LATVIA'S 2021 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, 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 second 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.

Latvia's 2021 Productivity Report ('the 2021 report') analyses productivity factors and dynamics, presents scenarios for Latvia's economic development over the long term and examines in depth the impact on productivity of remote working. The report contains recommendations for policy-makers.

Before the 2021 report was submitted to the government and the European Commission on 2 December 2020, it was presented to a broad range of partners at a conference entitled 'Productivity Dialogue 2021'.

The main 73-page text of the 2021 report consists of 2 chapters. Chapter 1 analyses Latvia's productivity dynamics, productivity factors and scenarios for long-term development. Chapter 2 describes trends in remote working and its impact on productivity, as well as policy challenges associated with remote working and policies for promoting it. At the end of the report there are conclusions and recommendations to improve policy.

The full version of the 2021 report in Latvian can be found on the internet at:

https://www.lvpeak.lu.lv/

The text below is a short summary of the 2021 report.

1. FACTORS AND DYNAMICS OF PRODUCTIVITY IN LATVIA

An analysis of statistical data shows that productivity dynamics in Latvia have been fairly rapid over the past few decades, outstripping average growth rates for the EU as a whole (see Figure 1).





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

However, compared to the highly developed countries of the EU, Latvia's productivity level still shows a significant lag, which is basically the result of low total factor productivity and significant differences in the

quality of production resources (human and capital). In 2020, the productivity level in Latvia was 51.7% (or nearly 71.9% measured in PPS) of the EU average¹.

As it approaches the EU average, Latvia's rate of productivity convergence is slowing and its risk of falling into a middle income trap is increasing (see Figure 2). More rapid growth was observable up until 2008, especially after Latvia's accession to the EU, which became a significant stimulus for foreign investment inflows (mainly in the form of debt-generating flows). After the global financial crisis, productivity growth rates have shown a downward trend. The financial crisis made access to credit harder, hampering capital development and modernisation and investment in innovation.



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

The COVID-19 crisis has aggravated economic risks, but its impact on productivity is unclear. State aid has mitigated the negative impact of the pandemic on the economy, but the mechanisms for reallocating resources to more productive activities and higher-value-added sectors have been disrupted nonetheless.

When calculated in terms of numbers of employees, productivity in Latvia declined during the first three quarters of 2020. When calculated in terms of the number of hours worked, however, productivity increased over the same period. Since the fourth quarter of 2020, productivity in Latvia has been showing an upward trend, both in terms of numbers of employees and hours worked. The analysis shows that market sectors with a relatively high level of productivity are not appreciably more resilient to the COVID-19 shock than other sectors.

It is impossible to fully assess the impact of the COVID-19 pandemic on future productivity dynamics on the basis of short-term statistics alone. The statistics available reflect adjustments in product, labour and capital markets in response to the measures taken to tackle the pandemic and stabilise the economy. The long-term impact of the COVID-19 pandemic on business models and societal behaviour is a crucial consideration. It is obvious that changes are taking place, but there is still a very high degree of uncertainty about how long these will last and what their impact on long-term productivity will be. The COVID-19 pandemic's impact on productivity needs to be further explored, also taking account of the changes that new forms of work and remote working will bring about.

¹ Several studies use the indicator GDP in PPS (purchasing power standards) per employee to compare productivity level 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 reaclulated 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 by PPS per worker.

In 2020, the highest productivity per employee was observed in finance and insurance (EUR 51 900) and information and communications (EUR 40 000), whereas the lowest was seen in accommodation and food services (EUR 12 500). Productivity in 2020 was higher in all sectors than in 2000.

When viewed over a longer period of time, productivity dynamics in all sectors of the Latvian economy are unstable. Between 1997 and 2007, productivity rose rapidly, by an average of 6.5% per annum. In the years of economic recession (2008-2010), the rate of productivity growth slowed significantly. Since 2011, until the advent of the COVID-19 pandemic, productivity rose in nearly all sectors of the Latvian economy, but at slower rates than before the global financial crisis. In 2020, as a result of the COVID-19 crisis, the average productivity of the economy declined. The decline was most precipitous in sectors directly reliant on people moving around and congregating. Productivity in 2020 grew the fastest in the industrial and construction sectors.

Notwithstanding the general productivity slowdown following the 2008 financial crisis, productivity in most sectors of the Latvian economy was higher than the EU average, which also helped reduce the productivity gap with the EU at sectoral level (see Figure 3).





Source : Eurostat, calculation by authors

From 2000 to 2020, 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.

The slowing dynamic of convergence points to a 'productivity trap', which will require the acceleration of structural reforms and fundamentally improved innovative solutions to escape. The Latvian economy's low level of productivity is due to low levels of innovation in the business sector, which can be explained to a large extent by structural factors: the predominance of low-tech industries in the manufacturing sector and the relatively small number of large enterprises. International experience shows that business and economic sectors structured in that way represents a significant obstacle to increasing the capacity for innovation. As the experience of developed countries shows, manufacturing has a potentially greater capacity for

innovation. In the Latvian manufacturing sector, low-tech industries clearly predominate. In recent years, these have generated over half the total value added of manufacturing, which is almost one-and-a-half times the EU average (see Figure 4).





Source : Eurostat, calculation by authors

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.



Figure 5. Productivity growth rates in the Latvian manufacturing industry by technology intensity

The crisis created by the COVID-19 pandemic has acted as a catalyst for more rapid change (digitalisation, remote working, etc.). Nevertheless, the fundamental productivity factors have remained unchanged. These are investment in human capital, investment and an increase in capital intensity, capacity to slot into global value chains and increase export potential, innovation, the development of new products, services and methods, and so on. The following are of crucial importance for boosting productivity: organisation and management of production processes, specialisation and concentration of production, regional distribution of production facilities and the establishment of horizontal and vertical intersectoral links. A broader, more comprehensive approach to increasing productivity and competitiveness is needed: strong performance in one area cannot compensate for weak performance in another.

Technological factors such as the modernisation of production, improvement of existing technologies and introduction of new technologies are crucial for raising the level of productivity. Transitioning from old to more innovative technologies stimulates the growth of productivity at business and sectoral level. However, effecting such changes – in terms of raising the overall level of productivity – depends largely on reallocating resources from lower to higher productivity sectors, and to sectors with a more rapid productivity dynamic. It is important to analyze the impact of labour market transformation trends on resource redistribution mechanisms.

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 employees, and to what extent overall productivity is affected by employers transferring to higher-productivity sectors and sectors with more rapid productivity dynamics (see Figure 6).





Source : Eurostat, calculation by authors

The shift share analysis shows that employment is growing in sectors with productivity above the national average, such as the manufacture of computers and electronic equipment, whilst employment is falling in some low-productivity sectors such as light industry. However, a large number of jobs are still being created in sectors with relatively lower productivity levels, such as accommodation and food services. In general, the reallocation of labour resources to the benefit of productive sectors is not sufficient to have a significant impact on the faster increase in the overall productivity level within the national economy.

Productivity growth will increasingly need to rely on knowledge-intensive activities, which currently account for only a small proportion of the economy. Latvia's weak point 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 ranked 38th on the Global Innovation Index 2021 out of the 132 countries surveyed (with Estonia in 21st and Lithuania in 39th position), falling two places in comparison to 2020³. The following were highlighted as Latvia's strengths: the pupil-to-teacher ratio in secondary schools, the proportion of students enrolled in higher education who have completed secondary education, compliance with environmental management system standards, foreign funding for R&D, productivity growth in the economy and the

² A description of the method can be found at <a href="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

development of creative industries. Latvia's competitiveness is significantly weakened by institutional deficiencies (regulatory framework, inefficient bureaucracy, etc.), insufficient quality of infrastructure, poor innovation performance and insufficient business development and quality. Competitiveness remains largely based on relatively low labour costs and, to a lesser extent, on technological developments and innovation.

In the European Innovation Scoreboard 2021, an annual publication of the European Commission, Latvia is ranked 25th among EU Member States (with Estonia in 9th and Lithuania in 18th place). It has slipped into the 'modest innovator' group of countries, mainly because of the decline in venture capital investments in 2020 and in the development of environment-related technologies. It is also remarked that Latvia's share of non-innovators with potential to innovate is above the EU average⁴. Latvia's Innovation Index value has increased by 22.6% since 2012 (compared with an EU average increase of 8.7% over the same period). The most powerful drivers of Latvia's innovation performance are innovation prerequisites such as an innovation-friendly environment and financial support. The ratings of aspects of innovation performance such as access to a qualified and educated workforce and the attractiveness of the research system have improved since 2012, but for a long time, Latvian entrepreneurs have been only relatively weakly active in the field of innovation. This is evidenced by their low investment in research and development (R&D) and the small proportion of innovative companies.

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.

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 innovations must be given improved stimulus. 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.

The full use of digitisation opportunities is fundamental to the maintenance of productivity and the improvement of living standards. Latvia ranks only 17th⁵ among the EU-27 countries in the Digital Economy and Society Index (DESI) for 2021.

In Latvia, a digital divide has come about between city and countryside. Much of Latvia's population lacks the digital skills needed to make effective use of the internet. The integration of digital technologies in businesses is well below the EU average. Basically, Latvia's population is not fully prepared for a digital boom in the economy. Latvia has one of the highest proportions of inhabitants in age groups with low overall levels of digital skills. This not only leads to a shortage of digital skills on the labour market, but also generally hinders the broader rollout of digital technologies within companies. 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.

⁴ <u>https://ec.europa.eu/docsroom/documents/46013</u>

⁵ <u>https://ec.europa.eu/digital-single-market/desi</u>



Figure 7. Digital Economy and Society Index (DESI) 2021 assessment

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

Regulation has an important role to play in the digital economy. Policymakers 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 prospects for productivity growth are closely linked to Latvian companies becoming more deeply integrated into global markets by increasing the share of knowledge-intensive products and services in total exports. This depends on the ability to implement technological modernisation, make innovations and increase participation in global value chains.

The supply and quality of labour play a key role in raising productivity. The main directions for improving the availability and quality of the workforce of relevance to Latvia are: solving the issues of demographics and migration, improving access to quality education at all levels, and stimulating reskilling and upskilling.

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.

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 8). Only 6.6% of Latvia's population aged between 20 and 64 were engaged in lifelong learning in 2020, which is one of the lowest figures in the EU.





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

The economy is seeing ongoing structural change. In order to anticipate, prepare for and adapt to these changes in a timely manner, the government needs to set up an inter-institutional platform for cooperation, based on analysis, forecasting, future technology trends and dialogue with business, implement proactive changes in the structure of workforce preparation, both in the medium and long-term (prospects for formal education) and in the short term (adult retraining programmes). In addition, the government should raise public awareness of the role of adult education in the individual's career development by encouraging lifelong learning.

As part of this study, simulations were run of two scenarios for the development of the Latvian economy: a baseline scenario and the most optimistic or faster growth scenario. An assessment was made of the impact of each development scenario on sectoral development trends and structural changes (see Figure 9).



Figure 9. Latvia's medium- and long-term development scenarios

Source : calculation by authors based on data from EC, EUROSTAT and Central Statistical Bureau of Latvia

According to the baseline scenario, the trend in Latvia's economic growth will, over the medium term, return to that of the previous decade (2011-2019). GDP growth is expected to reach an average of 3.2% per annum

over the period 2023-2030. Under the most optimistic scenario, which provides for technology-driven competitive edges, efficiency of production, innovation and the ability to adapt to exploit the potential of global change, average growth in GDP of 5.3% per annum is anticipated over the medium term (up until 2030).

Overall, the calculations show that deployment of newer technologies, development of innovative products and services and broader use of digital solutions and improved process efficiency have a significant impact on the faster growth of sectors and of the economy as a whole. Under the most optimistic scenario, productivity is the main driver of growth. It should nevertheless be pointed out that the calculations show a significant contributory factor in ensuring faster growth to be the resolution of labour supply problems. Investment in human capital has a key role to play. It is crucial to provide high-growth and productive sectors with labour, which necessarily means overhauling current adult education programmes and encouraging the labour force to move from less to more productive sectors.

2. IMPACT OF REMOTE WORKING ON PRODUCTIVITY IN LATVIA

Measures designed to stem the spread of the COVID-19 pandemic have contributed to an increase in remote working. The proportion of workers in the EU working remotely was on average 1.4 times greater in 2020 than in 2019, accounting for 20.6% of all workers in 2020. In other words, the proportion of workers working remotely grew faster over the course of that year than over the whole of the decade prior to the COVID-19 pandemic. All EU Member States saw an increase, although significant differences remain between countries in terms of the proportion of workers working remotely (see Figure 10).



Figure 10. Remote workers in EU Member States

Source: Eurostat.

The differences in the proportion of remote workers in EU countries can be explained to a large extent by differences in the sectoral structure of those countries' economies. In countries with a larger knowledge-intensive service sector and a larger proportion of the economy accounted for by IT sectors, there are more opportunities to work remotely. It should be pointed out that apart from the sectoral structure of the economy, business management and work organisation models, legislation, habits and culture, household living conditions, etc. also influence whether remote working arrangements are instituted or not. Opting for remote working is also determined by company size (larger companies tend to make more frequent use of it), the proportion of self-employed workers (for many self-employed, their home is often also their place of work), workers' digital skills, etc.

Similarly to many other EU countries, there has been a rapid shift to remote working in Latvia during the COVID-19 pandemic. In 2020, 6% of all employees in Latvia worked remotely. The proportion of all employees working remotely had increased by 25% in comparison to 2019, and by more than 50% in

comparison to 2010. Nevertheless, compared to the EU average, uptake of remote working opportunities in Latvia was nearly three times less.

Calculations performed as part of the study revealed that around 38% of persons employed in the Latvian economy could potentially work remotely. There is a relatively large gap in all sectors between the actual and potential number of remote workers. In 2020, the proportion of remote workers was almost half the potential. Under the circumstances of the COVID-19 pandemic, remote workers accounted for an average of 15% of all workers in the economy as a whole, which is nearly half the potential number of remote workers higher than in the years prior to the pandemic (see Figure 11).



Figure 11. Potential for remote working and average share of remote workers per quarter during the COVID-19 pandemic in Latvia in 2020-2021

Source : calculation by authors

Calculations show that sectors with greater opportunities for remote working have performed better during the COVID-19 pandemic. Taking account of adjustments in labour markets on a sector-by-sector basis, the conclusion can be drawn that, influenced by the introduction of measures to contain the COVID-19 pandemic, the number of persons employed and the amount of added value generated in sectors with greater potential for remote working declined to a lesser extent than in sectors where the potential for remote working was more limited. Similar conclusions can be drawn with regard to changes in productivity (see Figure 12).

Studies show that remote working can increase employee productivity and reduce costs (e.g. transport costs), but can also lead to isolation and stress as the boundary between work and home becomes blurred. There are also concerns that a lack of regular contact between colleagues could stifle creativity and reduce team cohesion. Too much remote working can reduce worker effectiveness and long-term productivity gains. The challenge for the future is to find the optimum balance between remote and 'traditional' work. One solution is to have all staff together in the office for a few days every month. An approach whereby staff spend a small proportion of their time developing new ideas with colleagues could in actual fact be more productive than the approach taken in the past.

An increase in remote working could result in significant processes of structural transformation in the economy, which could have negative as well as positive effects in the long term. It is nonetheless too early to assess what kind of long-term trends the COVID-19 pandemic will bring about. It is not entirely clear whether remote working will continue to expand even after the crisis is over and to what extent remote

working during the COVID-19 pandemic has had a positive impact on productivity, as there is not yet enough data. Furthermore, many other ancillary factors have affected productivity under remote working conditions during the COVID-19 pandemic, such as the mental wellbeing of employees, school closures, etc.



Figure 12. Trends in value added, number of workers, hours worked and productivity in Latvia by sector

Source : calculation by authors based on data from the Central Statistical Bureau of Latvia

Unfortunately the effect of remote working on the economy as a whole has been insufficiently studied, thus preventing benefits and risks from being fully identified and policy-makers from developing theoretically sound proposals. A short-term assessment of the impact on employees and companies of the introduction and expansion of remote working (during the COVID-19 pandemic) cannot serve as a reliable tool for predicting its effect on the economy as a whole. An insufficient understanding of the long-term effects of remote working may give an incomplete picture of how the economy will transform itself and what consequences that transformation will have on overall productivity.

Research on remote working has mainly been based on the subjective opinions of respondents to surveys. Furthermore, there are almost no studies based on statistical data. The main challenge for studying the impact of remote working is a lack of the 'specific' data needed to underpin the research base. For example, recording of working time needs to be improved by separating out hours worked remotely from statistics on the total number of hours worked. Availability of such data would increase the quality and objectivity of the research.

The main policies for fostering the productivity of remote working in Latvia are:

- drawing up guidelines (a manual) for remote working. The aim of the guidelines would be to provide an overview of the most important issues to take into account when introducing remote working;
- stimulating investment in communications and ICT infrastructure (the fixed broadband coverage of households in Latvia is lagging behind the EU average, and a digital divide has developed between urban and rural areas);
- drawing up a comprehensive business digitalisation strategy (the integration of digital technologies into businesses in Latvia is substantially less than the EU average);

- increasing the digital skills of society as a whole, with a specific focus on each target group, to avoid the risk of future imbalances (half of Latvia's population lacks basic digital skills);
- putting remote working on a legal footing (by incorporating the basic rules for remote working into
 collective agreements with social partners, developing a framework for ensuring a working
 environment, covering employees' costs associated with work done outside the office, etc.);
 additional research into these aspects is required;
- improving the framework for data protection to safeguard privacy rights and ensure protection from cyber-attacks;
- providing for a new form of communication videoconferencing between State authorities and private individuals (amendments will be needed to the Law on submissions (to give people the opportunity to make submissions in the form of short audio-visual recordings and enable the digital reception of visitors) and to the Law on administrative liability (to enable videoconferencing to be used more widely);
- facilitating a change in public attitudes in favour of remote working by organising information campaigns, presenting examples of best management practices and highlighting the benefits to society. Adapting the public sector to deal with remote working might help demonstrate the benefits of remote working;
- facilitating the provision of social support infrastructure, such as childcare (expanding remote working without concomitant policy support for infrastructure improvements could increase burdens, particularly on women);
- remote working will have an impact on supply and demand in the labour market and on the regional distribution of work long after the pandemic is over. To prepare for and adapt to these changes, anticipatory restructuring of the labour market is needed, involving labour market forecasting, stakeholder dialogue and decisions on changes in the structure of workforce preparation.

At the enterprise level, assessment of the productivity of staff working from home needs to be improved as follows:

- policies (guidelines, etc.) need to be developed within enterprises on how to measure their labour productivity and the productivity of their remote workers;
- key performance indicators and milestones need to be developed (one of the main problems associated with measuring productivity is that different jobs are measured in different ways);
- special task or project management software (such as JIRA, Trello or Asana) needs to be used to enable the progress of work to be followed;
- software for recording time spent online needs to be utilised. For example, HiveDesk automatically tracks how much time workers spend at work;
- lead times need to be set for each task. On the basis of estimates and accumulated experience, benchmarks may also be established for comparing employees doing the same job or working in the same team;
- the basic measure of productivity should be combined with information on the quality of the work performed, because even though it is useful to determine the average time needed to complete a

specific task or to comply with the number of tasks to be performed per day, this does not provide a complete picture of the employee's performance;

• a reporting system needs to be established. Timely reporting helps keep track of work, identify potential problems and facilitate timely responses.