

LATVIA'S 2022 PRODUCTIVITY REPORT

(Executive summary in English)

Latvia's National Productivity Board ('the Board') and the 'LV PEAK think tank' at the Scientific Institute for Productivity at the University of Latvia (*Latvijas Universitātes domnīca LV PEAK*), which in accordance with Cabinet Decision of 29 October 2019 represent the Republic of Latvia in the Network of Productivity Boards of the EU Member States, have prepared Latvia's third productivity report. The report was drawn up in accordance with the Board's main mission, which is to produce an independent, objective and scientifically based analysis of competitiveness and productivity and draw up policy proposals for the Latvian government.

The 'Latvian Productivity Report 2022' (hereinafter 'LPZ-2022') analyses productivity factors and dynamics and examines investment and return on capital in depth. The report contains recommendations for policy-makers.

Before the LPZ-2022 was submitted to the government and the European Commission on 22 February 2023, it was presented to a broad range of partners at the 'Productivity Dialogue' conference.

The main 72-page text of the LPZ-2022 consists of two chapters. Chapter 1 analyses Latvia's productivity dynamics and factors. Chapter 2 describes investment and return on capital. At the end of the report there are conclusions and recommendations to improve policy.

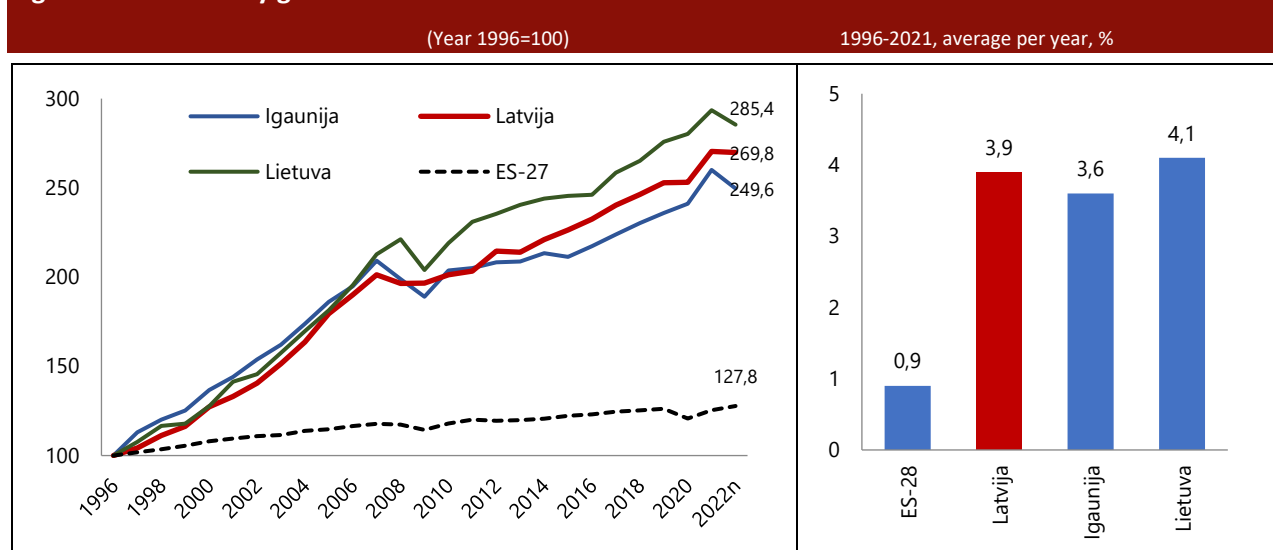
The full version of the LPZ-2022 in Latvian can be found on the internet at: [Latvijas Produktivitātes ziņojums \(lu.lv\)](https://www.lpv.gov.lv/lv/zinojums)

The text below is a short summary of the 2022 report.

1. FACTORS AND DYNAMICS OF PRODUCTIVITY IN LATVIA

Productivity growth in Latvia has been rapid since the mid-1990s, exceeding the average EU growth rate and helping close the productivity gap with EU countries. Similar trends can also be observed in the other Baltic States (see Figure 1).

Figure 1. Productivity growth in the Baltic States and EU countries

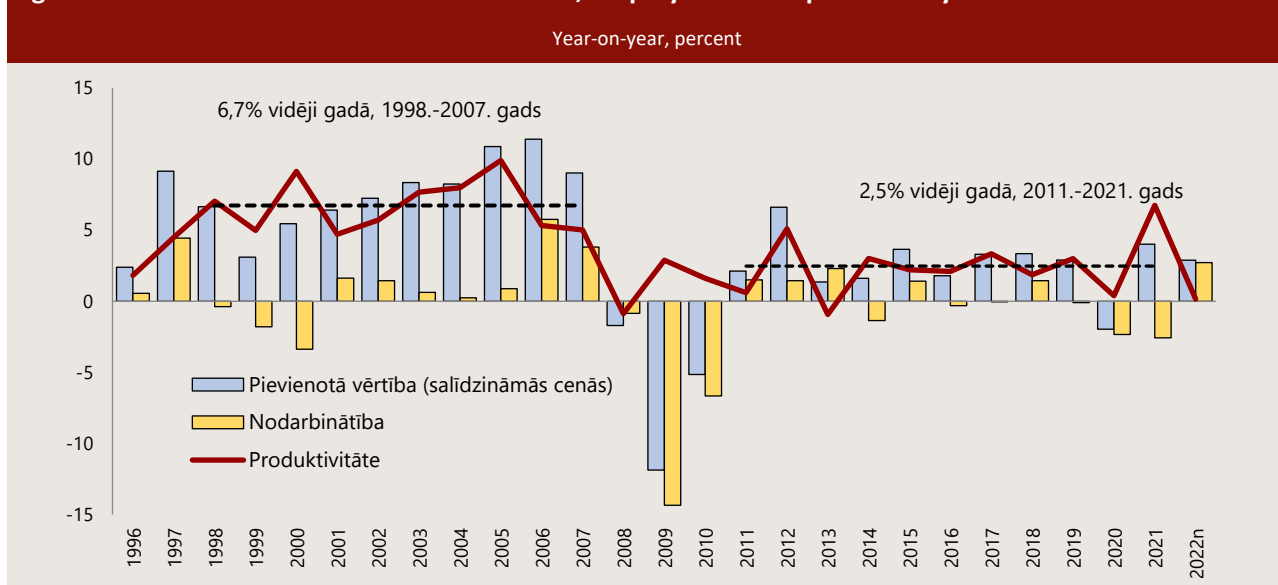


Source : EUROSTAT, calculation by the authors, est. = estimate

In 2021, the productivity rate in Latvia was 56.9% (75% measured in PPS) of the EU average¹.

Since 1996, productivity in Latvia has increased almost threefold. Productivity growth rates in Latvia are, however, exhibiting a downward trend (see Figure 2).

Figure 2. Growth rates for Latvian added value, employment and productivity



Source : EUROSTAT, calculation by the authors, est. = estimate

When viewed over an extended time period, productivity dynamics in Latvia exhibit instability. Between 1997 and 2007, productivity rose rapidly, by an average of 6.5% per annum. During the years of economic recession (2008-2010), productivity growth declined substantially, and there were declines in many sectors (e.g. construction, transport and storage, information and communication services, etc.). From 2011 until the onset of the COVID-19 pandemic, productivity rose in nearly all sectors of the Latvian economy, but more slowly than before the global financial crisis.

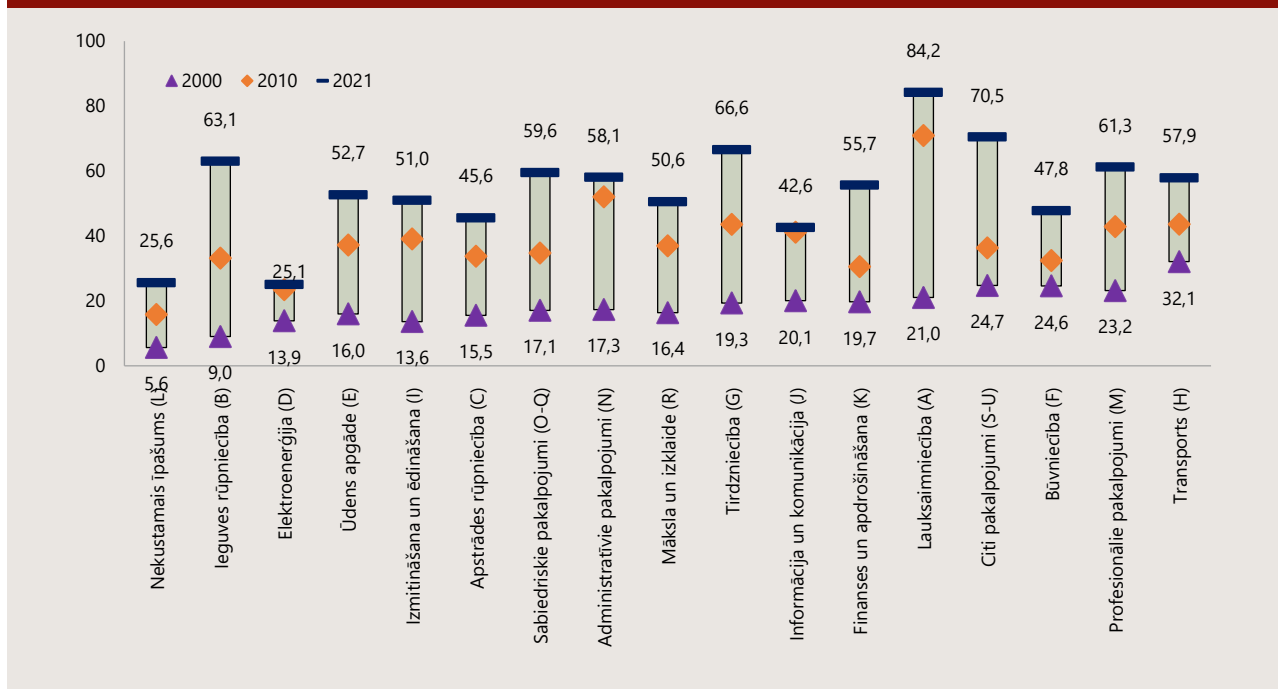
Since 2020, productivity dynamics have been affected by uneven adjustments in product and labour markets in response to COVID-19 pandemic containment measures and geopolitical shocks. Productivity grew by just 0.1% in 2020, but as early as 2021, as the restrictions imposed under the COVID-19 pandemic eased and economic activity picked up, productivity growth accelerated and was 6.8% higher than the previous year. By contrast, productivity in three of the 2022 quarters declined by 0.3% in comparison to the same period in 2021.

Notwithstanding the general productivity slowdown following the 2008-2010 financial crisis, productivity in most sectors of the Latvian economy is higher than the EU average, which is helping to close the productivity gap with the EU also at sectoral level (see Figure 3). As Figure 3 shows, from 2000 to 2021 Latvia's productivity gap vis-à-vis the EU average narrowed most rapidly in the primary sectors (agriculture and mining and quarrying), where it shrank by more than 40 percentage points. In accommodation and food services and administrative services, the productivity gap decreased by nearly 35 percentage points. The slowest rates of convergence could be observed in the energy supply and professional and scientific services sectors.

¹ Several studies use the indicator GDP in PPS (purchasing power standards) per employee to compare productivity rates between countries. The authors point out that in the real economy, companies on the international market compete with their goods and services at current prices, which are not adjusted for differences in cost levels between countries (PPS). For example, companies purchase raw materials at global prices. The competitiveness of Latvian enterprises is thus more accurately shown by productivity calculated as GDP at current prices per worker. Also, when calculating a unit of output's nominal labour costs (nominal and real ULC), which is one of the indicators of competitiveness, productivity is not recalculated on the basis of PPS. Thus, when analysing the process of productivity convergence, the authors use the indicator GDP at current prices per worker rather than GDP in PPS per worker.

Figure 3. Changes in Latvia's productivity gap vis-à-vis the EU, 2000 to 2021

(EU-27 = 100)

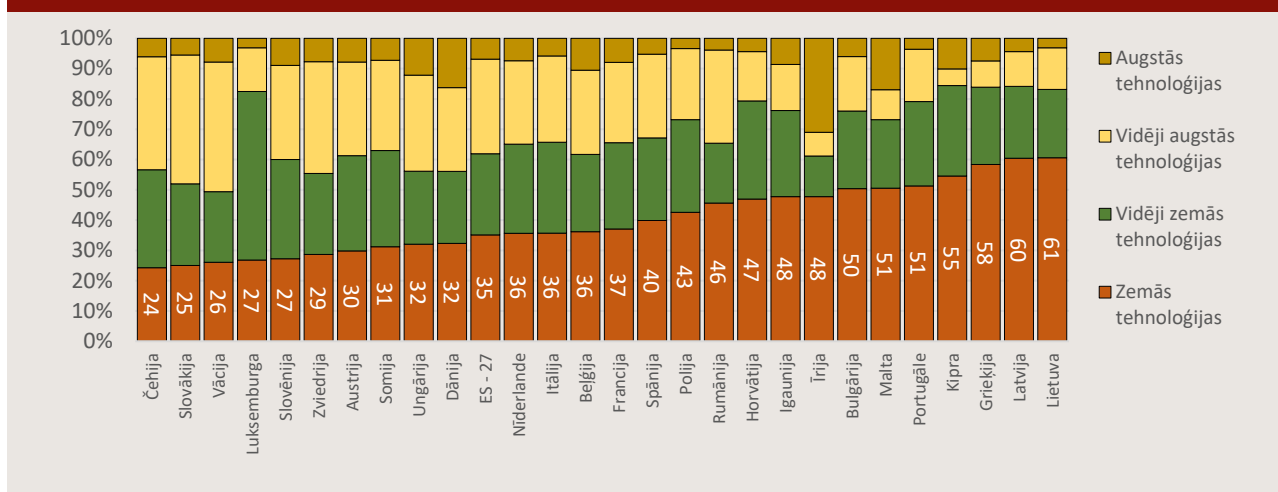


Source : EUROSTAT, calculation by the authors

An analysis of the data shows that the pace of convergence in some sectors has slowed since 2011. In sectors such as agriculture, administrative services, information and communication services, professional and scientific services, productivity convergence towards the EU average was faster up until 2010, tailing off notably thereafter. The slowing dynamic of convergence might point to a 'productivity trap', which will require the acceleration of structural reforms and fundamental improvements to innovation to escape.

Figure 4. Structure of the Latvian manufacturing industry by technology intensity

(2021, by number of persons employed, %)



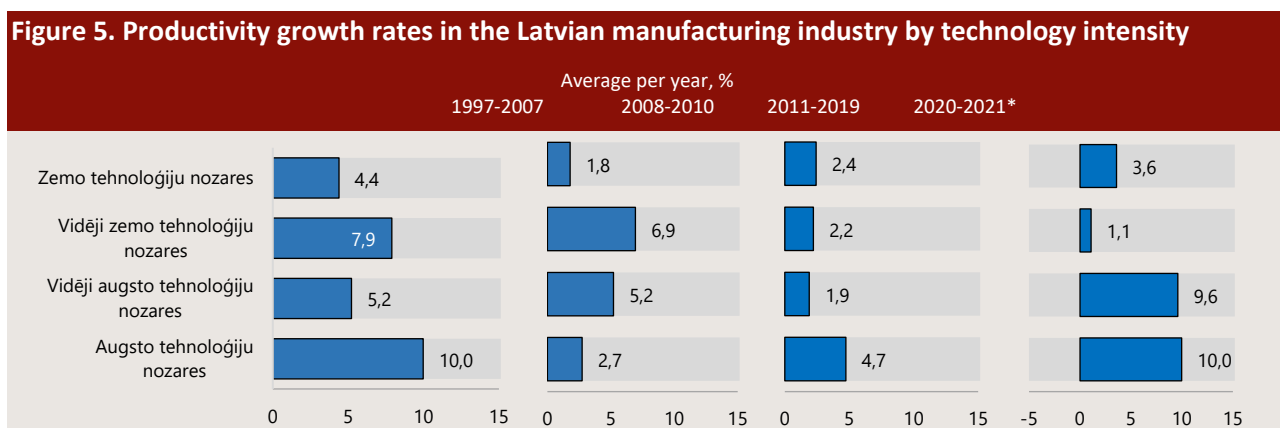
Source : EUROSTAT, calculation by the authors

The low rate of productivity in the economy on average is largely determined by markedly low productivity in the manufacturing sector. In 2021 this was just 45.7% (or 53% measured in PPS) of the EU average.

Compared to 2010, the productivity gap has shrunk by almost 11 percentage points, which is a weak pace of convergence.

The comparatively low productivity rate and relatively modest dynamics of the Latvian manufacturing industry are largely the result of structural factors. In the structure of the Latvian manufacturing industry, low-tech industries clearly predominate. This is explained by the significant share accounted for by traditional industries (food industry and timber processing), which together represent almost half of the total value added of manufacturing, which is almost one-and-a-half times the EU average. In 2019, high-tech sectors employed just 4% of the total manufacturing labour force, which is almost half the EU average. By contrast, the low and medium-low technology intensity sectors accounted for almost 87%, i.e. one-and-a-half times the EU average (see Figure 4).

In recent years, productivity in high- and medium-high-tech sectors has been growing faster than in sectors with lower technological intensity (see Figure 5). However, the contribution of these sectors to total productivity growth remains low, mainly because of the low share of the total value added of manufacturing they represent. An increase in industrial productivity can be achieved by allocating resources to higher-tech (and thus higher productivity) sectors.



Source : EUROSTAT, calculation by the authors, * 2020 – estimate by the authors

The impact of labour resource reallocation on overall productivity dynamics in the Latvian economy was determined using a shift share analysis². This method makes it possible to measure to what extent changes in overall productivity affect specific sectors (assuming no change in the number of persons employed) and to what extent overall productivity is affected by employees transferring to higher-productivity sectors and sectors with a faster productivity dynamic.

From 1997 to 2021, the productivity dynamic in Latvia was influenced mainly by the within-sector effect³, which indicates that most improvements in productivity come from within each sector and are the result of factors such as better management, improvements in technology, innovations, employee upskilling, favourable market conditions and other sector-specific factors.

² A description of the method can be found at https://www.mti.gov.sg/-/media/MTI/Legislation/Public-Consultations/2018/A-Shift-Share-Decomposition-Analysis-of-Labour-Productivity-Growth-in-Singapore/ba21_aes2017.pdf.

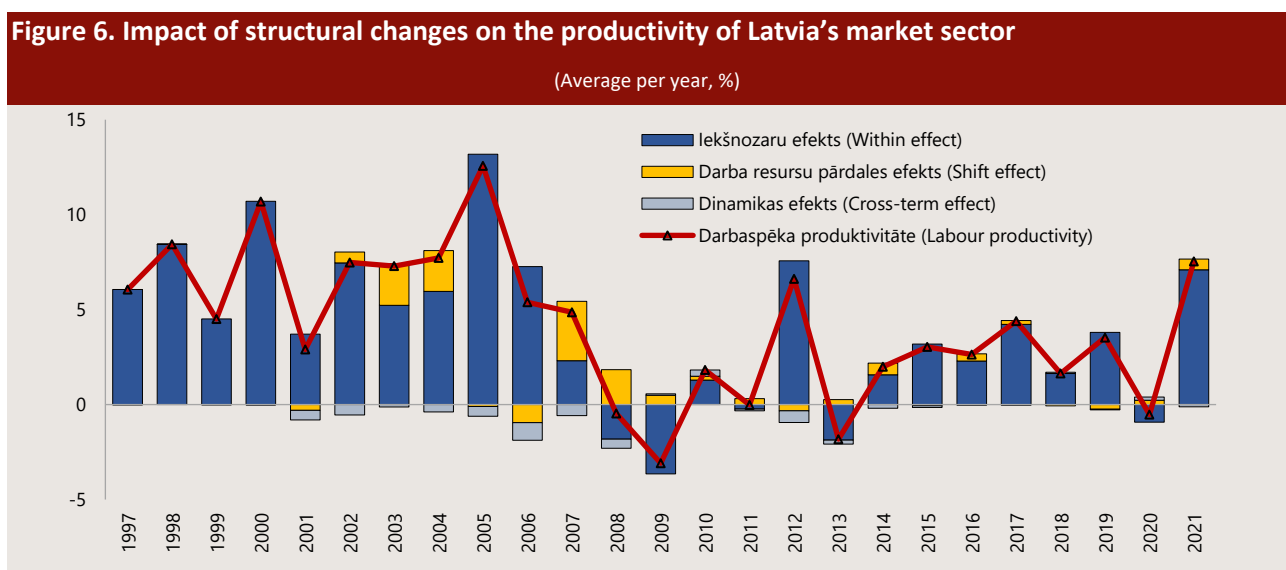
³ 'Within-sector effects' show how changes in overall productivity affect sectoral productivity dynamics, with the employee structure (or the structure of hours worked) remaining unchanged. If the employee structure does not change, productivity growth in the country in question is equal to the weighted sum of sectoral productivities, where the weightings are calculated on the basis of the sectoral structure of value added (at constant prices).

'Shift effect' refers to productivity changes associated with the movement of labour resources between sectors. This effect is positive if labour resources are tied more to sectors where productivity is higher than the national average, or if they decline in sectors where productivity is lower than the national average.

'Cross-term effect' refers to a shift of labour resources to sectors with higher productivity growth. It also shows the impact the movement of labour between sectors (economic activities) has on overall productivity dynamics, but – unlike the effect described above – it also takes into account differences in productivity growth between sectors. This effect is positive if both productivity and the number of persons employed in a sector grow faster or slower than the national average.

The shift effect in Latvia is relatively weak, accounting for around 0.5 percentage points of annual productivity growth (from 1997 to 2021). The positive shift effect shows that, during the period under consideration, higher-productivity sectors attracted more labour than lower-productivity sectors. Their contribution to overall productivity growth, however, was rather modest.

It should be noted that, in the years of rapid economic growth, the positive contribution of the shift effect to overall productivity growth was 0.8 percentage points per year on average, whereas in the post-crisis years it was only 0.1 percentage points – in other words, less than during the economic recession. During the economic recession (2008-2010), the positive shift effect partly offset the negative impact of the decline in sectoral productivity on overall productivity dynamics in the market sector. The shift effect was also positive during the crisis brought about by the COVID-19 pandemic (2020-2021), although its contribution to overall productivity growth was less than the within-sector effect (see Figure 6).



Source : EUROSTAT, calculation by the authors

The shift share analysis method employed reveals that between 2012 and 2021, the percentage of people employed in higher productivity sectors increased and the percentage of people employed in the sectors with the lowest productivity decreased. A very high proportion of the employed, however, still work in sectors with the lowest productivity. This shows that Latvia did not make efficient use of its labour resources. There is also a relatively small productivity gap between high-tech and low-tech industries. It is difficult to explain this using macro-level data. Structural indicators in the sector, such as the size of enterprises, export markets, innovative activities, participation in global value chains, etc. need to be analysed. There is possibly a large gap between productivity leaders and productivity laggards in the sector, which in some studies (based on company-level data) has been flagged as a serious obstacle to increasing productivity.

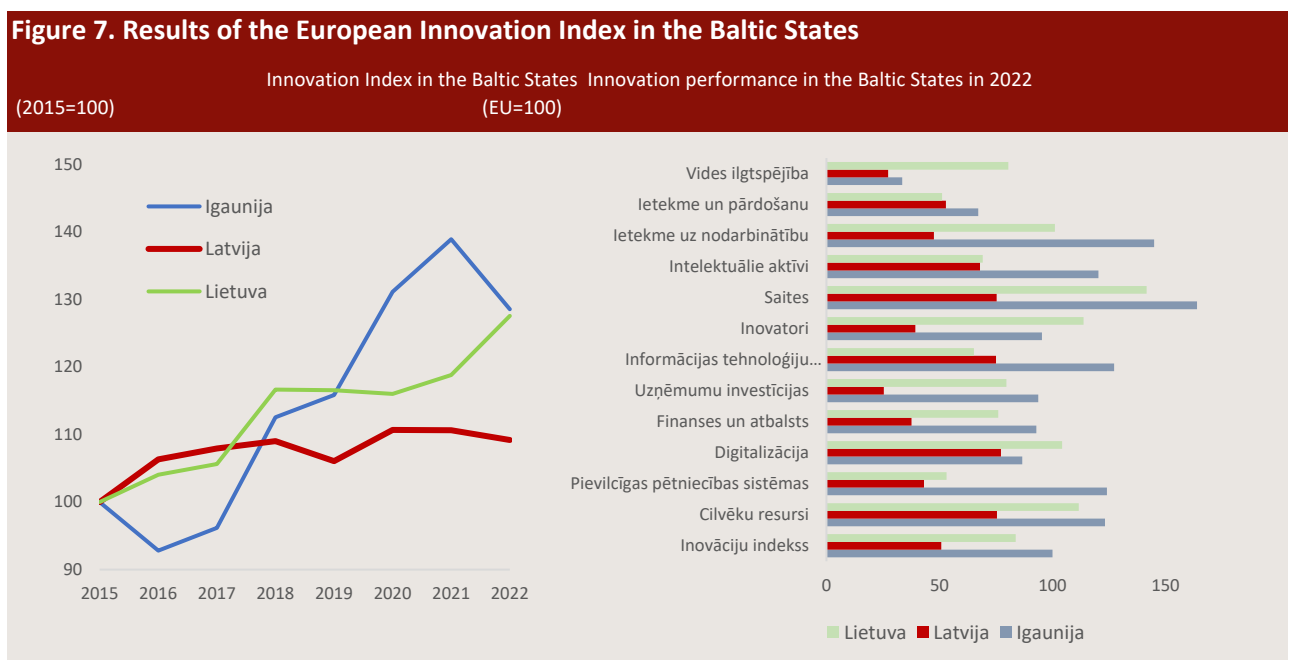
Productivity growth is driven by a number of fundamental factors. These relate to investment and capital intensification, the ability to integrate into global value chains and increase export potential, innovation and investment in R&D, the development of new products, services and methods, the benefits created by new technologies and the role of scientific and technological advances in the intensification of production, in particular digitalisation, as well as investment in human capital to improve people's skills and competences and to increase the knowledge base, which motivates people to be more productive. At the same time, policy-makers should not lose sight of 'old' problems, such as infrastructure gaps, stark differences between regions, social inequalities, etc. The organisation and management of the production process, specialisation

and concentration of production, the regional distribution of production facilities and the establishment of horizontal and vertical inter-sectoral links are also of crucial importance for boosting productivity.

Latvia's Achilles heel is innovation, which requires investment in research and development and the development of people's knowledge and skills. Low investment in R&D, low overall innovation performance and an average educational performance are negatively affecting Latvia's efforts to achieve higher productivity. Latvia's innovation performance could benefit from the more active involvement of the larger public companies, which have the resources to mobilise major investment capacity. Latvia is lagging behind the EU's innovative economies in the following fields: capacity of research institutions, spending on R&D, international inventions, patent applications and the like.

On the European Commission's European Innovation Scoreboard 2022⁴ (EIS 2022), Latvia ranks 25th among EU Member States (Estonia 12th, Lithuania 19th) and is placed among the 'modest innovators'. The Scoreboard notes that the business environment is generally favourable and innovation potential is high, but there are no large companies to invest in R&D.

Since 2015 (with the exception of 2019), evolution of the innovation performance indicator in Latvia has been positive. Between 2015 and 2018, innovation performance indicator values increased. However, after a fall in 2019 and a slight increase in 2020 and 2021, Latvia's innovation performance returned to 2018 levels in 2022 (see Figure 7).



Source: European Innovation Scoreboard 2022

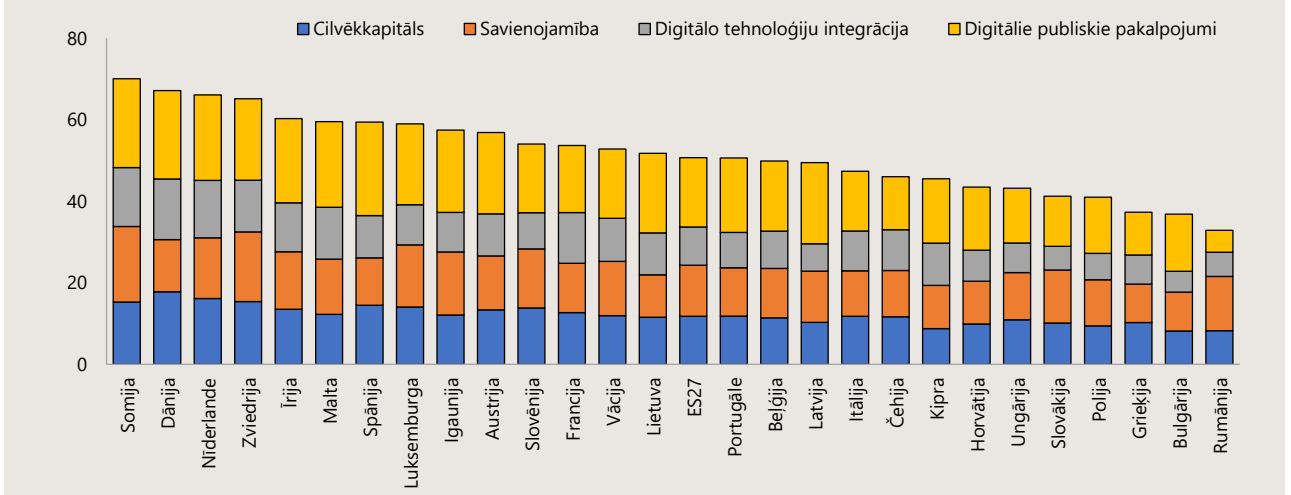
If there is to be a breakthrough in the field of innovations, society's attitude must change (innovation is not a leisure pursuit, it is an indispensable precondition for an increase in prosperity), so innovation must be given a real boost. Likewise, the legal framework of the innovation system must be improved, particularly as regards the duties and responsibilities of stakeholder institutions and NGOs and the system of State aid in the creation, marketing and practical implementation of intellectual property. The State must coordinate the marketing of outstanding innovation products in Latvia. The economic foundations must also be laid, and the legal framework established, for the procurement of innovations.

⁴ https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard_en

Digitalisation covers a range of factors that play an important role in productivity growth.

The European Commission has been publishing the Digital Economy and Society Index (DESI)⁵, which reflects Member States' digital progress, since 2014. In DESI 2022, Latvia ranks 17th (see Figure 8).

Figure 8. Digital Economy and Society Index (DESI) 2022 assessment



Source: European Commission, <https://ec.europa.eu/digital-single-market/desi>

Latvia's level of digital development in general and in some areas in particular is below the EU average. Latvia's DESI score has grown more slowly than for most other EU countries over the last few years. In terms of digital public services, Latvia's performance (11th place) is above the EU average. Its human capital (18th place) and connectivity scores (20th place) are also relatively high.

The lowest score is in the area of integration of digital technology; Latvia comes 23rd in the DESI rating for this. Almost all indicators for digital connectivity are below the EU average. Latvian enterprises do not make sufficient use of the opportunities provided by big data and cloud computing. The share of SMEs with at least a basic level of digital intensity is 38% (the EU average is 55%). Only 9% of companies use big data (the EU average is 14%) and 22% use cloud computing (the EU average is 34%). As regards e-commerce, 14% of SMEs sell online, still below the EU average, and only 7% of SMEs' turnover comes from e-commerce.

Latvia's main strengths are relatively high basic digital skills, advanced high-speed broadband coverage (next generation access (NGA)) and near complete average 4G coverage. Latvia's coverage rates for very high capacity networks are also 1.3 times the EU average. As regards digital public services, almost all indicators (except the use of open data) for Latvia are above the EU average. The provision of online public services continued to improve and the number of eGovernment users increased.

Enhancing citizens' digital skills is a pre-condition for inclusive labour markets as well as for improving the productivity of businesses, which are currently only making limited use of digital opportunities. The regions still have untapped potential for broadband optical internet connectivity, which would provide fast and reliable digital infrastructure for businesses and remote working opportunities for employees. Despite the availability of basic infrastructure in regional centres, the provision of electronic communications services to people living in the regions is still impossible until a 'last mile' connection and an adequate service policy are in place. The COVID-19 crisis revealed the key importance of digitalisation for enabling society to adapt

⁵ Since 2021, the DESI has been structured around 4 main pillars: (1) human capital, characterised by the level of digital and software skills and the number of ICT specialists; (2) connectivity, characterised by the spread and use of high-speed and readily accessible networks; (3) the integration of digital technologies, characterised by the ability of companies to use such digital technologies as cloud services, big data and artificial intelligence, and by the spread of e-commerce; (4) digital public services, characterised by the use of digital public services and open data.

quickly to new circumstances. It also highlighted Latvia's weaknesses and provided strong impetus for the faster deployment of digital technologies in a number of areas.

Core policies must be to increase digital skills for society as a whole, with a specific focus on each target group, to avoid the risk of future imbalances. An overarching strategy for the digitalisation of business must be drawn up. An important tool in the digital age is also ongoing dialogue with businesses about the development of new technologies and the impact of trends in the digital economy on the way these work.

Regulation has an important role to play in the digital economy. Policy-makers need to be aware that there are areas where there are limited opportunities to apply new business models, so the challenge is how to create regulatory frameworks when new business models come onto the market. The current regulatory models are based on institutional frameworks, whereas operators base themselves not on institutional frameworks but on concrete functions. Key structural policies are streamlining in the field of intellectual property rights (data providers must remain data holders, platforms are markets in themselves, the regulatory framework for platforms, access to infrastructure), new types of employment, international cooperation, particularly as regards taxation of the digital economy, data analysis and the measuring of processes.

The ability to supply a workforce suitably qualified to handle change is essential for productivity growth in the Latvian economy. The main directions for improving labour supply and quality are through the resolution of demographic and migration issues, improvement of access to and the quality of education at all levels, and a functional system of adult education that delivers the skills required by the labour market.

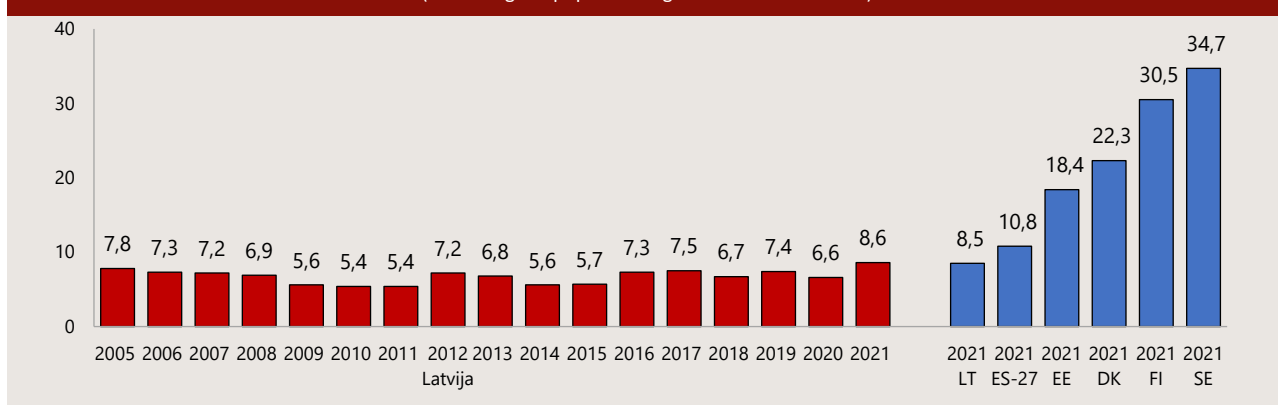
In a bid to promote the development of human capital, a number of reforms have been implemented or initiated in Latvia, though their positive impact on overall productivity levels can only be expected in the medium to long term. The main challenges on the Latvian labour market in the medium term relate to the ageing of the workforce and the shortage of labour. The trends towards an ageing workforce will have the greatest impact on the availability of the medium-skilled labour force, particularly in sectors such as transport services and storage, construction, manufacturing, agriculture and trade. Similarly, labour shortages may come about in sectors where demand for higher-skilled labour is expected to increase significantly – professional, scientific and technical services and information and communication services, especially in STEAM fields.

The educational paradigm is changing. Society needs to adapt, as in future people will need to keep learning throughout their life. The acquisition of new competences and upskilling will be an essential part of a person's work experience. People unable to expand and update their knowledge on a regular basis risk losing their competitiveness in business and on the labour market, as well as their level of income. Most professions already require new knowledge, including technological knowledge. This is being felt, and will be felt most keenly in future, by workers in low- and medium-skilled professions.

As labour shortages are set to become more acute in the future on the labour market, there is a need to strengthen the adult education system in order to ensure the transition of the labour force from non-productive to growing sectors. Currently only a small percentage of the adult population in Latvia participates in lifelong learning activities (see Figure 9). Only 8.6% of Latvia's population aged between 20 and 64 were engaged in lifelong learning in 2021, which is one of the lowest figures in the EU. It should be noted, however, that participation in lifelong learning in Latvia has increased by 2 percentage points since 2019, and this rate has increased faster for employed people than for the unemployed.

Figure 9. Level of participation by members of the Latvian population in lifelong learning

(Percentage of population aged between 25 and 64)



Source: EUROSTAT, LT – Lithuania, EE – Estonia, DK – Denmark, FI – Finland, SE – Sweden

The main factor hindering the establishment of an effective system of lifelong learning is lack of public interest, because the courses and programmes in demand are mainly those aimed at developing individual competences and leisure interests; they do not see them as an opportunity to increase their income on the labour market. Another obstacle is weak regional labour mobility. Often potentially low pay acts as a disincentive to following longer training courses. More active commitment by businesses to staff training is held back by the existing economic model, under which 'low-cost' strategies predominate and investment in employee education does not provide sufficient return. Effective development of the system is also constrained by the mismatch between the supply and demand of learning content, as the offerings on the adult learning market are often cheap and of poor quality. For their part, public-sector educational establishments are constrained by administrative and funding mechanisms that currently do not offer sufficient incentives.

Although Latvia has been developing such a system for several years, the transformations in the Latvian labour market necessary to outstrip the rate of change are still incomplete and insufficiently targeted, and a structured and integrated model for managing transitions that would address labour market issues has yet to be put in place. There is also a lack of comprehensive debate at all levels in Latvia on future labour market trends and needs.

2. INVESTMENT AND RETURN ON CAPITAL IN LATVIA

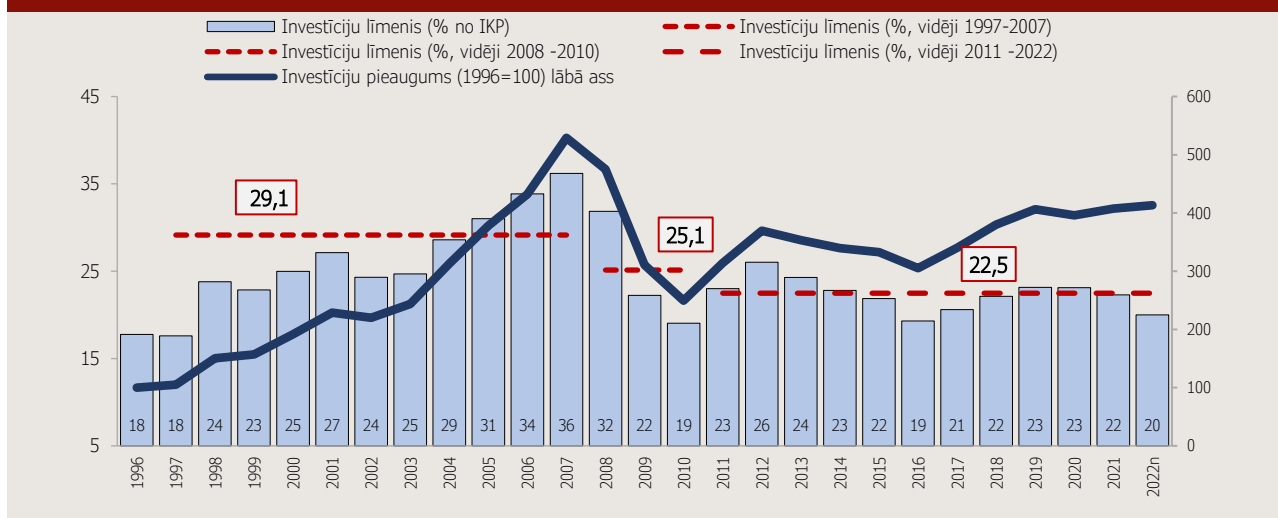
The analysis set out in Chapter 2 is based on the results of the study 'Impact of Inflation on Investment and Proposals for Investment to Enhance Productivity' carried out by the LV PEAK think tank of the Scientific Institution for Productivity under the Faculty of Business, Management and Economics of the University of Latvia and commissioned by the Ministry of the Economy (point 1.1.1.3 of contract No EM 2022/40).

Investment in the sectors of Latvia's national economy is volatile (see Figure 10). Investment increased sharply up until 2007, when it reached 36.2% of GDP. It was subsequently severely hit by the global financial crisis. Investment fell by 53% in 3 years (2008-2010) and accounted for only 19% of GDP in 2010, the lowest level since 1998. Investment has been increasing since 2011. The investment rate remains modest, however, and is lower than it was prior to EU accession.

An analysis of the overall investment dynamic suggests that factors in the business cycle (demand), which were also largely influenced by the rapid growth in foreign capital raising and lending before the global financial crisis and their decline in the aftermath of that crisis in 2008, play an important role.

The analysis conducted as part of the study shows that the current level of investment in Latvia is low. Historically, and given the current level of development of the Latvian economy, investment should account for at least 25.5% of GDP. This means that the amount by which investment has fallen short of the desired amount – in other words, the investment gap – in Latvia over the past decade is around 3 percentage points. In terms of types of assets, the investment gap is greatest for investment in machinery and equipment, lagging almost 4 percentage points behind. Low levels of investment slow down the process of renewing and modernising production capacities, thus also negatively impacting productivity dynamics.

Figure 10. Investment dynamics and investment rate in Latvia



Source: EUROSTAT, calculation by the authors, est. = estimate

The relatively low level of investment is mainly due to the sharp decline in private investment during the crisis years and sluggish recovery after the 2008 crisis period. An upward trend in private investment has only been observed since 2017, reaching 18.1% of GDP in 2019, which is almost 11 percentage points less than in the years of rapid economic growth.

The low level of private investment is brought about by weak lending, weak demand and high uncertainty. The negative impact of these factors on investment was exacerbated significantly by the COVID-19 crisis. Owing to the COVID-19 pandemic, investment fell by 5.8% in 2020 to 17.5% of GDP. Although private investment grew by almost 4.5% in 2021, it was slightly lower than in the previous year.

Whereas private equity (investment) is the main driver of economic growth, State (public) investment also plays an important role in achieving balanced economic growth. Productive public investment improves the productive capacity of the national economy by increasing capital and labour productivity. Various studies⁶ indicate that public investment helps stimulate private investment, as it often targets infrastructure and other projects which do not readily attract private capital. Public investment also stimulates the economy, especially in times of economic stagnation when global demand and investment are low.

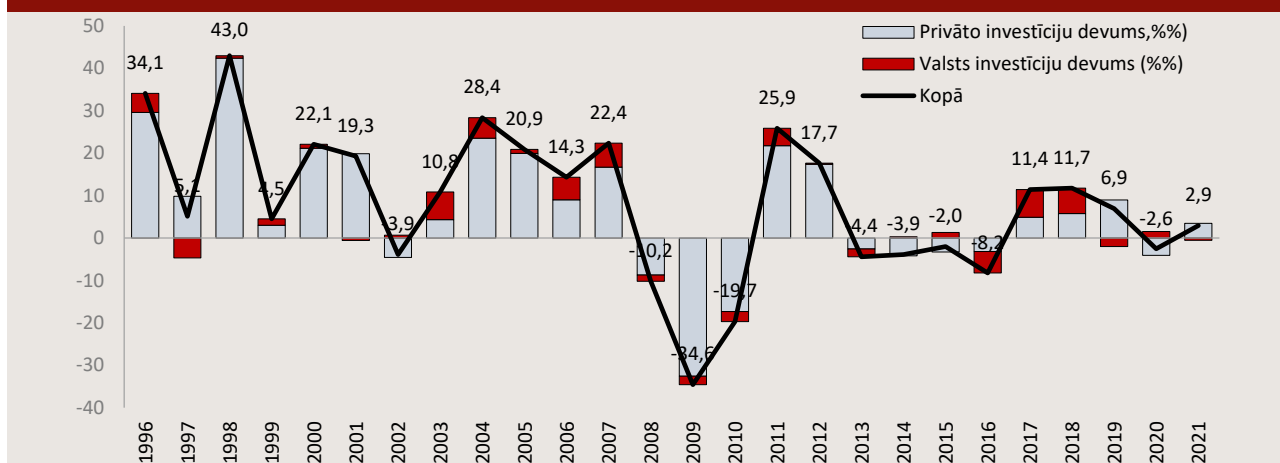
Public investment in Latvia accounted for 5.1% of GDP in 2021, making it one of the highest in the EU. In 2021 only Hungary and Estonia had higher levels of public investment than Latvia. Between 2010 and 2021,

⁶ European Central Bank 'The effect of public investment in Europe: a model-based assessment', available at: [The effect of public investment in Europe: a model-based assessment \(europa.eu\)](https://www.ecb.europa.eu/press/pr/20220709/pubinv/index.en.html), viewed 7/9/2022

public investment in Latvia grew by 46.7%. This was one of the fastest increases among the EU Member States.

In recent years, the share of public investment in total investment has fluctuated between 20% and 25% and its contribution to total investment is significant (see Figure 11).

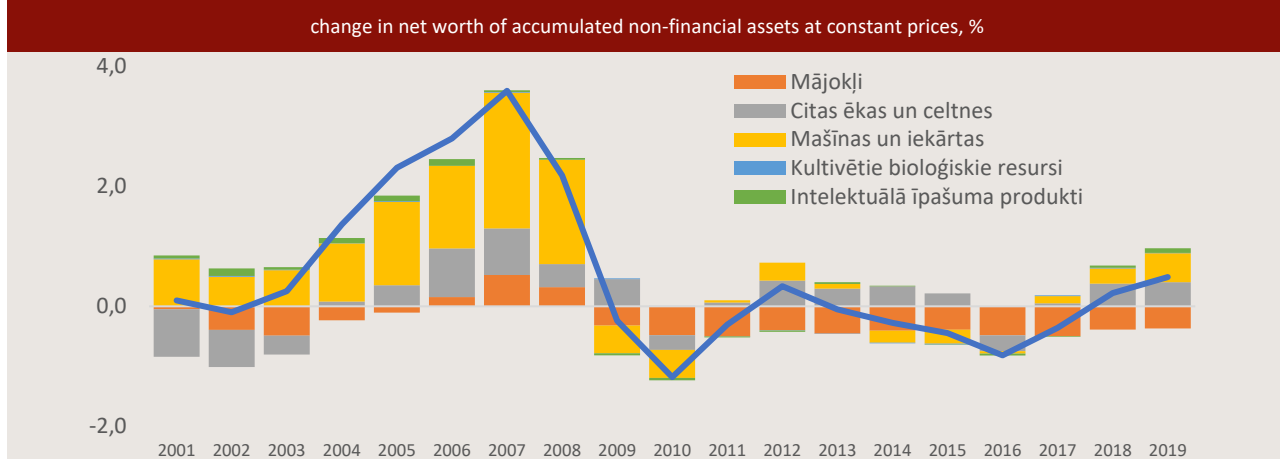
Figure 11. Contribution of public and private investment to annual growth in investment in Latvia



Source: Central Statistical Bureau of Latvia (CSP) and calculation by the authors

The dynamics of public and private investment led to changes in the level of accumulated capital and its structure. Latvia's accumulated capital (net non-financial assets) has increased by 10.2% since 2000 and stood at 177.7 billion EUR in 2019 (calculated in constant 2015 prices). As can be seen in Figure 12, capital dynamics were faster until 2007, when the annual average growth rate was 1.5% and the largest contribution came from investment in machinery and equipment.

Figure 12. Capital gains in Latvia



Source: EUROSTAT, calculation by authors

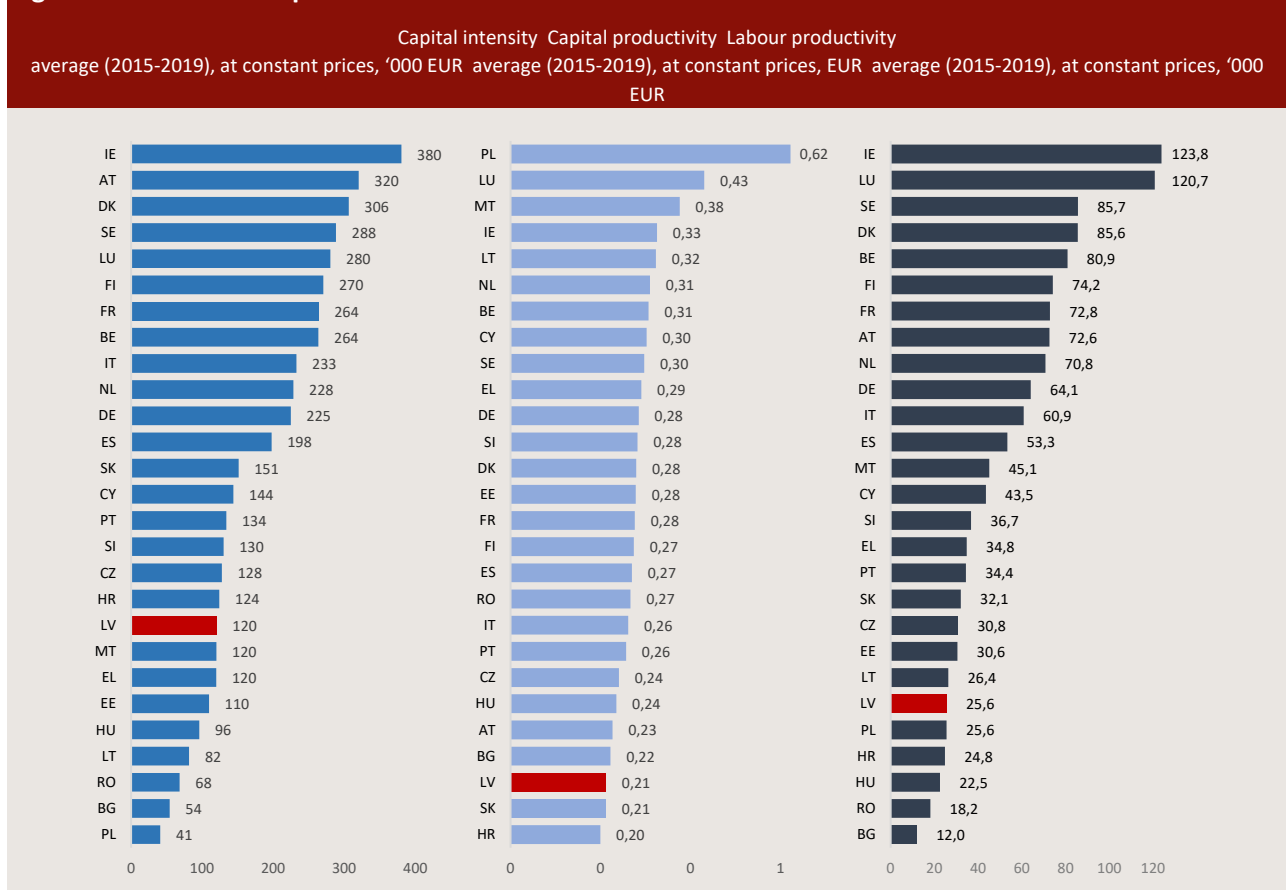
As a result of the global financial crisis, the volume of investment in the Latvian economy almost halved, which also led to a fall in the value of capital; this reached its lowest level in 2010. In subsequent years, the growth rate of net capital value remained subdued. Between 2010 and 2019, average annual capital growth

rates were negative. In the last three years before the COVID-19 pandemic (2017-2019), however, a positive dynamic could be observed, driven mainly by an increase in investment in civil engineering works and buildings, as well as ICT equipment.

Capital productivity in Latvia increased by 12.4% between 2015 and 2019, one of the highest growth rates for this indicator in the EU. It should nevertheless be noted that the capital-labour ratio in Latvia still lags significantly behind the EU's high productivity countries. This is largely the result of capital accumulation having been more moderate than labour growth in the years of rapid economic growth, meaning that, despite strong investment, growth was mainly driven by labour-intensive sectors.

From a long-term perspective, it is essential to increase the return on capital. There is a close correlation between labour productivity and capital intensity. Although capital intensity in Latvia is relatively high, other countries have achieved higher labour and capital productivity at similar levels of capital intensity (see Figure 13).

Figure 13. Return on capital indicators in EU Member States



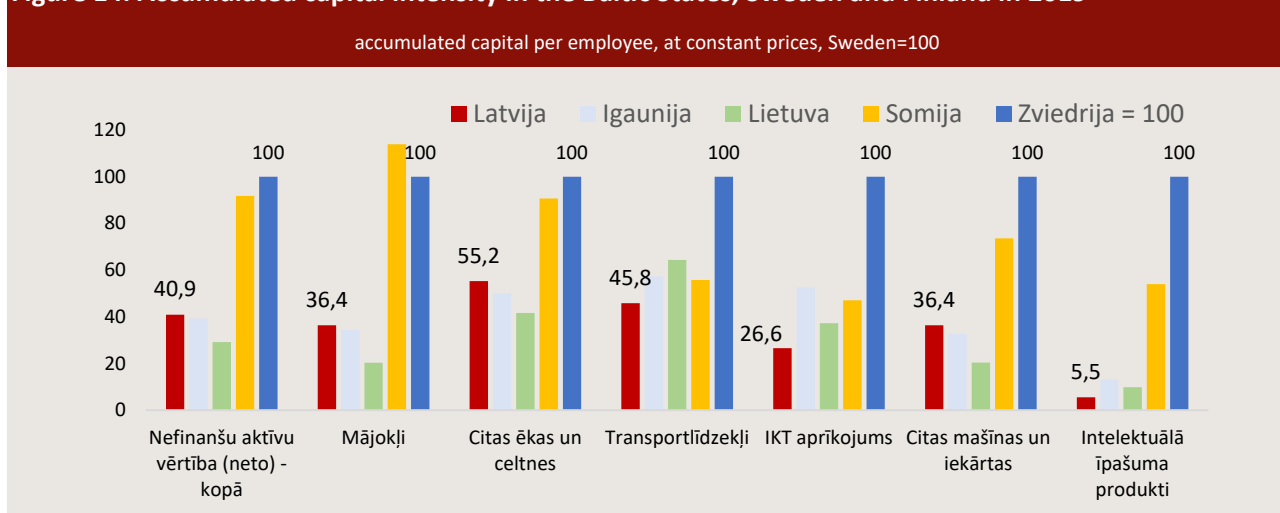
Source: EUROSTAT, calculation by authors

Latvia has structural weaknesses in the distribution of capital, both across sectors and by asset type. Investment in intangible assets is particularly low, which is clearly visible compared to Sweden. Sweden's accumulated capital intensity per worker is more than twice that of Latvia. Latvia's investment in intellectual property products (including R&D) is nearly 15 times lower than Sweden's. Similarly, Latvia's considerable shortfalls in terms of infrastructure provision, innovation and workforce quality call for large and sustained investment in precisely these areas.

The evolution of capital intensity varies greatly between different types of assets. The evolution of the capital-labour ratio for construction assets is very slow, with the average annual increase in capital intensity for buildings and constructions amounting to 0.5% in Latvia, 2.3% in Lithuania and 6% in Estonia. In Latvia, the average annual growth rate of capital intensity for housing assets is negative, meaning that the existing housing stock is not being replaced.

By contrast, the increase in the capital-labour ratio is more marked for types of assets related to digital technologies, i.e. ICT, computers and databases, as well as intangible assets such as R&D. These assets are linked to digitalisation, new technologies or automation, and their growth contributes significantly to increasing productivity.

Figure 14. Accumulated capital intensity in the Baltic States, Sweden and Finland in 2019



Source: EUROSTAT, calculation by the authors

Investment in intellectual property assets is especially low, as can clearly be seen in comparison to the high productivity countries of Sweden and Finland. Sweden's accumulated capital intensity per worker is more than twice Latvia's. Latvia's investment in intellectual property products (including R&D) is nearly 18 times less than Sweden's (see Figure 14).

In November 2022, an internet survey of members of the Employers' Confederation of Latvia (LDDK) and the Latvian Chamber of Commerce and Industry (LTRK) organised by LV PEAK also assessed policies for motivating companies to invest in productivity growth. Entrepreneurs considered the drawing up of a strategy and long-term action plan by the government, the development of dialogue with entrepreneurs, the existence of incentives to invest in human capital and the creation of a national growth fund with the aim of increasing investment in productivity-enhancing areas to be key ways forward.