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COMMISSION STAFF WORKING DOCUMENT

2022 Country Report - Latvia

Accompanying the document

Recommendation for a COUNCIL RECOMMENDATION

on the 2022 National Reform Programme of Latvia and delivering a Council opinion on the 2022 Stability Programme of Latvia

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Latvia

2022 Country Report

ECONOMIC AND EMPLOYMENT SNAPSHOT

Solid recovery hit by economic fallout from Russia's invasion of Ukraine

The Latvian economy has weathered well the COVID-19 crisis. While the impact of the Covid-19 crisis on the Latvian economy was milder than in the EU on average, its recovery was temporarily hindered by low vaccination rates and a need for maintaining restrictions to economic activity. However, the vaccination rates improved significantly at the start of 2022 and the more positive epidemiological outlook for 2022 was expected to give a substantial boost to household consumption and exports of services, which had not recovered to their pre-pandemic peak yet. As a result, Latvia entered 2022 with solid growth momentum, with consumption, investment and exports set for a strong showing. However, Russia's invasion of Ukraine and the ensuing spike in commodity prices, most notably energy, put breaks on the post-pandemic recovery prospects. The loss of export revenue and high price growth are set to slow real growth to 2.0% in 2022. In 2023, growth is expected to pick up to 2.9%, led by private consumption and exports.

Latvia has close trade ties with Russia and is dependent on it for its energy. Latvia's relatively high exposure to trade with Russia is set to lead to a loss of export revenue and significantly increase prices for wood and metal raw materials that Russia was a major supplier of. The economic and financial sanctions imposed on Russia and Belarus are expected to halt trade with the two countries in everything but energy products. Moreover, with Latvia's announced intention to cease Russian gas imports starting from 2023, all trade with Russia would cease by next year. Latvia's total exports to Russia and Belarus amounted to more than 4% of GDP in 2021, while imports amounted to more than 6% of GDP, including energy products.

The spike in energy prices and supply chain disruptions are spurring high inflation. Consumer price inflation is set to reach 9.4% in 2022, driven by rapid growth in energy and food prices. While global energy commodity price growth is expected to relent in spring 2023, the knock-on effects of rapid price growth in industry and construction are expected to drive consumer price inflation over the forecast horizon. While Latvia's intention to cease importing Russian gas from 2023 is expected to keep energy prices at a high level for longer, they are expected to decrease in the second half of 2023. Nevertheless, combined with price growth in other components, inflation is set to average 3.5% in 2023.

The government has taken measures to counter the economic and social consequences of Russia's invasion of Ukraine. To address surging energy prices, the government has approved support to households, including to the most vulnerable, as well as rebates for the network service tariff to households and enterprises. In response to the humanitarian crisis, a support package for the people fleeing Ukraine has been put in place and includes access to social protection, healthcare, education and housing services. Additionally, their access to the labour market has been eased. The government has agreed to increase the defence budget to 2.5% of GDP by 2025.

Latvia's macroeconomic fundamentals remain sound despite the significant increase in public debt in the wake of the COVID-19 pandemic. Latvia deployed a sizeable fiscal support package in

response to the economic contraction caused by the pandemic. The measures were aimed at preserving jobs and supporting the livelihoods of the households most severely affected by the crisis, helping businesses cover fixed costs during closure and facilitating a faster economic recovery through increased investments. As a result, the government deficit increased considerably from 0.6% of GDP in 2019 to 4.5% of GDP in 2020 and 7.3% of GDP in 2021. Fiscal policy is expected to continue playing a supporting role to the economy in 2022 as the government deficit is expected to remain elevated at 7.2% of GDP despite substantial reduction of the COVID-19 support measures. The 2022 budget includes pay rise to healthcare, education and other public sector employees. Moreover, it includes a number of temporary measures, like support to mitigate surge in energy prices, purchase of energy security reserves, as well as increased spending on defence and support to the people fleeing Ukraine. In 2023, the deficit is projected to decrease to 3.0% of GDP as most of the 2022 expenditure measures are expected to expire by end of the year, allowing public debt to stabilise at 46.5% of GDP. However, the adequacy of financing for certain public services – healthcare and social protection, in particular – presents a formidable challenge due to the relatively low revenue of the Latvian tax system [1]. The large informal economy also reduces the government's revenue. Broader macroeconomic indicators point to limited risks to stability as the current account fluctuates mildly around balance, private indebtedness is low and house price growth, although rapid, has not exceeded income growth over the medium term. Low private debt, however, partially reflects subdued credit growth over the past decade. Difficulties in access to credit, faced by small and medium-sized firms in particular, raise concerns about stifling

investment and, hence, future productivity growth (see Annex 10).

Although its income level remains below the EU average, Latvia continues on a solid convergence path. In 2020, Latvia's income level stood at 70% of the EU average [2]. Over the past 5 years, the growth of Latvia's GDP per capita was markedly higher than the EU's – 2.95% vs. 1.0% on average from 2016 to 2021 [3]. However, Latvia's GDP per capita growth rate has been below that of Lithuania and Estonia, which achieved 4.1% and 3.7% average growth over the same period, respectively (see Annex 18). The main risks to continued convergence stem from demographic challenges, which lead to labour and skills shortages, the shrinking of the domestic market and rising per capita infrastructure and public service costs. The demographic challenges of both rapid ageing and the decline of the overall population underpin Latvia's key sectoral challenges like regional disparities in income and access to services, subdued investment, including in housing, and inefficiencies in the public administration (see Annex 11).

Ensuring an inclusive and socially fair recovery remains a challenge in Latvia as reflected in the Social Scoreboard accompanying the European Pillar of Social Rights (see Annex 12). Growth has not been fully inclusive as income inequality is among the highest in the EU, regional disparities persist, and poverty risks remain significant. While Latvia's labour market is recovering, there are notable disparities in employment across regions and skills levels. Equipping the workforce with labour market relevant skills, including basic and advanced digital skills, remains a challenge to both labour market performance and inequality. The risk of poverty and social exclusion remains high, particularly among older people, while the poverty reduction impact of social transfers is low (see Annex 12). Limited access to services and low adequacy of social

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[1] In 2020, Latvia's tax revenue amounted to 31.5% of GDP, 6th lowest in the EU. On the expenditure side, spending on health and social protection stand out, lagging the EU average 3.2 and 8.5 pps of GDP, respectively.

[2] Expressed in Purchasing Power Standards

[3] GDP per capita for 2021 is a forecast

assistance for vulnerable groups (older people, persons with disabilities, the unemployed) - including long-term care, social housing and individual needs-based social services - further hinders social inclusion. Low funding limits the provision of accessible and timely health services (see Annex 14). Shortages of health professionals coupled with uneven regional distribution create further barriers in access to healthcare. While the implementation of the administrative territorial reform is ongoing, which is examining the significant regional economic and social disparities, there is scope for accompanying reforms and investments to ensure equal access to quality public services and boost the economic potential of Latvia's peripheral regions.

Reducing energy consumption in transport and buildings, boosting renewable energy capacity, delivering on the circular economy and improving protection of biodiversity are Latvia's key environmental and climate policy challenges. While its share of renewable energy is among the highest in the EU (coming mainly from woody biomass) Latvia faces major challenges over its non-Emissions Trading System (ETS) emissions, which have been increasing due to rising energy consumption in transport and buildings. Tapping the potential of wind and solar power offer the most viable long-term solution to increase the share of renewables. The success of these energy policies may also contribute to the wider goal of reducing energy dependence of Latvia (see Annex 6). Moreover, with a downward trend in the transition to a circular economy, Latvia is far from reaching its targets in terms of resource efficiency and material circularity (see Annex 7). Protecting biodiversity also presents significant challenges, with less than 10% of the protected habitats in favourable conservation status. Forest management also remains underdeveloped: 90% of the assessments of protected forests and grasslands show bad-to-poor status and emission absorption from forests is declining.

While Latvia is performing well in terms of connectivity and digital public services, the shortage of digital skills hampers the digital transformation. It is a front-runner in broadband coverage and take-up and was well prepared for the 5G rollout. However, the digital divide is present and there are gaps in connectivity, with lower coverage in rural areas ([4]). Despite extensive investment in middle-mile connections in rural regions, there has been no private investment in last-mile connections due to a lack of commercial viability. The digital provision of public services is strong, but the share of highly digitalised companies is lagging behind. Moreover, the low level of digital skills, including the lack of information and communications technology (ICT) specialists, is a key obstacle to more widespread use of digital solutions by the private sector (see Annex 8).

Latvia is progressing well towards the Sustainable Development Goals (SDGs) and the four dimensions of competitive sustainability, but more slowly in improving fairness, innovation and circular material use (see Annex 1). Latvia performs very well on several SDG indicators related to environmental sustainability with among the highest shares of renewable energy of all EU countries (SDG 7), but it still needs to catch up on circular material use rate (SDG 12). Latvia lags behind the EU average in several areas related to fairness (SDG 1, 3, 4, 5, 8). Despite some positive developments over the years, income inequality is high (SDG 10), which is closely linked to poor health outcomes (SDG 3) and limited impact of social transfers in reducing poverty (SDG 1). The performance on SDG indicators related to productivity (SDG 4, 8, 9) is impacted by the lower than EU average digital skills and gross domestic expenditure on R&D. Latvia performs well on macroeconomic stability (SDG 8).

([4]) Perpiña Castillo C., Sulis P., Velasco Leon J.M. & Lavalle C. (2021). Broadband accessibility and quality connection in Europe by urban-rural typology including remoteness. Policy Brief. European Commission – Joint Research Centre, JRC124456

RECOVERY AND RESILIENCE PLAN

The Latvian plan is ambitious in its effort to address the country's long-term challenges. It is supported by an EU grant of EUR 1.8 billion, representing approximately 6% of Latvia's 2019 GDP; 37.6% of the plan will support climate objectives and 21% will support the digital transition (see Annex 2). Latvia's plan is expected to contribute to effectively addressing a significant subset of challenges identified in the country-specific recommendations (see Annex 4). The plan's most ambitious reforms are related to the governance and financing of higher education institutions, the implementation of a comprehensive human resources strategy in healthcare and the introduction of indexation for minimum income benefits, thereby contributing to implement the European Pillar of Social Rights. Sizeable investments include the greening of the Riga metropolitan area transport system thanks among other things to the acquisition of clean public vehicles and the energy renovation of both private and public buildings and businesses. Significant investment is also planned to promote regional development: improving school equipment and infrastructure, creation of industrial parks and more affordable housing and modernising hospitals.

The Latvian recovery and resilience plan (RRP) will contribute to the green transition (see Annexes 5 and 6). The RRP generally addresses the trend of growing energy consumption in transport and buildings notably by greening the Riga metropolitan area transport system and investing in sustainable public transport. The RRP will also support decarbonisation through significant investments in energy efficient renovation (in businesses, multi-apartment and public buildings alike), support for renewables, the modernisation of the grid network and climate adaptation measures. By the end of 2023, Latvia aims to have implemented a coordinated approach for passenger transport planning, ordering and organisation of the area. Efforts to increase the share of renewable energy and modernise energy networks will also start soon as the first modernisation contracts will be awarded by 2023. Support schemes for large investments in energy efficient renovation have also started to enter into force this year.

Concerning the digital transition, the key priorities addressed by the RRP will be on measures to address poor skills, insufficient last-mile and 5G connectivity, and low level of business digitalisation (5). Latvia's RRP supports the digital transition thanks to investment in digitalising public administration and public services, support for the digital transformation of businesses, and creating a better environment for research and innovation with measures to improve the digitalisation of small and medium-sized firms. The plan also includes measures to deploy high-speed broadband that should help further improve digital infrastructure and reforms in favour of digital upskilling, such as a new adult learning framework, improving basic and advanced digital skills for individuals, businesses and public administration. By this summer, measures to support the digital transformation of public administration will have entered into force. By the end of 2023, 26 000 computers are expected to be made available in digital libraries for pupils and teachers. Support measures to help businesses (in particular small and medium-sized firms) develop the skills of their employees are also planned to be effective by the end of 2023.

- Greening of Riga metropolitan area thanks to a coordinated approach for passenger transport planning, ordering and organisation

- Entry into force of the new 'Law on Municipalities which will review the functions and tasks of local governments

- Setting up a financing fund to build low-rent housing

- Adoption of a digital health strategy

- Modernisation of electricity transmission and distribution networks

- Creation of five innovation clusters

- Adoption of a plan to modernise public administration

- Entry into force of changes to minimum income legislation, introducing an indexation mechanism and a minimum threshold

The RRP aims to improve digital skills across sectors and population groups. Only 51% of the population has at least basic digital skills, which is below the EU average in 2021. As the demand for basic digital skills in the labour market increases, their scarcity creates a digital divide, leading to higher unemployment and social exclusion risks. The RRP aims to close part of gaps: it aims to reach a share of 54% of the population with at least basic digital skills by Q3-2026, while the EU average is at 54% already in 2021 (see Annex 8).

In the health care area, the RRP will also address challenges in resilience, access, quality and integration across care levels. The health component of the RRP aims to improve the resilience, accessibility and quality of healthcare through two reform priorities – integrated healthcare and strengthening the health workforce, notably by developing a health workforce strategy with better planning, improved training and a new remuneration model for health professionals. The RRP also provides for investments in public health research, the health infrastructure of university and regional hospitals and the health infrastructure of secondary outpatient service providers. A digital health strategy is expected to be adopted this autumn by the Ministry of Health. The Latvian authorities are also expected to adopt a comprehensive health workforce strategy by mid-2023 and introduce a new

remuneration model for healthcare staff by mid-2024.

Challenges linked to poverty reduction and social inclusion will also be tackled by the RRP, starting this year. The RRP provides for the introduction of an annual indexation mechanism to the minimum income and setting the minimum income level at 20% of median income in 2023. This is complemented with investments in accessibility and rehabilitation infrastructure for persons with reduced mobility and disabilities, as well long-term care investments for older people. Digital tools to better assess the skills of jobseekers and unemployed will be implemented by 2023 [6]. By the end of 2023, work contracts to adapt the dwellings of more than 200 persons with disabilities will have been concluded and legislative amendments to improve the minimum income support system will have entered into force.

Latvia's RRP is also taking steps to improve the country's affordable housing offer. The plan reinforces economic and social resilience with investment in affordable housing, which should also help promote labour mobility as Latvians are often hampered by a lack of

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[6] Available tools in Latvian already include https://mydigiskills.eu/ and https://digital-skills-jobs.europa.eu/en/digital-skills-assessment .

low-rent housing opportunities in areas with the best employment opportunities. The challenge will be tackled by amending rental legislation and developing a low-rent housing fund backed by the RRP, together with an affordable housing strategy. By 2026, 300 low-rent zero-energy apartments will be built and delivered.

Latvia has also started tackling the insufficient quality and efficiency of the education system, as set out in their RRP. A higher education reform will aim to improve governance, the accreditation mechanism and funding principles for the higher education sector. In parallel, the RRP provides for investment to increase highly skilled human resources in R&D and increase the share of innovative businesses in the economy. The reform of governance for higher education institutions is expected by the end of this year and contracts will be signed by 2023 to develop innovation clusters that would develop R&D capacity in businesses. By this summer, decisions to reorganise at least 20 general secondary education institutions (mergers, change of education level) will have been taken (see Annexes 9 and 13).

An administrative territorial reform has also been kicked off under the RRP. In 2021, the administrative territorial reform, reducing the number of local government administrations from 119 to 42, came into force. The RRP includes a new 'Law on Municipalities' aimed at reviewing the functions and tasks of the new local administrations and ensuring improved governance: it is planned to enter into force by the end of 2023.

Within the RRP, fiscal challenges are being tackled. The component on rule of law provides for the adoption of a National Institutions Work Plan for Restraining the Shadow Economy for 2021-2022. This will set out measures to address unregistered and illegal economic activity, undeclared employment, tax fraud and the like. Other investments will strengthen analytics and data management in the field of tax administration and customs. The implementation of the work plan, however, remains outside the scope of the RRP.

Latvia continues to strengthen the anti-money laundering framework. Under the RRP, Latvia is expected to continue to work on implementing the anti-money laundering strategy. It will do this by reforming cooperation, information exchange and training systems between the law enforcement agencies involved in identifying, investigating and trying economic crimes. At the same time, it will strengthen their technical capacity and boost the capacity of civil society organisations. Further work on the implementation of the anti-money laundering strategy has also started.

Beyond the challenges addressed by the RRP, as outlined above, Latvia faces additional challenges not sufficiently covered in the plan. While the RRP measures have a strong focus on digital skills and adult learning, albeit not targeting the low-skilled, it alone is not sufficient to address the emerging skills shortages and mismatches. The challenges in Latvia's health sector go beyond those linked to human resources. Inadequate financing has consequences on most parts of the system, but the performance of long-term care is particularly weak. Moreover, while Latvia's RRP includes a minimum income reform improving the income of the poorest 10% of the population, the overall redistributive effectiveness of the tax-benefit system remains weak, with inequality in Latvia being among the highest in the EU. The low funding levels for health and social systems is closely linked to Latvia's low tax revenue as a share of GDP. Addressing these challenges will also help make further progress in achieving the SDGs related to healthcare, poverty and inequality.

Improving the quality and composition of public finances

Low tax revenues limit Latvia's capacity to improve its health and social services which require higher funding for a sustainable improvement. The pandemic and recent energy price rises have highlighted issues in sectors already suffering from inadequate financing, namely healthcare and social protection (Graph 3.1). The government has provided sizeable temporary COVID-19 related support to the healthcare sector as well as implementing several interim measures to compensate for energy price hikes for households and businesses. However, a

longer-term plan to sustainably increase financing for public services would be beneficial.

Graph 3.1: **General government expenditure by function in 2020, % of GDP**
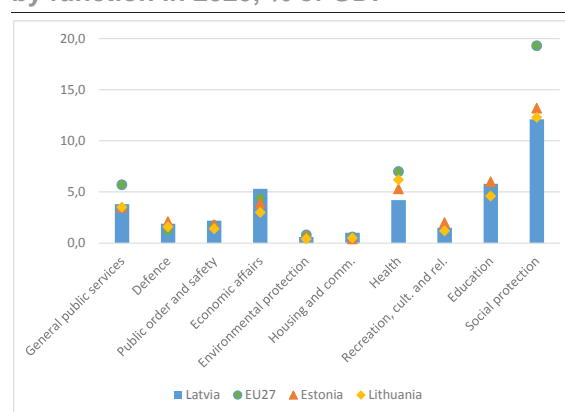
Source: Eurostat

Public spending in healthcare and social protection sectors has been consistently low not only against the EU average, but also in comparison to Baltic peers. In healthcare, the low financing has resulted in poor health outcomes, limited access to services and human resources shortages. Equally, low funding for social protection translates into relatively high income inequality and risks of poverty and social exclusion. Although recent annual budgets have focused on support for health and social care and social protection, as well as reducing income inequality through adjustments in tax policy ([7]), this process has been somewhat fragmented and insufficiently targeted. It has varied according to political priorities, and still falls short of filling the gaps accrued during several decades of under-financing.

Low tax revenue is among the chief obstacles to effectively addressing

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([7]) According to priorities defined in the 2022 Medium Term Budget Framework Laws.

Latvia's health and social challenges. The tax-revenue-to-GDP ratio has gradually increased since Latvia joined the EU, from 27.6% in 2004 to 31.5% in 2020, yet it remains one of the lowest in the EU (EU average: 40.2%) (see Annex 17). The annual budget preparation and execution process indicates that there is a significant lack of budget resources to meet the needs of public services. During budget preparation this is testified by the substantial gap between the total new budgetary requests from the ministries and the fiscal space allocated to new policy initiatives ([8]). It is further indicated by the fiscal slippages during budget execution, usually resulting in higher structural deficits than allowed by the national fiscal framework, as noted by the Fiscal Discipline Council in multiple non-conformity reports.

Measures aimed at reducing inequality could be better targeted. The 2022 budget includes some measures designed to reduce income inequality: increases in (i) the differentiated non-taxable minimum for personal income tax, (ii) the income tax allowance for pensioners, and (iii) family benefits. However, preliminary analysis indicates that, although these measures have the desired effect of raising disposable income, the poorest 20% of households are weakly targeted and the groups expected to gain most are those at the middle-income level (European Commission, Joint Research Centre, calculation based on the European Patent Office (EUROMOD) model I4.0+) (Graph 3.2).

Graph 3.2: **Effect on income distribution after 2022/23 policy changes (% change to the 2021 baseline)**
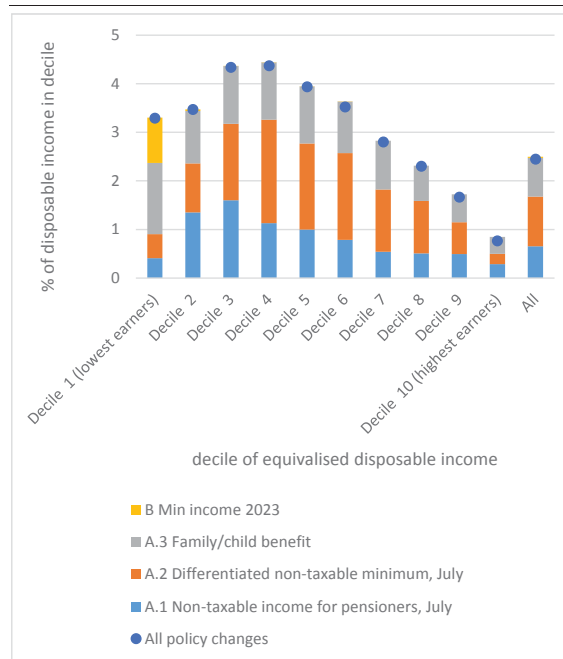
Source: European Commission, EUROMOD

The share of tax revenue could be raised by increasing tax progressivity and taxation in fields less detrimental to growth, in particular capital and property. Historically, the main sources of revenue for the Latvian government are labour and consumption taxes, whereas the share of capital taxes – low compared to other Member States – was further reduced by the corporate tax reform in 2017. Latvia collects the lowest revenue from corporate income taxes in the EU (0.7% of GDP in 2020), while revenue from property taxes is 1.0% of GDP compared with the EU average of 2.3% of GDP. The property taxation system in Latvia would be well suited to supporting social care needs, mainly because the property tax is collected and administered at local government level, so higher tax revenue would go directly to municipalities, which are the point of first access for citizens with social needs. The cadastral and rebate system could be reformed to correctly reflect property market values while adjusting the rebate system to be economically justified (to attract companies to less developed regions) and socially motivated (e.g. to protect low earners historically living in houses located in the

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([8]) According to the Ministry of Finance of Latvia, during preparation of Budget 2022, requests by line ministries constituted EUR 1.68 billion for 2022, EUR 2.06 billion for 2023 and EUR 2.46 billion for 2024, whereas the attributed fiscal space for current expenditure in 2022 was around EUR 311 million.

Riga agglomeration). Moreover, while tax rates on labour are relatively high, there is considerable scope to increase revenue from labour taxation through better collection and higher progressivity ([9]).

The informal economy remains prevalent, reducing tax revenue and hindering income redistribution. Based on surveys of company owners and managers, Latvia's shadow economy was estimated at 25.5% of GDP in 2020, which is the highest observed level since 2011. The shadow economy has been on an increasing path, as demonstrated by an estimated growth rate differential of 4.8% in the 5 years from 2016 to 2020 and is considerably above other Baltic peers, namely Lithuania (20.4% of GDP in 2020) and Estonia (16.5%) ([10]). Undeclared ('envelope') wages (estimated at 47% of the shadow economy in Latvia) account for most of the difference with other Baltic states. Among sectors, construction (29%) and wholesale (25%) had the highest estimated share of shadow activity in 2016-2020 on average. On the other hand, Latvia's VAT gap has declined substantially in recent years and now sits below the EU median. Measures under the RRP, like updating the risk assessment system, adjusting the audit and control practices and improving the analytical capacity of responsible authorities - are expected to improve the tax revenue service's capacity to reduce the share of undeclared income, and prevent or uncover fraud. However,

continuous efforts at implementation will be required to achieve material gains in additional revenues.

Using energy and natural resources more efficiently and decreasing dependence on fossil fuels, including from Russia

The vast majority of Latvia's energy imports directly or indirectly come from Russia, but alternative sources of supply exist. While Latvia's share of renewable energy at 44.1% is among the highest in the EU, the remaining part is made up of oil (34% of the energy mix) and natural gas (22%) which were mostly imported from Russia ([11]). Thanks to easier transportation, oil products pose a significantly lower risk than natural gas in terms of security of supply. For natural gas, Latvia is connected to Russia through several pipelines and has historically bought all of its supply from Russia ([12]). However, thanks to its gas connection with Lithuania, it has access to an alternative supply source through the Klaipeda LNG terminal. In order to ensure gas flows at maximum capacity, an upgrade of interconnectors with neighbouring countries is needed. A further interconnection between Lithuania and Poland became operational on 1 May 2022 connecting the Baltic market with Poland ([13]). Finally, the region is served by the Incukalns gas storage ([14]), allowing for smoothing the seasonal mismatches between gas supply and demand. Recent energy solidarity agreements with Estonia and Lithuania provide a mechanism of ensuring gas

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([9]) Tax wedge on labour is about EU average for average wage earners and above EU average for low wage earners. At the same time, implicit tax rate on labour, which takes the actual revenue collected into account, is among the lowest in the EU

([10]) Sauka A., Putnins T. (2021) Shadow Economy Index for the Baltic Countries, Stockholm School of Economics in Riga (sseriga.edu). Alternative assessment of the shadow economy developments in the OECD countries (Schneider F. (2021), Development of the Shadow Economy of 36 OECD Countries over 2003 - 2021) indicates that Latvia has the lowest level of shadow economy among Baltic states. Meanwhile, shadow economy in Latvia still remains relatively elevated (LV 20.22% vs 17.42% EU28 in 2021) and reduction between 2018 and 2021 has been negligible.

([11]) Based on 2021 data. Latvia's oil product imports come from Lithuania (roughly 70%) and Finland (roughly 30%). The refineries in these countries get their crude oil from Russia. However, they are now looking to buy from other sources.

([12]) Eurostat (2020), share of Russian imports over total imports of natural gas. For LV, total imports include intra-EU trade.

([13]) The connector's capacity is around 60 GWh/day

([14]) Total capacity of 24 TWh

supplies between the Baltics in case of a supply shortage.

Most importantly, reducing energy dependence requires boosting the share of renewables in the energy mix and improving energy efficiency. In its national energy and climate plan (NECP), Latvia has committed to increasing the renewables share in gross final energy consumption to 50% by 2030. This target would most likely have to be increased to achieve the higher EU renewable targets for 2030 proposed in the Fit for 55 package. In this regard, Latvia is expected to benefit from removing existing regulatory barriers to the development of onshore wind energy, as foreseen in its RRP. The government recently announced its intention to explore opportunities for building wind parks in state forests. Additionally, Latvia could accelerate the deployment of offshore wind parks, including jointly with neighbouring Member States. To diversify the energy mix, currently unexploited alternative energy sources are being considered by Latvia (e.g. nuclear power). Completing the synchronisation of the electricity grid would also be beneficial to secure networks and supply. Furthermore, energy efficiency measures could be reinforced, in particular in buildings, transport and industry, which are among the largest contributors to the rising energy consumption (see Annex 5). Such measures would, in turn, reduce energy consumption and thus energy dependence. Finally, sustainable mobility measures, as also included in Latvia's RRP, can further reduce energy dependence on oil.

Improving access to finance for small and medium businesses

Latvia's banking sector has remained sound throughout the crisis, but long-standing issues throttle credit growth. The COVID-19 crisis has not had a significant impact on the banking sector's stability with all key financial soundness indicators - capital adequacy, liquidity coverage and profitability – performing above the EU average (see Annex 16). After having picked up in 2019, credit growth turned negative again in 2020 mostly due to uncertainty caused by the pandemic, which led to the postponement of some investment projects and increased caution with borrowing overall. Credit growth resumed with vigour in 2021, with annual growth reaching 8.9% in the third quarter of 2021, with mortgage lending showing particularly strong growth. However, overall credit growth has been disappointing over a long-time horizon – the credit flow to the private sector has been negative for the better part of the last decade. It turned positive in 2016 but the growth rate of credit still remained below the growth rate of GDP, leading to sizeable private sector deleveraging. In 2020, private sector debt stood at 66.5% of GDP compared with 78.3% of GDP 5 years earlier.

Graph 3.3: **Private sector credit flow, % of GDP**
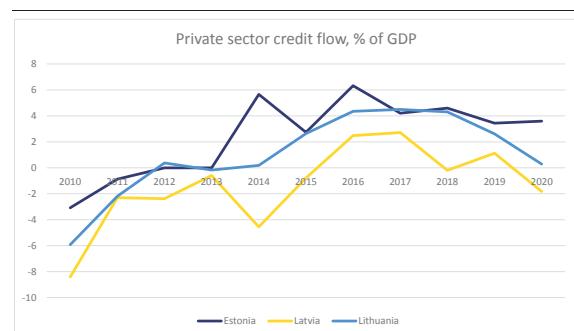
Source: Eurostat

Slow credit growth is due to both demand and supply factors. Banks cite high credit risk (bad track records, weak borrower collateral and equity) and the shadow economy (unreliable accounting records of companies, unverifiable income for households) as the most important constraints on corporate lending. Moreover, banks' standards for lending to small and medium-sized firms are tighter in Latvia than in other euro-area countries. Furthermore, the cost of credit to corporations is among the highest in the EU. While some of that is due to higher credit risk, part of the pricing gap remains unexplained and could be due to limited competition in the banking sector (Bank of

Latvia, 2021). Even though the availability of bank loans for large corporates with sound financial indicators is good, their demand is low due to preference for other sources of financing. Credit demand by small and medium-sized businesses is small due to strict collateral requirements, the high price of loans or burdensome paperwork. ([15]) Further on the demand side, investment in real estate, typically a major demand factor for corporate lending, has been lacklustre over the past decade. Furthermore, businesses and households in peripheral regions find it particularly difficult to have their assets accepted for collateral due to their poor liquidity. This presents a significant barrier to both mortgage lending and corporate lending in the peripheral regions. According to Bank of Latvia study, almost 90% of all new mortgages are lent out in Riga region

Easing the credit supply constraints requires both general improvements to the business environment as well as targeted policy measures. Continued reduction of the shadow economy could make the average business more likely to get credit through improved transparency and trust. Moreover, there is room for increasing the loan recovery rates, which could be facilitated by a more efficient legal system. Targeted loan guarantee schemes could help lower the liquidity risks for collateral faced by the banks. In addition, targeted public lending schemes for strategically important investments, like the green transition and regional development, could fill a market gap where bank financing is either not available or too expensive.

Bridging the skills gap

Latvia is faced with the restructuring of its labour market as skills shortages are increasing. The reduced labour supply due to the demographic decline leads to increasing labour shortages, further exacerbated by such structural issues as differences in employment conditions across regions and skills mismatches. In the short and medium term, there are shortages of high and medium skilled labour that restrict economic growth, particularly in such sectors as science and technology, construction, information and communication services, manufacturing and healthcare. At the same time, there is a surplus of low-skilled workers, also among the young. ([16]) Efforts are being made to equip the workforce with labour-market-relevant skills, especially for the unemployed, but increasing the participation of the low-skilled in learning and active labour market policies is an ongoing challenge.

Timely up- and re-skilling could help alleviate labour shortages and promote equal opportunities and active inclusion. Only 8.6% of adults in Latvia took part in learning activities in 2021, well below the EU average of 10.8%. Encouraging older workers (50+) with outdated medium level skills and the low-skilled to participate in adult learning is an ongoing challenge with little improvement over time. In addition, participation by the unemployed in active labour market measures remains low. Measures that can be effective in addressing these labour market challenges include strengthening the capacity of the Public Employment Service to target the low-skilled and the increasing share of unemployed aged 50+, and involving social partners in forecasting skills needs and designing training programmes. These would also contribute to the achievement of the 2030 EU headline targets on employment and adult learning.

([15]) European Commission, Analysis of the recovery and resilience plan of Latvia, 2021

([16]) Ministry of Economics (2021), Latvian Economic Development Report

Tackling social and regional inequalities and including the most vulnerable

Poverty risks and income inequality remain among the highest in the EU. Income distribution is more unequal in Latvia than in the EU on average, with little improvement over time. Due to the low spending on social protection (13.5% of GDP vs 22.0% EU in 2020) and the low redistributive effectiveness of the tax-benefit system, the impact of social transfers (other than pensions) on poverty reduction remains limited. The situation is particularly poor for older people, the unemployed and persons with disabilities. Despite the increases, the income of the recipients of the minimum income support, pensions and disability benefit falls well below the poverty line (see Annex 12). Significant efforts are therefore needed to improve social assistance and services for vulnerable groups, including long-term care, social housing and individual needs-based social services.

Weaknesses in the provision of social assistance and services limit their impact on addressing social exclusion. Delivery of social assistance and services to vulnerable groups is hindered by shortages of social workers and differences in types of assistance across municipalities, often not targeted to those most in need ([17]). Meanwhile, a reform to provide a standard basket of minimum social services in every municipality is planned to be introduced by 2027. The degree of integration and inter-institutional cooperation between social and health services, the Public Employment Service, police and child protection services is low. Meanwhile, demand for social assistance and services is increasing, in part due to the ageing population. ([18])

The need for long-term care is high and increasing. The share of people aged over 65 with long-term care needs is higher in Latvia than in other EU countries, and these needs are primarily met by informal carers. Public spending on long-term care is below the EU average (0.5% vs 1.7% EU in 2019), with significantly higher spending on institutional care than home care or cash benefits. The formal care system is underdeveloped, with long waiting times. The supply of home and community-based services, while increasing, remains limited (see Annex 12). The pandemic exposed some of the structural weaknesses of institutional care, especially fragmentation. Access, affordability and quality of care services vary across municipalities and target groups, while the integration of social and health services remains in its initial stages. The 2022 pay increases for workers in residential care institutions aim to address the high staff turnover and shortages, but the needs of informal carers are not addressed. With the support of EU funds, Latvia began the transition from institutional to community-based care in 2015, which is to be continued in the 2021-2027 period and complemented by an RRP investment in community-based housing and care services for older people. However, more integrated efforts are needed to develop the long-term care system, starting with a comprehensive long-term care strategy.

Latvia's health system is underfunded, which limits access to quality and timely care. Despite the recent temporary increases in health expenditure per capita, and the additional government funding (EUR 290 million committed in 2020 ([19])) to urgently support the health system during the COVID-19 pandemic, Latvia's health

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([17]) State Audit Office of Latvia Report: Does the national social inclusion policy achieve its poverty reduction targets? 2020.

([18]) According to the 2021 Ageing Report, a further considerable drop in the country's population is

projected between 2019 and 2070 (-38%), while the share of population aged 65+ is increasing and is now among the highest in the EU (20.8%).

([19]) OECD/European Observatory on Health Systems and Policies (2021), Latvia: Country Health Profile 2021, State of Health in the EU, OECD Publishing, Paris/European Observatory on Health Systems and Policies, Brussels.

system remains underfunded [20]. In 2019, only 61% of health expenditure was publicly funded, and the share of out-of-pocket spending was among the highest in the EU (see Annex 14). Low financial resources for health limit access to healthcare as the quotas for provision of services lead to high waiting times. Underfunding also limits the implementation of the public health policies developed by the government, for example to improve cancer screening rates, which remain low compared to the EU average. Consequently, the underfunding of the health system contributes to high avoidable mortality. Overall, the situation calls for a new financing model to provide a long-term sustainable solution for the health system. The government is working on a mandatory health insurance scheme to be presented in October 2022.

There is a shortage of health professionals in Latvia, in particular nurses, which hinders the provision of healthcare and poses risks to the success of health reforms. The number of nurses per 1 000 inhabitants in 2019 was about half the EU average and one of the lowest in the EU. Furthermore, rural areas are in a particular lack of health professionals, creating additional barriers to healthcare access. There is a need for further efforts to increase the number of nursing graduates as well as to improve the recruitment, retention and geographical balance of health professionals, to effectively reduce the persistent shortages in the health workforce.

Ensuring access to decent social housing for vulnerable groups requires further efforts. The share of people facing severe housing deprivation (11.5% in 2020) and overcrowding (16.5% in 2020) are among the highest in the EU. Access to social housing is limited as Latvia has one of the smallest social housing stocks in OECD countries (2%), and these are often not fit for habitation [21]. The provisional

funding from European Structural and Investment Funds (ESIF) 2021-27 for social housing is welcome, although needs are estimated to be much higher [22]. In 2021, rules for receiving housing benefits were harmonised and targeted more towards the most vulnerable, improving equal access across municipalities. However, the duration of the benefit is limited and coverage in 2021 had not improved significantly [23]. Social housing, homelessness and housing exclusion for vulnerable groups should be addressed to avoid deepening housing deprivation.

Regional economic and social disparities remain among the widest in the EU. There are significant economic differences between the capital and other regions. The Riga region has nearly three times the GDP per capita (118% of the EU average) of the region of Latgale (33%) or Zemgale (40%) [24]. The average monthly income (2020) in Riga was EUR 751, while in Latgale it was only EUR 445. Shortages of qualified workers limit growth. At the same time, the lack of good job opportunities contributes to depopulation of the poorest regions, along with limited affordable housing options. The range, coverage and quality of public services also varies considerably among Latvian regions (see Annex 15).

The capacity of local public administrations is key for the effective delivery of services. Newly formed municipalities will need complementary reforms and investment to ensure that quality public services are accessible to all, including those living further away from the

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[20] In 2020, Latvia's public expenditure on healthcare was 4.8% of GDP, the lowest in the EU

[21] OECD (2020): Policy Actions for Affordable Housing in Latvia

[22] According to the Ministry of Economics, social housing investment needs are estimated at EUR 290 million. Provisional ESIF funding of EUR 51 million is planned. According to Latvia's National Development Plan, by 2027 still 5700 people will be waiting for social housing, a reduction of 21% compared to 2018.

[23] According to monthly statistics from the Ministry of Welfare, from January to December 2021, the share of housing benefit recipients among the population decreased from 1.1% to 0.87%.

[24] European Commission (2021): Regional fact sheets, Selected indicators by NUTS-3 region, Latvia

new administrative centres. Continuing the implementation of the administrative capacity building roadmap would help the reforms and investments to be administered and implemented effectively. Raising the capacity of beneficiaries and intermediate bodies to prepare and implement projects, increasing the partnership capacity of social partners and of civil society organisations and improved public procurement performance could contribute to addressing the persistent regional disparity challenge [25].

Tackling Latvia's circular economy backlog

Regarding the circular economy, Latvia is increasingly underperforming and could tackle the issue actively. Despite recent positive developments towards a circular economy, Latvia's circular material use rate shows a downward trend and in 2020 was three times lower than the EU average (4.2% against the European average of 12.8% in 2020) (see Annex 7). In 2016 Latvia had a circularity rate of 6.5%, but it has been steadily declining since then [26].

Latvia is also failing to reach its targets on municipal waste. It has missed the 2020 municipal waste recycling target of 50% and increased effort and investment is necessary to meet the 55% recycling target for 2025. The landfill tax has been rising steadily. However, municipalities have not ensured sufficient investment in separate collection infrastructure. This may be linked to the fact that municipalities are not in charge of reaching national recycling targets. Infrastructure for separate collection is particularly poor in the capital, Riga, where around half of the country's waste is generated. The administrative and territorial reform, the reform of the waste management regions and implementation of the State Waste Management Plan for

2021-2028 incorporating the new EU waste targets and requirements are an opportunity to draw municipalities more closely into sound waste administration [27].

The circular economy action plan 2020-2027, adopted in September 2020, could help Latvia bring about the necessary systemic change and identify specific needs for strategic investment in the circular economy in the country. The action plan sets out ambitious targets in terms of resource productivity and increased circularity of materials and its implementation should be the main focus. The deposit system for beverage bottles and cans launched in February 2021 is a tangible result of the new plan. Other positive developments include the increase in green public procurement that has reached 27% in financial terms and 15.4% by number of all public purchases in 2020. This can help drive demand for sustainable products and make a significant contribution to sustainable consumption and production.

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[25] European Commission, Country Report Latvia 2019

[26] Eurostat 2020.

[27] The review aims to expand the system for the separate collection of waste, develop the institutional framework for waste management, create stronger waste management regions and implement the principles of the circular economy to substantially increase waste recycling and reduce landfilled waste.

KEY FINDINGS

Latvia's recovery and resilience plan includes measures to address a series of its structural challenges through:

- Improving sustainable mobility, energy efficiency of buildings and businesses, promoting the transition to renewable energy and climate adaptation;

- Digitalising the public sector and Latvian companies, improvements in basic and advanced digital skills, and connectivity;

- Strengthening the social safety net, increasing affordable housing provision, and improving the school network and regional roads in order to reduce social and regional inequalities; Improving the resilience, accessibility and quality of healthcare;

- Reforming research and innovation governance and funding, and boosting the quality and efficiency of higher education;

- Reforms improving the efficiency of public administration, reducing the shadow economy, improving the efficiency of the judicial system and the fight against corruption.

Beyond the reforms and investments in the RRP, Latvia would benefit from:

- Increasing the low tax revenue as a share of GDP, including by broadening the taxation of property and capital, to allow adequate financing for healthcare and social protection;

- Removing barriers for Latvian businesses, in particular for small and medium-sized firms, to accessing finance by facilitating transparency and trust in the business environment, developing targeted guarantee schemes to ease collateral requirements for

businesses and introducing public lending programmes for strategically important investments, including the green transition;

- By building on the RRP measures and pilot projects, boosting the efforts to address the skills shortages and mismatches to equip the workforce, in particular the low-skilled, with up to date and labour market relevant skills;

- Strengthening social assistance and services to vulnerable groups, including access to adequate and affordable long-term care, social housing and individual needs-based services;

- With the administrative territorial reform, as described in the RRP, in place, ensuring equal access to quality public services and boost the economic potential of Latvia's peripheral regions to increase social and regional cohesion and develop new sources of growth;

- Enhancing resource efficiency and material circularity by implementing the national circular economy action plan 2020-2027;

- Diversifying the energy mix in particular towards renewable sources, ensuring sufficient interconnection capacity, diversifying energy supplies and routes and reducing overall energy consumption through ambitious energy efficiency measures.

ANNEXES

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This Annex assesses Latvia's progress on the Sustainable Development Goals (SDGs) along the four dimensions of competitive sustainability. The 17 SDGs and their related indicators provide a policy framework under the UN's 2030 Agenda for Sustainable Development. The aim is to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind. The EU and its Member States are committed to this historic global framework agreement and to playing an active role in maximising progress on the SDGs. The graph below is based on the EU SDG indicator set developed to monitor progress on SDGs in an EU context.

While Latvia performs very well or well on several SDG indicators related to environmental sustainability (SDG 2, 6, 7, 13, 15) and is improving on others (9, 11, 12). Notably, addressing 'Affordable and clean energy' (SDG 7), Latvia has achieved significant progress in regards to its share of renewable energy in total energy consumption, which increased from 37.5% in 2015 to 42.1% in 2020, and ranges well above by the EU average in this indicator (22.09% in 2020). 'Circular material use rate', however, worsened from 5.3% in 2014 to 4.2% in 2020 and ranges significantly below the EU average of 12.8%. Measures included in component 1 'Climate Change and Environmental Sustainability' of the RRP aim to further increase Latvia's performance.

Latvia is improving on most SDG indicators related to fairness (SDG 1, 3, 4, 5, 8), while it still needs to catch up on a few others (SDG 2, 10). Latvia lags behind the EU average in most indicators related to poverty (SDGs 1); however, there have been some positive developments over the years. Latvia has reduced the risk of poverty or social exclusion from 30% in 2015 to 25.1% in 2020, while it remains above the EU average of 21.9%. Unmet health needs have reduced over the years, even if they are still high (5.3% in 2020) and above the EU average (1.8% in 2020). At the same time, unhealthy life choices lead to higher obesity, which increased from 21.3% in 2014 to 23.0% of adults in 2019, above the EU average of 16.5% in 2019. RRP component 3 'Reducing inequalities' includes measures aiming to reduce regional disparities as well as

improve the social safety net and encourage social integration and inclusion in Latvia. Component 4 'Healthcare' aims to contribute to the accessibility, efficiency and resilience of Latvia's health system.

Latvia performs very well or is improving on SDG indicators related to productivity (SDG 4, 8, 9). In Latvia, the share of households with high-speed internet connections at 91% in 2021 is significantly above the EU average (70%). Latvia has low, albeit slowly increasing gross domestic expenditure on R&D (0.71% of GDP in 2020). Strengthening digital skills remains a challenge as only about half of people have at least basic digital skills (51% in 2021). Reforms and investment under component 2 'Digital Transformation' of the RRP focus on further developing the digital infrastructure and equipment and improving digital skills at all levels.

Latvia performs very well on one of the SDG indicators related to macroeconomic stability (SDG 8) and is improving on the other (SDG 16). Latvia performs well on SDG 8 and notably increased its investment-to–GDP ratio from 21.9% in 2015 to 24.5% in 2020 (EU: 22.33% in 2020). Latvia's performance on the quality of its institutions, including trust in institutions, is below the EU average, but improving (SDG 16). The percentage of the population in Latvia with confidence in the European Parliament increased from 44% in 2016 to 60% in 2021 (EU: 50% in 2021). The measures included in component 5 'Rule of law' aim to increase the transparency and integrity of public administration through training for such general skills like ethics, integrity and anti-corruption.

Graph A1.1: **Progress towards SDGs in Latvia in the last five years**
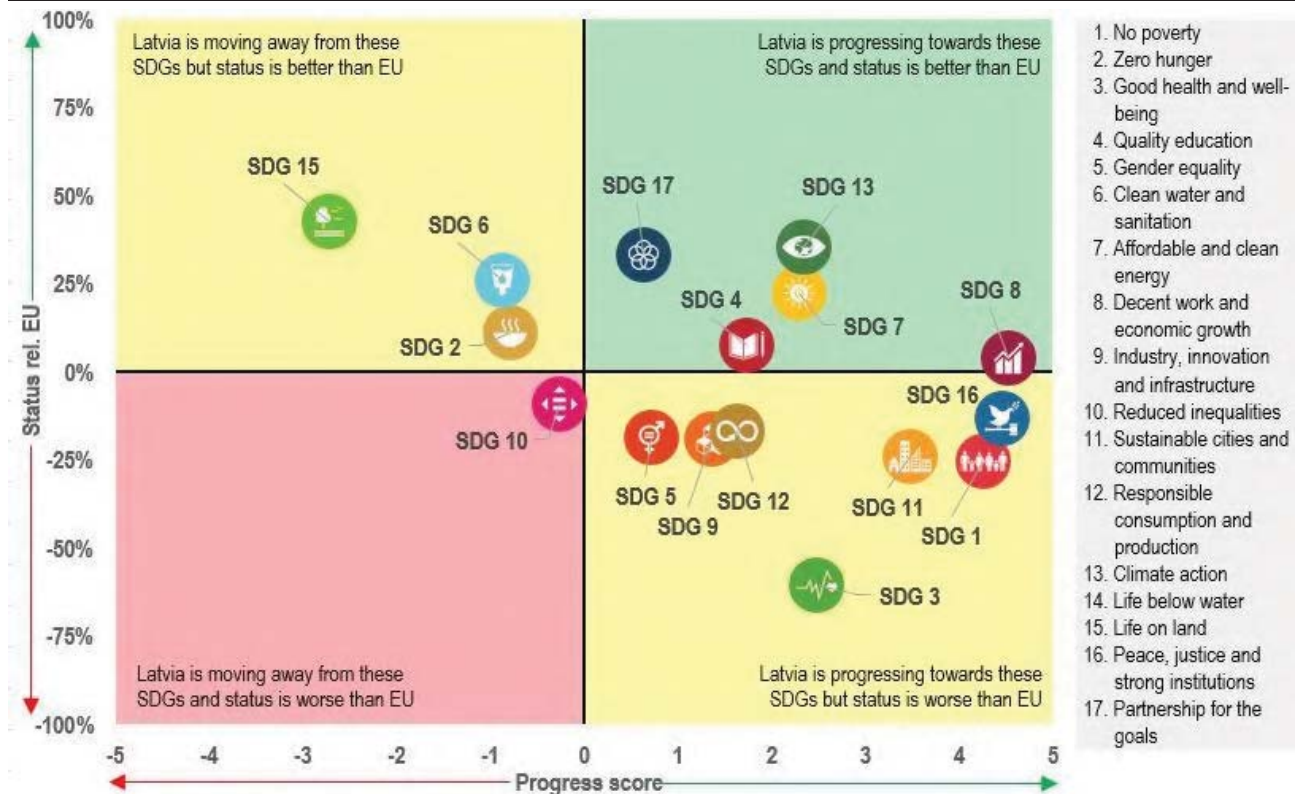
For detailed datasets on the various SDGs see the annual EUROSTAT report 'Sustainable development in the European Union', https://ec.europa.eu/eurostat/product?code=KS-09-22-019; Extensive country specific data on the short-term progress of Member States can be found here: Key findings - Sustainable development indicators - Eurostat (europa.eu).
Source: Eurostat, latest update of 28 April 2022. Data mainly refer to 2015-2020 and 2016-2021.

The Recovery and Resilience Facility (RRF) is the centrepiece of the EU's efforts to support its recovery from the COVID-19 pandemic, fast forward the twin transition and strengthen resilience against future shocks. Latvia submitted its recovery and resilience plan (RRP) on 30 April 2021. The Commission's positive assessment on 22 June 2021 and the Council's approval on 13 July 2021 paved the way for disbursing EUR 1.8 billion in grants under the Recovery and Resilience Facility over 2021-2026. The financing agreement and operational agreement were signed on 3 September 2021 and 16 February 2022 respectively. The key elements of the Latvian RRP are set out in Table A2.1

The share of funds contributing to each of the RRF's six policy pillars is outlined in the graph below.

The progress made by Latvia in implementing its plan is published in the Recovery and Resilience Scoreboard. The Scoreboard also gives a clear overview of progress in implementing of the RRF as a whole.

Table A2.1: **Key elements of the Latvian RRP**

Total allocation	EUR 1.8 billion in grants (6% of 2019 GDP)
Investments and Reforms	61 investments and 24 reforms
Total number of Milestones and Targets	214
Estimated macroeconomic impact (1)	Raise GDP by 1.3%-2.0% by 2026 (0.5% in spillover effects)
Pre-financing disbursed	EUR 237 million (September 2021)
First instalment	Latvia has not yet submitted a first payment request

(1) See Pfeiffer P., Varga J. and in 't Veld J. (2021), "Quantifying Spillovers of NGEU investment", European Economy Discussion Papers, No. 144 and Afman et al. (2021), "An overview of the economics of the Recovery and Resilience Facility", Quarterly Report on the Euro Area (QREA), Vol. 20, No. 3 pp. 7-16.
Source: European Commission, 2022

Graph A2.1: **Share of RRF funds contributing to each policy pillar**
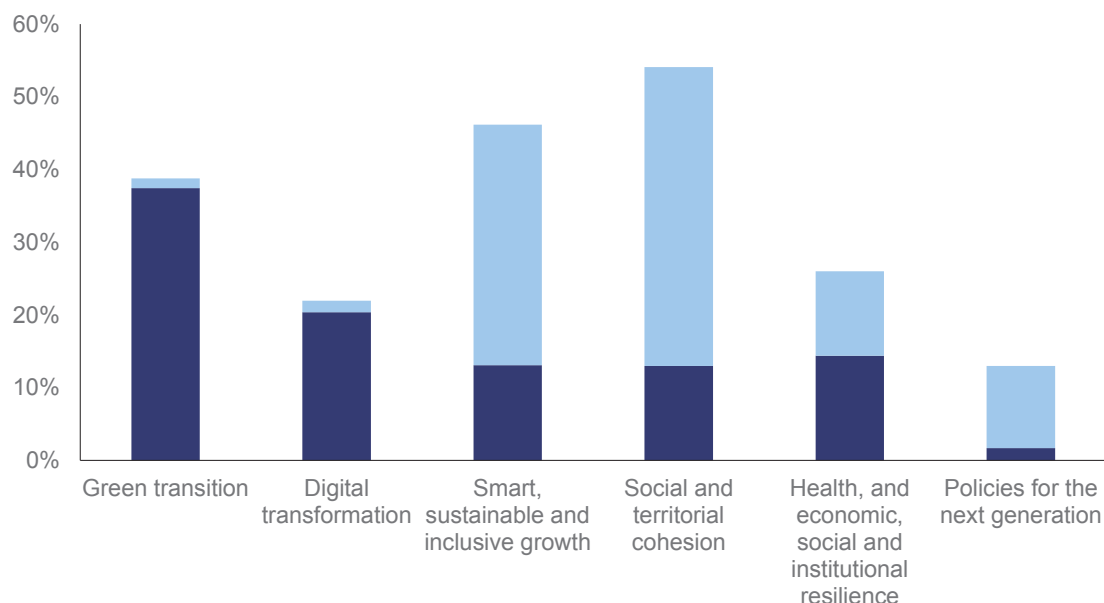
(1) Each measure contributes towards two policy areas of the six pillars, therefore the total contribution to all pillars displayed on this chart amounts to 200% of the estimated cost of the RRP. The bottom part represents the amount of the primary pillar, the top part the amount of the secondary pillar.
Source: RRF Scoreboard https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/country_overview.html

The EU's budget of more than EUR 1.2 trillion for 2021-2027 is the investment lever to help implement EU priorities. Underpinned by an additional amount of about EUR 800 billion through NextGenerationEU and its largest instrument, the Recovery and Resilience Facility, it represents significant firepower to support the recovery and sustainable growth.

Graph A3.1: **2014-2020 European Structural and Investment Funds total budget by fund**
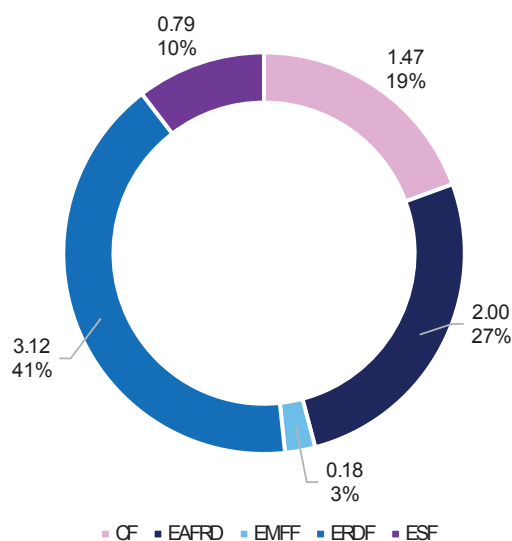
(1) EUR billion in current prices,% of total, includes both EU and national co-financing. The data for the EAFRD and REACT-EU refer to the period 2014-2022.
Source: European Commission, Cohesion Open Data

In 2021-2027, EU cohesion policy funds ([28]) will support long-term development objectives in Latvia by investing EUR 4.80 billion ([29]) including EUR 191.6 million from the Just Transition Fund to alleviate the socio-economic impacts of the green transition in the most vulnerable regions. The 2021-2027 cohesion policy funds Partnership agreements and programmes take into account the 2019-2020 country-specific recommendations and investment guidance provided as part of the European Semester, ensuring synergies and complementarities with other EU funding. In addition, Latvia will benefit from EUR 2.4 billion support for the 2023-27 period from the Common Agricultural Policy, which supports social, environmental, and economic

sustainability and innovation in agriculture and rural areas, contributing to the European Green Deal, and ensuring long-term food security.

In 2014-2020, the European Structural and Investment Funds (ESIF) for Latvia allocated EUR 6.18 billion ([30]) from the EU budget and another EUR 1.44 billion from national financing (Graph 3.1), representing around 4% of GDP for 2014-2020 and 65.0% of public investment ([31]). By 31 December 2021, 97% of the total had been allocated to projects and 65% was reported as spent, leaving EUR 2.67 billion to be spent by the end of 2023 ([32]). ERDF and Cohesion Fund play essential roles in many parts of the Latvian economy and society, notably competitiveness of small and medium-sized firms, transport and energy infrastructure networks, environmental protection, resource efficiency and low-carbon economy, social inclusion, education and vocational training. By the end of the programming period, 4 495 firms will have been supported, 368 start-ups created, 58 726 additional people connected to improved wastewater treatment, 14 286 households given improved energy consumption classifications, and the annual primary energy consumption of public buildings will have decreased by 50 gWh/year.

Active labour market policy measures totalling EUR 255 million (including those targeting young people, long-term unemployed and persons with disabilities), and social inclusion measures feature prominently in the 2014-2020 ESF support package for Latvia. EUR 50.5 million was allocated to community-based social services for persons with disabilities and children in out-of-family care. Nearly 600 persons with mental disabilities and 2 300 children with functional impairments have received support for independent living in the community. About

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([28]) European Regional Development Fund (ERDF), European Social Fund+ (ESF+), Cohesion Fund (CF), Just Transition Fund (JTF), Interreg.

([29]) Current prices, source: Cohesion Open Data

([30]) ESIF includes cohesion policy funds (ERDF, ESF+, CF, Interreg) the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF). According to the 'N+3 rule', the funds committed for 2014-2020 must be spent by 2023 at the latest (by 2025 for EAFRD). Data source: Cohesion Open data, cut-off date 31.12.2021 for ERDF, ESF+, CF, Interreg; cut-off date 31.12.2020 for EAFRD and EMFF.

([31]) Public investment is gross fixed capital formation plus capital transfers, general government.

([32]) Including REACT-EU. ESIF data on https://cohesiondata.ec.europa.eu/countries/LV

Graph A3.2: **Cohesion policy contribution to the SDGs (EUR billion)**

SDG	Value
SDG 9 Industry, innovation, infrastructure	2.21
SDG 4 Quality education	0.56
SDG 7 Affordable and clean energy	0.51
SDG 8 Decent work and economic growth	0.51
SDG 3 Good health and well being	0.40
SDG 15 Life on land	0.26
SDG 1 No poverty	0.20
SDG 6 Clean water and sanitation	0.14
SDG 13 Climate action	0.07
SDG 12 Responsible consumption and production	0.07
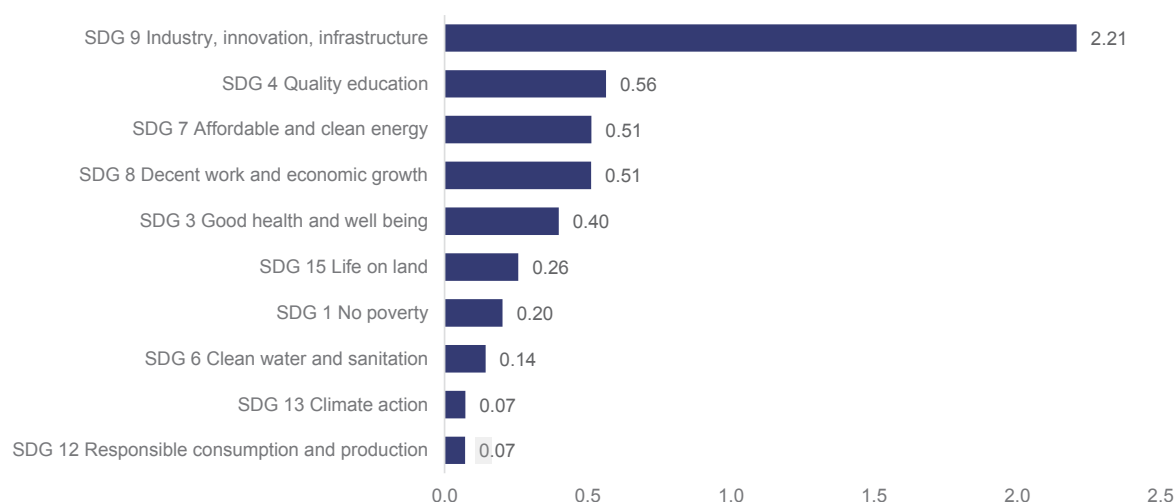
Source: European Commission, DG REGIO

15 000 young people who had previously been neither in employed nor in education or training left a Youth guarantee project continuing in education or training, and had gained a qualification or were employed (including self-employment). By the end of 2020, ESF investments supported more than 340 000 participants in funded projects of which more than 21 000 obtained a qualification.

Cohesion policy funds already substantially contribute to the Sustainable Development Goals (SDGs). In Latvia, cohesion policy funds support 10 of the 17 SDGs with up to 95% of the expenditure contributing to the attainment of the goals.

Under NextGenerationEU, the REACT-EU instrument (Recovery Assistance for Cohesion and the Territories of Europe) added EUR 239.8 million of funding to Latvia's 2014-2020 cohesion policy allocations to ensure a balanced recovery, boost convergence and provide vital support to regions following the coronavirus outbreak. REACT-EU provided support for buying vaccines, contributed to short-time work schemes, improved primary healthcare, strengthened education, training and skills development, promoted energy efficiency and reduced material deprivation with direct food delivery.

The Coronavirus Response Investment Initiative ([33]) provided the initial EU

emergency support to Latvia for the COVID-19 pandemic. Its flexibility enabled Latvia to re-allocate resources for immediate public health needs and support to business. For instance, Latvia has allocated EUR 30 million to strengthening health services incl. renovating hospitals and hiring additional medical staff, EUR 35 million for support small and medium-sized firms via financial instruments and EUR 29 million for employment measures. Latvia is also investing EUR 35 million in remote learning, expanded broadband access for schools in rural areas, in-company training and export activities.

Latvia received support under the European instrument for temporary support to mitigate unemployment risks in an emergency (SURE) to finance short-time work schemes, similar measures and as an ancillary, health-related measures. The Council granted financial assistance under SURE to Latvia in September 2020 and top-up support in April 2021 for a maximum of EUR 305 million, which was disbursed by 25 May 2021. SURE is estimated to have supported approximately 5% of workers and firms for at least one month in 2020 and 10% of workers and firms in 2021, primarily in accommodation and food services, wholesale and retail trade, and arts, entertainment and recreation. Latvia is estimated to have saved a

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([33]) Re-allocating ESIF resources according to Regulation (EU) 2020/460 of the European Parliament and of the Council

of 30 March 2020, and Regulation (EU) 2020/558 of the European Parliament and of the Council of 23 April 2020.

total of EUR 5 million on interest payments as a result of SURE's lower interest rates ([34]).

The Commission provides tailor-made expertise via the Technical Support Instrument to help Latvia design and implement growth-enhancing reforms, including for its RRP. Since 2016, Latvia has received assistance through 60 technical support projects. Projects delivered in 2021 aimed, for example, to strengthen the authorities' capacities to tackle money laundering, improve risk management in the financial sector and address shortcomings identified in debt restructuring. The Commission also helps Latvia implement specific reforms and investment under the RRP, for example, by helping employers promote skills development and help with designing and implementing a health workforce strategy. In 2022, new projects will start to support the further development of public sector innovation in Latvia.

Latvia also benefits from other EU programmes. These include, such as the **Connecting Europe Facility**, which allocated EU funding worth EUR 413.0 million to specific projects on strategic transport networks, and **Horizon 2020**, which allocated EU funding worth EUR 116.4 million.

([34]) Quarterly Report on the Euro Area (QREA), Vol. 20, No. 2 (2021) | European Commission (europa.eu).

The Commission assessed the 2019-2021 country-specific recommendations (CSRs) ([35]) addressed to Latvia in the context of the European Semester. The assessment takes into account the policy action taken by Latvia to date ([36]), as well as the commitments in the Recovery and Resilience Plan (RRP) ([37]). At this early stage of the RRP implementation, overall 75% of the CSRs focusing on structural issues in 2019 and 2020 have recorded at least "some progress", while 25% recorded "limited" (see Graph A4.1). Considerable additional progress in addressing structural CSRs is expected in the years to come with the further implementation of the RRP.

Graph A4.1: **Latvia's progress on the 2019-2020 CSRs (2022 European Semester cycle)**
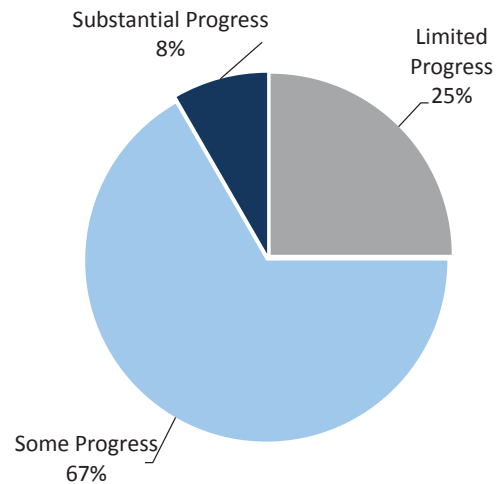
Source: European Commission

([35]) 2021 CSRs: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021H0729%2814%29&qid=1627675454457
2020 CSRs: EUR-Lex - 32020H0826(14) - EN - EUR-Lex (europa.eu)
2019 CSRs: EUR-Lex - 32019H0905(14) - EN - EUR-Lex (europa.eu)

([36]) Incl. policy action reported in the National Reform Programme, as well as in the RRF reporting (bi-annual reporting on the progress with implementation of milestones and targets and resulting from the payment request assessment).

([37]) Member States were asked to effectively address all or a significant subset of the relevant country-specific recommendations issued by the Council in 2019 and 2020 in their RRPs. The CSR assessment presented here takes into account the degree of implementation of the measures included in the RRP and of those done outside of the RRP at the time of assessment. Measures foreseen in the annex of the adopted Council Implementing Decision on the approval of the assessment of the RRP which are not yet adopted nor implemented but considered as credibly announced, in line with the CSR assessment methodology, warrant "limited progress". Once implemented, these measures can lead to "some/substantial progress" or "full implementation", depending on their relevance.

Table A4.1: **Summary table on 2019, 2020 and 2021 CSRs**

Latvia	Assessment in May 2022*	RRP coverage of CSRs until 2026
2019 CSR1	**Some Progress**	
Ensure that the nominal growth rate of net primary government expenditure does not exceed 3,5 % in 2020, corresponding to an annual structural adjustment of 0,5 % of GDP.	Not relevant anymore	Not applicable
Reduce taxation for low-income earners by shifting it to other sources, particularly capital and property, and by improving tax compliance.	Some Progress	Relevant RRP measures planned as of 2022, 2023 and 2026.
Ensure effective supervision and the enforcement of the anti-money laundering framework.	Substantial Progress	Relevant RRP measures planned as of 2021, 2022, 2024 and 2025.
2019 CSR 2	**Some Progress**	
Address social exclusion notably by improving the adequacy of minimum income benefits, minimum old-age pensions and income support for people with disabilities.	Some Progress	Relevant RRP measures planned as of 2021 and 2022.
Increase the quality and efficiency of education and training in particular of low-skilled workers and jobseekers, including by strengthening the participation in vocational education and training and adult learning.	Some Progress	Relevant RRP measures planned as of 2021, 2022, 2023, 2024 and 2026.
Increase the accessibility, quality and cost-effectiveness of the healthcare system.	Limited Progress	Relevant RRP measures planned as of 2022, 2023 and 2024.
2019 CSR 3	**Some Progress**	
Focus investment-related economic policy on innovation,	Limited Progress	Relevant RRP measures planned as of 2022, 2023 and 2024.
the provision of affordable housing,	Limited Progress	Relevant RRP measure planned as of 2021.
transport, in particular on its sustainability,	Some Progress	Relevant RRP measures planned as of 2022, 2023 and 2026.
resource efficiency and energy efficiency, energy interconnections	Some Progress	Relevant RRP measures planned as of 2022 and 2023.
and digital infrastructure, taking into account regional disparities.	Limited Progress	Relevant RRP measures planned as of 2021, 2022, 2023, 2024, 2025 and 2026.
2019 CSR4	**Some Progress**	
Strengthen the accountability and efficiency of the public sector, in particular with regard to local authorities and State-owned and municipal enterprises and the conflict of interest regime.	Some Progress	Relevant RRP measures planned as of 2021, 2022, 2023, 2024, 2025 and 2026.
2020 CSR1	**Limited Progress**	
Take all necessary measures, in line with the general escape clause of the Stability and Growth Pact, to effectively address the COVID-19 pandemic, sustain the economy and support the ensuing recovery. When economic conditions allow, pursue fiscal policies aimed at achieving prudent medium-term fiscal positions and ensuring debt sustainability, while enhancing investment.	Not relevant anymore	Not applicable
Strengthen the resilience and accessibility of the health system including by providing additional human and financial resources.	Limited Progress	Relevant RRP measures planned as of 2022, 2023 and 2024.
2020 CSR2	**Some Progress**	
Provide adequate income support to the groups most affected by the crisis	Some Progress	Relevant RRP measure planned as of 2021.
and strengthen the social safety net.	Some Progress	Relevant RRP measures planned as of 2021 and 2022.
Mitigate the employment impact of the crisis, including through flexible working arrangements,	Some Progress	
active labour market measures and skills.	Some Progress	Relevant RRP measures planned as of 2021, 2022, 2023, 2024 and 2026.

(Continued on the next page)

2020 CSR 3	**Some Progress**	
Ensure access to liquidity support by firms and in particular small and medium-sized enterprises.	Some Progress	
Front-load mature public investment projects	Some Progress	Relevant RRP measure planned as of 2022.
and promote private investment to foster the economic recovery.	Some Progress	Relevant RRP measures planned as of 2022, 2023 and 2024.
Focus investment on the green and digital transition, in particular on research and innovation,	Limited Progress	Relevant RRP measures planned as of 2022, 2023 and 2026.
clean and efficient production and use of energy,	Some Progress	Relevant RRP measures planned as of 2022 and 2023.
sustainable transport	Some Progress	Relevant RRP measures planned as of 2022, 2023 and 2026.
and digital infrastructures.	Some Progress	Relevant RRP measures planned as of 2021, 2022, 2023, 2024, 2025 and 2026.
2020 CSR 4	**Substantial Progress**	
Continue progress on the anti-money-laundering framework.	Substantial Progress	Relevant RRP measures planned as of 2021, 2022, 2023, 2024 and 2025.
2021 CSR1	**Substantial Progress**	
In 2022, maintain a supportive fiscal stance, including the impulse provided by the Recovery and Resilience Facility, and preserve nationally financed investment. Keep the growth of nationally financed current expenditure under control.	Full Implementation	Not applicable
When economic conditions allow, pursue a fiscal policy aimed at achieving prudent medium-term fiscal positions and ensuring fiscal sustainability in the medium term.	Substantial Progress	Not applicable
At the same time, enhance investment to boost growth potential. Pay particular attention to the composition of public finances, on both the revenue and expenditure sides of the budget, and to the quality of budgetary measures, in order to ensure a sustainable and inclusive recovery. Prioritise sustainable and growth-enhancing investment, in particular investment supporting the green and digital transition.	Substantial Progress	Not applicable
Give priority to fiscal structural reforms that will help provide financing for public policy priorities and contribute to the long-term sustainability of public finances, including, where relevant, by strengthening the coverage, adequacy, and sustainability of health and social protection systems for all.	Limited Progress	Not applicable

* See footnote (37).

Source: European Commission

The European Green Deal intends to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use. This Annex offers a snapshot of the most significant and economically relevant developments in Latvia in the respective building blocks of the European Green Deal. It is complemented by Annex 6 on the employment and social impact of the green transition and Annex 7 for circular economy aspects of the Green Deal.

By 2020, Latvia's total greenhouse gas emissions have decreased significantly compared to 1990, and in sectors not covered by the EU Emissions Trading System (such as buildings, road transport, agriculture and waste) Latvia reached the EU 2020 target. The government has committed to reaching climate neutrality by 2050 and in its national energy and climate plan (NECP), Latvia intends to achieve its current target under the Effort Sharing Regulation of -6% for 2030. Latvia has targeted additional climate mitigation and adaptation measures but there is no certainty that they are sufficient to reach the agreed 2030 target for sectors not covered by the Emissions Trading System (ETS). The integrated NECP largely develops the approach for mitigating greenhouse emissions and adapting to a changing climate. However, under its current land management practices, Latvia is projected to see increasing net emissions in the land use sector by 2030. In its recovery and resilience plan (RRP), Latvia allocates 37,6% of the plan to climate objectives and outlines crucial reforms and investments to further the transition to a more sustainable, low-carbon and climate-resilient economy ([38]).

Latvia is amongst the countries collecting the most revenue from environmental taxes but is below average in government expenditure on environmental protection. Latvia's environmental tax revenues as a share of total tax revenues, as well as in terms of

GDP, are amongst the highest in the EU. This holds especially for energy taxes, which are driving total environmental taxes and contribute to one of the highest revenues in the EU, as well as, to a smaller extent, transport taxes. Environmental tax revenues as share of GDP are decreasing over time. At the same time, the Latvian government spends a smaller share of its expenditure on environmental protection than in the EU overall. Budgetary exposure to climate hazards is considered low.

Graph A5.1: **Fiscal aspects of the green transition**
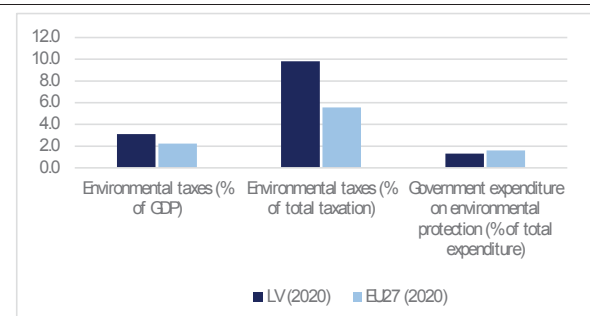
Source: Eurostat

Latvia was one of the Member States with the highest share of renewable energy in its energy mix (44%) in 2020. However, Latvia still depends largely on imported fossil fuels, such as natural gas and oil. In view of the clean transition, Latvia needs to significantly invest in additional renewable energy capacities and energy efficiency solutions, notably in transport and buildings, to achieve more ambitious targets for 2030.

([38]) The share of financial allocation contributing to climate objectives has been calculated using Annex VI of the RRF Regulation.

Graph A5.2: **Thematic – Energy**
Share in energy mix (solids, oil, gas, nuclear, renewables)
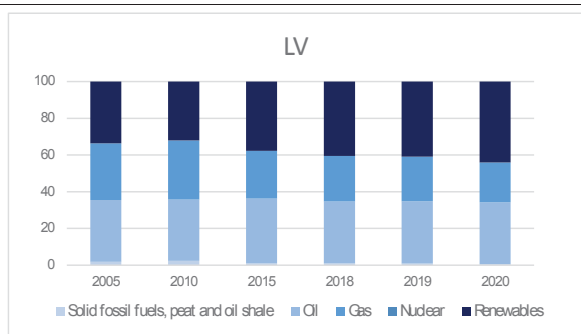
(1) The energy mix is based on gross inland consumption, and excludes heat and electricity. The share of renewables includes biofuels and non-renewable waste
Source: Eurostat

The protection of biodiversity in Latvia presents significant challenges, with less than 10% of protected habitats having a favourable conservation status. Latvia needs to develop a comprehensive approach to ecosystem services and incorporate the goals of biodiversity conservation and sustainable use into other sectors, notably forestry and agriculture, since 90% of the assessments of protected forests and grasslands show a bad to poor status. With 18% of total land designated as terrestrial protected areas, the country is below the EU average, though with 15% of its land area under organic farming Latvia ranks sixth in the EU.

In terms of pollution, air quality in Latvia is generally good with exceptions. While Latvia is projected to reach emission reduction commitments for most air pollutants for the period 2020 to 2029, it will likely not meet its commitments for ammonia.

As regards nitrate pollution in ground water, the groundwater quality is generally good. At the same time, a high number of surface waters are eutrophic. It is a problem Latvia shares with other countries around the Baltic Sea, with extremely high levels of waters in the region assessed to be below good eutrophication status.

The market for zero-emission passenger cars is slowly developing. The share of new registrations of zero-emission vehicles remains much lower than the EU average. Latvia's RRP contains a measure to support connection

points for electric vehicles. However, it is worth noting that the electrification of the railway network is comparatively low.

Graph A5.3: **Thematic – Biodiversity**
Terrestrial protected areas and organic farming
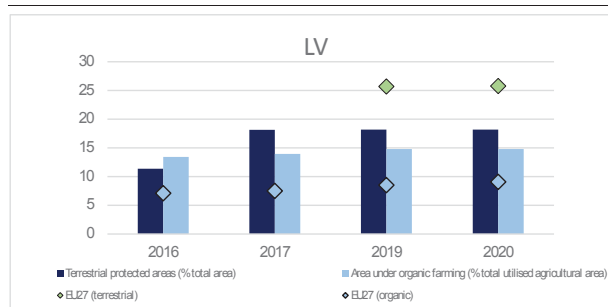
(1) For terrestrial protected areas, data for 2018 and data for the EU average (2016, 2017) is lacking.
Source: European Environment Agency (EEA) (terrestrial protected areas) and Eurostat (organic farming)

Graph A5.4: **Thematic – Mobility**
Share of zero emission vehicles (% of new registrations)
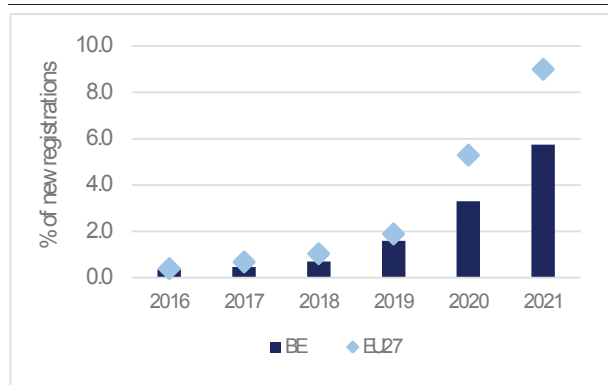
(1) Zero emission vehicles include battery and fuel cell electric vehicles (BEV, FCEV).
Source: European Alternative Fuels Observatory.

Indicators underpinning progress on the EU Green Deal, from a macroeconomic perspective

		2005	2019	2020	Target 2030	Distance WEM	Distance WAM	'Fit for 55' Target 2030	Distance WEM	Distance WAM
Non-ETS GHG emission reduction target [1]	MTCO2 eq; %; pp [2]	8.6	1%	-1%	-6%	-2	4	-17%	-13	-7

Progress to policy targets		2005	2016	2017	2018	2019	2020	National contribution to 2030 EU target
Share of energy from renewable sources in gross final consumption of energy [1]	%	32%	37%	39%	40%	41%	42%	50%
Energy efficiency: primary energy consumption [1]	Mtoe	4.5	4.3	4.5	4.7	4.6	4.3	4.1
Energy efficiency: final energy consumption [1]	Mtoe	4.0	3.8	4.0	4.2	4.1	3.9	3.6

		LATVIA						EU		
		2015	2016	2017	2018	2019	2020	2018	2019	2020
Fiscal and financial indicators										
Environmental taxes (% of GDP)	% of GDP	3.5	3.6	3.5	3.4	2.9	3.1	2.4	2.4	2.2
Environmental taxes (% of total taxation)	% of taxation [3]	11.8	11.7	11.2	10.9	9.6	9.8	6.0	5.9	5.6
Government expenditure on environmental protection	% of total exp.	1.70	1.42	1.40	1.47	1.51	1.32	1.66	1.70	1.61
Investment in environmental protection	% of GDP [4]	0.62	0.28	0.27	0.27	-	-	0.42	0.38	0.41
Fossil fuel subsidies	EUR2020bn	0.24	0.23	0.70	0.13	0.13	-	56.87	55.70	-
Climate protection gap [5]	score 1-4	0.9 out of 4 (slight decrease from historical level of 1.3). This is a low risk category (4 being a high risk).								
Climate										
Net GHG emissions	1990 = 100	43	43	43	43	45	41	79	76	69
GHG emissions intensity of the economy	kg/EUR10	0.58	0.57	0.56	0.56	0.55	0.52	0.32	0.31	0.30
Energy intensity of the economy	kgoe/EUR10	0.21	0.20	0.20	0.20	0.19	0.19	0.12	0.11	0.11
Energy										
Final energy consumption (FEC)	2015=100	100.0	100.9	106.0	110.3	107.7	101.8	103.5	102.9	94.6
FEC in residential building sector	2015=100	100.0	103.4	108.1	111.3	107.5	100.9	101.9	101.3	101.3
FEC in services building sector	2015=100	100.0	101.1	103.5	101.0	97.0	93.9	102.4	100.1	94.4
Pollution										
Smog-precursor emission intensity (to GDP) [4]	tonne/EUR10 [6]	2.99	2.76	2.65	2.56	2.53	-	0.99	0.93	-
Years of life lost caused due to air pollution by PM2.5	per 100.000 inh.	886	879	892	1101	924	-	863	762	-
Years of life lost due to air pollution by NO2	per 100.000 inh.	70	34	22	42	< 1	-	120	99	-
Nitrate in ground water	mg NO3/litre	4.2	4.3	5.9	3.9	4.7	-	21.7	20.7	-
Biodiversity										
Terrestrial protected areas	% of total	-	11.4	18.1	-	18.2	18.2	-	25.7	25.7
Marine protected areas	% of total	-	15.8	-	-	15.8	-	-	10.7	-
Organic farming	% of total utilised agricultural area	12.3	13.4	13.9	14.5	14.8	14.8	8.0	8.5	9.1

		2000-2006	2006-2012	2012-2018	00-06	06-12	12-18
Net land take	per 10,000 km2	1.5	4.1	2.1	13.0	11.0	5.0

Mobility		2015	2016	2017	2018	2019	2020	2018	2019	2020
GHG emissions intensity of transport (to GVA) [7]	kg/EUR10	1.38	1.29	1.31	1.29	1.32	1.29	0.89	0.87	0.83
Share of zero emission vehicles [8]	% in new registrations	0.1	0.2	0.4	0.8	0.6	2.1	1.0	1.9	5.4
Number of plug-in electric vehicles per charging point		4	4	6	2	3	3	8	8	12
Share of electrified railways	%	13.4	13.5	13.5	13.5	13.5	-	55.6	56.0	-
Congestion (average number of hours spent in road congestion per year by a representative commuting driver)		21.6	20.6	21.8	19.8	20.3	-	28.9	28.8	-

Digital		Year	LV	EU
Share of smart meters in total metering points [9] - electricity	% of total	2018	36.3	35.8
Share of smart meters in total metering points [9] - gas	% of total	2018	0.0	13.1
ICT used for environmental sustainability [10]	%	2021	65.4	65.9

(1) The 2030 non-ETS GHG target is based on the Effort Sharing Regulation. The FF55 targets are based on the COM proposal to increase EU's climate ambition by 2030. Renewables and Energy Efficiency targets and national contributions under the Governance Regulation (Regulation (EU) 2018/1999). (2) Distance to target is the gap between Member States' 2030 target under the Effort Sharing Regulation and projected emissions, with existing measures (WEM) and with additional measures (WAM) respectively, as a percentage of 2005 base year emissions. (3) Percentage of total revenues from taxes and social contributions (excluding imputed social contributions). Revenues from the ETS are included in environmental tax revenues (in 2017 they amounted to 1.5% of total environmental tax revenues at the EU level). (4) Covers expenditure on gross fixed capital formation to be used for the production of environmental protection services (i.e. abatement and prevention of pollution) covering all sectors, i.e. government, industry and specialised providers. (5) The climate protection gap indicator is part of the European adaptation strategy (February 2021), and is defined as the share of non-insured economic losses caused by climate-related disasters. (6) Sulphur oxides (SO2 equivalent), Ammonia, Particulates < 10μm, Nitrogen oxides in total economy (divided by GDP). (7) Transportation and storage (NACE Section H). (8) Zero emission vehicles include battery electric vehicles (BEV) and fuel cell electric vehicles (FCEV). (9) European Commission Report (2019) 'Benchmarking smart metering deployment in the EU-28'. (10) European Commission (2021). Each year the DESI is re-calculated for all countries for previous years to reflect any possible change in the choice of indicators and corrections to the underlying data. Country scores and rankings may thus differ compared with previous publications.

Source: Eurostat, JRC, European Commission, EEA, EAFO.

The green transition not only encompasses improvements to environmental sustainability, but also includes a significant social dimension. While measures in this regard include the opportunity for sustainable growth and job creation, it must also be ensured that no one is left behind and all groups in society benefit from the transition. Latvia's green transition provides potential for job creation, though employment in the sector of peat extraction as well as lower-income groups are likely to face challenges from the transition.

Latvia's recovery and resilience plan (RRP) outlines some investment contributing to a fair green transition. The plan includes investment in the energy efficiency of public and residential buildings, as well as in electric school buses in the regions to improve access to education for all children, while contributing to greening the municipal transport stock. Altogether, 37.6% of RRP investment is dedicated to green measures, which will also support the implementation of Latvia's national energy and climate plan (NECP) of 3 February 2020. In synergy with the Recovery and Resilience Facility, the European Social Fund Plus (ESF+) will help unlock the potential of more jobs through active labour market policies; and the Just Transition Fund (EUR 191.6 million in current prices) will help mitigate the social impact of the transition in eligible Latvian regions (see Annex 3). The NECP takes into account the impact of the green transition on employment and energy poverty to some extent and aims to keep energy poverty below 7.5% by 2030. EU support for Latvia's Just Transition Plan will help the country reduce greenhouse gas emissions in the peat sector while supporting economic restructuring and mitigating the social impact in the most affected regions, notably by re-skilling and upskilling the affected workers.

The economy has reduced its carbon footprint and the green economy provides potential for job creation, although energy-intensive sectors remain sizeable. The greenhouse gas emissions intensity of the Latvian economy decreased slightly between 2015 and 2020 (in terms of gross value added) and stands significantly over the EU average, whereas the average carbon footprint per worker is at 11.3 tonnes of greenhouse gas emissions (against 13.61 in the EU) (see Figure 1). In Latvia, the peat extraction industry has been identified as a declining sector with the potential for transformation into a more environmentally sustainable, climate friendly and carbon neutral industry. This is likely to determine the need for job transitions in the affected regions, for which up- and re-skilling will be particularly important (see Annex 15). Latvia's energy-intensive industry (EII), including metals, chemicals and paper ([39]), has very slightly increased and provides jobs to 1.9% of the total employed workforce, while the environmental goods and services sector provides jobs to a 3.0% share of the employed population (2.2% in the EU) ([40]). Labour shortages are emerging in greening sectors such as agriculture and professional, scientific and technical activities ([41]).

As for the social dimension of the green transition, ensuring access to essential transport and energy services poses challenges for Latvia. The share of the rural population at risk of poverty decreased to 25.5% in 2020, remaining above the EU average of 18.7% ([42]). A significant decrease took place in the share of the population being unable to keep their homes adequately warm, falling from 14.5% in 2015 to 6% in 2020, which is below the EU average (8.2%). However, lower-income groups are affected by energy poverty to a greater extent (see Figure 2). Consumption patterns vary across the population: the average carbon footprint of the top 10% of emitters is about 5.8 times higher than that of the bottom 50% of the population (compared to 5.3 times in the EU).

([39]) 2020 European Semester: Overview of Investment Guidance on the Just Transition Fund 2021-2027 per Member State (Annex D)

([40]) There is currently no common EU-wide definition of green jobs. The environmental goods and services sector accounts only report on an economic sector that generates environmental products, i.e. goods and services produced for environmental protection or resource management.

([41]) Eurofound (2021), Tackling labour shortages in EU Member States, Publications Office of the European Union, Luxembourg.

([42]) Based on COM(2021) 568 final (Annex I) as a proxy for potential transport challenges in the context of the green transition (e.g. due to vulnerability to fuel prices).

Tax systems are key to ensuring a fair transition towards climate neutrality ([43]). Since 2015, Latvia's revenues from environmental taxes have fallen from 3.5% of GDP in 2015 to 3.0% in 2019, and slightly increased to 3.1% in 2020 (against 2.2% in the EU). Although the labour tax wedge for low-income earners ([44]) decreased from 40.8% in 2015 to 35.3% in 2021, it remains above the EU average of 31.9% (see Annex 17). Reducing the tax wedge on low-income earners by shifting it to other sources (2019 CSR) requires more focused efforts from Latvia to ensure a socially fair green transition.

Graph A6.1: **Fair green transition challenges**
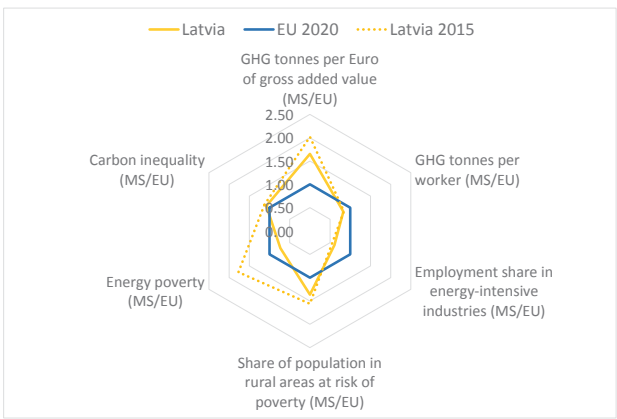
Numbers are the normalised indicator performance, signifying factors relative to the EU27 average.
Carbon inequality: average emissions per capita top 10% vs bottom 50% (2019).
Source: Eurostat, World Inequality Database

Graph A6.2: **Energy poverty by income decile**
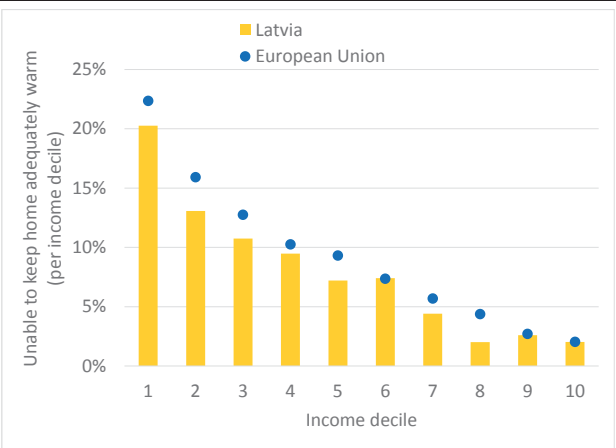
HH050: Ability to keep home adequately warm.
HY020: Total disposable household income
Source: Eurostat EU-SILC survey (2020)

([43]) COM(2021) 801 final.

([44]) Tax wedge for a single earner at 50% of the national average wage (Tax and benefits database, European Commission/OECD).

The efficient use of resources is key to ensuring competitiveness and open strategic autonomy, while minimising the environmental impact. The green transition presents a major opportunity for European industry by creating markets for clean technologies and products. It will have an impact across the entire value chains in sectors such as energy and transport, construction and renovation, food and electronics, helping create sustainable, local and well-paid jobs across Europe.

Latvia has a worrying trend for circular material usage. The circular (secondary) use of material in Latvia dropped from 5.3% in 2014 to 4.2% in 2020, well below the EU average of 12.8% and showing a clear deterioration in the indicator's performance over time.

Latvian resource productivity is well below the EU average. Resource productivity expresses how efficiently the economy uses material resources to produce wealth. Improving resource productivity can help minimise negative impacts on the environment and reduce dependence on volatile raw material markets. With 1.6 purchasing power standard (PPS) generated per kg of material consumed in 2020, resource productivity in Latvia is well below the EU average of 2.2 PPS per kg. Material intensity is about 15% higher than the EU average.

Latvia falls behind its re-use and recycling targets. Latvia improved its municipal waste recycling rate from 25.2% in 2018 to 39.6% in 2020, but nevertheless falls behind EU 2020 target of recycling 50% of municipal waste, as a lack of incentives for municipalities holds back investment in separate collection. Furthermore, the amount of municipal waste generated increased from 407 kg/capita in 2018 to 478 kg/capita in 2020, indicating that Latvia's economic growth is not yet decoupled from its generation of waste. With a reform of waste management regions and the introduction of the deposit system for plastic and glass bottles Latvia is taking steps in the right direction. However, there is room for further improvement in waste management, recycling and the quality of data on waste collection.

Competitiveness and innovation in green technology is hampered by low levels of private investment. Despite making improvements, Latvia scores below average on the 2021 Eco-Innovation Index. This can partly be explained by low environmental expenditure by Latvian businesses as well as little investment in R&D, which has one of the lowest rates in the EU. While investment in environmental protection has increased year on year for the past 5 years, private investment has been growing more slowly than public expenditure despite accounting for roughly 37% of the investment in 2020 [45]. The value added by circular economy goods and services relative to GDP is on par with the EU average (0.97%).

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[45] Latvia Central Statistic Office, 2020

Graph A7.1: **Municipal waste treatment**

Kg per capita

- ▇ Material recycling
- ▇ Composting and digestion
- ▇ Total incineration (including energy recovery)
- ▇ Landfill/disposal
- ▇ Difference waste generated/treatment
- — EU 27
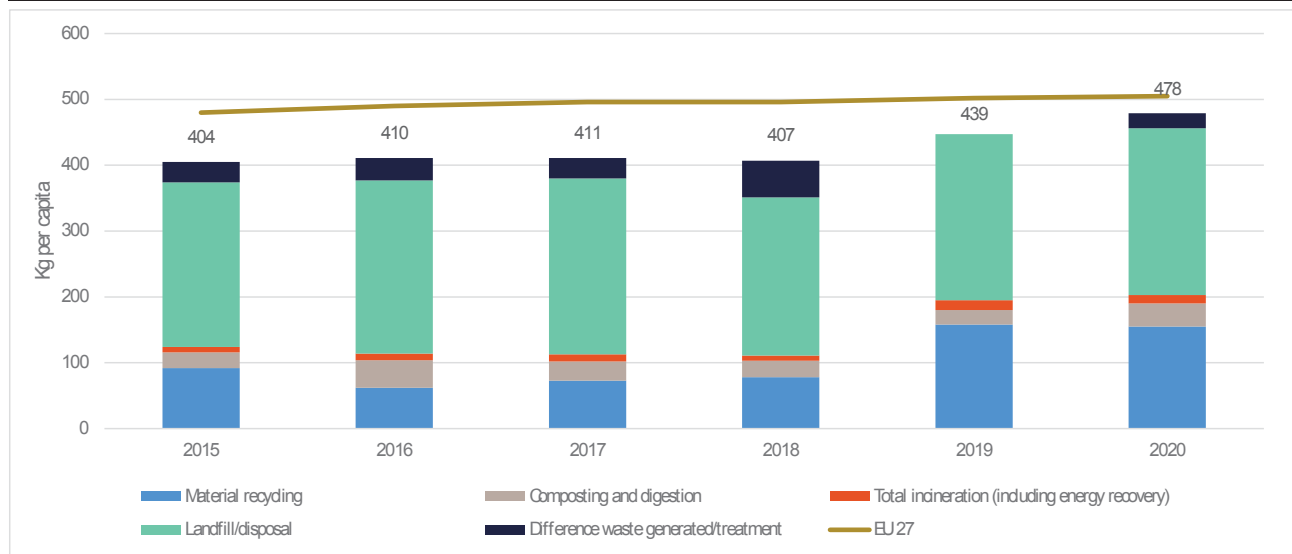
Source: Eurostat

Table A7.1: **Selected resource efficiency indicators**

SUB-POLICY AREA	2015	2016	2017	2018	2019	2020	EU27	Latest year EU 27
Circularity								
Resource Productivity (Purchasing power standard (PPS) per kilogram)	1.4	1.6	1.5	1.4	1.5	1.4	2.2	2020
Material Intensity (kg/EUR)	0.7	0.6	0.7	0.7	0.7	0.7	0.4	2020
Circular Material Use Rate (%)	5.3	6.5	5.4	4.7	4.3	4.2	12.8	2020
Material footprint (Tones/capita)	15.8	14.6	16.5	17.9	18.0	-	14.6	2019
Waste								
Waste generation (kg/capita, total waste)	-	975	-	920	-	-	5234	2018
Landfilling (% of total waste treated)	-	20.3	-	26.9	-	-	38.5	2018
Recycling rate (% of municipal waste)	28.7	25.2	24.8	25.2	41.0	39.6	47.8	2020
Hazardous waste (% of municipal waste)	-	3.50	-	4.40	-	-	4.3	2018
Competitiveness								
Gross value added in environmental goods and services sector (% of GDP)	2.8	2.7	2.8	2.4	2.6	-	2.3	2019
Private investment in circular economy (% of GDP)	0.3	0.3	0.4	0.2	-	-	0.1	2018

Source: Eurostat

The Digital Economy and Society Index (DESI) monitors EU Member States' digital progress. The areas of human capital, digital connectivity, the integration of digital technologies by businesses and digital public services reflect the Digital Decade's four cardinal points ([46]). This Annex describes Latvia's DESI performance.

The Latvian recovery and resilience plan allocates 21% of its budget to address Latvia's main digital challenges. Its main objectives are tackling the digital skills gap and boosting digital transformation and innovation of businesses as well as maintaining its front-runner position in the modernisation and digital transformation of public services. Investments in 5G backhaul and last-mile connectivity are also planned.

Although it shows a good gender balance on this issue, tackling the digital skills gap remains one of Latvia's main digital challenges. Latvia is below the EU average in basic digital skills with almost half of its population still lacking basic digital skills. The country's performance is above average when it comes to ICT graduates and female ICT specialists but the shortage of digital skills and ICT specialists is a key obstacle to more widespread use of digital solutions by the private sector in Latvia.

Despite its excellent performance in very high capacity network coverage, Latvia needs to boost 5G deployment. Latvia performs above the EU average on very high capacity network coverage and has already allocated a radio spectrum for 5G but limited commercial 5G services are available to businesses and individuals ([47]).

Digitalisation of businesses remains a pending issue for Latvia. Latvia is well below the EU average in all categories. Slightly over a third of small and medium-sized firms have at least basic digital intensity, and Latvian firms have difficulties filling vacancies for digital specialists. The use of big data is stagnating and the take-up of AI and cloud services is below the EU average.

Latvia performs well in digital public services. Latvia scores above the EU average in all categories. Its share of e-government users far exceeds the EU average.. Latvia keeps scoring well above the EU average in digital public services for citizens and slightly above the average for businesses. Digital skills among public employees and availability of ICT tools remain essential to delivering high-quality digital public administration services.

([46]) 2030 Digital Compass: the European Way for the Digital Decade Communication, COM (2021) 118 final

([47]) There have been deployments since the data was collected. In 2021

Table A8.1: **Key Digital Economy and Society Index indicators**

		Latvia		EU	EU top-performance
Human capital	**DESI 2020**	**DESI 2021**	**DESI 2022**	**DESI 2022**	**DESI 2022**
At least basic digital skills	**NA**	**NA**	**51%**	**54%**	**79%**
% individuals			2021	2021	2021
ICT specialists	**3.0%**	**3.6%**	**3.8%**	**4.5%**	**8.0%**
% individuals in employment aged 15-74	2019	2020	2021	2021	2021
Female ICT specialists	**24%**	**23%**	**23%**	**19%**	**28%**
% ICT specialists	2019	2020	2021	2021	2021
Connectivity					
Fixed Very High Capacity Network (VHCN) coverage	**88%**	**88%**	**91%**	**70%**	**100%**
% households	2019	2020	2021	2021	2021
5G coverage (*)	**NA**	**0%**	**0%**	**66%**	**99.7%**
% populated areas		2020	2021	2021	2021
Integration of digital technology					
SMEs with at least a basic level of digital intensity	**NA**	**NA**	**38%**	**55%**	**86%**
% SMEs			2021	2021	2021
Big data	**8%**	**9%**	**9%**	**14%**	**31%**
% enterprises	2018	2020	2020	2020	2020
Cloud	**NA**	**NA**	**22%**	**34%**	**69%**
% enterprises			2021	2021	2021
Artificial Intelligence	**NA**	**NA**	**4%**	**8%**	**24%**
% enterprises			2021	2021	2021
Digital public services					
Digital public services for citizens	**NA**	**NA**	**87**	**75**	**100**
Score (0 to 100)			2021	2021	2021
Digital public services for businesses	**NA**	**NA**	**86**	**82**	**100**

(*) The 5G coverage indicator does not measure users' experience, which may be affected by a variety of factors such as the type of device used, environmental conditions, number of concurrent users and network capacity. 5G coverage refers to the percentage of populated areas as reported by operators and national regulatory authorities.
Source: Digital Economy and Society Index

This Annex provides a general overview of Latvia's research and innovation system. Latvia is an emerging innovation performer according to the 2021 edition of the European Innovation Scoreboard ([48]), but its corresponding score deteriorated in 2020 after a steady improvement in 2014-2019. The increase in the Latvian research and innovation (R&I) intensity is slow with the total gross domestic expenditure on R&D remaining below 0.71% of the GDP, one of the lowest in the EU.

Latvia faces a shortage of highly skilled workers due to the decreasing number of STEM graduates as well as the unattractiveness of academic careers. The lack of researchers and PhD students is one of the main barriers to strengthening the Latvian R&I system especially in the private sector. This skills shortage is further hindered by the decreasing number of new graduates in science and engineering from 13.1 per thousand of population in 2010 to 8.8 in 2019 (see also Annex 13). The Latvian recovery and resilience plan introduces various reforms of the higher education system that aim to align university courses with industrial needs and improve the attractiveness of research careers.

Most R&D activities are performed in public research institutes and small/medium sized Latvian firms have limited access to finance during their scale-up stage. There has been an overall decrease in venture capital investment in Latvia in the last 5 years from 0.022% of GDP in 2015 to only 0.012% in 2020 (the EU average in 2020 was 0.054%). This has impacted innovative small/medium firms whose employment share decreased from 5.2% in 2015 to 4.6% in 2020. Moreover, private Latvian R&D investment is stagnating in 2020 it was 0.22% of GDP, about the same as it had been 10 years earlier. This is well below the EU average of 1.53% of GDP. The low level of business R&D activities is driven by factors such as the shortage of highly skilled workers and very low level of public support for private R&D investment (0.028% of GDP in 2019 compared to the EU average of 0.196%).

Latvia outlines ambitious reforms and investment to improve its R&I governance and the innovation environment in their recovery and resilience plan. However, there is a need to ensure the sustainability of the funding after 2026. Latvia should provide access to alternative financing, such as joint investment to de-risk projects. It should also utilise financial support, such as tax incentives or government subsidies, to stimulate R&D investment in the private sector.

([48]) 2021 European Innovation Scoreboard, Country profile: Latvia
https://ec.europa.eu/docsroom/documents/45922/attachments/1/translations/en/renditions/native

Table A9.1: **Key research, development and innovation indicators**

Latvia	2010	2015	2018	2019	2020	Compound annual growth 2010-20	EU average
Key indicators							
R&D Intensity (GERD as % of GDP)	0.61	0.62	0.64	0.64	*0.71*	1.6	*2.32*
Public expenditure on R&D as % of GDP	0.38	0.47	0.48	0.47	*0.49*	2.5	*0.78*
Business enterprise expenditure on R&D (BERD) as % of GDP	0.22	0.15	0.16	0.17	*0.22*	-0.3	*1.53*
Quality of the R&I system							
Scientific publications of the country within the top 10% most cited publications worldwide as % of total publications of the country	1.5	4.3	4.7	:	:	15.3	9.9
PCT patent applications per billion GDP (in PPS)	1.1	0.8	0.8	:	:	-3.4	3.5
Academia-business cooperation							
Public-private scientific co-publications as % of total publications	4.9	6.4	6.1	6.6	6.9	3.4	9.05
Human capital and skills availability							
New graduates in science & engineering per thousand pop. aged 25-34	13.1	9.7	8.8	8.8	:	-4.9	16.3
Public support for business enterprise expenditure on R&D (BERD)							
Total public sector support for BERD as % of GDP	:	0.067	0.027	0.028	:	5.6	0.196
R&D tax incentives: foregone revenues as % of GDP	0.0	0.002	0.0	0.0	:	:	0.100
Green innovation							
Share of environment-related patents in total patent applications filed under PCT (%)	0.0	0.0	3.0	:	:	:	*12.8*
Finance for innovation and Economic renewal							
Venture Capital (market statistics) as % of GDP	0.016	0.022	0.015	0.012	0.012	-2.4	0.054
Employment in fast-growing enterprises in 50% most innovative sectors	3.2	5.2	5.0	4.6	:	4.0	5.5

Source: DG Research and Innovation - Common R&I Strategy and Foresight Service - Chief Economist Unit
Data: Eurostat, OECD, DG JRC, Science-Metrix (Scopus database and European Patent Office (EPO's) Patent Statistical database), Invest Europe

Productivity growth is a critical driver of economic prosperity, well-being and convergence over the long run ([49]). A major source of productivity for the EU economy is a well-functioning single market, where fair and effective competition and a business-friendly environment are ensured, in which small and medium enterprises (SMEs) can operate and innovate without difficulty. Businesses and industry rely heavily on robust supply chains and are facing bottlenecks that bear a negative impact on firms' productivity levels, employment, turnover and entry/exit rates. This may impact Latvia's capacity to deliver on Europe's green and digital transformation.

Latvia's labour productivity level still lags the EU average and shows significant regional differences. Despite considerable improvements in the last 20 years, labour productivity still stands at 60% of the EU average, roughly 10% points behind its Baltic neighbours (see Annex 18). It is highest in the capital Riga (81% of the EU average) and the surrounding region of Pieriga (77%), followed by Kurzeme (53%), Zemgale (50%), Vidzeme (47%) and Latgale (37%) ([50]).

Private investment as a share of GDP is below the EU average, which is partially due to poor access to finance, in particular for smaller firms. Although private sector investment came close to the EU average in 2020 (when it stood at 18.8% of GDP), it had been consistently below the EU average since 2016, raising concern about Latvia's convergence prospects over the longer term. The largest shortfall compared to the EU average is in investment in housing and intellectual property. Low investment is partially due to obstacles in access to finance. Despite improvements, loan rejection rates in Latvia for small/mid-sized firms are still roughly 4% pps above the EU average. Latvian firms of this size face relatively higher barriers to getting credit than peers in most other EU countries. Only 41% of small/mid-sized firms feel confident in talks with banks (the lowest proportion in the EU) and only 16% expect a loan application to proceed without obstacles. Moreover, Latvian companies are more dissatisfied than other EU companies with the

collateral requirements (29% vs 6%), the cost of finance (21% vs 5%), and banks' credit standards, which are stricter in Latvia than in other euro area countries. The high cost of traditional finance means that around 25% of firms report having invested too little over the last 3 years, above the 14% EU average. ([51]) The share of smaller firms who experience late payments is below the EU average. However, business confidence in investment protection before the courts, in case something goes wrong, is one of the lowest in the EU (34% vs 56% EU average). Furthermore, alternative sources of finance such as venture capital and crowdfunding are underdeveloped in Latvia and constitute a tiny share of financing for small and medium-sized firms.

Although Latvia has initiated a number of reforms, barriers remain for several regulated professions in Latvia. Regulatory restrictiveness in Latvia is higher than the EU average for architects, lawyers, civil engineers and patent agents. No related measures are planned in the recovery and resilience plan (RRP). Latvia still has a fragmented system when it comes to civil engineers and architects whereby multiple certification requirements remain for different categories of professions in the same area of activity.

Latvia has made strides in public procurement. It has improved its public procurement performance and, notwithstanding poor performance in the proportion of contracts awarded where there was just a single bidder, Latvia finds itself among the top EU performers in the participation rate in public bids and contracts by small and medium-sized firms. The Latvian RRP contains a number of measures that aim to invest in public procurement structures that will further benefit SMEs.

During the Covid-19 pandemic (2021-21), Latvia has been less badly affected by supply chain disruptions due to its industry's comparatively low reliance on the supplies facing global shortages. Businesses have reported fewer manufacturing shortages than on average across the EU with material shortages nearly 10 percentage points below the EU average. Latvia's concentration of raw materials is on par with the EU average

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([49]) Annual Sustainable Growth Survey

([50]) European Commission (2021): Regional fact sheets, Selected indicators by NUTS-3 region, Latvia

([51]) European Investment Bank Survey, 2021.

(0.16 vs EU average of 0.17). Latvian industry's dependence on domestic inputs is about the same as EU average, but imports from within the EU play a greater role in Latvia than they do for other EU Member States. However, unprovoked aggression of Russian Federation in Ukraine will pose significant challenges for existing supply chains, in particular raw materials necessary for manufacturing and construction

Table A10.1: **Key Single Market and Industry indicators**

SUB-POLICY AREA	INDICATOR NAME	DESCRIPTION	2021	2020	2019	2018	2017	Growth rates	EU27 average*
		HEADLINE INDICATORS							
Economic structure	Value added by source (domestic)	VA that depends on domestic intermediate inputs, % [source: OECD (TiVA), 2018]				62.7			**62.6%**
	Value added by source (EU)	VA imported from the rest of the EU, % [source: OECD (TiVA), 2018]				22.37			**19.7%**
	Value added by source (extra-EU)	% VA imported from the rest of the world, % [source: OECD (TiVA), 2018]				14.9			**17.6%**
Cost competitiveness	Producer energy price (industry)	Index (2015=100) [source: Eurostat, sts_inppd_a]	114.5	97.8	105.1	99.1	93.2	**22.9%**	**127.3**
		RESILIENCE							
Shortages/supply chain disruptions	Material Shortage using survey data	Average (across sectors) of firms facing constraints, % [source: ECFIN CBS]							**26%**
	Labour Shortage using survey data	Average (across sectors) of firms facing constraints, % [source: ECFIN CBS]							
	Sectoral producer prices	Average (across sectors), 2021 compared to 2020 and 2019, index [source:Eurostat]						**5.8%**	**5.4%**
Strategic dependencies	Concentration in selected raw materials	Import concentration a basket of critical raw materials, index [source: COMEXT]	0.16	0.16	0.17	0.19	0.16	**0%**	**17%**
	Installed renewables electricity capacity	Share of renewable electricity to total capacity, % [source:Eurostat, nrg_inf_epc]		57.20	57.30	57.00	56.40	**1%**	
Investment dynamics	Net Private investments	Change in private capital stock, net of depreciation, % GDP [source: Ameco]		0.3	0.6	-1	-2.2	**-113.6%**	**2.6%**
	Net Public investments	Change in public capital stock, net of depreciation, % GDP [source: Ameco]		1.6	1.1	1.7	0.6	**167%**	**0.4%**

(Continued on the next page)

SINGLE MARKET

Category	Indicator	Description						Change	Latest (*)
Single Market integration	Intra-EU trade	Ratio of Intra-EU trade to Extra-EU trade, index [source: Ameco]	2.42	2.27	2.24	2.05	2.28	**6%**	**1.59**
Professional services restrictiveness	Regulatory restrictiveness indicator	Restrictiveness of access to and exercise of regulated professions (professions with above median restrictiveness, out of the 7 professions analysed in SWD(2021)185 [source: SWD(2021)185; SWD(2016)436 final])	3				1	**200%**	**3.37**
Professional qualifications recognition	Recognition decisions w/o compensation	Professionals qualified in another EU MS applying to host MS, % over total decisions taken by host MS [source: Regulated professions database]	n.a.						**45%**
Compliance - cooperation EC and MS	Transposition - overall	5 sub-indicators, sum of scores [source: Single Market Scoreboard]		On average	Above	Above average	Above average		
	Infringements - overall	4 sub-indicators, sum of scores [source: Single Market Scoreboard]		On average	On average	On average	Above average		
Investment protection	Confidence in investment protection	Companies confident that their investment is protected by the law and courts of MS if something goes wrong, % of all firms surveyed [source: Flash Eurobarometer 504]	34						**56%**

BUSINESS ENVIRONMENT - SMEs

Category	Indicator	Description						Change	Latest (*)
Business demography	Bankruptcies	Index (2015=100) [source: Eurostat, sts_rb_a]	n.a.	n.a.	n.a.	n.a.	n.a.	**n.a.**	**70.1 (2020)**
	Business registrations	Index (2015=100) [source: Eurostat, sts_rb_a]	n.a.	n.a.	n.a.	n.a.	n.a.	**n.a.**	**105.6**
	Late payments	Share of SMEs experiencing late payments in past 6 months, % [source: SAFE]	36.5	36.5	56.5	n.a.	n.a.	**-35%**	**45%**
Access to finance	EIF Access to finance index - Loan	Composite: SME external financing over last 6 months, index from 0 to 1 (the higher the better) [source: EIF SME Access to Finance Index]		0.2	0.42	0.22	0.21	**-4.7%**	**0.56 (2020)**
	EIF Access to finance index - Equity	Composite: VC/GDP, IPO/GDP, SMEs using equity, index from 0 to 1 (the higher the better) [source: EIF SME Access to Finance Index]		0.14	0.16	0.14	0.12	**13.6%**	**0.18 (2020)**
	% of rejected or refused loans	SMEs whose bank loans' applications were refused or rejected, % [source: SAFE]	16.3	42	27.5	16.9	0	**n.a.**	**12.4%**
Public procurement	SME contractors	Contractors which are SMEs, % of total [source: Single Market Scoreboard]		92	91	90	69	**33.3%**	**63%**
	SME bids	Bids from SMEs, % of total [source: Single Market Scoreboard]		92	91	86	68	**35%**	**70.8%**

(*) latest available

*Source:* See above in the table the respective source for each indicator in the column "description".

Good administrative capacity enables economic prosperity, social progress, and fairness. Public administrations at all government levels deliver crisis response, ensure the provision of public services and contribute to building the resilience needed for the sustainable development of the EU economy.

Overall, public administration in Latvia demonstrates effectiveness around the average in the EU-27 ([52]). Coordination between levels of government remains a challenge, while policy design and implementation capacity varies at central and local level. Initiatives on better regulation and zero bureaucracy included in the 2020 Reform Agenda require follow-up action. Latvia has a structured and systematic process for public consultations, but scores below the average on the index for ex post evaluations. While evidence-based policymaking has seen recent improvements through the introduction of an ex ante evaluation manual, expost evaluation remains limited.

Graph A11.1: **Open data maturity**
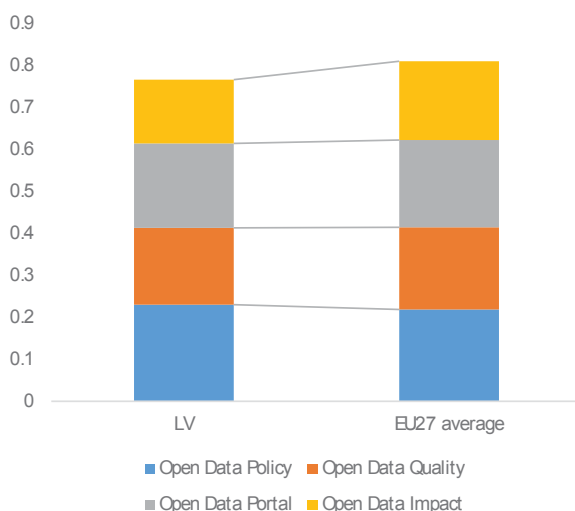
Source: Open Data Maturity | data.europa.eu

Latvia is advanced in the digitalisation of its public administration and the delivery of digital services. 84% of individuals use the internet to interact with the public authorities (compared to 71% for EU as a whole). Latvia's e-government benchmark score is above the EU average and the country is in the top third for the user-centricity of its government digital

services. To address the challenge of system interoperability, the State Chancellery has set up a unified platform for webpages of public administration institutions and local municipalities. In addition, the RRP aims to promote the digital transformation of public administration and modernize its functions. The centralisation of support functions is expected to improve efficiency and investment in training civil servants should improve capacity. The measures are part of a broader reform that aims for a more efficient, better motivated, innovative and competent public administration.

Overall, the justice system is functioning efficiently. The length of proceedings remained stable in 2020, with a slight increase in civil, criminal and administrative cases at all instances, and somewhat decreased for administrative case in first instance. The overall quality of the justice system is good and is being further improved. The level of digitalisation of courts and the prosecution services is high. However, the Judicial Council operates with a shortage of resources. On judicial independence, no systemic deficiencies have been reported. ([53])

Latvia's overall performance in selected human resource management indicators is above the EU average. Latvia scores above average in participation by public administration employees in adult training. Public administration institutions have proven attractive to young employees, particularly due to the social benefits provided, moreover the share of civil servants aged over 55 stood at 18.3% (vs. 21.3% in the EU average).

Latvia has made significant progress in public procurement. It has made an improvement on nearly all public procurement indicators and scores above its Baltic neighbours. Latvia scores poorly in the proportion of contracts awarded where there was just a single bidder (25%) and has average performance for the proportion of procurement procedures where there were no calls for bids (8%). The RRP contains a

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([52]) Worldwide Governance Indicators, 2020. Latvia scores 0.98 on a scale from -2.5 to 2.5; the EU average is 1.05.

([53]) For more detailed analysis of the performance by the justice system in Latvia, see the 2022 EU Justice Scoreboard (forthcoming) and the country chapter for Latvia in the Commission's 2022 Rule of Law Report (forthcoming).

Table A11.1: **Public administration indicators – Latvia**

LV	Indicator (1)	2017	2018	2019	2020	2021	EU27
	E-government						
1	Share of individuals who used internet within the last year to interact with public authorities (%)	83.0	78.0	80.0	85.0	84.0	70.8
2	2021 e-government benchmark´s overall score (2)	na	na	na	na	80.2	70.9
	Open government and independent fiscal institutions						
3	2021 open data maturity index	na	na	na	na	76.7	81.1
4	Scope Index of Fiscal Institutions	45.0	52.5	52.5	52.5	na	56.8
	Educational attainment level, adult learning, gender parity and ageing						
5	Share of public administration employees with tertiary education, levels 5-8 (3)	69.6	70.1	71.9	73.0	75.2	55.3
6	Participation rate of public administration employees in adult learning (3)	15.2	14.3	16.8	12.5	19.8	18.6
7	Gender parity in senior civil service positions (4)	6.6	4.8	3.4	8.2	10.0	21.8
8	Share of public sector workers between 55 and 74 years (3)	17.5	19.4	20.2	21.2	18.3	21.3
	Public Financial Management						
9	Medium term budgetary framework index	0.75	0.88	0.88	0.88	na	0.72
10	Strength of fiscal rules index	1.3	1.3	1.3	1.3	na	1.5
11	Public procurement composite indicator	3.0	1.0	5.0	4.7	na	-0.7
	Evidence-based policy making						
12	Index of regulatory policy and governance practices in the areas of stakeholder engagement, Regulatory Impact Assessment (RIA) and ex post evaluation of legislation	1.36	na	na	1.79	na	1.7

(1) High values stand for good performance barring indicators # 7 and 8.
(2) Measures the user centricity (including for cross-border services) and transparency of digital public services as well as the existence of key enablers for the provision of those services.
(3) Break in the series in 2021.
(4) Defined as the absolute value of the difference between the share of men and women in senior civil service positions.
Source: ICT use survey, Eurostat (# 1); E-government benchmark report (# 2); Open data maturity report (# 3); Fiscal Governance Database (# 4, 9, 10); Labour Force Survey, Eurostat (# 5, 6, 8), European Institute for Gender Equality (# 7), Single Market Scoreboard public procurement composite indicator (# 11); OECD Indicators of Regulatory Policy and Governance (# 12).

number of measures to bolster public procurement performance.

ANNEX 12: EMPLOYMENT, SKILLS AND SOCIAL POLICY CHALLENGES IN LIGHT OF THE EUROPEAN PILLAR OF SOCIAL RIGHTS

The European Pillar of Social Rights provides the compass for upward convergence towards better working and living conditions in the EU. The implementation of its 20 principles on equal opportunities and access to the labour market, fair working conditions, social protection and inclusion, supported by the 2030 EU headline targets on employment, skills and poverty reduction, will strengthen the EU's drive towards a digital, green and fair transition. This Annex provides an overview of Latvia's progress in achieving the goals under the European Pillar of Social Rights.

Table A12.1: **Social Scoreboard for Latvia**

Equal opportunities and access to the labour market	Early leavers from education and training (% of population aged 18-24) (2021)	7.3
	Individuals' level of digital skills (% of population 16-74)(2021)	51.0
	Youth NEET (% of total population aged 15-29) (2021)	12.1
	Gender employment gap (percentage points) (2021)	4.8
	Income quintile ratio (S80/S20) (2020)	6.3
Dynamic labour markets and fair working conditions	Employment rate (% population aged 20-64) (2021)	75.3
	Unemployment rate (% population aged 15-74) (2021)	7.6
	Long term unemployment (% population aged 15-74) (2021)	2.3
	GDHI per capita growth (2008=100) (2020)	120.5
Social protection and inclusion	At risk of poverty or social exclusion (in %) (2020)	25.1
	At risk of poverty or social exclusion for children (in %) (2020)	19.7
	Impact of social transfers (other than pensions) on poverty reduction (% reduction of AROP) (2020)	23.4
	Disability employment gap (ratio) (2020)	16.7
	Housing cost overburden (% of population) (2020)	4.8
	Children aged less than 3 years in formal childcare (% of under 3-years-olds) (2020)	26.3
	Self-reported unmet need for medical care (% of population 16+) (2020)	5.3

Critical situation	To watch	Weak but improving	Good but to monitor	On average	Better than average	Best performers

(1) Update of 29 April 2022. Members States are classified on the Social Scoreboard according to a statistical methodology agreed with the EMCO and SPC Committees. It looks jointly at levels and changes of the indicators in comparison with the respective EU averages and classifies Member States in seven categories. For methodological details, please consult the Joint Employment Report 2022. Due to changes in the definition of the individuals' level of digital skills in 2021, exceptionally only levels are used in the assessment of this indicator; NEET: neither in employment nor in education and training; GDHI: gross disposable household income.

Source: European Commission

While employment is recovering from the COVID-19 crisis, it is not yet back to pre- crisis levels, and challenges remain in relation to labour market outcomes for the low-skilled. Following an increase to 8.1% in 2020, unemployment dropped again to 7.6% in 2021. However, the rate of young people not in employment, education or training (NEETs) increased from 10.3% in 2019 to 12.1% in 2021, reversing the positive pre-pandemic trend. In addition, the low-skilled have unemployment rates that are respectively 1.5 and 2.8 times higher than for the medium- and the high-skilled. At the same time, labour shortages were already sizeable before the pandemic, and are expected to increase further in science and technology, construction, information and communication services and manufacturing. Stronger social dialogue could also help achieve better labour market outcomes. Furthermore, in 2020, Latvia, at 22.3%, registered the highest gender pay gap in the EU, well above the EU average of 13%, this in the face of one of the lowest gender employment gaps (4.8% vs 10.8% for the EU27 in 2021). The RRP and cohesion policy funds will help tackle these challenges by supporting active labour market policies targeting the low-skilled.

Latvia faces challenges in relation to adult learning and digital skills. The share of adults (aged 25-64) participating in learning over the past 4 weeks is well below the EU average (8.6% vs 10.8% in 2021) [54]. Timely re- and upskilling are needed to combat long-term unemployment, which was slightly below the EU average in 2021 (2.3% vs an EU average of 2.8%). Although 51% of Latvia's population has at least basic digital skills (EU average of 54% in 2021), reaching the low-skilled (42%) and unemployed (46%) poses an additional challenge [55]. In this context, adult learning is key to address the significant skills mismatches in the labour market given that the job vacancy rate in Q4-2021 stood at 3%,

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[54] The indicator for adult learning participation over the previous 4 weeks is used in the country report, rather than the indicator for learning over the previous 12 months, because (i) Adult Education Survey (AES) data for the 12-month indicator are currently only available for 2016 and (ii) the new Labour Force Survey (LFS) indicator agreed for use in the Social Scoreboard and as the 2030 headline target for skills will only be available in 2023.

[55] Eurostat [ISOC_SK_DSKL_I21}, data as of 2021.

same level as in Q4-2019. Strengthening the quality and inclusiveness of education and training is important for Latvia to contribute to reaching the 2030 EU headline target on skills.

Latvia faces significant poverty and inequality challenges. Although severe material and social deprivation dropped and is now close to the EU average (7% vs 6.8% in the EU), the risk of poverty or social exclusion remains high, albeit is falling (25.1% in 2020, compared to an EU average of 21.9%). The depth of poverty is increasing (from 24% in 2016 to 28.6% in 2020) to one of the highest in the EU. Poverty or social exclusion risks for older people aged 65+ (at 43.1%) and for persons with disabilities (at 39.3%) remain among the highest in the EU. Recent increases in minimum income, pensions and disability benefits, and universal child benefits will provide some support to the poorest 10% of the population. However, with the minimum income amount set at EUR 109 in 2021, the net income of the benefit recipients still falls well below the poverty line (EUR 444 in 2021) and the national relative household expenditure (at EUR 362). Thus the current support provided is not expected to significantly alleviate poverty risks even after the annual indexation of benefits (scheduled for 2023). The minimum threshold 20% of national median income in the 3 previous years will remain inadequate, compared to overall income developments. Latvia's housing deprivation (11.5% in 2020) is among the highest in the EU and the social housing stock is low (2% versus 8% in the EU). Long-term care is underdeveloped with low public spending (0.5% versus 1.7% in the EU in 2019), and the share of people aged 65+ with long-term care needs is high and increasing (38.8% of the population reported having those needs, compared with 26.6% in the EU in 2019) (long-term care needs are defined as severe difficulties in personal care activities or household activities). Care is mostly provided by informal carers. Latvia's RRP will invest in community-based residential care for older people, complementing European Social Fund Plus (ESF+) funding for long-term care services, including home care for older people and palliative care. Nevertheless, there remains scope for more integrated efforts to strengthen the social safety net to address the country's poverty challenges, thereby contributing to achieving the 2030 EU headline target on poverty reduction.

This Annex outlines the main challenges for Latvia's education and training system in light of the EU-level targets of the European Education Area strategic framework and other contextual indicators, based on the analysis from the 2021 Education and Training Monitor. Latvia performs above the EU average on participation in early childhood education, basic skills, early leavers from education and training, and tertiary education, but struggles with uneven access to quality education, a low proportion of STEM graduates and a pervasive gender gap.

Participation in early childhood education and care (ECEC) is almost universal for children aged between 3 and the start of compulsory education, but enrolment of younger children is lower. 94.1% of 3-6 year-olds were enrolled in ECEC in 2019, slightly more than the EU average, and not far below the new EU-Level target of 96% by 2030. The share of children under 3 enrolled in childcare services almost doubled between 2009 and 2019. However, it remains below both the EU average of 35.3% and the Barcelona target of 33%, even though Latvia's Education Law stipulates that all children are legally entitled to a place in ECEC from the age of 18 months. The government's Guidelines on the Development of Education 2021-27 set the target of increasing the proportion of children aged between 1 and 4 enrolled in ECEC to 73% in 2027.

The proportion of early leavers from education and training increased by 0.1 pps from 2020 and is well below the EU average. Men are more likely than women to be early school leavers (8.9% against 5.6%), as are people in rural areas (10.1% against 6.1% in cities).

Ensuring education of equal quality across schools and regions is a challenge. Overall, Latvian students score above the EU average in basic skills achievement (PISA), but access to quality education remains dependent on students' place of residence. Students in larger urban schools have higher average educational outcomes than those in smaller rural schools. Urban students in Latvia outperformed their rural peers by 52 points in reading in PISA 2018, the equivalent of more than 1.5 years of schooling. In addition, rural schools tend to have a higher proportion of lower socio-economic status students, a lower share of resilient students (those with disadvantaged backgrounds but high academic performance), and a higher rate of grade repetition. These challenges persist into adulthood, as adults in rural areas are twice as likely not to hold an upper secondary qualification and less likely to participate in adult learning. The causes of these inequalities are complex, ranging from structural challenges such as demographic change and socio-economic distribution, to educational challenges such as school size, teacher salaries and quality of teachers. While it is too early to evaluate the impact of the COVID-19 pandemic on regional disparities, it is likely that distance learning has exacerbated existing inequalities.

Tertiary educational attainment is high but the share of STEM graduates is comparatively low and the gender gap is significant. In 2021, 45.5% of Latvian 25-34 year-olds had a tertiary qualification (EU average 41.2%). Over half of Latvian women (55.4%) have a tertiary degree, while only slightly above a third of men do (36.2%). At 19.2 pps, the gender gap in tertiary-degree attainment is one of the widest in the EU, and almost twice the EU average of 11.1 pps. In 2019, 19.9% of all graduates had a STEM qualification, 1.4 pps fewer than in 2014 and well below the EU average of 26%. The share was particularly low for women at 9.5% (also down by 1.5 pps since 2014) compared to an EU average of 14.7%.

Table A13.1: **EU-level targets and other contextual indicators under the European Education Area strategic framework**

				2015		2021	
Indicator			Target	Latvia	EU27	Latvia	EU27
Participation in early childhood education (age 3+)			96%	93.0%	91.9%	94.1% [2019]	92.8% [2019]
Low achieving 15-year-olds in:		Reading	< 15%	17.7%	20.4%	22.4% [2018]	22.5% [2018]
		Mathematics	< 15%	21.4%	22.2%	17.3% [2018]	22.9% [2018]
		Science	< 15%	17.2%	21.1%	18.5% [2018]	22.3% [2018]
Early leavers from education and training (age 18-24)	Total		< 9 %	9.9%	11.0%	7.3%	9.7%
	By gender	*Men*		13.4%	12.5%	8.9%	11.4%
		Women		6.2%	9.4%	5.6%	7.9%
	By degree of urbanisation	*Cities*		6.9%	9.6%	6.1%	8.7%
		Rural areas		12.1%	12.2%	10.1%	10.0%
	By country of birth	*Native*		10.0%	10.0%	7.2%	8.5%
		EU-born		: [u]	20.7%	: [u]	21.4%
		Non EU-born		: [u]	23.4%	: [u]	21.6%
Tertiary educational attainment (age 25-34)	Total		45%	39.9%	36.5%	45.5%	41.2%
	By gender	*Men*		26.0%	31.2%	36.2%	35.7%
		Women		54.4%	41.8%	55.4%	46.8%
	By degree of urbanisation	*Cities*		49.6%	46.2%	56.5%	51.4%
		Rural areas		31.9%	26.9%	29.7%	29.6%
	By country of birth	*Native*		39.1%	37.7%	44.7%	42.1%
		EU-born		79.9% [u]	32.7%	: [u]	40.7%
		Non EU-born		55.8%	27.0%	65.8%	34.7%
Share of school teachers (ISCED 1-3) who are 50 years or over				45.4%	38.3%	45.5% [2019]	38.9% [2019]

(1) The 2018 EU average on PISA reading performance does not include Spain; u = low reliability, : = not available; data are not yet available for the remaining EU-level targets under the European Education Area strategic framework, covering underachievement in digital skills, exposure of graduates from vocational education and training to work-based learning and participation of adults in learning.
Source: Eurostat (UOE, LFS); OECD (PISA)

Graph A13.1: **Rural-city gap in students' socio-economic status. PISA 2018**
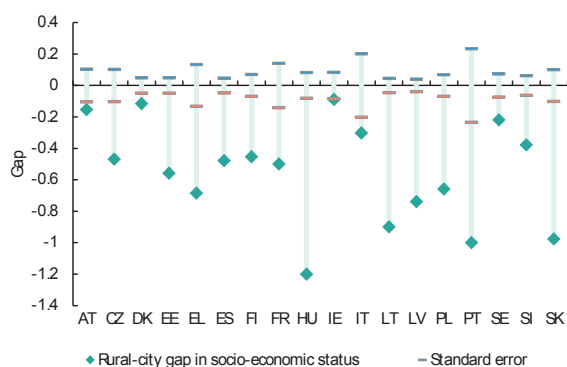
(1) The socio-economic status is measured by the PISA Index of Economic, Social and Cultural Status
*Source:* OECD (2021), adapted from Figure 3.9.

Especially relevant in light of the ongoing COVID-19 pandemic, resilient healthcare is a prerequisite for a sustainable economy and society. This Annex provides a snapshot of the healthcare sector in Latvia.

Life expectancy in Latvia remains among the lowest in the EU. Its growth trend was disrupted in 2020, when life expectancy dropped slightly due to the COVID-19 pandemic. As of 17 April 2022, Latvia reported 3.31 cumulative COVID-19 deaths per 1 000 inhabitants and 426 confirmed cumulative COVID-19 cases per 1 000 inhabitants. Latvia's mortality rate from treatable causes is the third highest in the EU. Cardiovascular diseases are the leading cause of death. Cancer screening rates are low, reflected in a higher cancer mortality rate than the EU average.

Graph A14.1: **Life expectancy at birth, years**
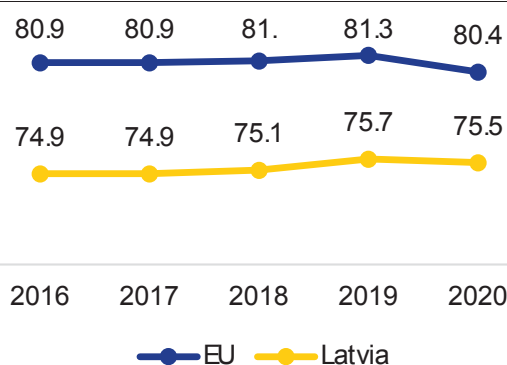
Source: Eurostat database

Health expenditure in Latvia is among the lowest in the EU and only 60.8% of it is publicly funded. The benefits package is relatively limited and the services and goods covered nearly always require user co-payments. Consequently, the share of out-of-pocket spending for healthcare is very high, more than twice the EU average. Public expenditure on health is projected to increase by 0.4 percentage points (pps) of GDP by 2070 (compared to 0.9 pps for the EU) ([56]). Population ageing in Latvia does not currently pose significant long term fiscal sustainability concerns.

Graph A14.2: **Projected increase in public expenditure on health care over 2019-2070 (reference scenario)**
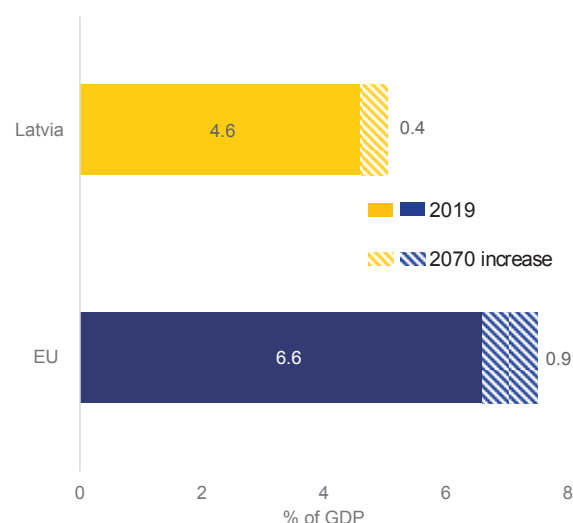
Source: European Commission/EPC (2021)

Latvia faces shortages and an uneven distribution of health workers. This creates further barriers to accessing healthcare and contribute to long waiting times for publicly funded services. The proportion of the Latvian population reporting unmet needs for medical treatment was among the highest in Europe, both before and during the COVID-19 pandemic (see Annex 12).

Through its recovery and resilience plan, Latvia plans to invest EUR 181.5 million (9.9% of the total RRP) in healthcare. Investments mainly concern infrastructure improvements in university hospitals, regional hospitals and secondary outpatient settings. Other actions aim at health workforce management and upskilling and developing and piloting more efficient health service models.

([56]) 'The 2021 Ageing Report: Economic and Budgetary Projections for the EU Member States (2019-2070)', European Commission (ECFIN) and Ageing Working Group (EPC).

Table A14.1: **Key health indicators**

	2016	2017	2018	2019	2020	EU average (latest year)
Treatable mortality per 100 000 population (mortality avoidable through optimal quality healthcare)	203.2	199.0	196.4	188.6		92.1 (2017)
Cancer mortality per 100 000 population	294.6	297.9	293.9	292.6		252.5 (2017)
Current expenditure on health, % GDP	:	6.0	6.2	6.6		9.9 (2019)
Public share of health expenditure, % of current health expenditure	:	57.3	59.9	60.8		79.5 (2018)
Spending on prevention, % of current health expenditure	2.4	2.4	2.6	2.6		2.8 (2018)
Acute care beds per 100 000 population	341.0	329.9	321.6	308.8		387.4 (2019)
Doctors per 1 000 population *	3.2	3.2	3.3	3.3		3.8 (2018)
Nurses per 1 000 population *	4.6	4.6	4.4	4.4		8.2 (2018)
Consumption of antibacterials for systemic use in the community, daily defined dose per 1 000 inhabitants per day **	11.1	12.1	11.5	12.0	10.3	14.5 (2020)

(1) Doctors' density data refer to practising doctors in all countries except FI, EL, PT (licensed to practice) and SK (professionally active). Nurses' density data refer to practising nurses in all countries (imputation from year 2014 for FI) except IE, FR, PT, SK (professionally active) and EL (nurses working in hospitals only). More information: https://ec.europa.eu/health/state-health-eu/country-health-profiles_en
Source: Eurostat; except: * Eurostat Database and OECD, ** European Centre for Disease Prevention and Control

The regional dimension is an important factor when assessing economic and social developments in Member States. Taking into account this dimension enables a well-calibrated and targeted policy response that fosters cohesion and ensures sustainable and resilient economic development across all regions. Regional disparities in Latvia are characterised by a gap in social and economic indicators between the capital region and the rest of the country. In 2019, Latvian GDP per head was EUR 21 527. This corresponds to 69% of the EU average (100). GDP per head peaks in Riga (118% of the EU average) but it is much lower in the other statistical NUTS3 regions, varying from 33% in the most eastern region of Latgale to 55% in the Pierīga region surrounding Riga.

Graph A15.1: **Social indicators by degree of urbanisation in Latvia**

Source: Eurostat

Labour productivity, while generally on the rise, remains low in Latvia. Productivity, measured as gross value added (pps) per worker, is lower than the EU average (100) in all Latvian regions, varying between 37% in Latgale and 81% in Riga. High-quality electronic communications services are essential for regional economic development, but few ICT providers deploy very high-capacity communications networks in rural areas.

Large disparities between urban and rural areas persist in Latvia in terms of poverty and social exclusion. With 68% of the population living in cities and 32% in rural areas, the unemployment rate is higher in rural areas than in urban areas (9.1% compared to 7.7%), as is the case for young people not in employment, education or training (15.6% to 12.2%). Rural areas in Latvia also include more people at risk of poverty or social exclusion (28.7%) than urban areas (21.6%) (Graph A15.1). Average monthly income (2020) in Riga was EUR 751, while in Latgale it was only EUR 445 ([57]). Differences in household expenditure for costs of living were small: EUR 1237 for a family with two children in Riga, compared to EUR 1257 in rural areas (due to higher transport costs) ([58]).

Administrative territorial reform aims to address the challenges of depopulation and regional disparities. By lowering the number of municipalities from 119 to 42, Latvia hopes to create more economies of scale for municipalities, reducing administrative costs, develop business opportunities and improve the accessibility and quality of public services.

([57]) Central Statistics Bureau, 2020 household incomes: https://admin.stat.gov.lv/system/files/publication/2022-02/Nr_10_Majsaimniecibu_riciba_esosie_ienakumi_Latvija_2020_gada_%2822_00%29_LV.pdf

([58]) https://www.lm.gov.lv/lv/jaunums/izstradats-jaunais-majsaimniecibu-relativo-izdevumu-budzets

Graph A15.2: **CO2 emissions from fossil fuels per head, 2018**
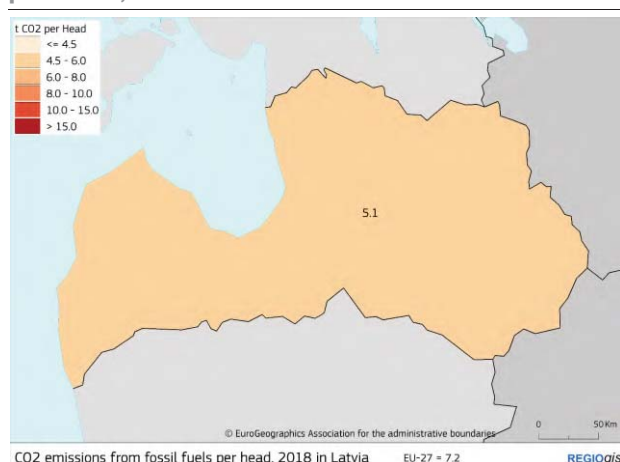
CO2 emissions from fossil fuels per head, 2018 in Latvia   EU-27 = 7.2

Source: European Commission

Graph A15.3: **Territories most affected by climate transition in Latvia**
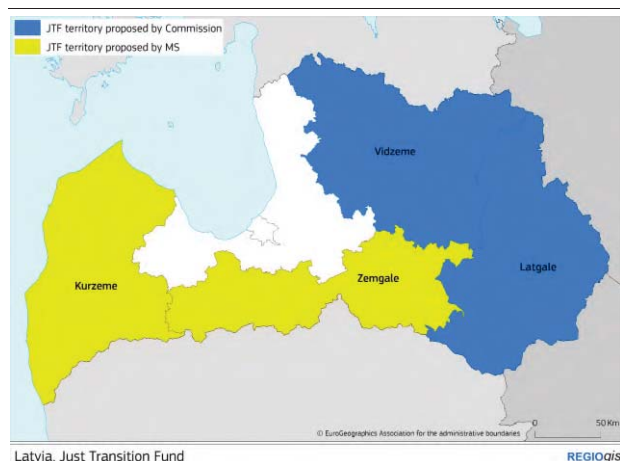
Latvia, Just Transition Fund

Source: European Commission

Greenhouse gas emissions levels per capita are below the EU average. Emissions

from wetlands and peat extraction are the biggest relevant source of greenhouse emissions and the European Commission identified in Annex D of the 2020 Country report of Latvia that the two regions of Latgale and Vidzeme as eligible territories for Just Transition Fund. Meanwhile discussions on geographical scope of eligible territories are still ongoing. Greenhouse gas emissions from wetlands and the extraction of peat for energy and horticulture constitute around 13% of total emissions (13,174.61 kt CO_2 equivalent incl. land use, land use change and forestry) in Latvia, mainly stemming from organic soils, peat extraction and deforestation.

Table A15.1: **Selected indicators at regional level - Latvia**

NUTS 3 Region	GDP per head (PPS)	GDP (mln of PPS)	Productivity (GVA (PPS) per person employed)	Real productivity growth	GDP growth	GDP per head growth	Population growth	Net migration
	EU27=100, 2019	2019	EU27=100, 2018	Avg % change on preceding year, 2010-2019	Avg % change on preceding year, 2010-2019	Avg % change on preceding year, 2010-2019	Total % change, 2011-2019	Total % change, 2011-2019
European Union	100	13 963 897.26	100	1.00	1.57	1.39	1.8	2.2
Latvija	69	41 192.98	67	2.18	2.12	3.28	-8.1	-4.6
Kurzeme	49	3 560.24	53	2.25	0.56	2.19	-12.5	-8.4
Latgale	33	2 584.68	37	1.55	-0.12	1.81	-16.2	-8.7
Rīga	118	22 640.71	81	-0.40	2.59	3.39	-4.9	-2.2
Pierīga	55	6 106.87	77	7.12	3.75	4.11	0.7	1.0
Vidzeme	44	2 501.93	47	2.27	1.29	3.00	-13.3	-8.7
Zemgale	40	2 794.18	50	3.44	0.93	2.33	-10.5	-7.0

Source: EUROSTAT, *Emissions Database for Global Atmospheric Research (EDGAR)

This Annex provides an overview of key developments in Latvia's financial sector. The Latvian financial system remains stable as it entered the COVID-19 crisis in a solid position. Financial soundness indicators are strong, with a capital adequacy ratio of 24.7% and a liquidity coverage ratio of 332%, well above the minimum requirements. The extraordinary liquidity situation of 2021 is mainly driven by the rapid increase in local deposits, outpacing credit growth, as well as abundant liquidity coming from the Central Bank (6,5% of total liabilities). After bolstering them in 2020, credit institutions started to reduce their loan loss provisions in 2021, as the quality of the domestic loan portfolio improved. This supported their profitability indicators.

A stable deposit base reduces reliance on cross-border parent bank funding in the mostly foreign-owned sector. The parent institutions of Latvia's banks are well capitalised and have high credit ratings and good profits. This enhances the risk absorption capacity of the Latvian banking sector. On the other hand, the financial sector's dependence on developments in parent banks (mostly located in Scandinavia) and the macro-financial situation in their home countries implies a potential structural vulnerability.

Banks' corporate loan portfolio shrank amid the COVID-19 outbreak and a decline in economic activity. Government support and private forbearance measures have been limiting growth in the credit risk in the short term. However, a more recent increase in forborne and Stage 2 loans could point to a rise in riskiness.

Mortgage lending expanded in 2021. House prices have been on a prolonged uptrend. For now, these dynamics seem to be in line with fundamentals and close to wage growth. The overall household indebtedness and interest burden remain low and payment discipline has not deteriorated.

Latvia's financial sector is shrinking and refocusing its business model and customer base after weaknesses in its non-resident banking segment had been exposed. Latvia has made significant progress in strengthening its rules to combat money laundering and terrorism financing in recent years.

Table A16.1: **Financial soundness indicators**

	2017	2018	2019	2020	2021
Total assets of the banking sector (% of GDP)	104.9	78.2	74.1	81.6	77.6
Share (total assets) of the five largest bank (%)	73.6	80.9	83.2	87.8	-
Share (total assets) of domestic credit institutions (%)[1]	48.4	32.9	33.9	34.2	34.0
Financial soundness indicators:[1]					
- non-performing loans (% of total loans)	5.6	5.3	3.9	4.6	4.3
- capital adequacy ratio (%)	20.6	22.3	23.4	26.8	24.7
- return on equity (%)	7.6	9.2	9.6	5.2	9.8
NFC credit growth (year-on-year % change)	2.1	3.6	-0.6	-1.0	-1.1
HH credit growth (year-on-year % change)	0.6	0.7	0.9	0.5	6.5
Cost-to-income ratio (%)'	58.4	61.3	62.4	64.5	59.2
Loan-to-deposit ratio (%)'	60.6	70.7	70.7	63.5	68.0
Central bank liquidity as % of liabilities	1.0	0.2	0.1	6.2	6.1
Private sector debt (% of GDP)	75.6	69.7	66.2	66.5	-
Long-term interest rate spread versus Bund (basis points)	51.7	50.6	59.5	44.8	37.1
Market funding ratio (%)	13.0	13.8	15.7	16.5	-
Green bond issuance (bn EUR)	0.0	0.0	-	-	0.2

(1) Last data: Q3 2021.
Source: European Central Bank, Eurostat, Refinitiv.

This Annex provides an indicator-based overview of Latvia's tax system. It includes information on the tax structure, i.e. the types of tax that Latvia derives most revenue from, the tax burden for workers, and the progressivity and redistributive effect of the tax system. It also provides information on tax collection and compliance and on the risks of aggressive tax planning activity.

Latvia's tax revenues in relation to GDP are below the EU average. Total tax revenue was 31.5% in 2020 compared to an EU average of 40.2%. Lower revenue from labour, property and capital taxes explains much of the difference, while consumption taxes generated a relatively high revenue (13.4% of GDP in Latvia in 2020, compared to the EU average of 10.8%). The revenue from environmental taxes as percentage of GDP also exceeds EU average and is the 5th highest in EU.

A series of reforms have reduced the burden on low earnings, but it is still comparatively high. The tax wedge ([59]) for workers earning 50% of the average wage was reduced from a high level of 42.4% in 2010 to 35.3% in 2021, still above the EU average. However, the implicit tax rate ([60]) on labour is among the lowest in the EU, pointing to weaknesses in collection and low tax progressivity. The tax burden also fell for workers earning the average wage and lies slightly above the EU average. In 2020, the ability of the tax and benefits system to reduce income inequality (as measured by the GINI coefficient) was below the EU average. Further measures in the 2022 budget are expected to raise disposable income, but do not contribute significantly to tax progressivity, as the measures are not sufficiently targeted on the poorest 20% of households.

Latvia is doing well in terms of tax administration, but the shadow economy remains large. Outstanding tax arrears have declined by 2.4 pp. to 8.8% of total net revenue. This is significantly below the EU-27 average of 31.8%, though that average is inflated by very large values in a few Member States. In 2019, the VAT gap in Latvia fell below the EU median (from 10.2% down to 8.3% of the total VAT liability). In 2015-19, the improvement in VAT compliance in Latvia was one of the most pronounced in the EU. While there was a small reduction in the shadow economy in 2019 (down to 23.9% of GDP), recent data show that the overall trend persists, and in 2020, the shadow economy in Latvia continued growing, to 25.5% of GDP. In 2020 'envelope' wages were the largest component accounting for 46.9% of the total shadow economy. In terms of sectors, the highest share of the shadow economy in Latvia is in the construction sector (in 2020: 28.7%), followed by wholesale (25.3%), services (24.9%), retail (23.9%) and manufacturing (23.0%). ([61])

([59]) The tax wedge is a measure of the difference between the wage cost for employers and the net wage of employees.

([60]) The implicit tax rates estimate the overall effective tax burden levied on a defined tax base (i.e. consumption or labour). The rate is calculated by aggregating all the corresponding tax revenues from a given tax base and dividing them by the tax base itself, which is estimated using macroeconomic data.

([61]) A.Sauka, T.Putnins "Shadow Economy Index for the Baltic Countries 2009–2020". Alternative assessment of the shadow economy developments in the OECD countries (Schneider F. (2021), Development of the Shadow Economy of 36 OECD Countries over 2003 - 2021) indicates that shadow economy in Latvia still remains relatively elevated (LV 20.22% vs 17.42% EU28 in 2021) and reduction between 2018 and 2021 has been negligible.

Table A17.1: **Indicators on taxation**

		Latvia					EU-27				
		2010	2018	2019	2020	2021	2010	2018	2019	2020	2021
Tax structure	Total taxes (including compulsory actual social contributions) (% of GDP)	28.3	31.0	30.6	31.5		37.9	40.1	39.9	40.1	
	Labour taxes (as % of GDP)	14.3	14.4	15.0	15.7		20.0	20.7	20.7	21.5	
	Consumption taxes (as % of GDP)	11.2	13.5	13.2	13.4		10.8	11.1	11.1	10.8	
	Capital taxes (as % of GDP)	2.8	3.0	2.4	2.5		7.1	8.2	8.1	7.9	
	Total property taxes (as % of GDP)	1.0	1.0	1.0	1.0		1.9	2.2	2.2	2.3	
	Recurrent taxes on immovable property (as % of GDP)	0.7	0.8	0.7	0.8		1.1	1.2	1.2	1.2	
	Environmental taxes as % of GDP	3.0	3.4	2.9	3.1		2.4	2.4	2.4	2.2	
Progressivity & fairness	Tax wedge at 50% of Average Wage (Single person) (*)	42.4	36.8	36.7	35.0	35.3	33.9	32.4	32.0	31.5	31.9
	Tax wedge at 100% of Average Wage (Single person) (*)	44.0	42.6	42.5	42.3	40.5	41.0	40.2	40.1	39.9	39.7
	Corporate Income Tax - Effective Average Tax rates (1) (*)		17.0	17.0	17.0			19.8	19.5	19.3	
	Difference in GINI coefficient before and after taxes and cash social transfers (pensions excluded from social transfers)	5.8	5.0	5.5	5.4		8.4	7.9	7.4	8.3	
Tax administration & compliance	Outstanding tax arrears: Total year-end tax debt (including debt considered not collectable) / total revenue (in %) (*)		11.2	8.8				31.9	31.8		
	VAT Gap (% of VTTL)		10.2	8.3				11.2	10.5		
Financial Activity Risk	Dividends, Interests and Royalties (paid and received) as a share of GDP (%)		4.9	3.9	2.2			10.7	10.5		
	FDI flows through SPEs (Special Purpose Entities), % of total FDI flows (in and out)		0.0	0.0	0.0			47.8	46.2	36.7	

(1) Forward-looking effective tax rate (OECD).
(*) EU-27 simple average as there is no aggregated EU-27 value.
Source: European Commission and OECD.

Graph A17.1: **Tax wedge (%)**
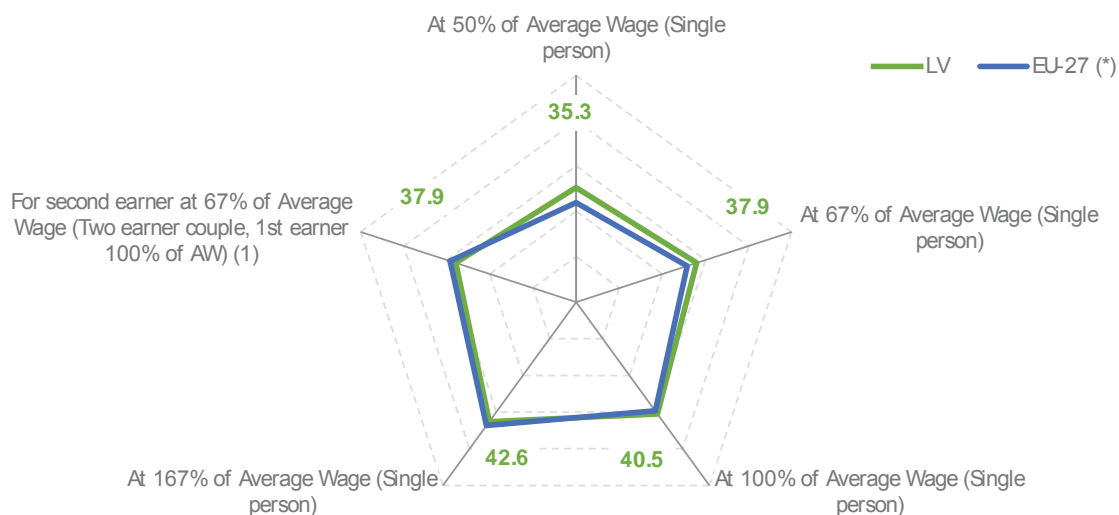
The second earner average tax wedge measures how much extra personal income tax plus employee and employer social security contributions the family will have to pay as a result of the second earner entering employment - as a proportion of the second earner's gross earnings - plus the employer social security contributions due on the second earner's income. For a more detailed discussion see OECD (2016), Taxing Wages 2016, OECD Publishing, Paris. http://dx.doi.org/10.1787/tax_wages-2016-en
(*) EU-27 simple average, as no aggregated EU-27 value
Source: European Commission

Table A18.1: **Key economic and financial indicators**

	2004-07	2008-12	2013-18	2019	2020	2021	forecast 2022	forecast 2023
Real GDP (y-o-y)	10.2	-2.7	2.9	2.5	-3.8	4.5	2.0	2.9
Potential growth (y-o-y)	7.3	-0.4	2.1	3.2	2.2	2.6	2.1	2.0
Private consumption (y-o-y)	12.5	-3.6	3.1	0.2	-7.4	4.8	5.0	3.8
Public consumption (y-o-y)	3.8	-2.7	2.5	3.4	2.6	4.4	1.1	0.7
Gross fixed capital formation (y-o-y)	21.4	-6.9	0.5	6.9	0.2	2.9	1.3	2.8
Exports of goods and services (y-o-y)	14.5	4.5	4.1	2.1	-2.2	6.2	1.3	4.1
Imports of goods and services (y-o-y)	19.2	-2.2	3.8	3.0	-2.5	13.5	3.2	4.0
Contribution to GDP growth:								
Domestic demand (y-o-y)	14.8	-5.0	2.4	2.3	-3.7	4.3	3.3	3.0
Inventories (y-o-y)	0.3	-1.0	0.4	0.8	-0.2	4.4	0.0	0.0
Net exports (y-o-y)	-4.9	2.8	0.1	-0.6	0.2	-4.3	-1.3	-0.2
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	-0.3	-1.8	-0.5	-0.2	-0.8	-0.4	-0.4	-0.5
Capital accumulation (y-o-y)	3.8	1.3	0.8	1.1	0.9	0.9	0.9	0.9
Total factor productivity (y-o-y)	3.8	0.2	1.9	2.3	2.0	2.0	1.6	1.6
Output gap	5.9	-5.0	1.2	2.6	-3.4	-1.6	-1.7	-0.9
Unemployment rate	8.8	15.3	9.8	6.3	8.1	7.6	7.3	7.1
GDP deflator (y-o-y)	12.6	2.1	1.9	2.6	-0.1	6.8	7.2	5.1
Harmonised index of consumer prices (HICP, y-o-y)	7.4	4.6	1.1	2.7	0.1	3.2	9.4	3.5
Nominal compensation per employee (y-o-y)	24.4	1.5	7.4	7.8	5.5	11.0	5.6	6.0
Labour productivity (real, hours worked, y-o-y)	8.0	2.5	2.6	4.5	1.9	5.6	0.1	1.8
Unit labour costs (ULC, whole economy, y-o-y)	15.8	0.2	5.0	5.1	7.0	3.5	4.2	3.5
Real unit labour costs (y-o-y)	2.9	-1.8	3.0	2.5	7.2	-3.1	-2.8	-1.5
Real effective exchange rate (ULC, y-o-y)	11.1	-1.9	3.9	1.8	.	.	.	.
Real effective exchange rate (HICP, y-o-y)	2.0	1.1	1.2	0.1	1.9	0.5	.	.
Net savings rate of households (net saving as percentage of net disposable income)	-7.6	-2.4	-6.2	0.1	9.1	.	.	.
Private credit flow, consolidated (% of GDP)	27.7	-2.2	-0.2	1.1	-1.8	.	.	.
Private sector debt, consolidated (% of GDP)	89.9	115.8	79.1	66.2	66.7	.	.	.
of which household debt, consolidated (% of GDP)	31.5	42.3	24.4	20.2	20.9	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	58.4	73.5	54.7	46.0	45.7	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (2)	.	9.9	5.5	3.5	3.6	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-9.4	5.1	3.6	-0.5	1.6	0.3	-0.1	-0.4
Corporations, gross operating surplus (% of GDP)	31.0	29.5	27.9	23.5	20.9	23.4	25.7	26.9
Households, net lending (+) or net borrowing (-) (% of GDP)	-4.8	0.8	-0.9	1.9	7.5	8.6	6.1	3.1
Deflated house price index (y-o-y)	17.0	-11.3	4.5	5.8	2.7	.	.	.
Residential investment (% of GDP)	4.5	2.9	2.3	2.7	3.0	2.3	.	.
Current account balance (% of GDP), balance of payments	-16.4	-2.0	-0.4	-0.7	2.9	-2.9	-6.1	-5.2
Trade balance (% of GDP), balance of payments	-17.2	-5.3	-1.7	-0.7	1.2	-2.1	.	.
Terms of trade of goods and services (y-o-y)	1.4	-0.2	0.9	0.9	2.9	1.5	-3.3	1.1
Capital account balance (% of GDP)	1.3	2.2	2.0	1.5	1.8	1.4	.	.
Net international investment position (% of GDP)	-59.7	-77.0	-57.1	-40.1	-34.7	-28.1	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (1)	-30.1	-37.9	-10.0	5.9	14.6	18.8	.	.
IIP liabilities excluding non-defaultable instruments (% of GDP) (1)	93.3	132.8	125.3	103.5	111.2	100.2	.	.
Export performance vs. advanced countries (% change over 5 years)	105.1	49.7	10.3	1.7	18.8	.	.	.
Export market share, goods and services (y-o-y)	14.1	1.6	1.7	-1.3	10.2	-3.4	-3.2	-0.2
Net FDI flows (% of GDP)	-5.1	-2.6	-1.6	-2.9	-2.2	-5.0	.	.
General government balance (% of GDP)	-0.7	-5.6	-1.0	-0.6	-4.5	-7.3	-7.2	-3.0
Structural budget balance (% of GDP)	.	.	-1.4	-1.5	-3.3	-6.9	-6.6	-2.7
General government gross debt (% of GDP)	11.2	38.1	39.2	36.7	43.3	44.8	47.0	46.5

(1) NIIP excluding direct investment and portfolio equity shares
(2) domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches
Source: Eurostat and ECB as of 2 May 2022, where available; European Commission for forecast figures (Spring forecast 2022)

This annex assesses fiscal sustainability risks for Latvia over the short, medium and long term. It follows the same multidimensional approach as the 2021 Fiscal Sustainability Report, updated on the basis of the Commission 2022 spring forecast.

Table 1 presents the baseline debt projections. It shows the projected government debt and its breakdown into the primary balance, the snowball effect (the combined impact of interest payments and nominal GDP growth on the debt dynamics) and the stock-flow adjustment. These projections assume that no new fiscal policy measures are taken after 2023, and include the expected positive impact of investments under Next Generation EU.

Graph 1 shows four alternative scenarios around the baseline, to illustrate the impact of changes in assumptions. The 'historical SPB' scenario assumes that the structural primary balance (SPB) gradually returns to its past average level. In the 'lower SPB' scenario, the SPB is permanently weaker than in the

baseline. The 'adverse interest-growth rate' scenario assumes a less favourable snowball effect than in the baseline. In the 'financial stress' scenario, the country temporarily faces higher market interest rates in 2022.

Graph 2 shows the outcome of the stochastic projections. These projections show the impact on debt of 2 000 different shocks affecting the government's budgetary position, economic growth, interest rates and exchange rates. The cone covers 80% of all the simulated debt paths, therefore excluding tail events.

Table 2 shows the S1 and S2 fiscal sustainability indicators and their main drivers. S1 measures the consolidation effort needed to bring debt to 60% of GDP in 15 years. S2 measures the consolidation effort required to stabilise debt over an infinite horizon. The *initial budgetary position* measures the effort required to cover future interest payments, the *ageing costs* component accounts for the need to absorb the projected change in ageing-related public expenditure

Table A19.1: **Debt sustainability analysis for Latvia**

Table 1. Baseline debt projections	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Gross debt ratio (% of GDP)	**36.7**	**43.3**	**44.8**	**47.0**	**46.5**	**45.3**	**44.6**	**44.0**	**45.1**	**45.5**	**46.0**	**46.7**	**47.5**	**48.3**
Change in debt	-0.4	6.6	1.5	2.2	-0.4	-1.2	-0.8	-0.5	1.1	0.4	0.5	0.7	0.8	0.8
of which														
Primary deficit	*-0.1*	*3.8*	*6.8*	*6.7*	*2.4*	*1.7*	*1.5*	*1.4*	*2.1*	*2.0*	*2.0*	*2.0*	*2.0*	*1.9*
Snowball effect	*-1.1*	*2.1*	*-4.0*	*-3.3*	*-2.9*	*-2.9*	*-2.3*	*-2.0*	*-0.9*	*-1.7*	*-1.5*	*-1.3*	*-1.2*	*-1.1*
Stock-flow adjustment	*0.8*	*0.6*	*-1.4*	*-1.2*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Gross financing needs (% of GDP)	4.6	9.4	10.3	10.5	7.8	6.8	6.4	6.1	6.7	6.6	6.5	6.5	6.4	6.5

Graph 1. Deterministic debt projections (% of GDP)

Graph 2. Stochastic debt projections (% of GDP)
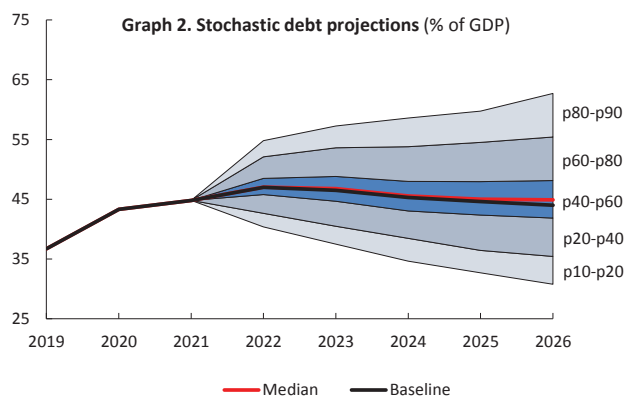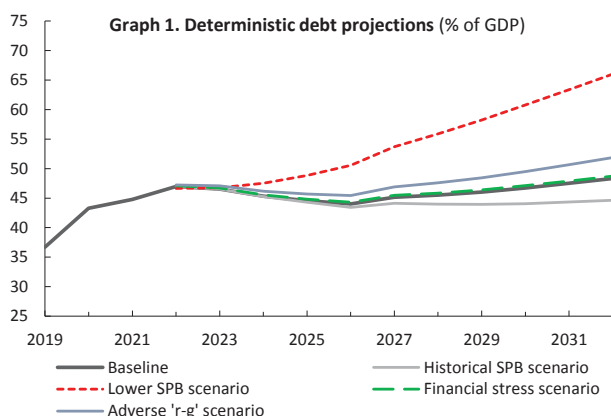
Table 2. Breakdown of the S1 and S2 sustainability gap indicators

		S1	S2
Overall index (pps. of GDP)		**-0.5**	**1.3**
of which			
Initial budgetary position		0.6	2.3
Debt requirement		-1.0	
Ageing costs		-0.2	-1.0
of which	Pensions	*-0.5*	*-1.3*
	Health care	*0.2*	*0.2*
	Long-term care	*0.1*	*0.1*
	Others	*0.1*	*-0.1*

Source: European Commission

such as pensions, health care and long-term care, and the *debt requirement* measures the additional adjustment needed to reach the 60% of GDP debt target.

Finally, the heat map presents the overall fiscal sustainability risk classification (Table A19.2). The *short-term risk category* is based on the S0 indicator, an early-detection indicator of fiscal stress in the upcoming year. The *medium-term risk category* is derived from the debt sustainability analysis (DSA) and the S1 indicator. The DSA assesses risks to sustainability based on several criteria: the projected debt level in 10 years' time, the debt trajectory ('peak year'), the plausibility of fiscal assumptions and room for tighter positions if needed ('fiscal consolidation space'), the probability of debt not stabilising in the next 5 years and the size of uncertainty. The *long-term risk category* is based on the S2 indicator and the DSA.

Overall, short-term risks to fiscal sustainability are low. The Commission's early-detection indicator (S0) does not signal major short-term fiscal risks (Table A19.2).

Medium-term risks to fiscal sustainability are low. Both elements of the Commission's medium-term analysis lead to this conclusion. First, the debt sustainability analysis (DSA) shows that government debt would rise slightly, from 47% of GDP in 2022 to around 48% in 2032 in the baseline (Table 1). The overall limited sensitivity of the debt path to possible shocks to fiscal, macroeconomic and financial variables, as illustrated by alternative scenarios and stochastic simulations, confirms this risk assessment (Tables A19.1 and A19.2). Moreover, the sustainability gap indicator S1 signals low risks as no consolidation effort would be needed to bring the debt ratio to 60% of GDP in 15 years' time (Table 2). Overall, the low risk primarily reflects the modest debt ratio and the limited sensitivity to adverse shocks.

Long-term risks to fiscal sustainability are low. Over the long term, both the sustainability gap indicator S2 (at 1.3 pps. of GDP) and the DSA point to low risks. The S2 indicator suggests that, to stabilise debt over the long term, a limited consolidation effort would be needed due to the initial budgetary position, while the total ageing costs are projected to fall, in particular because of the expected decrease of pension expenditure (Table 2).

Table A19.2: **Heat map of fiscal sustainability risks for Latvia**

Short term	Medium term											Long term	
				Debt sustainability analysis (DSA)									
						Deterministic scenarios							
Overall (S0)	Overall (S1+DSA)	S1	Overall		Baseline	Historical SPB	Lower SPB	Adverse 'r-g'	Financial stress	Stochastic projections		S2	Overall (S2+DSA)
LOW	LOW	LOW	LOW	Overall	LOW	LOW	MEDIUM	LOW	LOW	LOW		LOW	LOW
				Debt level (2032), % GDP	48	45	66	52	49				
				Debt peak year	2032	2022	2032	2032	2032				
				Fiscal consolidation space	77%	69%	90%	77%	77%				
				Probability of debt ratio exceeding in 2026 its 2021 level						50%			
				Difference between 90th and 10th percentiles (pps. GDP)						32			

(1) Debt level in 2032: green: below 60% of GDP, yellow: between 60% and 90%, red: above 90%. (2) The debt peak year indicates whether debt is projected to increase overall over the next decade. Green: debt peaks early; yellow: peak towards the middle of the projection period; red: late peak. (3) Fiscal consolidation space measures the share of past fiscal positions in the country that were more stringent than the one assumed in the baseline. Green: high value, i.e. the assumed fiscal position is plausible by historical standards and leaves room for corrective measures if needed; yellow: intermediate; red: low. (4) Probability of the debt ratio exceeding in 2026 its 2021 level: green: low probability, yellow: intermediate, red: high (also reflecting the initial debt level). (5) The difference between the 90th and 10th percentiles measures uncertainty, based on the debt distribution under 2000 different shocks. Green, yellow and red cells indicate increasing uncertainty.
Source: European Commission (for further details on the Commission's multi-dimensional approach, see the 2021 Fiscal Sustainability Report).