA is higher than the eurozone average. In Lithuania, ICT value-added has increased by about 50 per cent during the same period, but is still below that of the eurozone and the other Baltic states. Construction, excluding real estate, recovered well after the crisis and has recorded significantly higher growth rates than the rest of the EU. Professional services have risen most notably in Lithuania, albeit from a lower base.

4.1. Productivity growth and innovation

4.1.2. Productivity growth has slowed despite robust investment levels, but more intangible asset investment is needed

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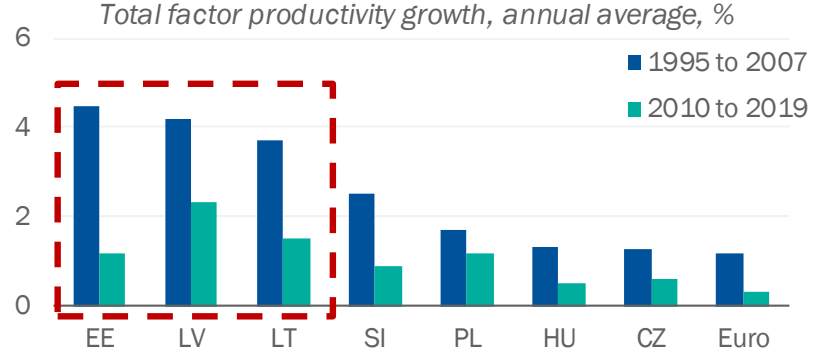
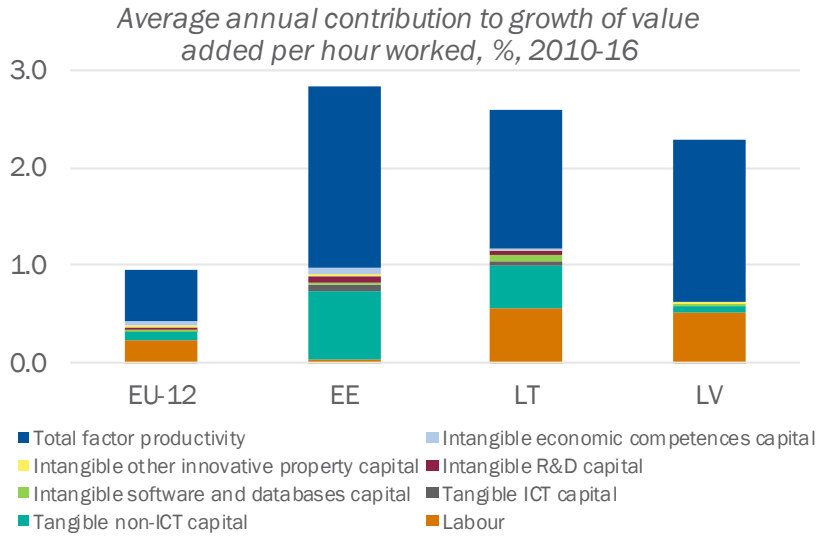
TFP growth slowed significantly after 2010 …



Source: The Conference Board (2020); authors' calculations.

… but continued to drive most of the countries' growth



Source: Vienna Institute for International Economic Studies (2019).

Productivity growth has slowed, but remains higher than in CEB peers. The post-2009 slowdown is most evident in total factor productivity (TFP) growth, though it has remained decent, ensuring the continuation of convergence (see top left-hand chart). Since 2010, Estonia's growth has been driven by investment in tangible capital (such as machinery and equipment), while in Lithuania and especially Latvia, higher employment has been an important contributor to growth, something that will become difficult to sustain in light of demographic challenges (see bottom left-hand chart).

Productivity at firm level has improved most in Lithuania since 2014. Company statistics suggest that Lithuanian firms increased their gross value added per employee by 33 per cent in 2014-18, with Estonian and Latvian firms improving by around 20 per cent (Eurostat, 2019a). In terms of sector, the largest gaps to Germany (taken as a reference point) were evident in manufacturing, while Latvian and Lithuanian firms lagged Estonia somewhat on construction, real estate, professional services and retail. In Estonia and Lithuania, productivity increased most in sectors including manufacturing, construction and transport, while Latvia lagged.

Capital investment has been growing faster than in CEB peers, but capital stock remains lower than in advanced economies. The Baltic states remain below the eurozone average in terms of net capital per employee, with Estonia leading at around €98,000, Lithuania at €65,000 and Latvia trailing at €26,000 in 2019 (compared with a eurozone average of €220,000) (AMECO, 2020). While both Estonia and Lithuania have made progress in recent years, capital intensity in Latvia has pretty much stalled, especially in terms of investment in machinery and equipment. Significant investment growth has been noted in construction, transport and equipment in recent years (AMECO, 2020).

Tangible capital investments still dominate. Tangible assets (such as equipment and ICT hardware) accounted for 27 per cent of value added in Estonia and 19 per cent in Lithuania in 2010-16, but only 1 per cent in Latvia (Vienna Institute for International Economic Studies, 2019). In advanced EU economies, intangible investments (such as software and R&D) accounted for a greater share (11 percent) than tangibles (9 per cent) in the same period. In volume terms, intangibles have increased at a higher rate than tangible assets since 2010, but their small shares limit the impact they could have on productivity and, in particular, innovation.

The middle-income trap is a risk, as benefits from capital deepening and technology transfer are declining. Investments in tangibles had been supported by elevated FDI inflows, but have declined on the back of stalling global value-chain integration (see more on slide 4.1.4). As capital deepening's marginal contribution is decreasing, with labour productivity still about 30 per cent lower than in advanced economies, the next slides investigate three potential sources of advancing this transition: global value-chain integration; research, development and innovation activity, including of SMEs; and digitalisation.

4.1. Productivity growth and innovation

4.1.3. The service content of exports is high, but the high-added-value content of goods exports has remained fairly low

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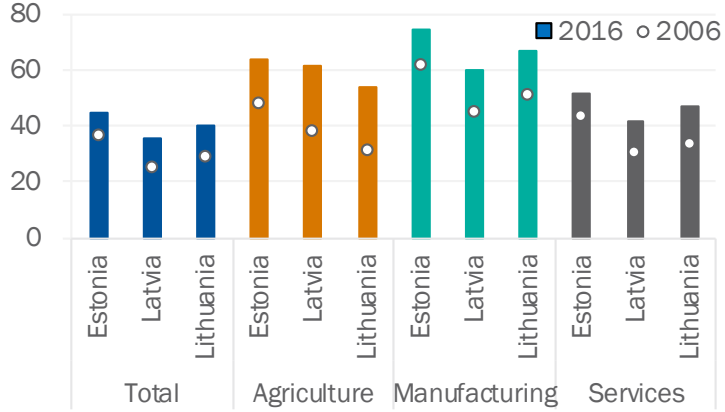
The Baltic states are highly export oriented

Exported domestic value added, % of total domestic value added



Source: OECD (2020a).

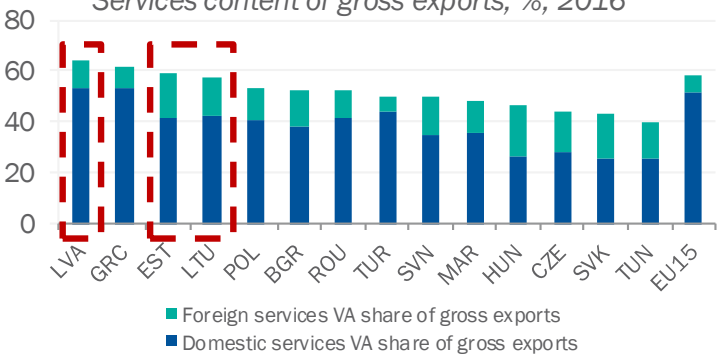
The Baltic states are very export oriented and have increased domestic production due to higher foreign demand for their agricultural, manufacturing and services products. More than 40 per cent of domestic value added in the Baltic states is exported. All three countries have further increased their domestic production to meet higher foreign demand over the past decade. Estonia has the strongest export orientation and Latvia the lowest (see top left-hand chart). Still, the concentration of exporting firms is high, as only about 6 per cent of Latvian and 12 per cent of Estonian firms were exporting in 2014 (Benkovskis et al., 2017).

The Baltic states specialise in the export of services. Services content accounts for around 60 per cent of gross exports and is particularly significant in Lithuania, which has managed to develop its logistics sector in recent years, while Estonia has developed its tourism sector. Latvia has the highest service value-added share to gross exports, at 65 per cent, and the highest domestic value-added contribution to gross exports, at 54 per cent, amid a comparatively smaller manufacturing sector (see bottom left-hand chart).

Knowledge-intensive exports remain modest in terms of share, limiting the productivity growth of exporting firms. The Baltic economies are less technologically advanced in terms of exports than the EU average when it comes to both goods and services (see charts below). Estonian goods exports have stagnated technology wise, mainly due to electronics declining as a share of total exports (OEC, 2020). Lithuanian and Latvian goods exports have made incremental improvements in recent years on the back of rising machinery exports. At the same time, Lithuanian service exports lag significantly due to the country's strong reliance on transport services, while business and ICT services make up a greater share of service exports in Estonia and Latvia (OEC, 2020).

Service content of gross exports is high in the Baltic states

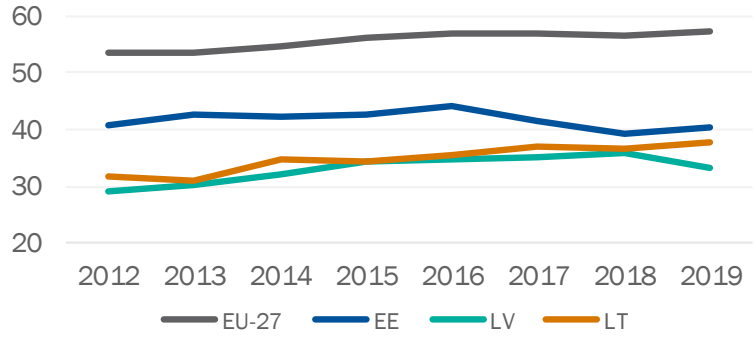
Services content of gross exports, %, 2016



Source: OECD (2020a).

Goods exports are still not advanced enough …

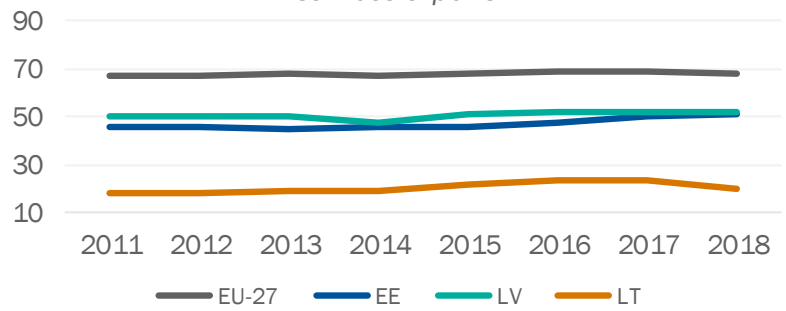
Medium and high technology products, % of total goods exports



Source: European Commission (2020a).

… while service exports are significantly less knowledge-intensive in Lithuania

Knowledge-intensive services exports, % of total services exports



Source: European Commission (2020a).

4.1. Productivity growth and innovation

4.1.4. The global value-chain integration of the Baltic states has slowed, while FDI inflows have been concentrated in services

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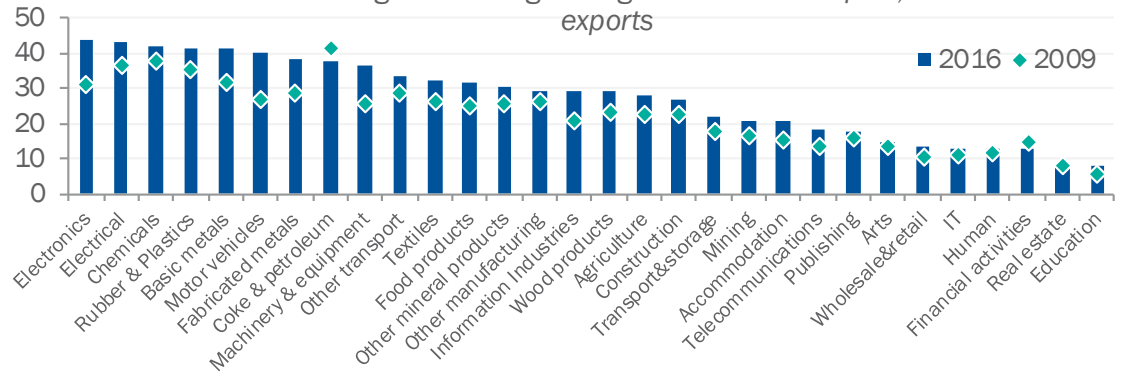
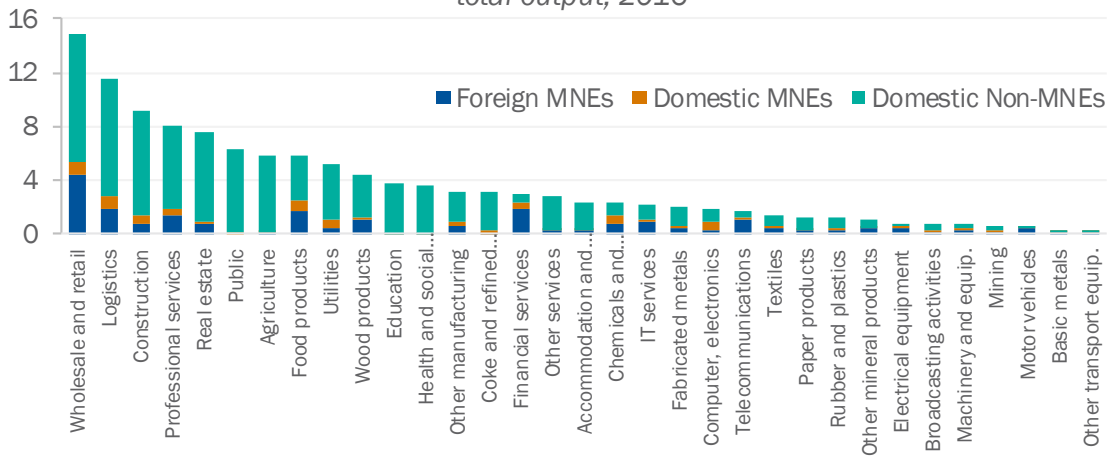
Backward participation has risen in most sectors, especially manufacturing

Baltic states' weighted average foreign value-added inputs, % of sector exports



Foreign ownership is significant in services

Gross output by sector and firm ownership in the Baltic states, % of total output, 2016



Sources: OECD (2020a).

The Baltic states are highly integrated into global value chains, but there has been no significant integration since the financial crisis. Around 52 per cent of Estonia's exports are integrated into global value chains, with around 50 per cent and 42 per cent in Lithuania and Latvia, respectively (OECD, 2020a). In Latvia, forward linkages play an important role, indicating its lower potential for higher domestic added-value. Sector-wise, manufacturing has been the most reliant on imported inputs. The share of foreign inputs in exports has increased, for the most part, since 2009, limiting the countries' ability to capture more domestic added-value. More than 40 per cent of the export value of the electronics, electrical, chemicals, rubber and plastics and basic metal industries was imported inputs in 2016 (see top left-hand chart).

Foreign ownership features primarily in key service sectors, such as financial services. Twenty-two per cent of total output and 28 per cent of the manufacturing output was produced by foreign-owned firms in 2016 (OECD, 2020a). Foreign firms have been very active in both the manufacturing and services sectors, particularly financial services (see bottom left-hand chart). The majority of foreign firms operating in the Baltic states are from Sweden (15 per cent), Finland (11 per cent) and Germany (9 per cent).

FDI inflows have gone mostly to services in recent years and are significantly lower than pre-crisis levels. Around 75 per cent of FDI inflows have gone to service industries over the past decade, mostly to firms operating in the financial and insurance spheres (more than a 40 per cent share), wholesale and retail trade, real estate, professional activities and logistics (UNCTADstat, 2020).

Outward FDI is significant only in Estonia. Although domestic multinational enterprises (MNEs) account for a high share of trade in sectors such as retail, chemicals, motor vehicles, electronics and finance, outward investment has been limited. In 2017, Estonia recorded a stock of about 27 per cent of GDP of outward FDI, but Latvia and Lithuania had negligible values. Baltic companies invest predominantly in other Baltic states and neighbouring countries, except for Estonia which has a significant stock in Finland. FDI outflows are skewed towards service industries for Latvia and Lithuania (72 per cent share and 94 per cent of services, respectively), while Estonia's FDI outflows are more diversified between services and manufacturing. More outward investment could increase productivity through economies of scale, higher competition and knowledge sharing in new markets.

4.1. Productivity growth and innovation

4.1.5. SMEs dominate the Baltic economies, but their innovation potential, particularly in Latvia, remains below the EU average

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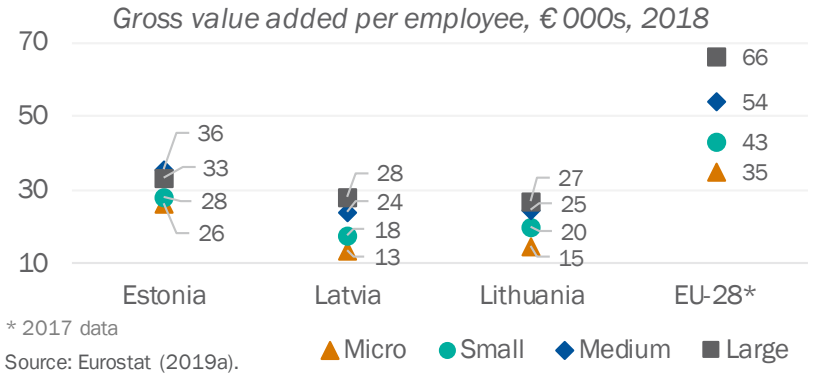
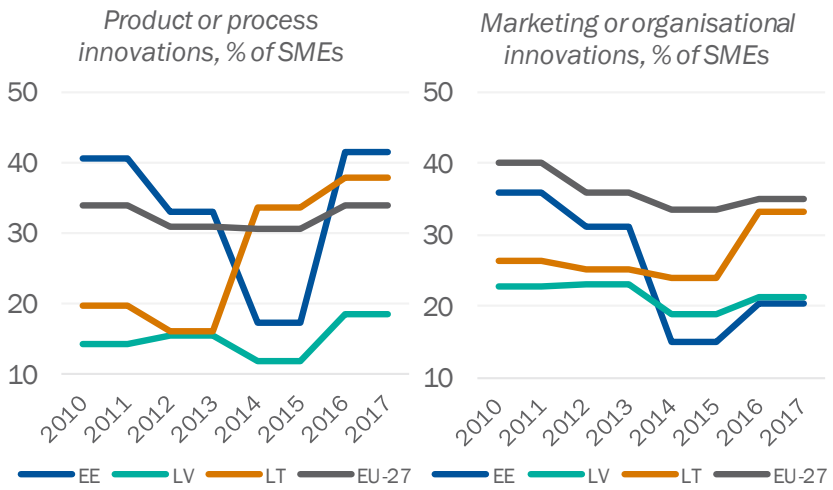
SME – the large-firm productivity gap is small in Estonia



* 2017 data

Source: Eurostat (2019a).

SMEs in Latvia innovate less than in Estonia and Lithuania



Source: European Commission (2020a).

Small and medium-sized enterprises (SMEs) dominate in the Baltic states, but the productivity gap to large firms is smaller than in the EU. In 2018, SMEs accounted for 77 per cent of value added in Estonia, 71 per cent in Latvia and 69 per cent in Lithuania, above the 56 per cent of the EU-28 (Eurostat, 2019a). While the productivity per employee of Estonian SMEs was around €31,000, fairly close to that of larger firms, the gap between large and small firms was bigger in Latvia and Lithuania. Still, the gap to larger firms was similar to the EU average (see top left-hand chart) (Eurostat, 2019a).

Number of high-growth firms is similar to the EU average. Small Business Act for Europe (SBA) suggests that 10.5 per cent of companies with at least 10 employees in Estonia were fast growing in 2018 (European Commission, 2019a). In Lithuania, 10 per cent of firms were high growth in 2018, while in Latvia, almost 12 per cent were high growth in 2017, the most recent year available. The EU average in 2017 stood at 11 per cent. According to the European start-up monitor 2019 report, 76 per cent of Estonian start-ups were operating at a loss, 12 per cent at breakeven and 12 per cent were profitable (as 48 per cent of surveyed firms were still at the pre-seed or seed stage) (European Commission, 2019a). In Lithuania, start-ups display similar financial performance – 72 per cent were operating at a loss, 17 per cent were break-even and 11 per cent were profitable, although only 28 per cent were at seed stage (European Commission, 2019b).

The number of high-tech SMEs is lower than the EU average, however. In Estonia, SMEs in high-tech manufacturing and knowledge-intensive services accounted for 24.5 per cent of SME value added in 2018, while in Latvia, the share was almost 26 per cent, below the 33 per cent EU average (European Commission, 2019a). In Lithuania, the figure was 22 per cent, largely down to its shortage of skilled labour and R&D system mismatches (see more in section 4.4).

SME innovation remains limited, particularly in Latvia. Estonian and Lithuanian SMEs are innovating above EU levels in terms of products and processes, but lagging the EU average when it comes to marketing and other management aspects. This may explain why Baltic firms, despite their relative competitiveness, have not been so active outside their domestic markets. Data from the 2020 European Innovation Scoreboard (EIS) suggests that Lithuanian SMEs have made the best progress on innovation in recent years (see bottom left-hand chart) (European Commission, 2020a).

SMEs report access to finance, human capital and experience as key barriers to growth. First, SMEs report access to finance as one of the key barriers, expressed through the share of SMEs that have been rejected loan applications – in Estonia, 11 per cent, in Latvia, 17 per cent, and in Lithuania, 24 per cent of SMEs, compared with the EU average of 6.5 per cent in 2018. Second, SMEs face human capital barriers that hamper their innovative capacity, according to the SBA 2019 reviews of Baltic SMEs (European Commission, 2019a; 2019b; 2019c). Third, multiple stakeholders consulted for this report noted a regional dearth of business acumen and ambition to expand a business and become more productive, which could explain the need for more awareness-raising and training initiatives for entrepreneurs.

4.1. Productivity growth and innovation

4.1.6. Research and development activity is below the EU average, mainly due to a lack of resources and skills, small market size and economic structure

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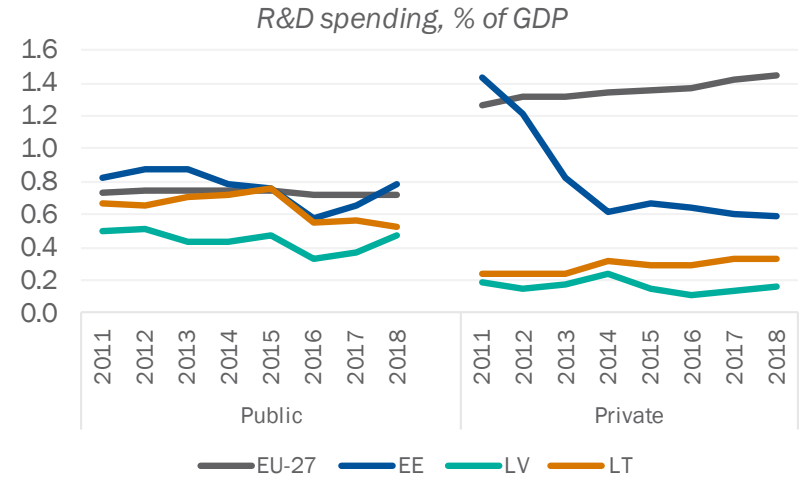
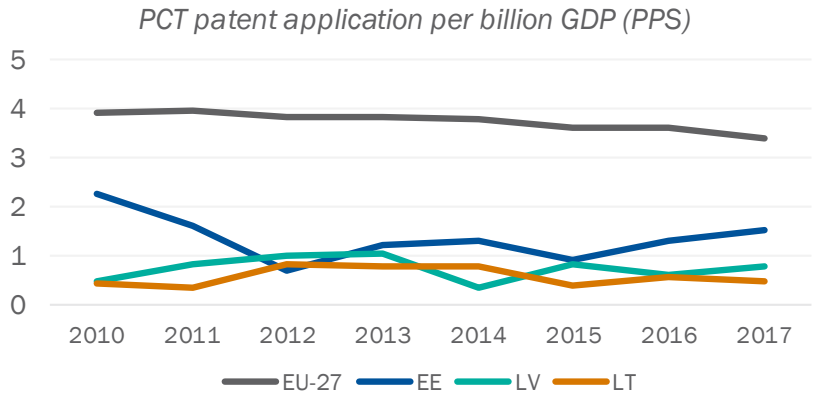
R&D expenditure has relied on limited public funding …



… reflected in the countries' weaker patent output



Sources: European Commission (2020a).

Research and development (R&D) activity in the Baltic states seems to be more limited than the EU average. While non-R&D innovation expenditure – such as spending on ICT systems, market research and product design – in Estonia and Lithuania is above the EU average, Baltic firms do not seem to be prioritising R&D spending that could drive more frontier innovation (European Commission, 2020a). In Estonia, public and private spending seem to be quite balanced, but data suggest that in 2011 and 2012, the private sector was doing far better, on a par with the EU average. In Latvia, the gap between public and private R&D spending is high and the level of private spending is significantly lower (see top left-hand chart). In Lithuania, public spending as a share of GDP has decreased slightly in recent years, while private R&D funding is also lower than that of Estonian or EU firms.

Private R&D remains highly concentrated, while the ecosystem heavily relies on EU funds. The firms that spend on R&D in the Baltic states are also highly concentrated. In Estonia, 0.3 per cent of all firms invested in R&D, while in the ICT sector just 13 firms conducted 90 per cent of R&D in 2016 (European Commission, 2020c). This may be related to the large majority of firms being SMEs, limiting their ability to invest resources in R&D. This strengthens the case for a continuation of public R&D programmes and better public-private cooperation. In the 2014-20 EU budget, more than €610 million of EU structural funds were allocated to Estonia, more than €510 million to Latvia and about €670 million to Lithuania for R&D projects (European Commission, 2020d). The national contribution to such programmes has been about 50 per cent of the EU contribution in Estonia, but less than 20 per cent in Lithuania and Latvia.

Human capital seems less available, despite a high rate of tertiary education. At EU-27 level, in 2017, the average number of new doctoral graduates per 1,000 people was 1.94, while in Estonia the ratio was 1.3. Latvia and Lithuania were at the lower end of the scale, with ratios of 0.55 and 0.88, respectively (European Commission, 2020a). This suggests that although an above-EU-average number people complete tertiary education, fewer graduates continue their studies at doctoral level, limiting the supply of researchers that could feed into the R&D ecosystem. This is supported by a lower-than-average output and quality of patents and scientific publications (see bottom left-hand chart).

Strategies and public initiatives create a strong push factor, but limited demand is a bottleneck. In recent years, the authorities in the Baltic states have undertaken several programmes and reforms to support their R&D ecosystems. Estonia, for example, aligned its R&D, innovation and entrepreneurship strategies and launched numerous public funding programmes. While significant support has been allocated, stakeholders consulted for this report suggest a lack of private-sector uptake and engagement in R&D. This may be down to small market size, among other things, which cannot accommodate such investments, as well as entrepreneurs' aversion to investments in risky ventures.[1]

[1] Stojčić et al (2020), among others, suggest that pull (demand-side) policies, such as public procurement for innovation, could stimulate corporate R&D investment.

4.1. Productivity growth and innovation

4.1.7. The digitalisation of firms in Latvia lags that of the EU, but is decent in Lithuania and Estonia

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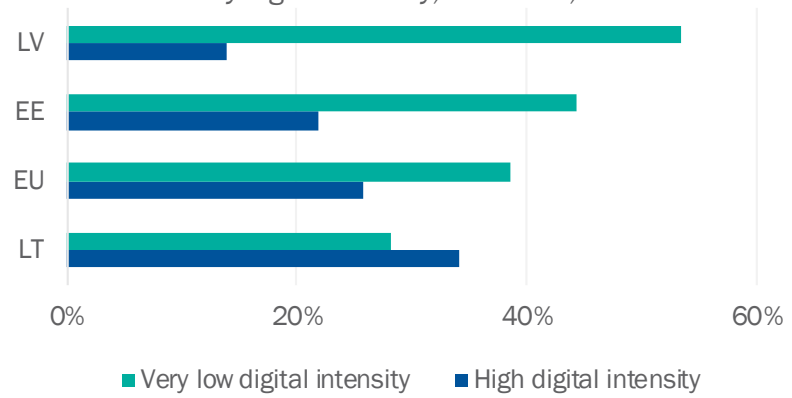
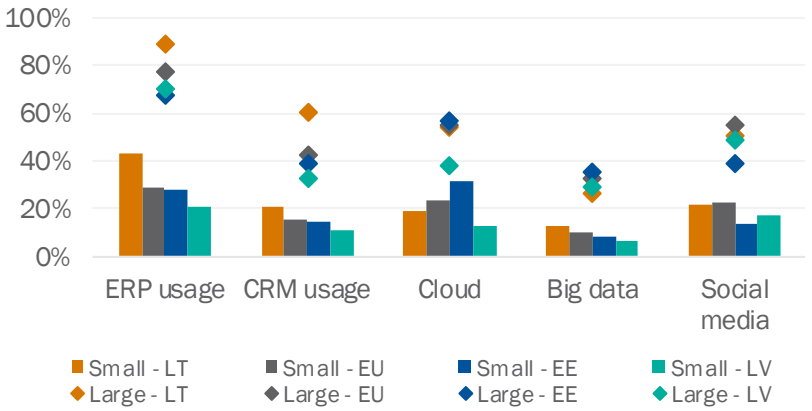
Digital intensity is the highest among Lithuanian firms

Firms by digital intensity, % of firms, 2019



Latvian firms seem to lag regional peers on digitisation

Firms using digital tools, % of firms, 2019



Sources: European Commission (2020b).

Lithuanian firms have been leading in terms of business digitalisation. According to the Digital Economy and Society Index 2020, Lithuanian firms have the highest incidence of digitalisation in the Baltic states (also among CEB peers) and report greater digital adoption than the EU average (see top left-hand chart) (European Commission, 2020b). In addition to leading on the use of enterprise resource planning (ERP), CRM and Big Data tools, they also lead on the electronic sharing of supply-chain information, digital marketing and the use of e-invoices. Estonian and Latvian firms, in contrast, seem to lag the EU average on most digital tools, with the exception of cloud infrastructure use by Estonian firms and using websites with relatively advanced functionality in both Estonia and Latvia (see bottom left-hand chart). These data suggest potential for more digitalisation of Latvian firms to support higher productivity growth.

Small firms in Lithuania seem to be closer to larger firms in terms of digitalisation. While large and small firms have a less pronounced difference in terms of productivity, especially in Estonia, when it comes to digitalisation, SMEs lag their larger counterparts. Firms are the most digitalised in Lithuania, where more than 30 per cent of SMEs are digitally intensive compared with more than 60 per cent of large firms. In Estonia and Latvia, only 21 per cent and 13 per cent, respectively, of SMEs are highly digital, compared with 59 per cent and 43 per cent of large firms (European Commission, 2020b).

Estonian and Latvian firms are not leveraging e-commerce as much as Lithuanian ones or other EU peers. In 2019, more than 24 per cent of Lithuanian firms engaged in e-commerce, the highest in the CEB region, compared with almost 18 per cent of Estonian and 11 per cent of Latvian firms (European Commission, 2020b). However, large firms in the Baltic states are less active than the EU average in this area, meaning that Lithuanian and Estonian SMEs are relatively advanced, on a par with the EU average or higher (with the exception of Latvia, where large firms are still ahead of SMEs).

Baltic firms make less use of ICT talent than other EU countries. First, only Latvian firms reported employing ICT specialists at a level similar to the EU average (about 20 per cent) in 2019, with the share of Lithuanian and Estonian firms around 15 per cent (European Commission, 2020b). The gap between SMEs and larger firms here is significant, as most large firms report employing ICT specialists, with the exception of Estonia, where around 65 per cent of large firms do so (compared with a 75 per cent average in the EU). In terms of supply of ICT talent, the Baltic states lag their CEB peers on the number of STEM graduates – Lithuania had 18 graduates per 1000 inhabitants, Estonia 16 and Latvia almost 13 graduates in 2016 – lower than Slovenia, the best-performing country in CEB region, with 33. Still, 42 per cent of individuals in Estonia, 36 per cent of Lithuanians and 29 per cent of Latvians report having better-than-basic software skills (41 per cent EU average), creating a solid base for ICT-related employment. This is underpinned by below-EU-average hard-to-fill ICT jobs in all three countries, though further skills supply is needed to support the digitalisation of firms (Adarov and Stehrer, 2020) (see more on slide 4.4.3).

4.1. Productivity growth and innovation

4.1.8. Existing business and investment climate barriers are limited, but addressing them will unlock additional business dynamism

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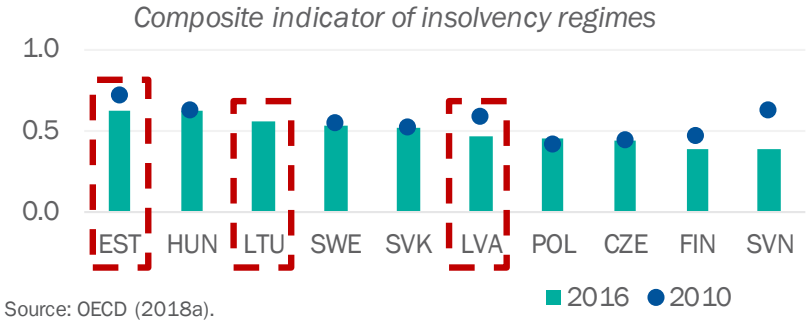
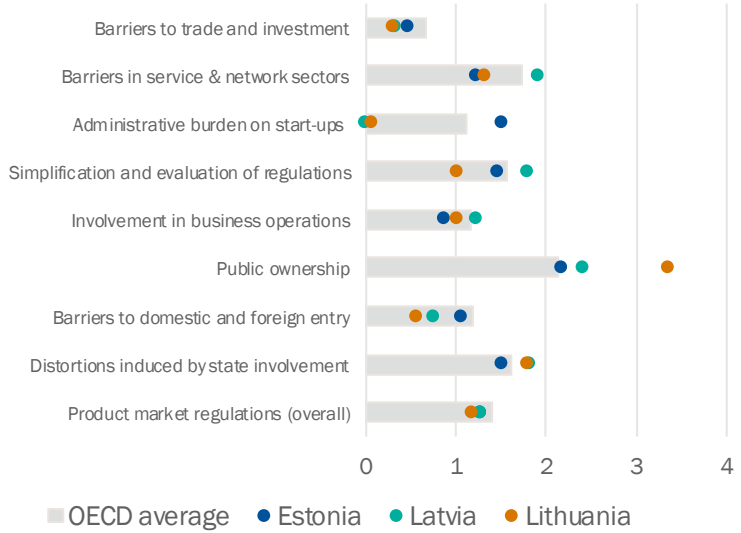
for Reconstruction and Development

Insolvency regimes are too rigid in Estonia and Lithuania



Source: OECD (2018a).

Product market regulation[1] in line with the OECD



[1] A lower composite score indicates less burdensome regulation

Source: OECD (2018a).

The shadow economy is still considerable in Latvia. The Baltic Shadow Economy Index compiled by SSE Riga shows the shadow economy at 24 per cent of the total economy in Latvia in 2019, 18 per cent in Lithuania and 14 per cent in Estonia (SSE Riga, 2021). Latvia has made significant progress since the financial crisis, even though the indicator has increased slightly from its 2016 low of 21 per cent. Its high share is mostly due to "envelope wages", which accounted for 44 per cent of the total gap and are less prevalent in the other two Baltic states. Lithuania and Estonia, in contrast, have fluctuated around 15-20 per cent for the past 10 years. Solving this issue will be important, as competition from the informal sector has been associated with negative firm performance. Tax compliance is also limited in Lithuania, which boasts among the lowest tax revenues as share of GDP. In 2018, the European Commission estimated the VAT gap in Lithuania at around 26 per cent, or €1.2 billion. This was lower in Latvia (at 9.5 per cent) and Estonia (5.2 per cent) (European Commission, 2020e).

Insolvency regimes have been too lengthy and costly for entrepreneurs, particularly in Lithuania and Estonia. In Estonia, an average insolvency procedure in 2015 took around three years, the longest period in the OECD (McGowan and Andrews, 2018). Moreover, prevention and early-warning systems are limited in Estonia and Lithuania. Bills amending the regimes have been enacted in both countries with a view to streamlining the process and supporting a more dynamic private sector.

Corporate governance has improved for the most part since OECD membership. While governance has improved and is high at listed state-owned companies, private family firms are lagging in adopting corporate governance procedures that might affect their growth prospects, the Baltic Institute of Corporate Governance (BICG) said in an interview for this diagnostic. The role of boards of directors, the use of strategic management principles, reporting and control are still weak in most private companies, especially small firms.

Corporate succession will become a more pressing issue in the coming years. Baltic firms, especially SMEs, are still on their first generation of managers, who founded their companies in the early 1990s are still control them. However, stakeholders interviewed for this report (particularly the BICG) highlighted that some firms are already pondering the managerial transition and that ownership, management and corporate governance issues may arise down the line. According to the BICG, recent transitions to professional managers have not been successful in most cases. This means the government needs to support and build awareness of possible succession models, taking into account other priorities, such as capital market development and potential listings.

Entrepreneurship is more widespread in the Baltic states than in the EU more broadly. Early-stage entrepreneurial activity is significantly higher than the EU average in the three Baltic states. In terms of scale-up density, Estonia has been one of the leaders in Europe, with Lithuania around the EU average and significantly above most CEB peers (Startup Europe Partnership, 2019).

Young, high-growth firms are developing well in Estonia. In the Global Start-up Rankings 2020, Estonia ranks 11th, above many advanced economies, while Lithuania ranks 15th (Startup Blink, 2020). Startup Estonia (2020) listed 1,042 firms in 2020, including scale-ups that are already operating globally, such as the online payments provider Transferwise and mobility provider Bolt. The largest sectors in terms of turnover are business software and services, adtech and creative tech, followed by the fintech sector. In 2019, Estonian start-ups employed 5,944 people for an average salary 68 per cent above the national average. However, 64 per cent of employees were men and the large majority were less than 40 years old. This risks widening the productivity and welfare gaps between these high-growth young firms and the rest of the country's SMEs. The Estonian start-up ecosystem benefited largely from the early digitisation of government. In addition, the early success of several IT companies, such as Skype, formed a critical mass of experienced – and rich – entrepreneurs, ready to invest in local enterprises and offer support.

Baltic start-ups seem to be "born global", but are limited to the ICT space and tend to move away from the region. Local start-ups have been increasingly moving to more developed markets and opening offices in the US and London, increasing the exit opportunities for VC funds and capital availability for later stages of growth (Vienna Initiative, 2020). This creates the risk of financial benefits from startup success accruing abroad.

Lithuanian ecosystem has developed a specialisation in fintech. Lithuania's fintech and blockchain sandboxes allow the live testing of financial innovations under the guidance of the central bank. This has led to the rapid growth of fintech-related start-ups. Nevertheless, in terms of per capita venture capital investment, Lithuania continues to lag Estonia.

The Latvian ecosystem is lagging due to its later start. In the aforementioned rankings, Latvia lags in 36th position, though this is an improvement of nine positions since 2019. While venture capital investment in Estonia has been significant and has grown in Lithuania in recent years, investments in Latvian start-ups remain low. Moreover, Latvian culture is slightly more risk averse, as confirmed by several private and public-sector stakeholders interviewed for this report. Some 42 per cent of population fears failure, preventing them from setting up a business – higher than in most CEB countries (Vienna Initiative, 2020).

A lack of skilled talent and limited domestic demand are inhibiting sectoral growth. Surveys note the lack of a skilled workforce, though this has been partly offset by immigration from Ukraine, Belarus and Russia. A lack of demand, due to the small sizes of the Baltic economies, may also be hindering faster growth. This is why many larger firms relocate their headquarters to Silicon Valley, London and other cities in western Europe.

4.2. Alternative sources of finance

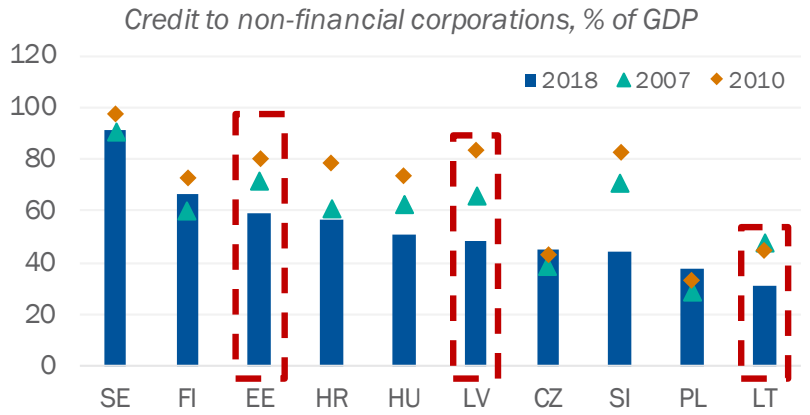
Baltic firms have limited access to non-bank finance as alternatives are at an incipient stage of development

4.2. Alternative sources of finance

4.2.1. Capital-market funding for the private sector remains limited, while bank financing has been declining

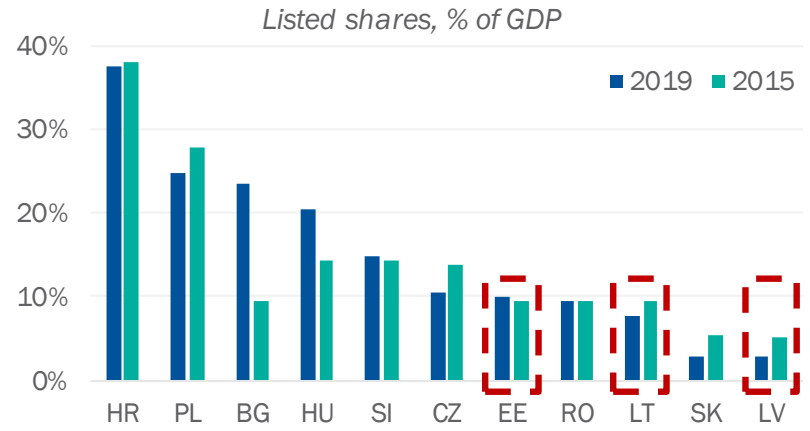
European Bank
for Reconstruction and Development

Credit growth has been slower than GDP growth



Sources: Eurostat (2020k).

The Baltic states lag CEE peers on equity market size



Sources: Eurostat (2020a); ECB (2020a); authors' calculations.

Financing of the private sector remains constrained. The private sector still heavily relies on loans from commercial banks, although firms have started to look for alternative sources of finance in recent years. The small size of the three domestic capital markets, including the stock and bond markets, coupled with low liquidity (limited number of transactions), deters the participation of both domestic and foreign investors (see more on slide 4.2.3). In general, within the Baltic region, Estonia and Lithuania have the most developed markets, while Latvia is lagging.

The banking sector is well capitalised, but credit growth dynamics have been mixed. Following scandals with regard to money laundering through Baltic banks and exposure to non-EU deposits, the banking sector has been deleveraging in recent years, so credit has not been keeping pace with the economy (see top left-hand chart). Lithuania records the lowest credit to private firms as a share of GDP in the CEB region, though the stock of business loans has increased slightly in recent years. Loan growth in Estonia has stagnated since the financial crisis, while it has been decreasing in Latvia. Banks remain profitable across the region, with low shares of non-performing loans and high capital adequacy ratios, but the sector remains relatively concentrated in Lithuania and Estonia (European Commission, 2020f).

The size of local stock exchanges remains modest. Public equity markets in the Baltic states are among the smallest in the EU, with a total market capitalisation-to-GDP ratio below those of most of their peers in the CEB region (see bottom left-hand chart). There are currently only 60 companies listed on the main and secondary lists of the combined three national exchanges, none of them with a market capitalisation exceeding €1 billion. The three countries have recently established support mechanisms, with EU assistance, to decrease the cost of listing for SMEs (see more on slide 4.2.5). The small size and low liquidity of equity markets has prompted major index providers to continue to classify the region as "frontier" – Latvia not even being classified by MSCI – despite sound macroeconomic and institutional frameworks.

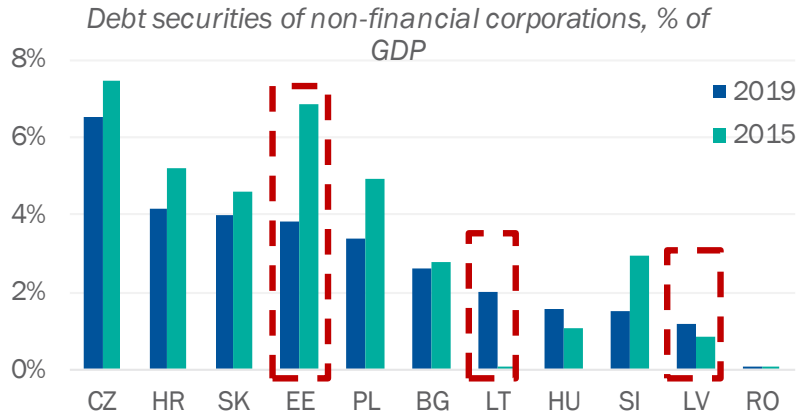
Strong investor appetite for the initial public offerings (IPOs) of SOEs could foster the growth of equity markets, especially in Latvia. The IPO of the state-owned Port of Tallinn in 2018 for €147 million generated strong interest, as reflected in its hefty oversubscription and favourable pricing. Investors from 22 countries placed orders and retail investors ended up with 21 per cent of the shares offered. In Lithuania, the IPO of state-controlled energy company Ignitis and, in Estonia, the upcoming IPO of Enefit Green have the potential to attract similar interest from domestic and foreign investors. Ignitis and Enefit Green would become the largest and third-largest companies on the Baltic main list, giving a significant boost to the size and liquidity of the market. Latvian SOEs have been slower in becoming public, in contrast, partly due to a lack of political will, according to stakeholders consulted for this report.

4.2. Alternative sources of finance

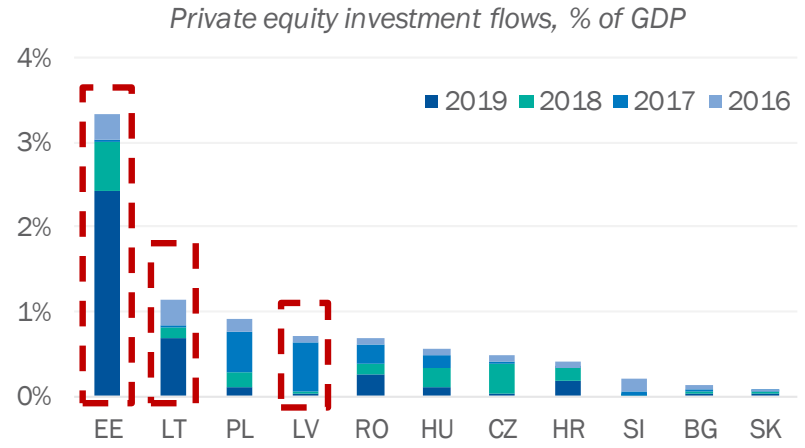
4.2.2. Debt markets remain limited, but alternative financing has gained traction thanks to public support

European Bank
for Reconstruction and Development

Estonian corporate bond market is in line with peers



Private equity has developed better than regional peers



The momentum behind the development of corporate bond markets has been mixed. While Estonia remains the most developed market in the region (its stock of debt securities of non-financial corporations stood at 3.8 per cent of GDP at end 2019) and comparable in size with peers such as Croatia (4.2 per cent) and Slovakia (4.0 per cent), its market size has declined significantly since mid-2018 (down 42.3 per cent in value) and is currently well below 2015 levels (see top left-hand chart). The market dynamic has been much more favourable in Lithuania, with the outstanding amount of corporate bonds reaching 2.3 per cent of GDP at end 2019, something quasi-inexistent in 2015. In Latvia, the market has stagnated over the past few years and currently totals just 1.2 per cent of GDP. The listing of bonds on local exchanges in the region is marginal, as most issuance remains private.

The development of the sovereign bond market could aid the corporate segment. Estonia had by far the lowest public debt to GDP ratio in the EU in 2019 (8.4 per cent), resulting in a near inexistent float of sovereign bonds. This could hinder the growth of the corporate segment, as sovereign bonds typically serve as benchmark for pricing debt securities. The sovereign debt float is far bigger in Latvia and Lithuania, though they still lack long-date issuance that could act as a reference for pricing infrastructure-related bonds. Sovereign bonds listed on domestic markets accounted for just 5.6 per cent of regional GDP in 2019, with Estonia having no sovereign instruments listed at end 2019. Moreover, the Eurosystem asset purchase programme has crowded out investment opportunities and weighed on risk-free asset rates.

The Covid-19 crisis could give impetus to debt markets. The surge in sovereign debt issuance in the three countries since mid-2020 to support the Covid-19 response and recovery has the potential to boost the whole bond market. It could also help institutional investors to invest more domestically. However, as of end-2020, the authorities in Estonia and Lithuania have also relied on loans from international institutions, such as the Nordic Investment Bank and the Council of Europe Development Bank, while Estonia's Eurobond issuance of €1.5 billion was done on the Dublin Stock Exchange, not locally.

Private equity is an alternative source of funding and has strong support from public entities. Between 2015 and 2019, private equity investment in the Baltic states amounted to €1.7 billion (or 1.6 per cent of aggregate 2019 GDP), making it one of the most dynamic venues in Europe for this source of funding. Fundraising has largely benefited from the support of national promotional institutions (such as Altum, Invega and Kredex) and supranational organisations (European Investment Fund, EBRD) over the past decade (almost 50 per cent of money raised, according to Deloitte). The continuation of public and international financial institutional funding schemes will be essential to the expansion of such alternative sources of funding and creating a critical mass of investors and investment pipeline. A potential bottleneck is the reluctance of entrepreneurs to accept equity investments, according to stakeholders interviewed for this report (such as Finance Latvia), which underscores the need to build awareness about such financing options.

Sources: Eurostat (2020a); ECB (2020b); European Commission (2020a); authors' calculations.

4.2. Alternative sources of finance

4.2.3. Domestic investment opportunities for institutional investors are scarce, limiting their presence

European Bank
for Reconstruction and Development

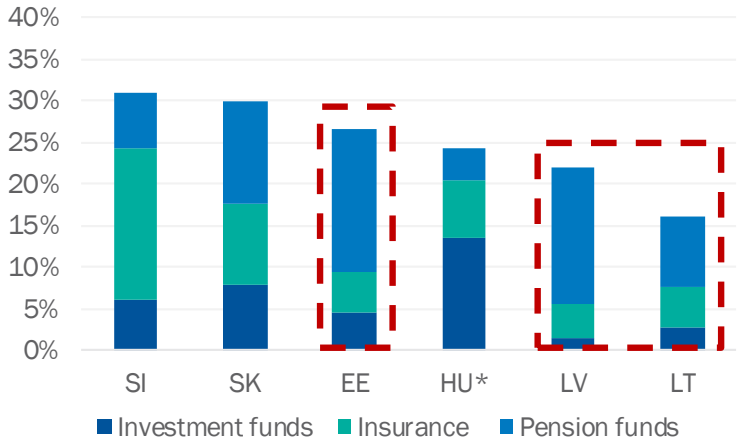
The institutional investor base remains modest in size. Total assets under the management of pension funds, insurance corporations and investment funds in 2019 stood at 26.4 per cent of GDP in Estonia, 21.9 per cent in Latvia, and 16.0 per cent in Lithuania, similar to CEB peer levels (see bottom left-hand chart). Pension funds account for the majority of assets in Estonia and Latvia, while their more limited presence explains the weaker investor base in Lithuania. Moreover, insurance funds account for a small share of assets under management, indicating significant upward potential for this segment.

Pension funds in the Baltic states have grown rapidly in the past few years. Total assets under the management of pension funds in the region as a whole increased 80 per cent between 2016 and 2019. This build-up was supported by the countries' three-pillar pension system, whereby compulsory contributions are channelled to second-pillar funds, sustaining sector growth. Major pension reform was initiated in Estonia in 2019, however, to make the second pillar voluntary.

Domestic institutional investors only place a small portion of their assets on the domestic market. Investors in the region regularly cite the limited investment options on the domestic capital markets, forcing them to invest largely abroad. Some 83 per cent of the Estonian second pillar, for instance, worth about €5 billion, was invested abroad over the years (IMF, 2020). Moreover, the market performance of pension funds has been consistently below market benchmarks, jeopardising trust in the system and prompting the aforementioned reform.

Insurance funds remain modest, while pension funds are smaller in Lithuania

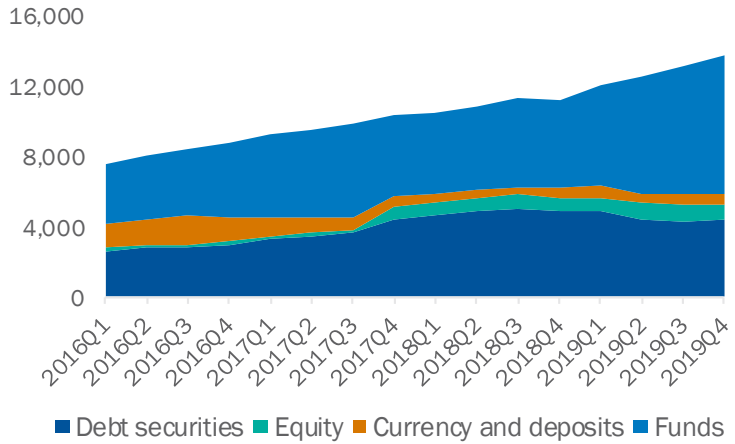
Total assets under management of institutional investors at end 2019, % of GDP



Source: Eurostat (2020a); ECB (2020c); OECD (2020b) (for HU).

Funds are the main asset class of Baltic pension funds

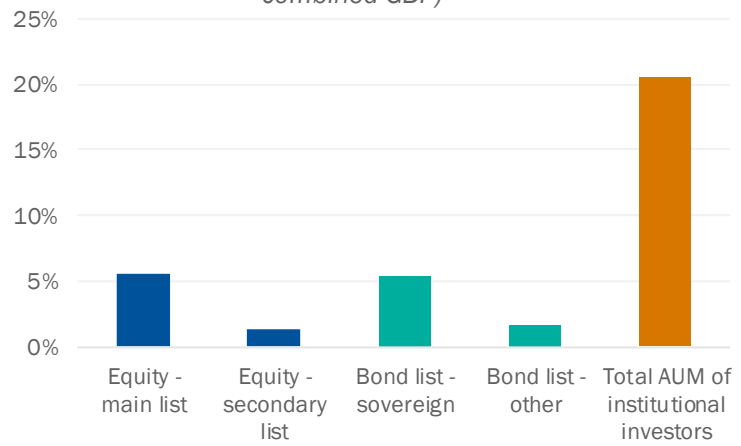
Composition of assets under management of pension funds in the Baltic states, € million



Source: ECB (2020d).

Domestic markets cannot accommodate demand from institutional investors

Securities listed on Baltic exchanges vs. institutional investor assets (2019, % of combined GDP)



Source: Eurostat (2020a), Nasdaq Baltic (2020).

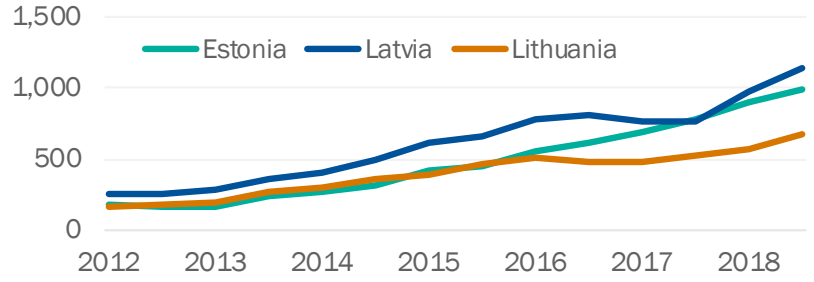
4.2. Alternative sources of finance

4.2.4. The pan-Baltic capital market is starting to take shape, but more could be done to introduce new products and boost demand

European Bank
for Reconstruction and Development

Cross-border investments are picking up

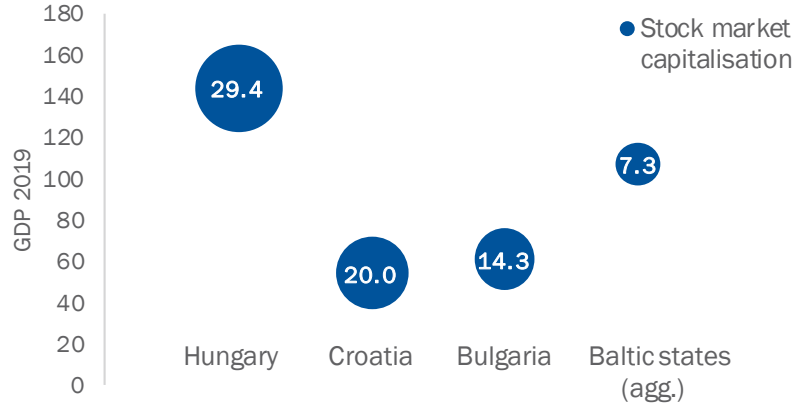
Total cross-border portfolio investment holdings in the Baltic region, € million



Sources: IMF (2020b); authors' calculations.

The size of the Baltic stock market relative to combined GDP is small compared with regional peers

Stock-market capitalisation and level of GDP (2019, € billion)



Source: Federation of European Securities Exchanges (2020); Nasdaq Baltic (2020); Eurostat (2020a); authors' calculations.

The establishment of an integrated pan-Baltic capital market is at the core of the region's capital-markets development strategy. The integration of the three national markets is a necessary step to reach critical size, attract investors and create a larger pool of liquidity. The three countries signed a memorandum of understanding in November 2017 confirming the goal of harmonizing capital-market regulation and removing investment barriers across the region. This agenda falls within the capital markets union initiative at EU level. Progress on a number of initiatives has been noted and the *de facto* financial integration has increased rapidly in parallel, as reflected by the dynamic progression of intra-regional cross-border portfolio investment holdings (see top left-hand chart).

Significant progress has been made on establishing covered bond legislation in the region. Estonia adopted its new framework for covered bonds in March 2019, while Lithuania submitted a draft law to parliament in September 2019. Latvia started to work on a draft text in 2019. The three legal frameworks will need to be aligned to enable issuance covered by pan-Baltic pools of assets. This would be attractive for large financial institutions operating in the region. Luminor Bank AS and LHV Bank, both based in Estonia but operating regionally, issued in 2020 the first two covered bonds in the region, thanks to the freshly adopted legal framework, raising €500 million and €250 million, respectively.

The Baltic states benefit from well-integrated market infrastructure. The three national central securities depositories (CSDs) were merged in 2017, resulting in the creation of Nasdaq CSD SE, legally based in Latvia. Iceland was integrated into this common CSD in 2020. Its high-standard straight-through processing is directly connected to the pan-European TARGET2-Securities platform, improving market access for other European investors. The connection of Nasdaq CSD SE to Clearstream Germany in December 2019 will further improve market access for foreign investors.

The adoption of a pan-Baltic single index classification would give a further lift to foreign investment. A single regional index could enable the graduation of the region to the emerging-economies category. As total assets under management linked to emerging-market indices are estimated around US$ 1.5 trillion worldwide, compared with US$ 75 billion for frontier markets, stepping up could generate large foreign investment flows and improve market liquidity. However, the combined size of the three markets remains small and additional efforts to list large-cap companies (>€1 billion) is needed on top of a single classification to meet index providers' criteria (see bottom left-hand chart).

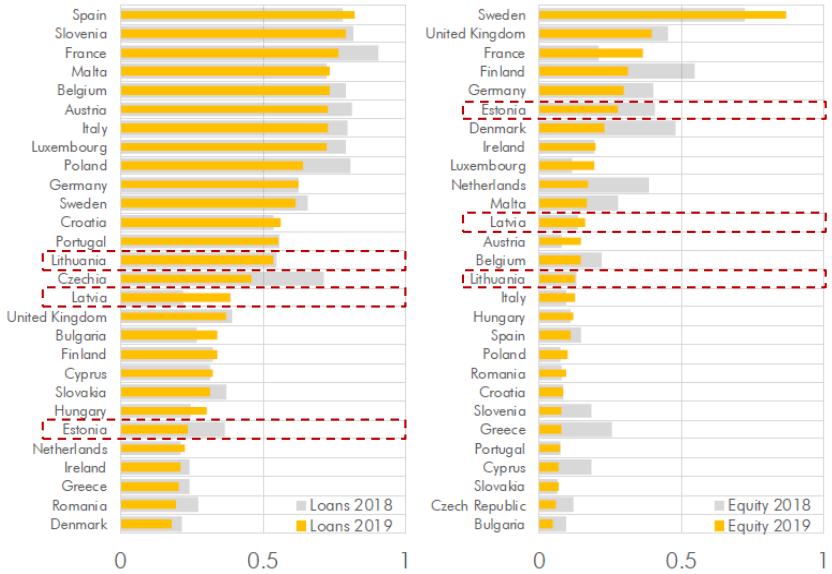
A regional approach could also benefit the development of new investment products. The adoption of harmonised regulations and common templates could significantly support numerous companies with pan-Baltic activities and the liquidity of new investment products, such as commercial paper (to address short-term funding needs, especially in a distressed environment), or real-estate investment trusts (REITs) (which offer long-term investment options).

4.2. Alternative sources of finance

4.2.5. The SME financing gap is still larger than in advanced economies, mainly due to limited access to bank financing

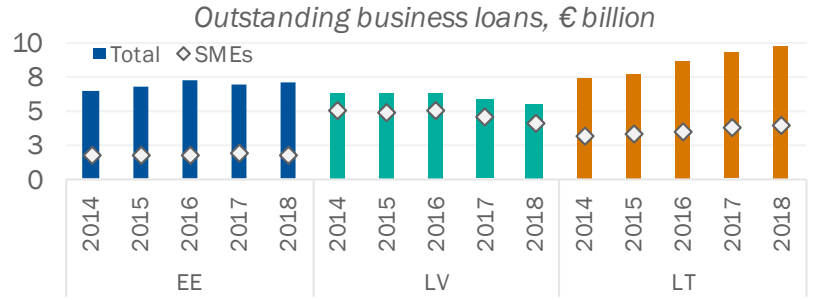
European Bank
for Reconstruction and Development

Bank financing of SMEs lags that of the EU



Source: EIF (2020).

SME loans have barely increased in recent years



Source: OECD (2020c).

Baltic firms' reliance on banks as a source of external financing is below the EU average. External sources account for 30 per cent of financing for Latvian and Lithuanian firms and only 23 per cent for Estonian ones (EIB, 2020). Of all external sources, bank loans account for about 40 per cent in Lithuania and Latvia and 30 per cent in Estonia (lower than the 58 per cent average reported at EU level), as leasing covers more than half of the financing needs of SMEs.

The SME financing gap is still considerable in the Baltic states. About 20 per cent of SMEs in Lithuania and Latvia can be considered financially constrained, compared with just 8 per cent of Estonian SMEs (EIB, 2020). In the EIB Investment Survey (2020), 65 per cent of Lithuanian micro- and small enterprises reported access to finance as a long-term barrier to investment, compared with 37 per cent of medium and large firms. In Latvia, the gap was narrower, at a 72 per cent/54 per cent ratio, while in Estonia, 47 per cent of micro-enterprises and 39 per cent of medium and large firms cited finance as a barrier (EIB, 2020). At the same time, in 2018, 24 per cent of SME loan applications were rejected in Lithuania, 17 per cent in Latvia and 11 per cent in Estonia (European Commission, 2019a; 2019b). The EU average stood at about 6 per cent in the same period. This is down to the fact that Lithuanian firms' dissatisfaction with collateral requirements is twice the EU average (EIB, 2020). Moreover, the interest rates on small loans (of less than €250,000) in Estonia and Latvia are more than double the eurozone average, at about 4 per cent (EIF, 2020). The interest-rate spread between large and small loans is about 2 per cent in Estonia, but less than 1 per cent in Latvia and Lithuania. This creates a relatively large debt gap in Estonia,[1] estimated at 5.5 per cent of GDP in 2018 (FI-compass, 2020). In contrast, the equity financing gap in the Baltic states is estimated at about 11 per cent of combined GDP (fi-compass, 2020).

National promotional agencies and credit institutions are facilitating access to finance. Credit guarantees issued to SMEs accounted for about 0.5 per cent of GDP in Latvia and Lithuania (or €180 million and €235 million, respectively), while Estonia is at the lower end of the EU ranking, with €101 million worth of guarantees outstanding at the end of 2019 (EIF, 2020). The national promotional agencies have been quite active in promoting these instruments to facilitate SME financing. This is also the case for more innovative SMEs (see more on next slide). The Covid-19 pandemic has increased the role played by these institutions, as they have been the key implementers of the state credit guarantee schemes devised to facilitate access to finance to cover working-capital needs as well as to support investment.

A regional capital-market development accelerator fund will be implemented. Along with the development of a pan-Baltic capital market, Estonia, Latvia and Lithuania will support access to finance for pre-IPO, exchange-traded SMEs on the growth market, in line with EU Capital Markets Union (CMU) objectives and CMU High Level Forum recommendations, supporting the development of financing instruments to smaller firms (European Commission, 2020g).

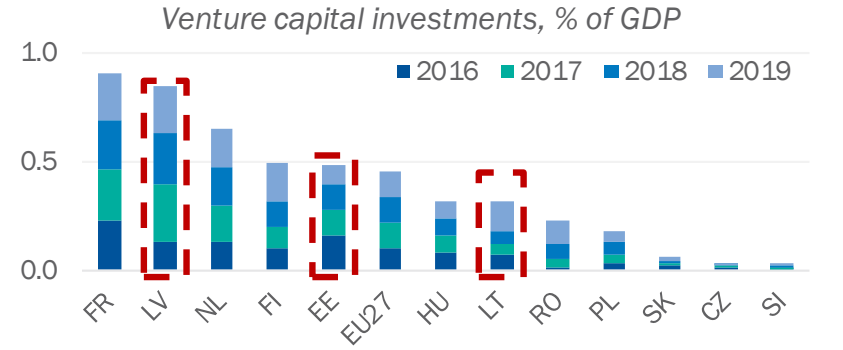
[1] An estimate of the population of SMEs that "should have" received financing (because they were financially viable), but did not (for various reasons), and "how much" this SME population should have received had markets been efficient.

4.2. Alternative sources of finance

4.2.6. Risk capital instruments are supporting innovation growth as the venture capital ecosystem matures

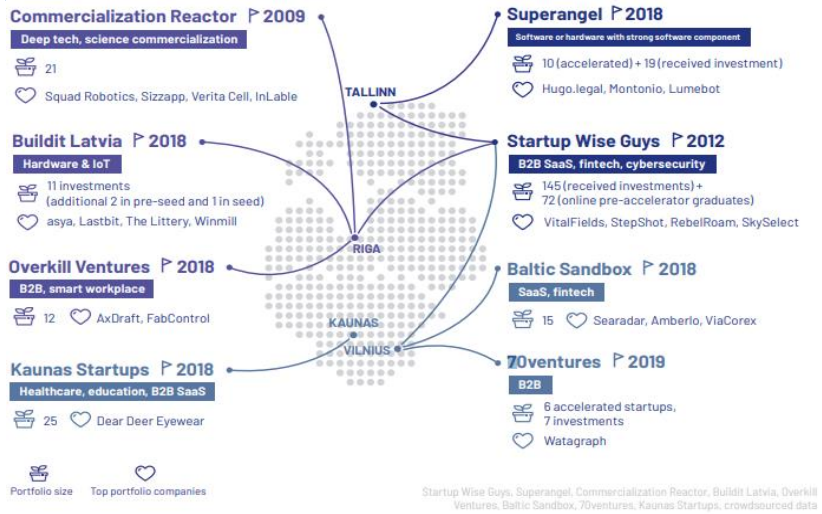
European Bank
for Reconstruction and Development

Venture capital investments are increasing in the Baltic states



Source: European Commission (2020a).

The Baltic accelerator ecosystem is growing



Source: Startup Wise Guys (2020).

The availability of venture capital has fuelled the innovation ecosystem, supported by public and international financial institution funding. Baltic venture-capital (VC) activity stands out in the EU11 region,[1] with the three states capturing 38 per cent of cumulative VC investment between 2013 and 2018 and 28 per cent of the funding rounds, mainly through the 17 active fund managers in the region (Vienna Initiative, 2020). While Latvia and Lithuania had the highest stock of VC to GDP in the region in 2019, Estonia had received most investments since 2013, totalling around €1.2 billion (see top left-hand chart). Fundraising has benefited significantly from the creation of the Baltic Innovation Fund in 2012 and a five-year extension of the initiative in July 2019. A €156 million fund-of-funds will continue to support the growth of start-ups in the medium run. Gaps have been identified in the later financing stages, however, where capital requirements are higher, and in the very early stages, where the risk is too high for some investors (EIF, 2020). This suggests the need for continued public and international financial institutional support to address these gaps.

The network of local accelerators has expanded very recently, some of them adopting a pan-Baltic approach. The first accelerator in the region was created in Latvia in 2009 and activity has flourished over the past two years with the establishment of six new structures. The largest accelerator in the region, Startup Wise Guys, has made seed investments in more than 145 companies since 2012 and has been expanding its activity across the region since 2019. The three countries also have active business angel associations (Estban, Latban and Litban), which coordinate action to provide start-ups not only with funding, but also with mentoring, knowledge and networking. Estban currently has the most developed network, comprising 147 members and investing more than €50 million since 2013. In terms of angel investors, EBAN (2019) data shows that in 2018, Estonia had by far the greatest share (186) of the total 407 investments in central, eastern and southeastern Europe, with Lithuania and Latvia lagging.

The Fintech ecosystem offers alternative funding solutions. Crowdfunding and peer-to-peer (P2P) lending platforms have grown rapidly in recent years to offer alternative debt-based funding in the region, with the three countries trailing only Poland, a much larger market, in terms of volume. In 2017, €92 million of mostly debt funding was invested in Latvia, €75 million in Estonia and €60 million in Lithuania (Ziegler et al., 2019). The establishment of regulatory sandboxes is supporting the development of a sound legal and regulatory framework, which is crucial to fostering sustainable expansion of these funding solutions. In this vein, the Bank of Lithuania launched its regulatory sandbox in 2018 and the country has established itself as one of the leading fintech jurisdictions globally.

[1] The Baltic states, Poland, Hungary, Slovak Republic, Czech Republic, Slovenia, Croatia, Romania and Bulgaria.

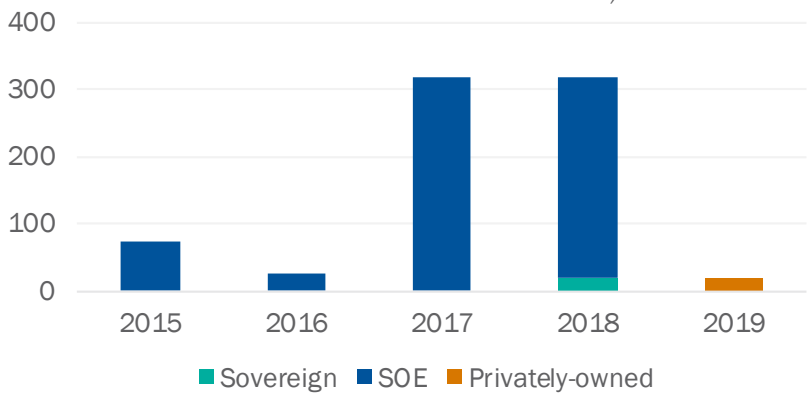
4.2. Alternative sources of finance

4.2.7. Green finance activity is dynamic and supporting the growth of capital markets

European Bank
for Reconstruction and Development

Green bonds in the Baltic states have been mostly issued by large utilities

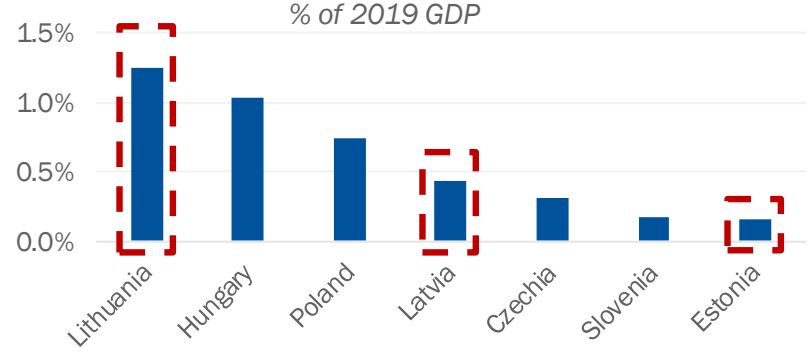
Green bond issuance in the Baltic states, € million



Source: EBRD's calculations based on available market information.

Lithuania is leading in the CEB region

Cumulative green bond issuance 2012-20, % of 2019 GDP



Source: Authors' estimates based on market information.

Lithuania has been a pioneer in the issuance of sovereign green bonds. The government of Lithuania issued the region's first sovereign green bond to finance a loan to the Public Investment Development Agency (VIPA) in May 2018. The first issue allowed it to raise €20 million and further issuance should bring the total to €68 million. The securities have been listed on the Nasdaq Baltic debt securities list and received a green label from the Climate Bonds Initiative.[1] The proceeds of the issuance are helping to fund the renovation of buildings to improve energy efficiency and reduce heating costs. Including Lithuania, only been 12 countries globally have issued sovereign green bonds to date (see bottom left-hand chart). Lithuania is also developing an action plan to strengthen its green financial ecosystem.

Despite the small size of the overall bond market, the green segment has proved dynamic for companies in the energy sector. In 2015, the Latvian state-owned energy provider, Latvenergo, issued the first green bond by a CEB state-owned company, initiating a programme that enabled it to raise €100 million. Under its green bond framework, the company plans to issue an additional €200 million of green bonds in the coming years. The Latvian state-owned development finance institution, Altum, issued its first green bond in 2017, raising €20 million to finance projects in the field of energy efficiency and renewable energy. Ignitis, the state-owned Lithuanian energy utility issued two €300 million green bonds in 2017 and 2018 to finance the country's transition to a sustainable and modern electricity network. The successful issuance of a €20 million green bond in 2019 by the privately-owned Lithuanian organic producer, AUGA, has demonstrated the potential to develop green instruments in the region beyond the state-owned energy sector.

On the equity side, in 2018, green real-estate fund EftEN launched the first locally managed green property fund in the region. Incorporated in Estonia, this green private real-estate equity fund invests in commercial properties across the three Baltic states. The fund seeks to implement a sustainability improvement programme in its investment properties, through infrastructure upgrades or resource-efficient facilities management.

Scaling-up the issuance of green instruments would attract high demand from foreign investors. Greater issuance of green instruments would help attract significant foreign investment flows in the context of EU's plans to transition to a zero-carbon economy (see more in section 4.3). Moreover, the Baltic states could reap the benefits of the strong investor base of the neighbouring Nordic countries, whose sovereign and pension funds have set very ambitious green investment strategies. The development of various sets of green indices by index providers is also expected to bring large inflows to green issuers. Improving ESG disclosure would increase Baltic companies' chances of integration into such indices.

[1] An international NGO that certifies securities as green if the proceeds help address climate change issues.

4.3. Green transition

The Baltic states, particularly Estonia, need to make significant effort to meet the 2030 energy and climate targets

4.3. Green transition

4.3.1. Latvia and Lithuania are on track to meet most 2020 targets, but meeting the 2030 targets will require substantial efforts across the region

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Lithuania and Latvia are on course to meet most 2020 targets, but Estonia is trailing

NECP targets and current situation	Estonia			Latvia			Lithuania		
	Current situation*	2020 targets	2030 targets	Current situation	2020 targets	2030 targets	Current situation	2020 targets	2030 targets
GHG emissions (non-ETS sectors) vs 2005 levels	+17%	+11%	-13%	+8%	+17%	-6%	+6%	+15%	-9%
RES target in final energy consumption	30%	25%	42%	40%	40%	45%	24%	23%	45%
RES in transport	3.3%	10%	14%	4.7%	10%	14%	4.3%	10%	15%
Primary energy consumption	6.2 Mtoe	6.5 Mtoe	~ 5.3 Mtoe	4.7 Mtoe	5.4 Mtoe	4.3 Mtoe	6.3 Mtoe	6.5 Mtoe	5.4 Mtoe
Final energy consumption	3.0 Mtoe	2.8 Mtoe	2.8 Mtoe	4.2 Mtoe	4.5 Mtoe	3.6 Mtoe	5.6 Mtoe	4.3 Mtoe	4.5 Mtoe
Waste recycling	28%	50%		25%	50%		54%	50%	

To be missed To be met * Most recent data (mostly 2018), other two countries contain 2019 data

Transitioning to a greener economy may bring social and economic challenges for those reliant on heavy industry. Although the transition will yield significant net benefits, these will not be evenly distributed. It is likely to affect regions and people whose livelihoods depend on carbon-intensive assets. For example, more than 7,000 people are directly employed in the oil shale sector in the Estonian Idu-Viru region. In Lithuania, Kaunas, Telsiai and Siuliai counties rely on chemical, cement and energy producers. In Latvia's Vidzeme region, those reliant on peat extraction are also likely to be impacted by the green transition. Across the Baltic countries, there will be a need to ensure a just transition. The EU's Just Transition Mechanism aims to support affected regions and alleviate the socioeconomic impact of the transition by mobilizing €150 billion to be invested in reskilling programmes, facilitating employment in other sectors, improving energy efficiency, low-carbon technologies, and research and development (European Commission, 2020i).

The EU Green Deal, together with the Paris Agreement, frame the energy and environment strategy of the three states. In line with the Paris Agreement, which stipulates that the increase in global temperature must be kept below 2° C relative to pre-industrial levels, the European Commission proposed the EU Green Deal in response. It cites implementing policies that will cut carbon emissions by 50 per cent by 2030 from 1990 levels and make the EU climate neutral by 2050. In line with this overarching goal, the Baltic states put forward their National Energy and Climate Plans (NECPs) for 2030, setting rather ambitious targets (see Table 2).

Significant investments are required to meet these targets. Lithuania estimates the total investment needed to implement its energy and climate policies at €14 billion for 2021-30, of which the public sector could finance €9.8 billion (European Commission, 2019c). Transport accounts for 29 per cent of investment, while energy efficiency and renewables represent 18 per cent and 16 per cent, respectively. Latvia estimates investment of about €3.4 billion to 2030 – €550 million for energy efficiency and renewable energy measures in heating, around €1.7 billion for renovation of buildings and €1 billion to decarbonise the transport sector. In Estonia, €2.3 billion is expected to be invested to 2030 (European Commission, 2019d).

Tax policy will need to be updated. Environmental taxes as a share of revenues in Lithuania are lower than the EU average (2 per cent of GDP in 2018 compared with 2.4 per cent, respectively), while transport taxes are the second lowest in the EU (0.3 per cent of revenues from taxes compared with 1.2 per cent in EU). In Latvia, they accounted for 3.4 per cent of GDP and in Estonia 2.7 per cent of GDP in 2018. Therefore, more taxation based on CO_2 emissions and incentives for energy efficiency will be required to support the green transition.

Sources: EC (2020c), EC (2020d), EC (2020e)

4.3. Green transition

4.3.2. Estonia is the most carbon-intense economy in the CEB region due to the role of oil shale in producing electricity

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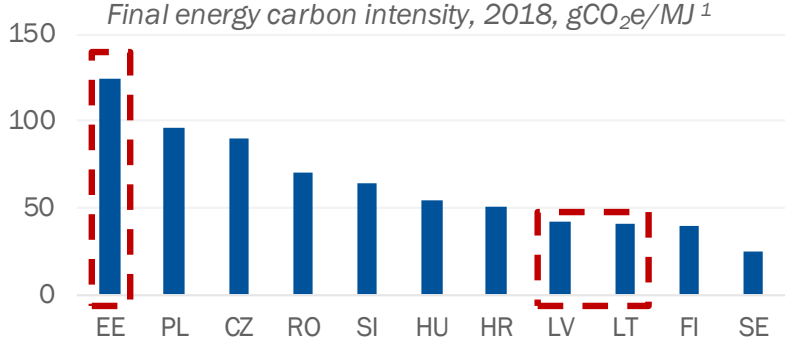
Final energy carbon intensity is high in Estonia

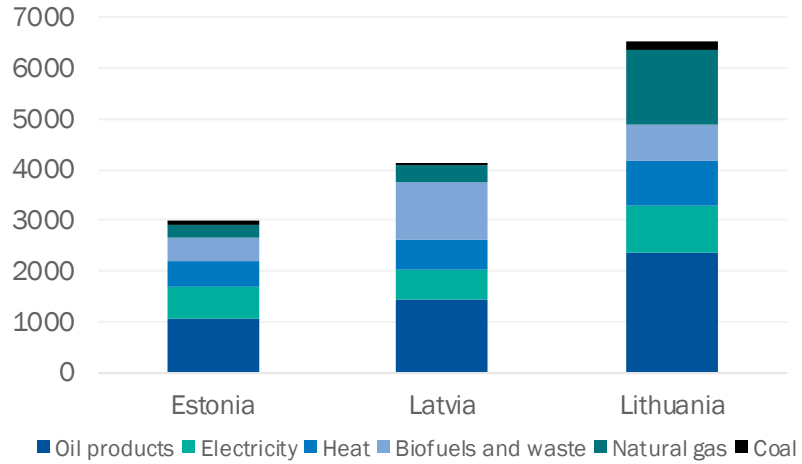
Final energy carbon intensity, 2018, gCO_2e/MJ [1]



Source: IEA (2020a); authors' calculations.

Energy consumption patterns are quite similar

Final energy consumption by source, Ktoe, 2018 [2]



Source: IEA (2020b; 2020c; 2020d); authors' calculations.

Estonia is the fourth most carbon-intense country out of the economies in which the EBRD invests. While Latvia and Lithuania's final energy carbon intensity is well below the EU, OECD and EBRD averages (the two least intense), Estonia's final energy carbon intensity is twice the EU average (see top left-hand chart). This is mainly due to electricity production based on oil shale. Energy-related emissions accounted for 89 per cent of Estonia's greenhouse gas (GHG) emissions, as the oil shale sector generated 72 per cent of Estonia's energy in 2018. Transport is the main driver of CO_2 emissions in Lithuania and Latvia. By comparison, Latvia and Lithuania emitted 0.2 kg of CO_2 per unit of 2015 GDP, while Estonia recorded 0.4 kg of CO_2 in 2019, after a continuous decline from 2013 (when it was 0.9 kg) (IEA, 2020d).

Energy consumption has increased slightly since 2005, most notably in Lithuania. While Estonia and Latvia exceeded 2005 consumption levels only in 2018, driven by energy-efficiency improvements, demand in Lithuania has increased significantly since 2015 and was almost 20 per cent higher in 2018 than in 2005. This is down to the growing transport and logistics sector (see more on slide 4.3.5). In general, consumption trends are in line with CEB peers.

Oil remains important in the Baltic states, but alternatives exist. All Baltic states rely on oil products for the lion's share of final energy consumption (35 per cent on average) due to their relatively large transport sectors. Biofuels play a fairly important role in Latvia (27 per cent), predominantly in heating, while Lithuania stands out with a high share of natural gas (22 per cent) thanks to its imports through the Klapeida LNG terminal and from Russia (see bottom left-hand chart).

The building stock and transport account for most energy consumption. Estonia and Latvia's final energy consumption is dominated by the residential, commercial and public services sectors (the built environment), which accounts for about half of energy consumption. Transport is the second-largest sector in terms of energy consumption; it is the largest sector in Lithuania (a 32 per cent share in 2018), on a par with the built environment (IEA, 2020b). Industry has a relatively high share in Latvia (22 per cent), suggesting it is more energy intense than the Estonian and Lithuanian industrial sectors.

Electricity generation in Estonia relies on oil shale. Although generation from oil shale halved in 2019 from 2018 and is expected to decrease significantly in the coming years, it remains a major source of electricity in Estonia. This recent decrease has been offset by imports from the Nordic countries, as well as new renewable capacity. In Latvia, renewable energy sources (hydropower, solar, wind and biofuels) account for half of electricity generation, with natural gas dominating the other half (see next slide). Lithuania became a major importer of electricity due to the closure of the Ignalina nuclear power plant (INPP) in 2009, which significantly decreased its generation capacity.

[1] gCO_2e/MJ is the ratio between grams of carbon dioxide equivalent per megajoule of energy produced or consumed.
[2] Ktoe is a unit of energy, measured as the amount of energy released by a tonne of crude oil.

4.3. Green transition

4.3.3. Latvia generates a higher share of electricity from renewables than Estonia and Lithuania, despite recent progress on wind and biofuels

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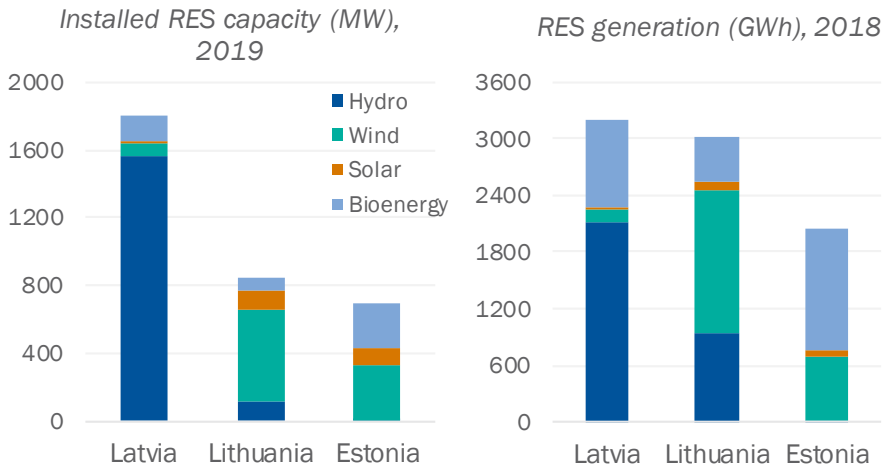
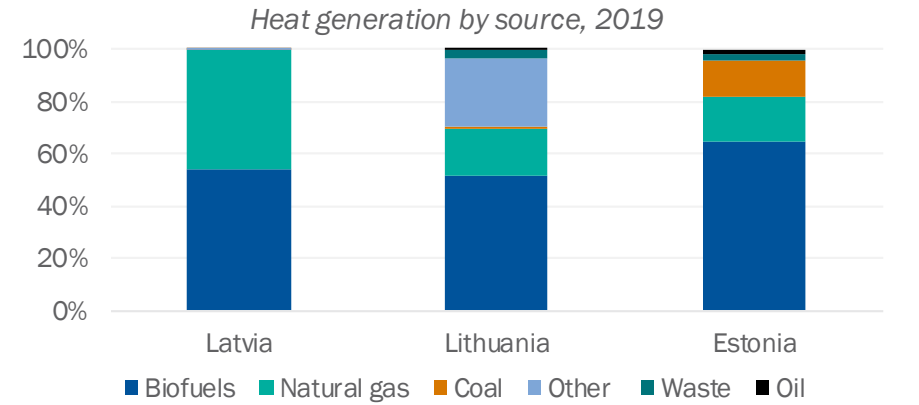
Renewables based on hydro in Latvia; Lithuania leads on wind



Source: IRENA (2020); authors' calculations.

Biofuels play a key role in heating buildings across the region



Source: IEA (2020b; 2020c; 2020d); authors' calculations.

Renewable energy sources (RES) account for a larger share of final energy consumption in the Baltic states than in their CEB peers. Renewables accounted for 40 per cent in gross final energy consumption in Latvia, 30 per cent in Estonia, and 24 per cent in Lithuania in 2018, above the EU average of 19 per cent (Eurostat, 2020l). This mainly comes from two sources: in Latvia, hydro electricity generation, and across the region, the high shares of RES in heating and cooling.

Latvia is among the EU leaders in renewable electricity production, but relies on old hydropower plants. It relies on its three main hydroelectric power plants to produce most of the electricity, with RES accounting for 54 per cent of electricity production in 2018, significantly above the 32 per cent EU-27 average (Eurostat, 2020l). Its infrastructure is very old, however, while generation is heavily contingent on climate conditions, building the case for a diversification of RES. Estonia and Lithuania rely more on wind, solar and bioenergy, with RES shares of 20 per cent and 18 per cent, respectively (see top left-hand chart). Lithuania already has one of the highest levels of wind capacity penetration in Europe, however (Wind Europe, 2018).

RES capacity is expected to increase, with offshore wind playing a key role. The Baltic states have made good progress on expanding wind energy generation in the last decade. Latvian wind generation has tripled since 2010, but is still only a fraction of the hydro segment, while Lithuania and Estonia wind energy generation has risen 6.7- and 2.5-fold, respectively, since 2010 (IEA, 2020a). The share in Estonia has not increased significantly since 2014, but growth is expected in the coming years. The Baltic states have started to collaborate on common offshore wind projects, with Estonia and Latvia agreeing to build an offshore farm of 1 GW (REVE, 2020a). Meanwhile, the Lithuanian authorities have announced the location of the country's first offshore windfarm, with a capacity of 700 MW, along with the development of necessary regulation to stimulate investments akin to the system used in western Europe (REVE, 2020b). These plans are supported by the recently adopted NECPs. In Lithuania, for instance, wind energy is expected to produce at least 2.5 TWh by 2025, double that of 2017. Barriers to realising these plans lie in the need to regionally coordinate and align plans and policy levers for the efficient deployment of capacity, such as the coverage of transmission investment, public support schemes and regional grid strengthening.

Heating heavily relies on biofuels in all three countries. The smaller share of RES in electricity production is offset by the role of renewable energy in heating and cooling segments. The RES share is higher than the EU-27 average (21 per cent) and due to biofuels playing the main role in generating heat in the Baltic states (see bottom left-hand chart). However, Estonia still relies to some extent on coal, which accounted for 14 per cent in 2019, while natural gas supplies the other half of heating demand in Latvia.

4.3. Green transition

4.3.4. Energy intensity, as a proxy of energy efficiency, has been decreasing, but remains high compared with the EU average

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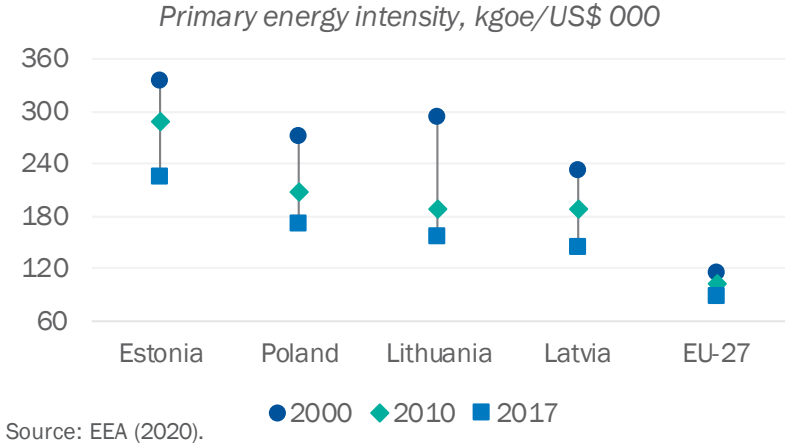
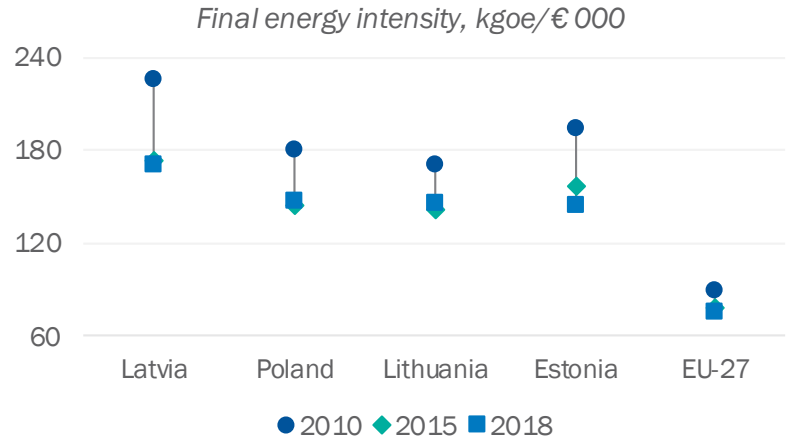
Primary energy intensity has decreased considerably



Source: EEA (2020).

Final energy intensity decrease stagnated after 2015



Source: EEA (2020).

Primary energy intensity has been decreasing in the Baltic region. From 2000 to 2018, the consumption of primary energy per unit of GDP (which measures the effectiveness energy production and consumption) in Lithuania decreased 3.5 per cent on average, while in Estonia it fell by 2.6 per cent and in Latvia 2.4 per cent per year (see top left-hand chart). Final energy consumption made the greatest contribution to the reduction in primary energy intensity, explaining 76 per cent of the total reduction in Latvia, 41 per cent in Estonia and 29 per cent in Lithuania. The energy transformation sector played a major role in Lithuania, accounting for 50 per cent of the decline, thanks to the decommissioning of the Ignalina Nuclear Power Plant, removing a large source of primary energy that was relatively inefficient. Efficiency measures in energy transformation explain 46 per cent of the total reduction in Estonia, but only 3.7 per cent in Latvia, due to the limited productivity improvements of the hydropower stations (Miskinis et al., 2020).

Final energy intensity has decreased substantially, but remains high compared with the EU average. In 2018, Estonia was 31 per cent, Latvia 33 per cent and Lithuania 28 per cent more efficient than in 2000. However, since 2015, this trend has slowed in Latvia and intensity has increased in Lithuania, again due to the transport sector (see bottom left-hand chart). Purchasing power parity (PPP)-adjusted intensity remains high in the Baltic states, at around 25 per cent more than the EU average in 2018, with the highest gap in Latvia (43.3 per cent) (Miskinis et al., 2020). This suggests the need for more efficient consumption of energy, particularly in the building stock and industry.

Energy intensity improved mostly because of progress on energy saving measures. Improvements in energy efficiency in Estonia accounted for 71 per cent of total final energy savings from 2000 until 2018, while changes in the structure of economic activities accounted for 29 per cent. In Latvia, the ratio of energy efficiency to total energy savings was 90 per cent, while structural changes accounted for 10 per cent of the change (Miskinis et al., 2020). However, the contribution of structural changes in Lithuania was negative, adding 39 per cent to total final energy savings over the same period, due to the growing activities of the energy-intensive transport sector (Miskinis et al., 2020).

Power transmission and distribution loss is considerable in Lithuania and Estonia. Own use in energy sector and the reduction of energy transmission and distribution losses amounted to 8.7 per cent of overall use in Estonia, 4.6 per cent in Latvia and 11.2 per cent in Lithuania, according to Miskinis et al. (2020). However, an improvement of 8.3 per cent has been noted since 2000 in Estonia, 18.1 per cent in Latvia and 17.9 per cent in Lithuania. These losses are mainly due to inherited Soviet generation and distribution infrastructure, which is now outdated. Moreover, the share of primary energy losses in the energy transformation sector as a component of gross inland energy consumption in Estonia was still high in 2018, at 34.8 per cent, due to the relative inefficiency of its shale oil sector.

4.3. Green transition

4.3.5. The residential sector has improved its energy efficiency, but its intensity remains high, while the transport sector remains a key polluter

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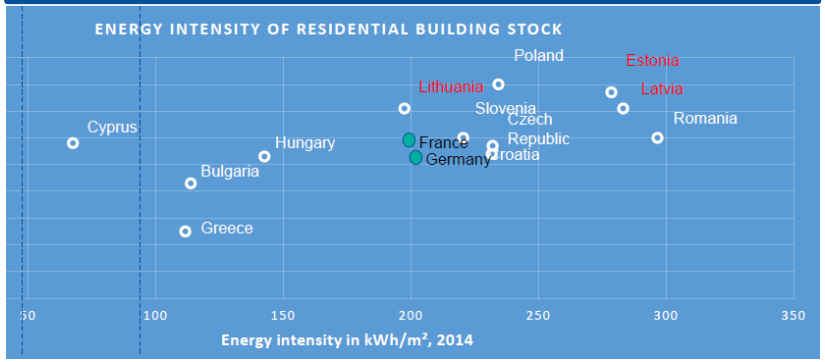
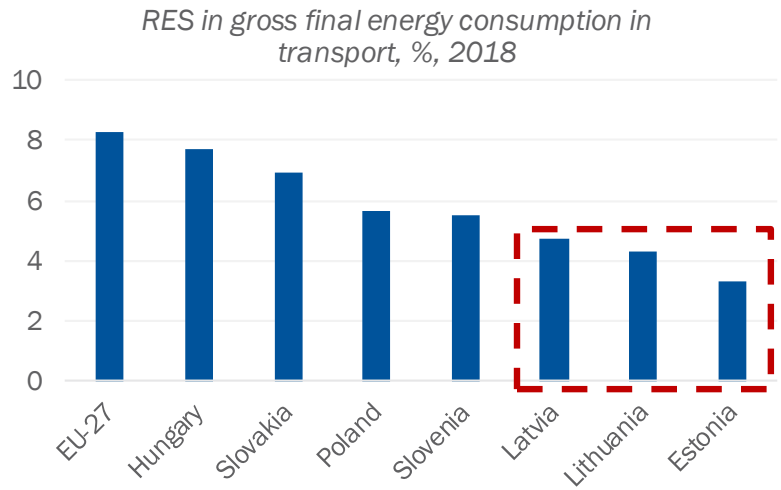
Energy intensity of households remains high



Source: EBRD calculations.

Share of RES in transport lags regional peers



Source: Eurostat (2020l).

The residential sector was largely responsible for the decrease in energy intensity in the region. In Estonia, the residential sector's share of the total gain in efficiency was 59 per cent, in Latvia 64 per cent and in Lithuania 61 per cent from 2000 to 2018. The role of industrial modernisation was far lower, at 29 per cent in Estonia, 9 per cent in Latvia and 21 per cent in Lithuania (Miskinis et al., 2020). A certain contribution came from an increase in energy efficiency in the services sector in Latvia and Lithuania, at 15 per cent and 14 per cent, respectively. The increase in Estonian services was only slight.

Electricity, heat and biofuels are the main sources of energy consumption in the Baltic states' built environment, including the residential, commercial and public sectors. The countries' heavy reliance on renewable biofuels is unique among the economies in which the EBRD invests. However, the energy intensity levels of both the residential and non-residential building stock in Estonia and Latvia are far higher than what the two countries define for net-zero buildings (nZEB)[1] (see top left-hand chart). Lithuania, in contrast, is in line with more advanced countries (nZEB target not available) and below the Estonian definition of nZEB for non-residential buildings. Between 2000 and 2018, the energy intensity of the residential sector fell 51 per cent in Latvia, 47 per cent in Lithuania and 46 per cent in Estonia, but the decline in this indicator over the past five years has been modest, as energy consumption since 2015 has risen slightly.

Final energy consumption in the Baltic states' transport sector is overwhelmingly driven by oil consumption in the road transport sector. Although transport-related greenhouse gas (GHG) emissions per capita are lower than the OECD average, transport accounts for 40 per cent of total GHG emissions in Lithuania and 36 per cent in Latvia. Public transportation use is low, rail electrification is minimal (only 8 per cent in Lithuania in 2017) and the electrification of passenger cars is at a nascent stage, which will require a significant effort to 2030.

The share of renewable energy in the transport sector remains lower than the EU average, a key challenge. Latvia's share of RES was 4.7 per cent, Lithuania 4.3 per cent and Estonia 3.3 per cent in 2018, compared with 8.3 per cent at EU level (see bottom left-hand chart). The reduction in the energy intensity in the transport sector from 2000 was comparatively small – at 16.3 per cent in Estonia and 11 per cent in Latvia by 11.7 per cent, while it was 2.6 per cent higher in Lithuania. This is a key challenge for the Lithuanian economy, in particular, which heavily relies on its oil-based transport service sector. The low prospects of electric trucks anytime soon call for alternative solutions to be explored.

[1] nZEB is defined as a building that requires a very low amount of energy that should be covered to a very significant extent from renewable sources, including sources produced on site or nearby.

4.3. Green transition

4.3.6. Waste infrastructure remains weak in Latvia, while the circular economy in all three states is lower than the EU average

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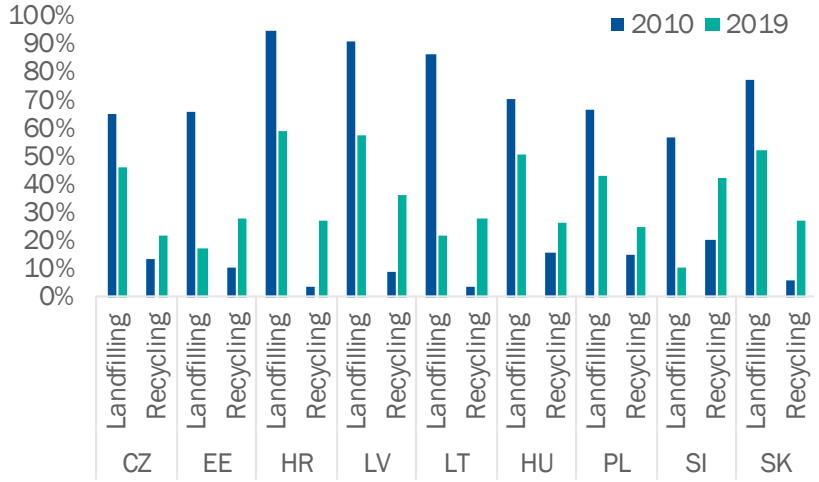
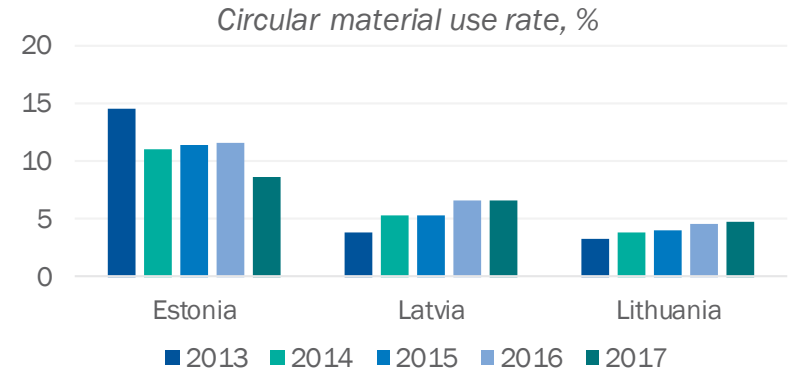
Municipal waste treatment has improved in recent years



Circular material use rates remain low



Waste generation is significantly higher in Estonia. Waste generation per capita in Estonia was the highest in the EU in 2018, mainly because of the mining, manufacturing and energy sectors, while in Latvia and Lithuania, manufacturing, households and other economic activities account for the large majority of waste. Nevertheless, total waste generation per capita in Lithuania and Latvia remains below the EU average. In terms of municipal waste, all three countries have seen a sizeable increase in waste per capita since 2010, with Lithuania recording relatively high levels compared with its CEB peers (Eurostat, 2020m).

Waste landfill is still considerable in Latvia and Estonia, albeit for different reasons. Landfill, excluding major mineral waste, accounted for 83 per cent of waste management in Estonia (in 2016), 34 per cent in Latvia and only 17 per cent in Lithuania in 2018 (Eurostat, 2020n). At municipal level, landfill accounts for 57 per cent in Latvia, but only 17 per cent in Estonia and 22 per cent in Lithuania (see top left-hand chart). As the target for recycling in 2025 is set at 55 per cent, there is a considerable gap to be filled in Latvia, meaning investments in municipal infrastructure are needed. Stakeholders consulted for this report in Latvia said better waste management was hard to achieve due to the strong position of municipalities and the decentralised structure of the market, which inhibits more investment and competition.

The circular economy remains low, though it has progressed in Latvia and Lithuania. In 2017, the share of materials reuse was 8.7 per cent in Estonia, amid a decreasing trend, 6.6 per cent in Latvia and 4.8 per cent in Lithuania (see bottom left-hand chart). This is lower than the EU-27 average of 11.2 per cent. Resource productivity, defined as the price-adjusted quantity of a good or service produced through a unit of resource, remains low in Estonia (€0.85/kg in 2019) – the second lowest coefficient in the EU – while Lithuania (€1.36/kg) and Latvia (€1.57/kg) were somewhat lower than the top CEB performers, Slovenia and Croatia (Eurostat, 2020o).

Water management is in line with EU averages, with few gaps identified. Water abstraction is relatively high in Estonia due to electricity generation needs, while in Lithuania, it is much lower following the closure of the nuclear power plant. Estonia and Latvia are also among the lowest wastewater generating economies in the EBRD regions, while Lithuania is in line with other European countries, such as Poland and Romania (Eurostat, 2020q). The share of population connected to at least secondary wastewater treatment is lower in Lithuania, at about 74 per cent, compared with 88 per cent in Estonia and 95 per cent in Latvia.

Sources: Eurostat (2020m; 2020n; 2020p).

The main strategic goal of the Baltic countries with regard to the energy sector has been synchronous operation with the European continental grid by 2025. As a consequence of their past integration with the Soviet Union, the Baltic states were connected solely to the Russian grid, increasing their exposure on independence. Thus, the Baltic states agreed on the Baltic Energy Market Interconnection Plan (BEMIP). Construction of two submarine electricity cables between Estonia and Finland (in 2006 and 2014) and two powerful interconnections connecting Lithuania to Sweden and Poland (in 2015) opened new opportunities for all three countries. The Baltic states, in principle, have turned an isolated energy island into an Baltic energy ring, in which interconnectedness has increased both within the region and with the Nordic countries and central Europe.

The ongoing Baltic Synchronisation Project, scheduled for completion by the end of 2025, is key to ensuring security of supply for the Baltic states. The Baltic grids are still part of the post-Soviet BRELL network, which also includes Russia and Belarus. In June 2019, the three Baltic states agreed on an implementation roadmap to reinforce the internal grids of the three Baltic states and develop cross-border infrastructure. Synchronisation will take place through Poland, notably via the existing link between Poland and Lithuania, together with a new high-voltage current line called the Harmony Link. Grid optimisation measures will also be carried out.

Natural gas infrastructure is also progressing to decrease Baltic reliance on Russian imports, but remains to be finalised. The opening of a liquefied natural gas terminal in Lithuania in 2014 has reduced Lithuania's energy dependence on Russia. The terminal, which has sufficient capacity to cover around 90 per cent of all current demand in the Baltic states, has significantly reduced the price of gas for consumers, as negotiating power with Russian importers has improved. The gas interconnector pipeline with Poland is progressing without major delays and the project was scheduled to be completed by the end of 2021. This pipeline, known as Gas Interconnection Poland – Lithuania (GIPL), will connect the Baltic countries with the continental European gas network. Gas transmission system operators from Latvia, Estonia and Finland signed a memorandum of understanding in October 2018 to pave the way towards integrating the natural gas markets of the three countries in 2020. Discussions are ongoing to enlarge the common gas market to include Lithuania.

4.4. Labour supply, skills and inequality

The Baltic states face significant challenges in ensuring enough skilled talent to support sustainable market economies

4.4. Labour market and inequality

4.4.1. Negative demographic trends exacerbate labour shortages caused primarily by emigration

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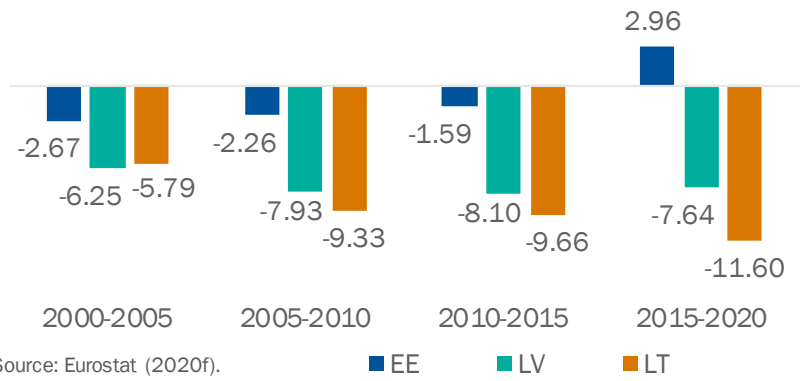
Emigration is a major issue for Latvia and Lithuania

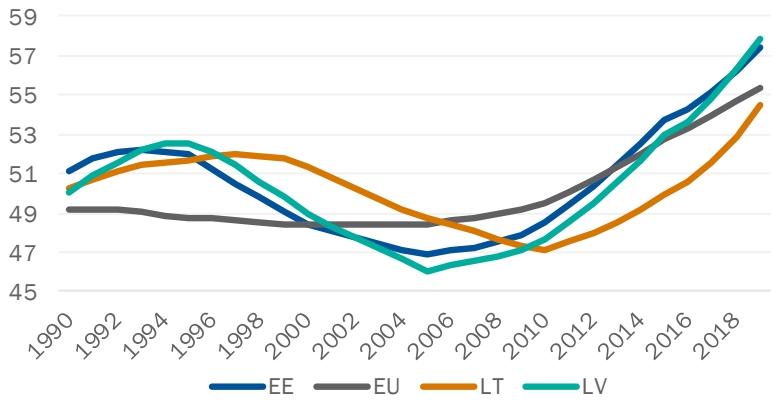
Net migration rate per 1,000 people



Source: Eurostat (2020f).

The age-dependency ratio has increased recently [1]

Age dependency ratio, % of working age population



Source: World Bank (2020b).

Labour supply limitations are set to gradually become more critical in the Baltic states due to migration and ageing. Since 1990, the Baltic states have lost a significant share of their populations to emigration – Latvia almost 30 per cent, Lithuania about 25 per cent and Estonia 15 per cent (Eurostat, 2020f). Outward migration from the Baltic countries rose after it joined the EU in 2004 and again following the global financial crisis in 2008. The emigrants have increasingly comprised youth (concentrated between 20 and 35 years), highly educated people and entire families looking for permanent skilled employment abroad (Atoyan et al., 2016). Estonia is an exception, as the most common profile of outward emigrants are largely male blue-collar workers aged 15-34, who work abroad on a temporary basis (see top left-hand chart). Net migration in the five years prior to 2019 was negative in Latvia (-74,200) and Lithuania (-163,900). Estonia was the exception, with positive net migration of 196,000 in 2019. This migration has amplified the shrinkage of the working-age population; the active population in Latvia and Lithuania has decreased continuously since 2010.

Inward migration to Baltic states has been low. In 2018, the number of first residence permits issued by the EU member states was on average 6.3 per 1,000 population. This was higher than in the Baltic states, where Estonia recorded 3.9, Latvia 4.6 and Lithuania 4.4. In Latvia, migration inflows are insufficient, as many incoming non-nationals do not stay for long periods of time. This is similar to Lithuania, where highly qualified non-nationals do not tend to migrate to Lithuania in large number due to the relative unattractiveness of the labour market (lower wages than in most OECD countries) and job opportunities, as well as the restrictive implementation of the EU Blue Card[2] introduced in 2013. Estonia, in contrast, serves as an example of managing to reverse the trend of outward migration. Recent labour shortages prompted the authorities to ease requirements for highly skilled migrants by amending the Aliens Act, adopted by parliament in 2018. The changes target highly qualified individuals and those who earn degrees at Estonian institutions.

Ageing is a problem, as elsewhere in Europe. A second driver of the expected decrease in population is ageing, which has boosted the age dependency ratio (see bottom left-hand chart). Old-age dependency has increased consistently in the Baltic states over the past 30 years, from around 17 per cent to 32 per cent. A higher old age-dependency ratio will put strain on the pension systems (see more on slide 4.4.7). The EU projects that by 2100, the old-age dependency ratio will almost double from current levels, with all three Baltic states expected to be above the EU average.

[1] The age dependency ratio is defined as the ratio between the inactive population, under 15 and above 65 years of age, and the working-age population.
[2] The EU Blue Card programme offers non-EU citizens who are highly educated and have found a well-paid job the right to live and work in the EU.

4.4. Labour market and inequality

4.4.2. Labour market imperfections limit higher labour participation rates

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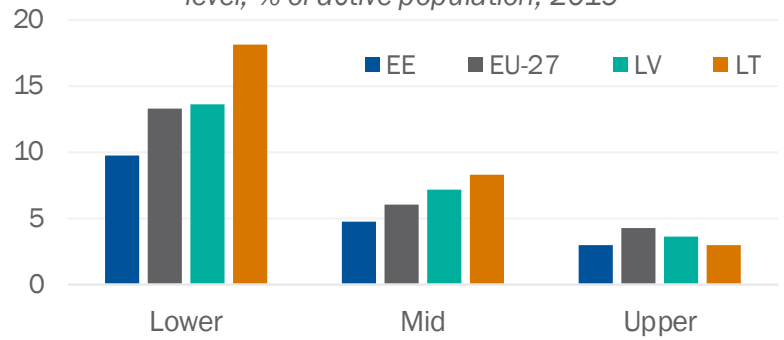
Unemployment rate is high for lower-skilled workers, particularly in Lithuania and Latvia

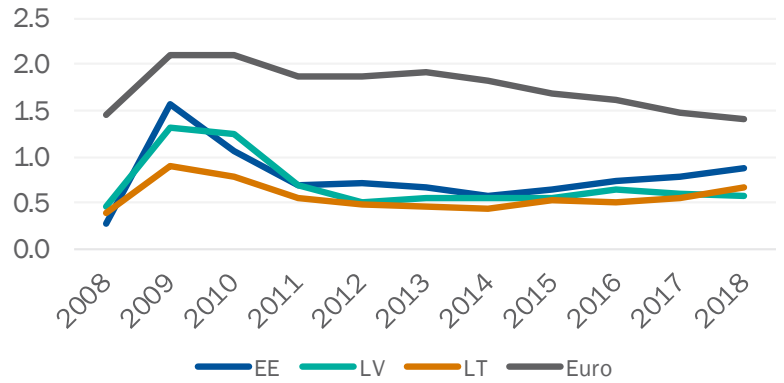
Unemployment rate by educational attainment level, % of active population, 2019



Source: Eurostat (2020q).

Unemployment benefits are still below the EU average

Active labour-market policy spending, % of GDP



Source: OECD (2020d).

Structural unemployment is higher in Latvia and Lithuania, despite record levels of labour market participation. In Latvia, the share of discouraged workers (those not looking for a job anymore) was about 5 per cent of the non-employed working-age population in 2016, exceeding most OECD EU countries (Estonia, 3 per cent and Lithuania, below 2 per cent) (OECD, 2020e). The share of long-term unemployed was also relatively high in Latvia in 2019 (38.2 per cent, compared with 30.6 per cent in Lithuania and 20 per cent in Estonia) (Eurostat, 2020r). In terms of gender, male unemployment over the age of 45 was higher in Latvia due to the higher educational attainment of women in this age category, although employment in the old-age category (55-64) was higher than the EU average (see more on slide 4.4.4) (Eurostat, 2020aa). The unemployment rate for low-skilled labour is higher than the overall average, especially in Lithuania (see top left-hand chart). At the same time, there are significant differences between regions (see more on slide 4.4.5). These gaps indicate that there are still segments that could support further employment growth, including the youth, disproportionately affected by the Covid-19 crisis.

Undeclared labour remains an issue. The Shadow Economy Index suggests that "envelope wages" as an average share of total wages is higher in Latvia (22 per cent) than in Estonia (14 per cent) and Lithuania (11.5 per cent) (SSE Riga, 2021). Moreover, the share of non-reported employees is about 11 per cent in Latvia, 8 per cent in Lithuania and 6 per cent in Estonia, including migrants from eastern Europe and the Caucasus (particularly Ukraine and Belarus), who are often undeclared.

Public spending on active labour-market policies (ALMPs) remains low, affecting labour-market outcomes for women and older people in particular. Recent public spending on ALMPs, relative to GDP, was low in Lithuania (0.5 per cent), Latvia (0.6 per cent) and Estonia (0.8 per cent), compared with levels of 2 per cent or more in most high-income EU countries (see bottom left-hand chart). Stronger ALMPs could help unlock new economic opportunities for women and older workers in all three countries. As elsewhere, the share of women working part time is much higher than that of men in all three Baltic states.

Several legislative changes were made to tackle the tightening of labour markets, mostly focused on stimulating foreign labour supply. In 2016, Latvia extended working rights to family members of third-country nationals and expanded the eligibility for the EU Blue Card programme, lowering the relevant salary threshold to increase the pool of people eligible to receive the card. Lithuania also reduced the salary requirements for the EU Blue Card and expanded the labour-market test exemption (which ensures that national and EU workers are prioritised) to highly qualified professionals on the occupational shortage list (previously only the highest paid were exempt). Furthermore, the three countries have paid more attention to attracting and managing the flow of skilled professionals and improving employment opportunities for international students. As a result, the number of foreign full-time students has increased.

4.4. Labour market and inequality

4.4.3. Skills mismatches are limiting higher productivity and innovation

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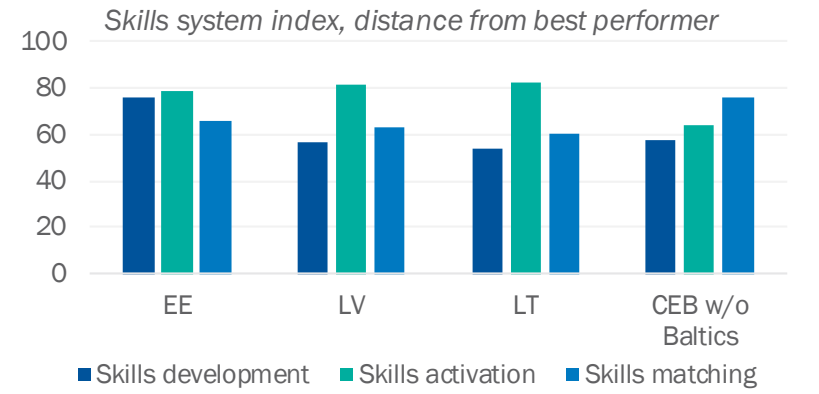
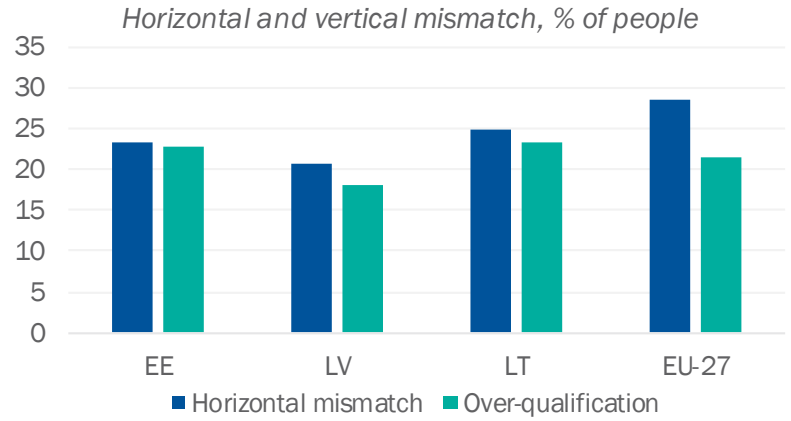
Skills activation is strong in the Baltic states, but matching lags CEB peers



Source: CEDEFOP (2020).

Horizontal mismatch is lower than in the rest of the EU



Source: Eurostat (2020s).

The Baltic states' skills systems are more advanced than those of regional peers. Skills systems, defined as those institutions delivering skills from education to work, are ensuring more adequate matching of skills in the Baltic region (see top left-hand chart). CEDEFOP's European Skills Index 2020 ranks Estonia as one of the best in the EU, mainly due to its strong performance on skills development (CEDEFOP, 2020). Lithuania and Latvia are somewhere in the middle of the ranking, with a skills activation dimension on a par with Estonia and among the best in the EU. However, all three countries score less well when it comes to skills matching.

Access to skills is frequently cited as the main barrier to business growth. Vandeplas and Thum-Thysen (2019) estimates suggest that Estonia has a relatively high rate of skills shortages compared with the other EU member states. Using a more subjective measure of the skills gap based on enterprise surveys, firms in the Baltic states seem to encounter significant challenges in finding the right skills. Almost 80 per cent of firms surveyed in Lithuania cited the availability of staff as a long-term barrier to investment, with 95 per cent of Latvian and 84 per cent of Estonian firms saying the same, all higher than the EU average of 77 per cent (EIB, 2019).

Skills mismatches are mostly down to over-qualification. In addition to the large differential in employment rates based on qualification, the Baltic economies are characterised by relatively high levels of over-qualification (see bottom left-hand chart). In line with global trends, in contrast, skills polarisation (when demand for middle-skilled jobs decreases and high-skilled and low-skilled jobs rises) is occurring in the Baltic states too (CEDEFOP, 2020). This is due to both globalisation and automation, as for instance in Lithuania, more than 60 per cent of jobs are estimated to be at risk of automation (Brunello and Wruuck, 2019). This requires a more robust approach to reskilling workers whose jobs are at risk.

Digital skills attainment remains a barrier to greater digitalisation. In Latvia, 43 per cent of the working-age population has basic digital skills. In Estonia, the figure is 62 per cent and, in Lithuania, 56 per cent (European Commission, 2020b). ICT specialists as a share of total employment in Latvia is the lowest in the EU (1.7 per cent), below that of Lithuania (2.7 per cent) and Estonia (5.7 per cent). This gap is offset in Latvia by a higher-than-EU-average share of ICT graduates (5 per cent), double Lithuania's 2.7 per cent in 2019. The demand for ICT skills will only intensify, amplifying skills needs.

Estonia and Lithuania have created agencies to monitor and anticipate skills needs. In Estonia, the authorities decided to form OSKA, a programme to monitor skills needs across industries, together with industry and sectoral experts. By consulting stakeholders, OSKA identifies current trends and forecasts future key skills needs in specific sectors. Insights from reports feeds into curricula, ALMPs and sectoral strategies. In Lithuania, the Government Strategic Analysis Center, Strata, provides independent analysis to feed into government policy, covering skills and human capital. Latvia recently completed a comprehensive reform of the vocational education and training (VET) system to align it with EU standards.

4.4. Labour market and inequality

4.4.4. Upskilling programmes and improving educational outcomes will be critical to mitigating skills mismatches

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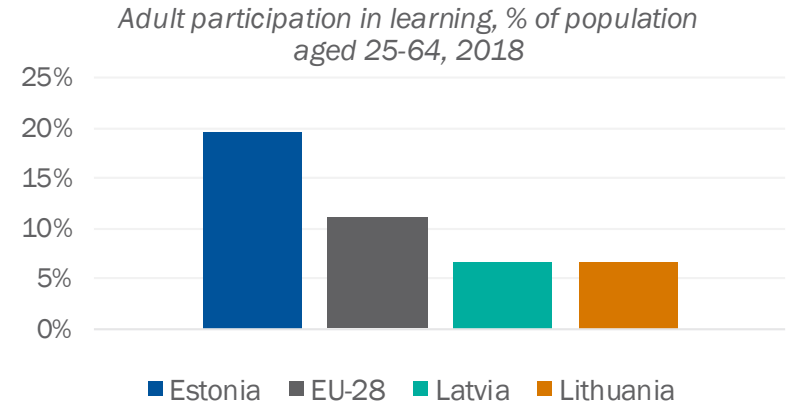
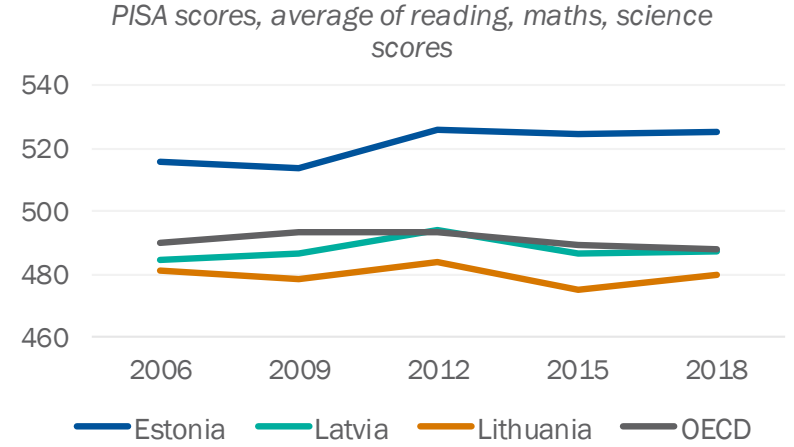
Adult learning lags in Latvia and Lithuania



Source: European Commission (2020j)

Estonian educational outcomes are above OECD



Source: OECD (2018b).

Improvements in educational quality are particularly needed in Lithuania and Latvia. The OECD's 2018 Programme for International Student Assessment (PISA) study found that secondary school pupils in Lithuania perform significantly below the OECD average in all three tested categories: reading, mathematics and science, while around one quarter of 15-olds underachieved (OECD, 2018b). Those in Latvia performed poorly in reading and science, but slightly above the average in mathematics. Pupils in Estonia, in contrast, scored best among their European peers in all three subject areas (see bottom left-hand chart). Estonia's success in this area is partially credited to its forward-looing initiatives to completely digitalise its education materials as early as in 2015. Improving educational outcomes have also been attributed to tackling teacher shortages and increasing wages in the Baltic states.

There are not enough science, technology, engineering and mathematics (STEM) graduates to meet demand, despite high tertiary educational attainment. In Latvia, STEM graduates per thousand inhabitants reached 14 in 2019, in Estonia 16.5 and in Lithuania 19.8, lower than the EU-27 average of 20.8 (Eurostat, 2020t). This implies upward potential, especially in Latvia.

Enrolment in technical and vocational education and training (TVET) is low, particularly among young women. The share of upper secondary students enrolled in TVET in Estonia (41 per cent), Latvia (39 per cent) and Lithuania (27 per cent) is lower than the EU-27 average (48 per cent) (Eurostat, 2020v). The gap is even more pronounced among young women of upper-secondary school age, comparing Estonia (33 per cent), Latvia (33 per cent) and Lithuania (21 per cent) with the EU-28 average (43 per cent), although more women have tertiary education in Latvia. This suggests that more women could be integrated into TVET to address existing shortages.

Adult learning remains modest in Latvia and Lithuania. Adult participation in learning, reflecting the extent to which upskilling takes place, is higher than the EU-28 average in Estonia, but far lower in Lithuania and Latvia (see top left-hand chart). In Latvia, the participation rate for the low-skilled is even lower, at 2.5 per cent in 2018 (compared with an EU average of 4.3 per cent) (European Commission, 2020j).

4.4. Labour market and inequality

4.4.5. Income inequalities, including at regional level, remain significant

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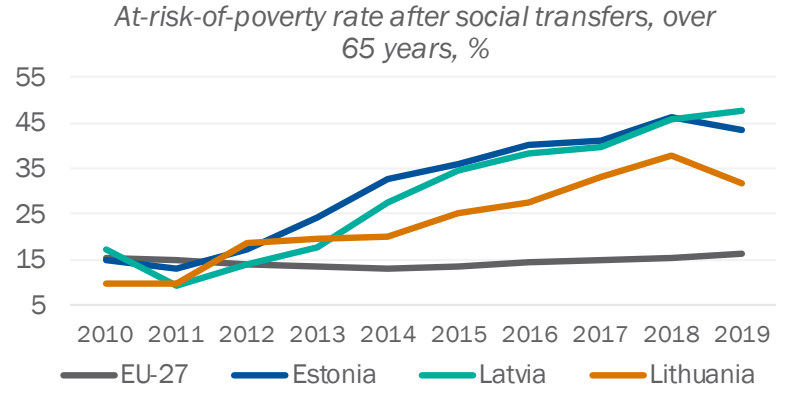
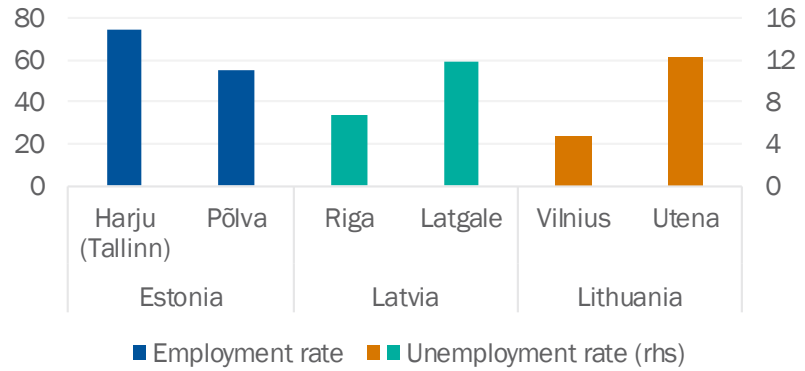
Share of pensioners at risk of poverty remains high[1]



Source: Eurostat (2020x).

Significant differences in labour market dynamics between the best-performing and worst regions



Source: Eurostat (2020y).

Income inequality is relatively high in Lithuania and Latvia and has increased in recent years. The Baltic states rank very high on the Human Development Index (HDI), which measures life expectancy, education and income per capita. At the same time, the Gini coefficient, which measures income inequality, is higher in Latvia (35.2) and Lithuania (35.4) than in the EU (30.7 in 2019), implying greater income inequalities in those two countries. Indeed, Lithuania and Latvia have the second- and third-highest Gini coefficients in the EU (Eurostat, 2020w).

The share of people at risk of poverty is still significant in the Baltic states. The share of people in poverty has recently increased, with around one in five people experiencing material and social deprivation in 2019, particularly the elderly, due to the slower adjustment of pensions compared with wages (see top left-hand chart). Latvia spent 11.6 per cent of GDP on social transfers in 2018, Lithuania 12 per cent and Estonia 13 per cent, lower than the EU-27 average of 19.2 per cent (Eurostat, 2020a). The impact of social transfers on reducing poverty, excluding pensions, is thus lower than the EU average, although it has increased in recent years. This suggests more limited effectiveness in addressing income inequalities than in more advanced countries (Černiauskas et al., 2020).

Regional disparities in wealth and quality of life in Estonia and Latvia remain above the OECD average, while Lithuania remains close to the OECD median. In 2016, GDP per capita in north Estonia, which includes Tallinn, was more than 2.6 times higher than in neighbouring northeast Estonia. When it came to wellbeing, the largest regional disparities in Estonia were observed in terms of jobs and safety, while the region of northern Estonia ranked among the top 20 per cent of OECD regions for education, access to services and environment. Latvia has the third-highest regional economic disparities of the 30 OECD countries with comparable data, as the capital, Riga, dominates the Latvian economy. Regional disparities can be found in jobs, civic engagement and health. All regions in Lithuania are among the top 30 per cent of OECD regions in terms of education, indicating a more even geographical distribution. However, large gaps are to be found in employment and unemployment rates, competitiveness, public services and civic engagement.

There is a gap between employment rates in urban and rural areas, while capitals dominate. In Estonia, employment as a percentage of total population was 62 per cent in urban areas and 57.4 per cent in rural areas. In Latvia, it was 59.4 per cent in urban areas and 53.9 per cent in rural ones, while in Lithuania, it was 61.3 per cent urban employment and only 51.6 per cent rural employment. Even though employment rates are higher than the EU average, the gaps are larger. The EU-28 average was 54.4 per cent for urban and 53.2 per cent for rural areas (see bottom left-hand chart). Moreover, average wages were about 30-40 per cent higher than the national averages in capital regions (Kebza et al., 2019).

[1] The share of persons with an equivalised disposable income below the risk-of-poverty threshold, set at 60 per cent of the national median equivalised disposable income.

4.4. Labour market and inequality

4.4.6. Gender gaps are less acute than in other EU countries, except for the pay gap in Estonia

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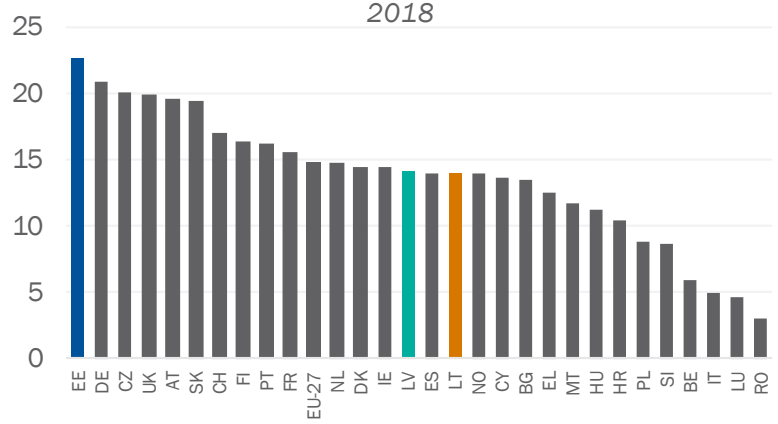
Estonia is still at the top of gender pay gaps in the EU

Difference between average gross hourly earnings of male and female employees, % of male gross earnings, 2018



Source: Eurostat (2020z).

Global Gender Gap Index ranking	
11	Latvia
26	Estonia
33	Lithuania
Economic participation	
8	Latvia
14	Estonia
40	Lithuania
Political empowerment	
26	Latvia
37	Estonia
85	Lithuania

Source: World Economic Forum (2020).

The Baltic states rank high on the overall Global Gender Gap Index, but perform poorer on political empowerment. Estonia underperforms on economic participation. The Global Gender Gap Index measures gender equality on four dimensions: economic participation, educational attainment, health, and political empowerment (World Economic Forum, 2020). Latvia ranks 11th out of 153, followed by Estonia at 26th and Lithuania at 33rd (see bottom left-hand table). They rank below the Nordic countries, but higher than most EU economies. On educational attainment, Estonia and Latvia rank first, together with 24 other countries, while Lithuania ranks 50th.

Women's participation in tertiary education is higher than men across the three states and higher than the EU average. In general, women are better educated than men, who record a higher rate of early leaving. In addition, the share of women researchers in the Baltic states is higher than the EU average of 33 per cent (Estonia: 42 per cent, Lithuania 49.5 per cent, Latvia 52 per cent) (Eurostat, 2020ab). In 2019, women accounted for over 59 per cent of employees in science and technology across the Baltic states, higher than EU average of 50 per cent.

Women's employment rate in the Baltic states is higher than the EU average. In 2019, the share of working-age women in employment was 77 per cent in Lithuania, 76 per cent in Estonia and 75.5 per cent in Latvia, compared with the EU average of 67 per cent (Eurostat, 2020aa). Moreover, the representation of women in management roles across the three countries is higher than the EU-27 average of 33 per cent, with Lithuania leading the region at 46 per cent (Lithuania: 39 per cent, Estonia 37 per cent).

Estonia still had the highest gender pay gap in the EU in 2018. In Latvia and Lithuania, the gender pay gap was slightly below the EU average of 14.8 per cent, at 14.1 per cent and 14.0 per cent, respectively, while in Estonia it was 22.7 per cent (Eurostat, 2020z). Estonia's high gender pay gap is, in part, attributable to its lower share of women in senior management positions, despite good representation overall (EIGE, 2019). While 28.4 per cent of senior management positions in the EU are held by women, Estonia's figure was only 9.4 per cent in 2018. Lithuania's share was also lower than the EU's at 12 per cent in 2018, while Latvia performed better (32 per cent) (EIGE, 2019). In addition, Latvia is the only Baltic country where the female share of seats on the boards of the largest publicly listed companies is higher than the OECD average of 21 per cent. Furthermore, in all three countries, women aged 20+ spend more than 17 per cent of their time per day on unpaid care and domestic work compared with less than 11 per cent by men. Women's vulnerability could also be explained by their relatively high life expectancy relative to men (82.4 compared with 72.9 years for men), as the risk of poverty is particularly high for people living alone in this age group.

4.4. Labour market and inequality

4.4.7. Inequality among different groups highlights the need to continue addressing social disparities

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Box 3. Pension systems in the Baltic states

Demographic decline and ageing will have a significant impact on savings and pensions, respectively. For instance, in Estonia (the Baltic state in the best position), the total population is expected to decline by 5 percent by 2030 and 13 percent by 2050. The IMF (2020b) estimates that Estonia's fiscal costs associated with pensions and healthcare will grow by 3.2 per cent of GDP by 2050, with similar increases in the other two states. In contrast, the replacement rate, which measures the ratio between retirement income and annual income during employment is still low, leading to an increase in relative poverty among older age groups. Lithuania records the lowest ratio, at 24 per cent, while Latvia and Estonia are somewhere below the 50 per cent mark. This indicates the need to increase pensions in line with overall wage growth to address social disparities.

Recent pension-system reforms are adding uncertainty to other policy priorities too. In Estonia, the voluntary second pillar could also affect capital market development, even though most of the funds are invested in foreign assets. The Lithuanian authorities have introduced pension indexation and only recently made pillar II contributions mandatory, but with a ceiling on private pension fund fees.

Given future challenges related to ageing, policymakers should ensure that the pension system is effective in providing enough support for retirees and efficient in terms of fiscal costs and sustainability. Moreover, long-term stability of the system will be needed to build trust and encourage savings through the second pillar.

Inequality of opportunity among ethnic groups is still a problem in Latvia and Estonia. Regions with significant Russian-speaking populations are characterised by lower labour participation rates, labour productivity and competitiveness (European Commission, 2020c). This inequality is mainly due to the language barrier, as around 61 per cent of Russian basic school graduates are only proficient in Estonian to intermediate level. In Latvia, this language barrier is weaker but, as in Estonia, the policy choice to not grant citizenship to ethnic Russians after independence may have led to difficulties in achieving more social cohesion. As of January 2020, almost 220,000 people (around 10 per cent of population) were non-citizens of Latvia.

Youth employment (15-29) in the Baltic states is higher than the EU-27 average of 48 per cent in 2019. Estonia had the highest rate of youth employment, at 56.5 per cent, followed by Latvia (52 per cent) and Lithuania (50.5 per cent) (Eurostat, 2020aa). Youth unemployment is higher in rural areas in Estonia and Lithuania. In Lithuania, youth unemployment in rural areas is 10.5 per cent, while urban unemployment is 5.8 per cent. In Estonia, rural unemployment is 9.2 per cent compared with urban joblessness of 6.6 per cent. Latvia reports higher youth unemployment in urban settings of 11.5 per cent, compared with rural unemployment of 10.2 per cent. These figures may in fact hide the issue of migration, which has mostly affected the younger labour force and could cause long-term difficulties in addressing labour shortages.

The Baltic countries are falling behind Europe's 2020 target of a 75 per cent employment rate for people with disabilities. Even so, Estonia (61.0 per cent) and Latvia's (60.9 per cent) employment rates exceed the EU average (49.6 per cent). Lithuania is below average, at 46.3 per cent (Eurostat, 2020ac). In addition, in the EU, there is a 20 percentage point difference between employment rates of people aged 15-64 with no basic activities and those who face difficulty with basic activities. Latvia has one of the lowest differentials (12 percentage points), after Luxembourg, Sweden and France. Estonia is below the EU average, at 19 percentage points, while Lithuania is at 23 percentage points. Social protection remains weak; in Latvia and Lithuania, about 43 per cent of people with disabilities were at risk of poverty in 2018 (European Commission, 2020f; 2020j).

The Baltic states lag on LGBTI rights. The Rainbow Europe Index, which illustrates the policy landscape on ensuring the same rights for LGBTI people, shows the three Baltic states below the EU average (48 per cent) for LGBTI human rights: Estonia at 38 per cent, Latvia at 17 per cent and Lithuania at 23 per cent). Latvia ranked towards the bottom of the European countries, at 41st, while Lithuania ranked 33rd and Estonia 21st out of 49 European countries. In addition, legal LGBTI inclusivity – which refers to the laws that ensure LGBTI rights – in the Baltic states is lower than the OECD average of 53 per cent. Estonia's LGBTI inclusivity is at 44 per cent, while Latvia and Lithuania lag at 32 per cent and 31 per cent, respectively (OECD, 2019).

5. ATQ annex

ATQ annex: Overview

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The Assessment of Transition Qualities (ATQs) scores are based on a distance-to-frontier approach, with the best-performing countries used as benchmark. The resulting scores are rescaled to 1 to 10, where 10 represents the frontier. Further slides in this annex provide a more detailed assessment of each of the six ATQs. The table on the right provides an overview of the six dimensions for the Baltic states compared with advanced countries (the comparator average) as well as the CEB average (regional average).

Estonia is the EBRD investee economy with the highest ATQ score on most dimensions. Estonia has a very high score when it comes to the competitive, well-governed, inclusive and integrated qualities and it is closer to regional level on the green and resilient qualities.

Estonia is the most competitive economy in the EBRD regions. Estonia ranks first in the EBRD region on the competitive quality, behind only France and Canada among comparators and above the Czech Republic. Lithuania and Latvia slightly lag their CEB peers. Even so, the Baltic states are significantly above the overall EBRD average.

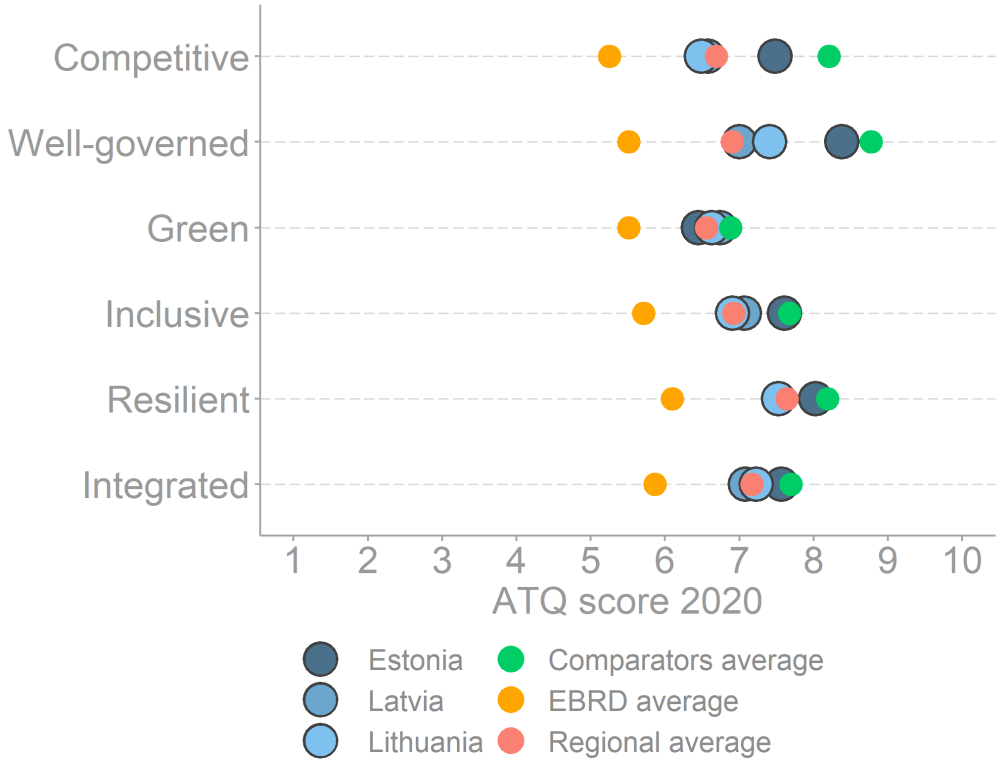
Estonia is also a clear outlier on governance. With a score of 8.38, Estonia is close to the comparator average on this dimension, in line with France, for instance. With a relatively large gap to Estonia, Lithuania comes in second among the EBRD investee economies, with a score of 7.41, while Latvia is only slightly above the regional average.

Latvia ranks second on the green ATQ, behind France, Canada and Slovenia. Lithuania and Estonia are in line with the regional average.

Estonia is also the most inclusive economy in the EBRD regions. The northernmost Baltic state sits among its advanced comparators, with a score of 7.61, above countries such as Sweden, France and Japan. Latvia ranks second and Lithuania fifth among EBRD economies.

The Baltic states are highly resilient on the energy front, while financial resilience is mixed. Lithuania and Estonia lead the EBRD economies on energy resilience, with Latvia in fifth position. In terms of financial-sector development, only Estonia manages to stay in line with its CEB peers, ranking third overall. Latvia ranks 10th, while Lithuania is very much behind in 15th position. This is mainly due to the limited banking sector and shallow capital markets.

Estonia is also the most integrated economy, while Latvia is lagging. Lithuania ranks fourth on this dimension, while Latvia is only above Croatia in the CEB region.



Source: EBRD.

Note: Visit https://2021.tr-ebrd.com/structural-reform/ for the list of indicators, data sources and methodological notes.

ATQ annex: Competitive

Estonia: 7.48/10, Latvia: 6.58/10, Lithuania: 6.49/10

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Latvia and Lithuania rank 7th and 8th, respectively, out of the 38 economies in which the EBRD invests and post a weaker performance than most of the CEB countries. Estonia is the best performing EBRD economy based on the competitive ATQ.

Market structures and institutions for competition

The three Baltic states form a closely integrated economic area and remain open to international markets. Their average score is 8.94 out of 10 (on a scale of 1 to 10, where 1 corresponds to the highest tariffs observed and 10 the lowest). The applied trade-weighted tariffs on imports for all economies amounted to 1.7 per cent in 2018. Customs procedures in Estonia and Lithuania were deemed less complicated. As members of the EU single market, there are no tariffs on intra-EU trade, while tariffs on third countries are low. All three economies are characterised by large exports relative to output, both gross and in terms of the domestic value-added exports. Their export sectors are further bound by intra-Baltic trade over time and have strong trade linkages with the euro area, the Nordic countries and Russia.

All three Baltic countries are among the best-performing EBRD economies in terms of regulatory framework and business climate, outperforming most of their EU EBRD peers. The favourable performance of the Baltic states is reflected in the ease of doing business ATQ indicator. Each country scores higher than both the EBRD and OECD average. There are areas where the countries are not as highly ranked, however, notably protecting minority investors in Estonia, resolving insolvency in Lithuania and Latvia, and getting electricity and dealing with construction permits in Latvia.

The Baltic states boast a relatively limited state presence in the private sector and pursue liberal economic policies. Subsidies to private enterprises, public corporations and other transfers are used as a proxy to measure this dimension. Their common recent history meant the three states followed the same pattern to adjust to a market economy after the 1990s.

SMEs play an important role in the Baltic states and constitute around 90 per cent of each country's firms. In Estonia, SMEs generated 76.7 per cent of value added and 79.4 per cent of total employment in 2019, while figures for the two other countries were lower. The same pattern presents itself in the EBRD SME index (adjusted), where Estonia is ranked first (8.4/10 score), followed by Latvia and Estonia (7.7 and 6.6, respectively). Their performance was higher than the EBRD average, but there was a gap to the eight OECD comparators. Despite an environment that seems to be favourable to SME development, SME productivity is at least 30 per cent lower than the EU average. Further competitiveness improvements may be achieved by developing more skills and know-how, as well as by improving access to finance particularly in Lithuania.

The score for advanced services (communications, financial, insurance and other business services) as a share of total services is highest in Estonia (6.48). Latvia performs slightly better than the EBRD average, while Lithuania lags both the CEB average and the EBRD average. Overall, it seems that the availability of more sophisticated services, both domestically and for export, may improve further, especially in Lithuania. A large share of services exports from the three Baltic states is related to transport, accounting for around 70 per cent of services exports from Lithuania in 2018, about 40 per cent from Latvia and around 30 per cent from Estonia.

Capacity to generate value added and to innovate

Scores on the economic complexity dimension reveal the performance of the three Baltic countries to be slightly weaker than their regional CEB peers and there is a tangible gap to the eight OECD comparators. A country's economic complexity captures the diversification of goods exported, as well as their degree of complexity. Estonia and Lithuania present higher scores on this dimension that Latvia. This stems from the fact that among their largest exports, there are both low-complexity (agricultural products) and high-complexity products (notably electronics for Estonia and chemicals for Lithuania). Low-complexity products (agricultural products and minerals) dominate Latvia's exports. Nevertheless, the wood industry and industrial machinery products seem to be growing in importance.

ATQ annex: Competitive

Estonia: 7.48/10, Latvia: 6.58/10, Lithuania: 6.49/10

European Bank
for Reconstruction and Development

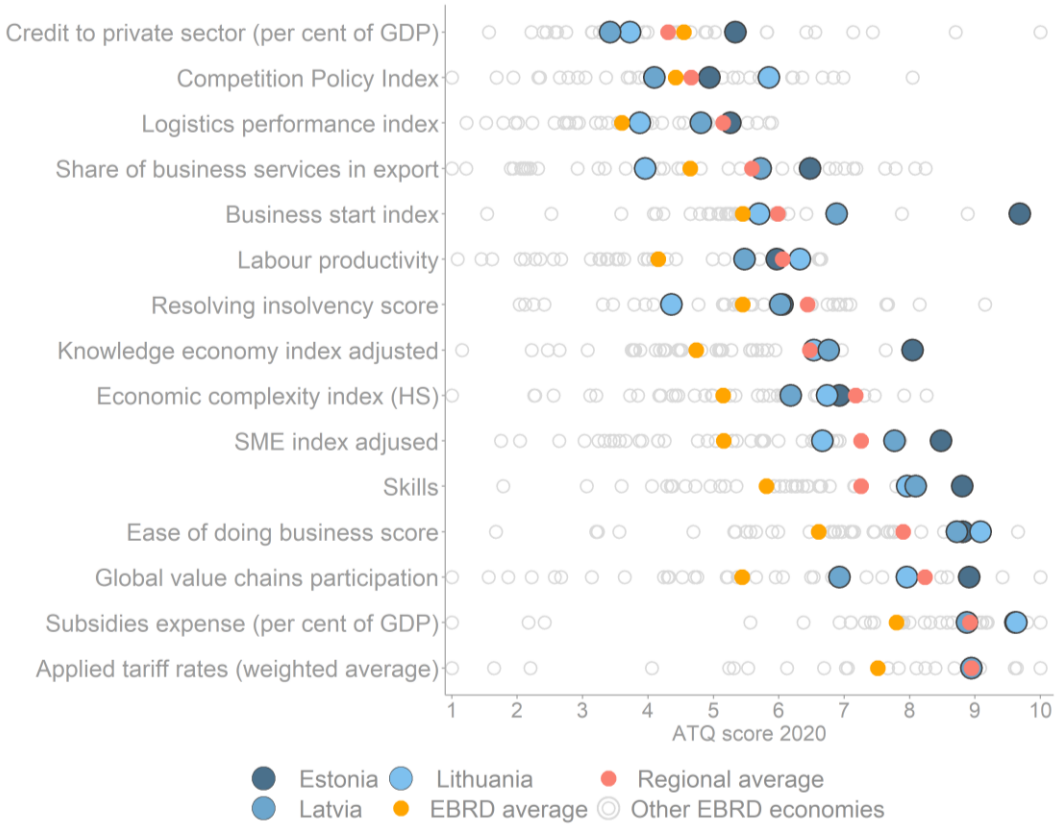
A similar pattern can be observed in the Baltic states' integration into global value chains. The three countries lag their regional peers slightly. Estonia appears to be the Baltic country most integrated into global value chains, while Latvia is least integrated. Latvia's export volumes and stock of inward FDI are comparatively lower, signalling that, despite being a small and open economy, it struggles to establish channels for value-chain participation.

The EBRD Knowledge Economy Index (adjusted version) shows the three Baltic countries performing better than their central European peers, although there is still a gap to the OECD comparators (EBRD, 2019). The index captures the degree to which an economy meets certain preconditions to innovate (in terms of institutional framework, skills availability and infrastructure), as well as the actual presence of a solid innovation ecosystem that is crucial to prosperity. Estonia stands out among the EBRD economies and this may be partly to do with its comparatively better performance on integration into global value chains – an important channel of knowledge transfer.

A highly skilled workforce that caters for the needs of the private sector is important for enhancing a country's competitiveness. The three Baltic states obtain a fairly high score on this front (8.29), which measures the quality of the skills of the current and future workforce. It is almost in line with the eight OECD comparators (8.71). Estonia appears to perform better, while Latvia and Lithuania perform similarly.

On quality of trade and transport-related infrastructure, one of the components of the Logistics Performance Index (World Bank, 2018), the three Baltic states post a slightly weaker performance than their CEB peers and the gap to the eight OECD comparators is large. Lithuania is the country lagging the most.

Access to finance appears to be a major hindrance to enhancing competitiveness, especially in Latvia and Lithuania. Credit to the private sector as a share of GDP amounted to 36.6 per cent and 40.6 per cent, respectively, in the two countries in 2018, below the average for the CEB region (48.2 per cent) and well below Estonia (61.7 per cent).



Source: EBRD.

Note: Visit https://2021.tr-ebrd.com/structural-reform/ for the list of indicators, data sources and methodological notes.

ATQ annex: Well governed

Estonia: 8.3/10, Latvia: 7/10, Lithuania: 7.4/10

European Bank
for Reconstruction and Development

All three Baltic states are consistently high scorers on the well-governed transition quality, regularly scoring above the EBRD average on the various indicators. Within the region, Estonia is the best performer, according to the ATQ methodology, most often followed by Lithuania, then Latvia. Both Lithuania and Latvia have seen an increase in their well-governed ATQ scores over the past few years.

Estonia is ahead of the regional and EBRD averages on almost all well-governed indicators and is consistently No.1 among all EBRD investee economies on this quality.

On the corporate level, Estonia is a leader among the EBRD economies in the areas of **transparency, disclosure, stakeholders and institutions**. On a national level, Estonia is a leader on **perception of corruption, judicial independence and e-governance participation**, among other areas. Conversely, there is room for improvement in the areas of **rights of shareholders, enforcement of contracts and political stability.**

Estonia ranked 18th in the Transparency International Corruption Perception Index 2019 report (Transparency International, 2019). To put this in context, this puts Estonia is one rung beneath Belgium, on a par with Ireland and ahead of all other economies in which the EBRD invests (that participate in the index). The report highlights Estonia as a significant improver overall, having increased its score by 10 points from 2012. The report points to Estonia's comprehensive legislative framework, independent institutions and effective online tools as key to reducing petty corruption and making political party financing open and transparent. Regulating lobbying to reduce undue influence on policymaking is still an area for improvement.

Latvia has made progress since the 2019 ATQ results, improving its well-governed score from 6.4/10 to 7/10, becoming the sixth-highest EBRD scorer on this transition quality.

At the corporate level, Latvia scores particularly highly on the **structuring and functioning of the board and rights of shareholders**. At the national level, Latvia scores above the regional average in many areas, including **rule of law, government effectiveness and freedom of media**.

According to the 2020 European Semester Country Report, Latvia has made substantial progress on strengthening its anti-money laundering system (European Commission, 2020j). In the past two years Latvia has made progress on anti-laundering measures, include banning the servicing of non-resident shell companies, amending legislation to improve governance and clarify the responsibilities of main stakeholders, and strengthening the capacity of key institutions.

Latvia has also made some progress on improving the accountability and efficiency of the public administration. A major administrative reform to improve the functionality of municipalities is underway, consolidating its 119 municipalities into less than 40.

Latvia lags the EBRD average on **e-governance participation and the enforcement of contracts**. It is behind the regional average on issues such as **budget transparency and informality**. However, Latvia has made improvements to the quality of the judiciary and the enforcement of decisions has become more effective.

In the Transparency International Corruption Perception Index, Latvia ranks 44th/180 in the 2019 report (Transparency International, 2019). This puts it behind Estonia and Lithuania, but still above the EBRD average and makes it comparable to the Czech Republic.

ATQ Annex: Well-governed

Estonia: 8.3/10, Latvia: 7/10, Lithuania: 7.4/10

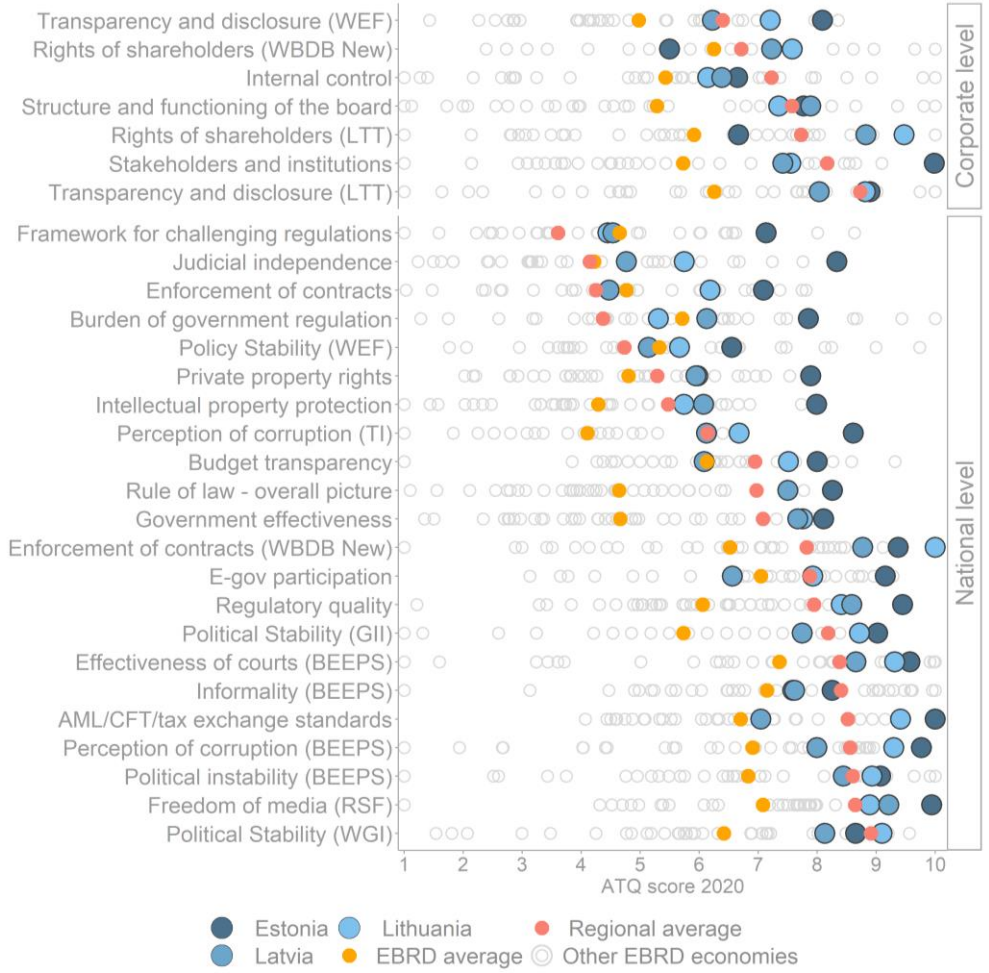
European Bank
for Reconstruction and Development

Lithuania has made good progress in the area of governance since 2017. Its ATQ score for the well-governed transition quality has risen from 6.9/10 to 7.4/10 and Lithuania now holds second place in the well-governed ATQ rankings.

Lithuania is ahead of its neighbours when it comes to the **rights of shareholders** at corporate level and the **enforcement of contracts** at national level. Lithuania also scores highly in areas such as **transparency and disclosure** at the corporate level and the implementation of **anti-money-laundering/counter-terrorist financing/tax exchange standards** at national level.

Lithuania lags the EBRD average on the framework for challenging regulation and the burden of government regulation. This issue is highlighted in the WEF Global Competitiveness reports as an impediment to doing business (World Economic Forum, 2020a), while the 2020 European Semester Country Report continues to list regulatory barriers as a significant restriction on corporate entry conditions and competition (European Commission, 2020f). Public ownership and the scope and governance of SOEs is a major contributor to this issue, particularly in the energy and transport sectors. However, Lithuania's score for the burden of regulation has improved since 2018.

In the Transparency International Corruption Perception Index, Lithuania ranks 35th/180 in the 2019 report (Transparency International, 2019). According to the 2020 European Semester Country Report (European Commission, 2020f), Lithuania's public administration is good overall, but progress in fighting corruption has been slow. While Lithuania has increased the amount of planned measures against corruption, many have been delayed and some key legislation has yet to be finalised. Corruption continues to be an issue in public procurement and healthcare.



Source: EBRD.

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ATQ Annex: Green

Estonia: 6.45/10, Latvia: 6.74/10, Lithuania: 6.63/10

European Bank
for Reconstruction and Development

The green economy transition in the Baltic region will need to focus on continued investment in sustainable energy and waste management, in accordance with EU requirements. As EU states, the three Baltic states have signed up in their Nationally Determined Contributions (NDCs) to contribute to the bloc's 40 per cent GHG emissions reductions target by 2030. From a cumulative emissions perspective, the Baltic states are among the lowest GHG emitters among the economies in which the EBRD invests. The EU Green Deal is expected to provide an additional boost to making the economics of the three Baltic states more sustainable.

While improvements have been made, **PPP-adjusted energy intensity** remains high in the Baltic states, at around 25 per cent more than the EU average in 2018, with the highest gap in Latvia (43.3 per cent).

Renewable energy accounted for 40 per cent of gross final energy consumption in Latvia, 30 per cent in Estonia and 24 per cent in Lithuania in 2018; biofuels play the leading role in heat generation in the Baltic states. This is higher than the EU average of 19 per cent.

Waste to landfill is significantly higher than in regional peers, accounting for 83 per cent of waste management in Estonia, 64 per cent in Latvia and 19 per cent in Lithuania in 2016.

Final energy intensity has decreased substantially in the Baltic states, but remains high compared with the EU average, partially due to inherited Soviet infrastructure. PPP-adjusted energy intensity remains high. Furthermore, Estonia is among the most carbon-intense economies in which the EBRD invests, due to its reliance on the oil-shale industry, while Latvia and Lithuania are below EU average.

Energy efficiency improvements have been driven by the residential sector and should continue thanks to building renovations. The key contribution to energy efficiency in all three states stems from the reduction of energy intensity in the residential sector. In Estonia, the sector's share of the total gain in efficiency was 59 per cent, in Latvia, 64 per cent, and in Lithuania, 61 per cent. The role of modernisation in the industry and service sector was far lower. This trend is likely to continue, thanks to the renovation of residential and small apartment buildings, as set out in the country's National Energy and Climate Plan 2021-2030 (NECP).

All three Baltic states had met their renewable energy targets for final energy consumption as of 2020, but reaching 2030 targets will require significant and continued investment in the renewables sector, from both the private and public sectors. Moreover, the share of renewable energy in the transport sector remains lower than the EU average. According to their NECPs, the three Baltic states estimate the total investment needed to implement their energy and climate policies from 2021 to 2030 at €2.3 billion to upwards of €14 billion (European Commission, 2019c, 2019d, 2019e).

Carbon pricing and coverage should be brought in line with ambitions under the EU Emissions Trading System (ETS). As of 2018, environmental tax accounted for 3.4 per cent of GDP in Latvia and 2.7 per cent of GDP in Estonia, which is higher than most EU countries. However, compared with EU ETS carbon (allocation) prices of around US$ 19, Latvia applied a carbon (tax) price of just US$ 10 and Estonia (tax) US$ 2 in 2019. More taxation based on CO_2 emissions and incentives for energy efficiency will be required.

Waste infrastructure remains weak in Estonia and Latvia, while the circular economy is lower than the EU average in all three states. The Baltic states have low absolute waste generation levels compared with other EU countries. However, total waste generation per capita in Estonia is far higher than France, Germany or Poland (Eurostat, 2020m).

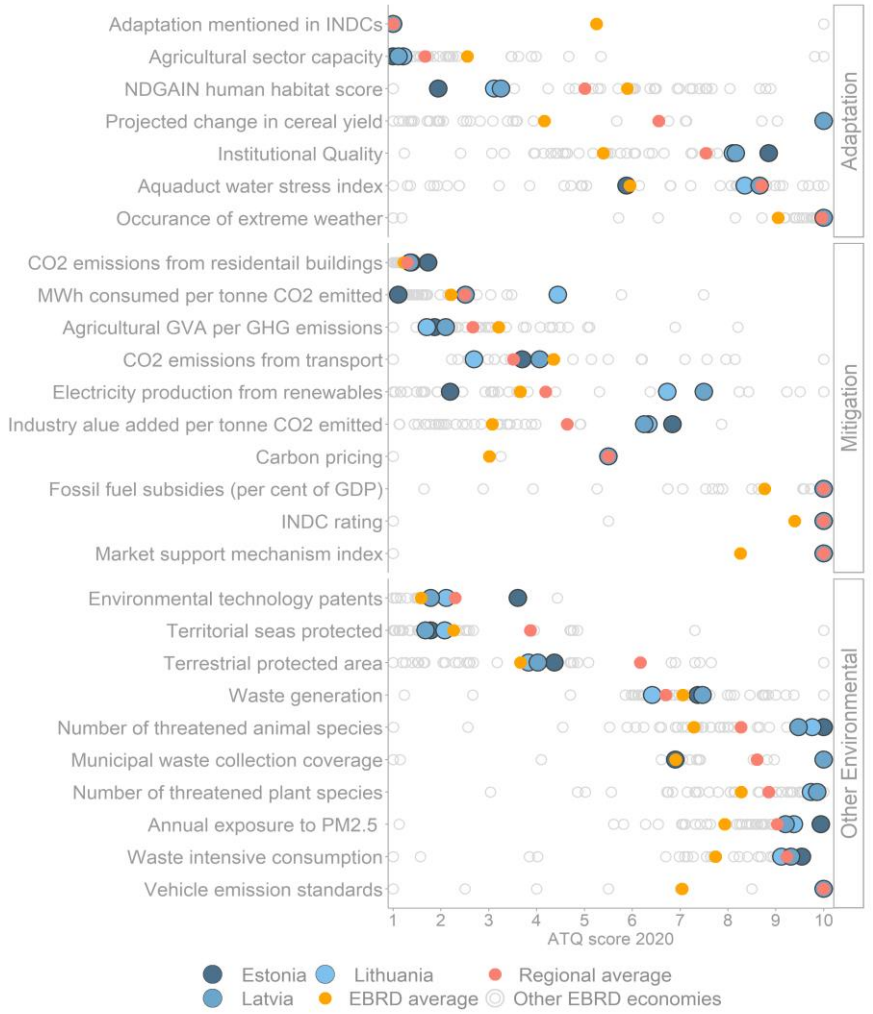
Significant investment will be needed by 2030 to combat climate change. The Baltic states are expected to experience a significant increase in mean temperatures and changes in precipitation patterns over the coming century, as noted in their NECPs. Ensuring the resilience of the most vulnerable economic sectors, especially agriculture, to climate change, will be crucial. For example, according to Lithuania's NECP, upwards of €3 billion is expected to be needed for adaptation for climate change by 2030 (European Commission, 2019c).

ATQ Annex: Green

Estonia: 6.45/10, Latvia: 6.74/10, Lithuania: 6.63/10

European Bank
for Reconstruction and Development

Transitioning to a greener economy may bring social and economic challenges due to the countries' reliance on carbon-intensive assets. Although this transition is likely to result in significant net benefits, these will not be evenly distributed. It will probably affect regions and people whose livelihoods are dependent on carbon-intensive assets. Consequently, the Baltic states will need to ensure a just transition.



Source: EBRD.

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ATQ annex: Inclusive

Estonia: 7.61/10 Latvia: 7.07/10 Lithuania: 6.91/10

European Bank
for Reconstruction and Development

The three Baltic states sit at the top of the inclusivity rankings for all economies in which the EBRD invests. Estonia ranks highest of the three, followed by Latvia, then Lithuania.

Estonia, Latvia and Lithuania score above the regional and EBRD averages on labour-force indicators, though gender gaps persist. In 2019, total unemployment for men (4.1 per cent) and women (4.8 per cent) in Estonia was lower than the EU(-27) average of 6.4 per cent for men and 7.0 per cent for women. Similarly, unemployment rates for women in Latvia (5.4 per cent) and Lithuania (5.5 per cent) were lower than EU average, but male unemployment was higher. Labour-force participation for women was close to 56 per cent across all three states and lower than the participation rate of men: Estonia: women 57.10 per cent, men 71.00 per cent; Latvia: women: 55.72 per cent, men: 68.38 per cent; Lithuania: 56.53 per cent, men: 67.74 per cent. Furthermore, the share of women employers in Latvia and Lithuania was higher than the overall EBRD average, at 31.14 per cent and 29.89 per cent, respectively. Estonia, in contrast, ranked below the EBRD and the regional averages. Gender stereotypes and segregation in the labour market persist in the Baltic countries, creating invisible barriers for women. While vertical and horizontal segregation is easing in Latvia and Lithuania, it remains a challenge for Estonia, where women earn 22.7 per cent less than men (Social Institutions & Gender Index, 2019).

Latvia is one of eight countries that scored 100 on the Women, Business and Law Index. This score illustrates whether women are on an equal legal footing to men on eight indicators. Estonia also ranks above the EBRD regions, while Lithuania scores lightly below the regional average, at 93.8.

Even though the three Baltic states score highly on the Social Institutions and Gender Index (SIGI), there are areas that need further development, especially in relation to violence against women. Estonia is the only Baltic country that has ratified the Istanbul Convention on preventing and combating violence against women and domestic violence. There is no specific legal provision or action plan to deal with violence against women in either Latvia and Estonia. In Lithuania, there is currently no holistic plan, policy or law to address the entire scope of violence against women.

Quality of education in Estonia is among the highest of the EBRD economies. Both Estonia and Latvia score highly on harmonized test scores (541.98 and 530.42, respectively) where 625 represents advanced attainment and 300 represents minimum attainment. Lithuania scores below the regional average, at 513.61. Similarly, Estonia has one of the highest scores (4.66) among EBRD economies when it comes to perceptions of the quality of the educational system (1= worst, 7= best). Latvia and Lithuania score slightly above the regional average.

Regional disparities are higher in Lithuania and Latvia than in Estonia. With (1=worst, 5= best) the quality of trade and transport in Lithuania (2.72) is below the regional average. Latvia's score of 2.98 is slightly below the regional average, too, while Estonia has the highest score, at 3.09. Estonia also scores highly in access to services, including computers, internet and water. While Latvia and Lithuania score higher than the EBRD average on access to computers and the internet, both countries score slightly lower on access to water.

The Baltic states still face some challenges in accessing services and financial inclusion. In its shadow report to the CEDAW Committee, the Estonian Women's Associations Roundtable (2016) highlighted the barriers rural women face in accessing public services, such as medical centres, kindergartens, schools, libraries and postal services, while the number of police officers has been reduced. In Latvia, access to finance is among the main reasons for discontinuing a business for women. Similarly, in Lithuania, access to start-up finance appears to be more important barrier for women and men (Social Institutions & Gender Index, 2019).

ATQ Annex: Inclusive

Estonia: 7.61/10 Latvia: 7.07/10 Lithuania: 6.91/10

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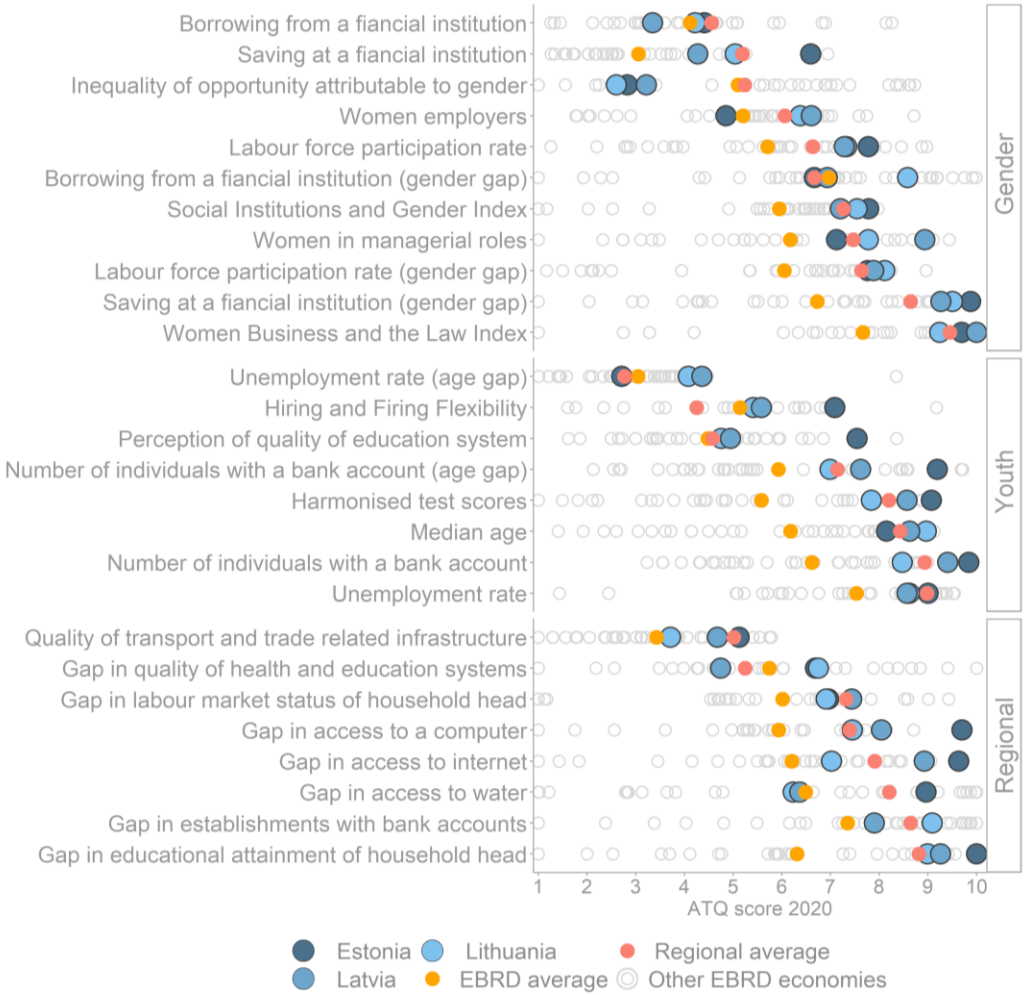

Source: EBRD.

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ATQ Annex: Integrated

Estonia: 7.57/10, Latvia: 7.08/10, Lithuania: 7.23/10

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Estonia ranks second out of the 38 economies in which the EBRD operates and is the best-performing country among the CEB nations when it comes to the integrated ATQ. Lithuania and Latvia rank fifth and eighth, respectively. Estonia and Lithuania score higher with regard to internal integration, while Latvia rates higher on its external integration.

External integration

The average ATQ score of the Baltic states on external integration is 7.2/10, with Estonia ranking third, Latvia sixth and Lithuania seventh among the economies in which the Bank invests. Estonia and Lithuania score highest with regard to trade openness, while Latvia boasts the greatest portfolio openness.

Trade environment: Exports and imports of goods and services as a share of GDP (five-year average) is high in all three Baltic countries, though below the CEB country average in Latvia. Thanks to their EU membership, the countries are party to 44 regional trade agreements (EBRD average: 19), but also have a high number of non-tariff measures originating from EU or domestic regulations (Latvia: 2,031, Lithuania: 1,989, Estonia: 197, EBRD average: 900).

Investment environment: Net FDI inflows as a share of GDP (five-year average) are on average 2.4 per cent in the Baltic states, which is close to the CEB average (2.3 per cent), but considerably below the EBRD average (5.4 per cent). Estonia is party to 84 bilateral investment treaties with investment provisions, the lowest number in CEB. Latvia is party to 98 and Lithuania 109, which is close to the OECD comparator average of 115. All three countries benefit from relatively few statutory FDI restrictions and are among the top performers among the economies in which the EBRD operates.

Non-FDI investment environment: In all three Baltic states, capital-account openness is very high. Estonia and Latvia are top ranked (10/10 score), Lithuania slightly lower (8.9). The country with the largest portfolio inflows as a share of GDP over the past five years in the CEB region has been Latvia (1.5 per cent). In Lithuania and Estonia inflows have been below the EBRD average (Lithuania: 0.3 per cent, Estonia: 0.1 per cent, EBRD average: 0.9 per cent).

Internal integration

The average ATQ score of the Baltic countries on the internal integration dimension is 7.4/10, with Estonia ranking third, Lithuania fourth and Latvia tenth among the economies in which the EBRD invests. All countries score highest on energy and ICT integration and lowest on domestic transport.

Domestic transport: Lithuania ranks second among the EBRD economies on road connectivity. With intercity travel times typically 20 per cent longer than the frontier (over a distance of 110 km as crow flies), it performs above the CEB average (36 per cent), the EBRD average (71 per cent) and the OECD comparator average (37 per cent). In Estonia and Latvia, intercity travel times are typically 31 per cent and 47 per cent longer than the frontier, respectively. On non-road transport infrastructure, the three Baltic states rank lowest among the CEB countries, but above the EBRD average. The non-transport infrastructural score is compiled based on performance with regard to the rail, air and sea pillars of the Global Competitiveness Indicators (World Economic Forum, 2020a). All three Baltic countries rank highest on Rail infrastructure and lowest on sea infrastructure. Among the CEB countries, domestic logistical performance is deemed lowest in Latvia (2.8/5), while Lithuania (3.2/5) and Estonia (3.4/5) are close to the regional average (3.3/5).

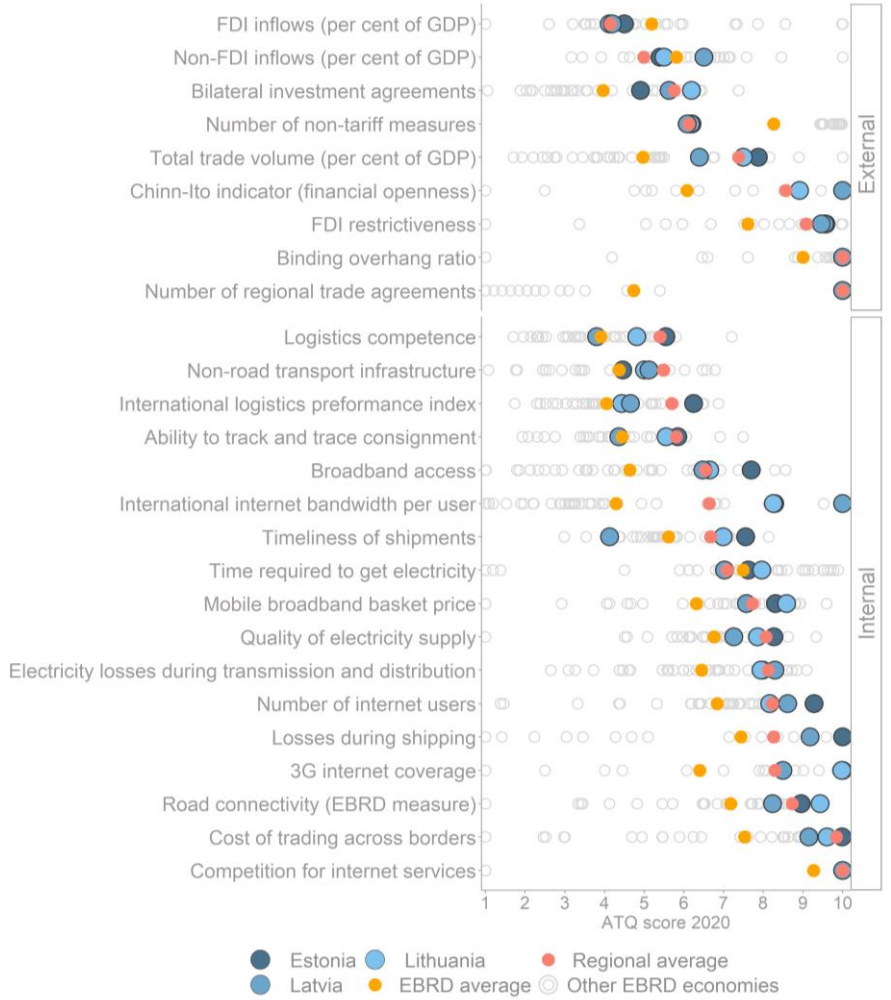
Cross-border transport: On international logistical performance, Lithuania (2.8/5) and Latvia (2.8/5) are the worst performers in the CEB region (average: 3.1/5). Estonia performs better (3.2/5), but is still below the average of the OECD comparator countries (3.8/5).

ATQ Annex: Integrated

Estonia: 7.57/10, Latvia: 7.08/10, Lithuania: 7.23/10

European Bank
for Reconstruction and Development

Energy and ICT infrastructure: Overall, energy and ICT infrastructure are above the CEB average in the three Baltic states, with only Slovenia is performing better. The results are mostly driven by comparatively better ICT infrastructure. Electric power and transmission losses are on average 6.9 per cent of domestic supply, in line with the CEB average (6.8 per cent) and above the EBRD average (10.8 per cent). The quality of electricity supply is above the CEB average in Estonia, but below in Lithuania and Latvia. It takes on average 82 days to obtain a permanent electricity connection in Lithuania, compared with 91 and 107 days in Estonia and Latvia, respectively. This is quicker than the CEB country average (105 days) and the EBRD average (95 days), but substantially longer than the OECD comparator average (68 days). At 89.4 per cent, Estonia's share of internet users is the highest of the economies in which the EBRD invests (average: 68.3 per cent), with Latvia (83.6 per cent) and Lithuania (79.7 per cent) ranking third and eighth, respectively. The share of fixed broadband subscriptions is also relatively high in the Baltic states (on average 29.6 per cent). The Baltic countries are also among the top performers on other ICT measures. For instance, 3G coverage and international internet bandwidth per user are high, while the price for mobile broadband is comparatively low.



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ATQ Annex: Resilient

Estonia: 7.47/10, Latvia: 6.85/10, Lithuania: 6.68/10

European Bank
for Reconstruction and Development

Financial institutions

The Baltic banking sector is strong in terms of asset quality, capitalisation and profitability. However, it also faces a few challenges, including low credit penetration and shallow capital markets.

Baltic's banking sector is highly concentrated and majority owned by Nordic banking groups. The Baltic states' banking system is large, with 17 banks in Estonia, 18 commercial banks in Latvia and 14 banks in Lithuania. The Baltic states' sector is dominated by Nordic banking groups. Swedbank has the largest share of assets in the region, followed by Sweden's Skandinaviska Enskilda Banken (SEB) and Estonia's Luminor Bank. The five largest banks accounted for 96 per cent of sector assets in Estonia and 83 per cent in Latvia in 2019. The banking sector in Lithuania is smaller and saw slower asset and deposit growth than its neighbouring Baltic states.

Asset quality is high and continues to improve. In the Baltic states, NPLs have declined steadily since 2010, to 0.36 per cent in Estonia, 5 per cent in Latvia and 1.16 per cent in Lithuania in 2019. Average provisioning coverage reached around 41 per cent (39 per cent, in Estonia, 44 percent in Latvia, 41 percent in Lithuania). The loan-to-deposit ratio for Estonia (103 per cent) and Lithuania (117 per cent) has improved, while Latvia remained below 100 per cent in 2019 (at 78 per cent).

The banks are well capitalised and profitable. The capital adequacy ratio (CAR) remains strong, while profitability is supported by overall lending growth and stable lending margins. The CAR ratio in 2019 was 25 per cent in Estonia, 21 per cent in Latvia and 19 per cent in Lithuania. Profitability measured by return on assets (ROA) remains moderate and trending downwards. This is particularly the case in Latvia, where the ROA reached 0.58 per cent in 2019, significantly lower than in 2018 (1.25 per cent).

Credit penetration is relatively low compared with the EU. Credit to the private sector to GDP was well below the EU average as of 2019. The credit-to-GDP ratio for Estonia was 59 per cent, Latvia, 35 per cent, and Lithuania, 39 per cent.

Capital markets remain shallow compared with the EU. Capital markets in Baltic states suffer from the small size of the underlying economies and low liquidity compared with EU peers. Against this backdrop, the creation of a pan-Baltic integrated market is at the core of capital markets development strategy in the region. The integration of market infrastructures and the creation of common capital market instruments in the three countries are expected to bring significant benefits.

Energy

Interconnection: The Baltic energy market interconnection plan (BEMIP) is to achieve an open and integrated regional electricity and gas market between EU countries in the Baltic Sea region. A number of cross-border and domestic infrastructure projects have been completed across the Baltic states to improve their integration with the Nordic electricity market. Key electricity infrastructural projects, such as Estlink, Nordbalt and the LitPol Link, connecting the three Baltic states with Finland, Sweden and Poland, respectively, have significantly improved the Baltic states' integration into the EU energy market. A new high voltage direct current (HVDC) cable, Harmony Link, is being developed between Lithuania and Poland as phase two of Baltic synchronisation with Continental Europe. The Baltic Interconnector also became operational from the beginning of 2020, transporting gas between Estonia and Finland.

Synchronisation: The three Baltic states' electricity grid still operates synchronously with the Russian and Belarusian systems. By 2025, the synchronisation of the Baltic states' grid with the continental European network is expected to be in place. In 2019, the European Commission allocated €324 million for the first phase of synchronisation, of which €125 million was for the renewal and strengthening of the Lithuanian electricity system. €720 million was approved in October 2020 for the second phase of synchronisation.

ATQ Annex: Resilient

Estonia: 7.47/10, Latvia: 6.85/10, Lithuania: 6.68/10

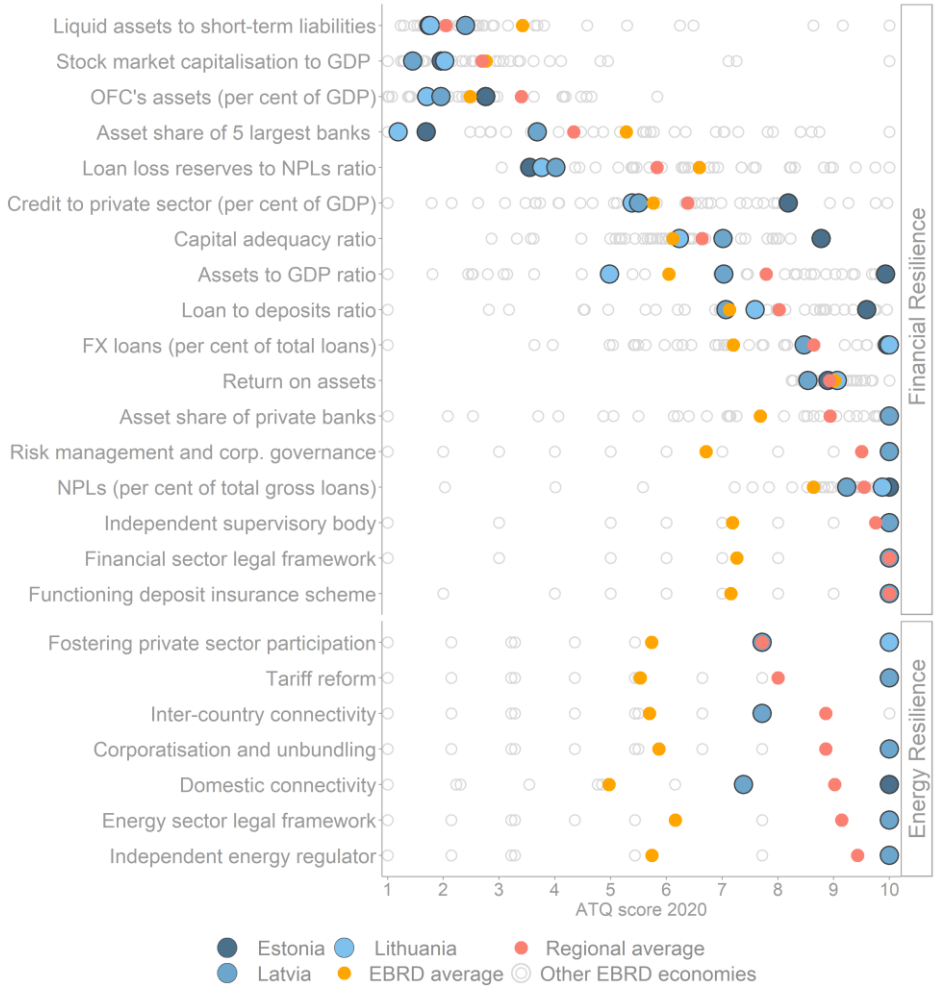
European Bank
for Reconstruction and Development

Regional Integration: Estonia, Finland, Latvia and Lithuania agreed on 20 April 2020 to establish a process for the regional gas-market integration of their countries. It will be the first four-country cross-border gas market merger in the EU, which will help to upscale the production of renewable and decarbonised gases in the region. On 30 September 2020, the Energy Ministers for the eight EU countries in the Baltic Sea region and Commissioner Kadri Simson signed a declaration committing to closer cooperation on offshore wind in the Baltic Sea. This increased level of regional integration comes on the back of significant integration with the EU electricity market.

Security of supply: Estonia is among the EU countries least dependent on energy imports, thanks to its use of oil shale and, increasingly, renewables. Oil shale accounts for around 72 per cent of Estonia's total domestic energy production, 73 per cent of total primary energy supply and 76 per cent of electricity generation. Lithuania's energy sector is characterised by its carbon intensity, which is nearly twice the EU-28 average. One of the main energy challenges for Lithuania is that it remains heavily dependent on gas imports. Latvia's dependency on imported energy has been waning as the focus shifts to domestic renewable supply.

Unbundling: The Baltic transmission systems operators are certified and fully compliant with the unbundling provisions of the Third Energy Package. Elering was unbundled in 2010, Litgrid from Lietuvos Energija in 2012 and AST from Latvenergo in 2012.

Market: The Baltic Energy Market Interconnection Plan Action Plan provides for a gradual phase-out of regulated household prices. The Estonian electricity market has been fully open since 2013 and consumers are free to choose supplier. The Lithuanian Electricity Market Development and Implementation Plan was revised in August 2020. Consumers consuming 5,000 kWh or more of electricity per year, as of 1 January 2021, will be eligible to choose their supplier on full market opening from 2023. Wholesale trading in the Baltic states is covered in Nordpool and the Baltic states are fully integrated into the European markets for day-ahead and intraday trading, with progress being made on balancing.



Source: EBRD.

Note: Visit https://2021.tr-ebrd.com/structural-reform/ for the list of indicators, data sources and methodological notes.

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