Chapter 1. Overall assessment and recommendations

This chapter introduces the framework used to analyse the extent to which Latvian policies foster productivity and sustainability in the food and agriculture sector and presents an overview of findings for a wide range of policies. It also includes specific policy recommendations for each policy area reviewed.

1.1. A framework to analyse policies for innovation, productivity and sustainability in the food and agriculture sector

Improving agricultural productivity and sustainability to meet the growing global demand for food, feed, fuel and fibre will be achieved through more efficient use of natural and human resources. A wide range of policies affect the performance of the food and agriculture sector, and these need to be considered alongside agriculture-specific policies.

At the time of Latvia's accession to the OECD, agricultural innovation was one of the issues identified where an OECD review was likely to benefit the country. This highlights the Latvian authorities' goals and vision for the sector's future at the time, and the relevance of this review.

The framework applied in this review considers the full range of policy incentives and disincentives to innovation, structural change, natural resource use, and climate change as drivers of productivity growth and the sustainable use of resources (Figure 1.1).

This review begins with an overview of the characteristics and performance of the food and agriculture sector and the future challenges faced by this sector (Chapter 2). A wide range of policies is considered according to the main channels or incentive areas through which they affect drivers of productivity growth and environmental sustainability:

- Economic stability and trust in institutions (justice, security, property rights), which are essential to attract long-term investment in the economy (Chapter 3).
- Private investment, which in turn requires a transparent and predictable environment that balances the interests of investors and society (Chapter 4).
- Capacity building, including the provision of essential public services (Chapter 5).
- Agricultural policy, domestic and trade-related (Chapter 6).
- The agricultural innovation system (Chapter 7).

A policy area can affect productivity and sustainability drivers through more than one channel, and policies can have a positive or negative effect depending on the type and intensity of implementation measures.

This review draws on a background report provided by the Latvia University of Life Sciences and Technologies, recent OECD economic and innovation reviews and internationally comparable data.

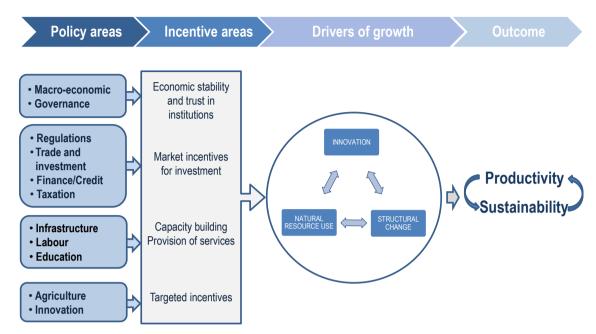


Figure 1.1. Policy drivers of innovation, productivity and sustainability in the food and agriculture sector

Source: OECD (2015), "Analysing Policies to improve agricultural productivity growth, sustainably: Revised framework", www.oecd.org/agriculture/policies/innovation.

1.2. Main challenges and opportunities for the Latvian food and agriculture sector

Latvia's growth in food and agricultural production since the early 2000s took place in a context of dynamic economic growth and improvements in innovation relevant policy areas, from generally low levels.

Latvia is a dynamic, small and open economy, but with a declining population and skills shortage

A dynamic economy: In the past 25 years, Latvia successfully transitioned from central planning to a market economy. It joined the European Union and subsequently the euro area. It recovered from the financial crisis, adapted to the export ban imposed by the Russian Federation and has stabilised its macroeconomic performance. Its five-year average real growth exceeds EU28 and OECD averages. Government finances are solid, public debt is one of the lowest in the European Union and the economy enjoys the confidence of the financial markets. Private indebtedness is low. Employment is above the OECD and EU average rates and there is a high demand for skills.

A small economy: When compared to other OECD member countries, the territory of Latvia is among the (eight) smallest and its economy is one of the (three) smallest; it is one of the (six) least populated and its GDP per capita one of the (seven) lowest. Its population is mostly urban and suburban (68%), ageing and declining (-20% in the past 20 years).

An open economy: Considering that Latvia is dynamic and small, trade accounts for a substantial part of its economy, a part that is larger than the OECD average. Membership of the European single-market widens market opportunities for Latvian businesses that are also well connected to Eastern neighbours. Latvia's current account balance is positive; exports of goods and services make up 58% of its GDP and imports 57%. Latvia ranked first most open OECD economy for trade in services in 2017.

A challenging demography combined with skills shortage and informality: Low innovation capacity and low business sophistication are intertwined with low birth rates. continuous emigration, mostly of the youth, skills mismatch and a large informal sector. These factors influence the medium-term productivity and competitiveness of Latvia. Efforts are ongoing and should be strengthened to address the skills mismatch and widespread informality. Businesses also face increasing domestic production costs, in particular labour costs, although they remain well below the EU28 average.

This general context has a strong impact on food and agriculture

The characteristics of the general economy also apply to, and may be exacerbated in, the food and agriculture sector and rural areas. In particular, with a mostly urban population (68%), infrastructures and services are generally less developed and unemployment higher in rural areas. About 76% of the total labour input in Latvian agriculture is unpaid family labour. Low labour productivity in the economy also occurs in agriculture and food processing, and lower wages in rural areas partly explain rural poverty and urban migration. As in the rest of the economy, food and agriculture deliver mainly unprocessed products with low value-added to global value chains (GVCs).

Agriculture uses the abundant land and water resources sustainably

A maritime climate with low temperatures and high precipitations prevails almost uniformly across the Latvian territory. The temperature averages at 5.9°C, precipitations at 667 mm and there are 1 790 hours of sunshine per year. Latvia's vegetation period is short and the highest temperatures together with the highest precipitations typically occur in July and August. Cold temperatures reduce the need to use pest and disease protection chemicals.

Latvia enjoys high levels of land and water availability and quality. Its environmental performance is high and, although there may be local environmental stress, no area of national concern has been identified so far. Land abandoned in the 1990s has been partly recovered for agricultural use. The sustainable drainage of excess water in soils is the main issue regarding water management.

Productivity improvements have led to strong agricultural production growth

Agriculture is growing, although at a slower pace than the economy as a whole. The share of agriculture in the economy (3%), in trade (16%)¹ and in employment (8%) is higher than EU and OECD averages.

Agricultural Total Factor Productivity (TFP) growth has been strong and sustained, although from very low levels and the sector has not yet reached its full efficiency and productivity potential. Improvements in labour productivity have been particularly high, although labour productivity is still low. Cereals and dairy make up most of Latvia's agricultural output and crop output has grown the most rapidly. Agricultural output growth in recent years has also been facilitated by the considerable increase, from very low levels, in the use of mineral fertilisers. While usage levels are the lowest among EU Member States, their increase has resulted in higher environmental load and greenhouse gas (GHG) and ammonia emissions, compared previous levels. This suggests a need for continued monitoring of the impact of agriculture on the environment.

Further structural adjustment would increase economic performance

Some adjustment in farm size distribution has taken place, but a large number of small, non-commercial farms remain and weigh on the sector's economic performance as they benefit from sectoral support and may contribute to informality. They typically occupy less than 4.9 ha and, altogether, use 2.2% of the utilised agricultural area (UAA). Less than half of registered farms market more than 10% of their production (46% of farms market no production at all).

The commercial farms structure is dual; livestock farms are typically smaller than the average EU livestock farms, whereas cereal farms are mostly large and export oriented. Cereals are Latvia's top agro-food export commodity group.

More attention should be paid to the food chain

Since 2005, the share in GDP and employment of the food industry has declined and the structure of the sector has changed. There have been business entries, exits, splits and consolidations and, today, there are fewer large businesses and more numerous small processing enterprises. Also observed in other sectors most agro-food exports are raw or low value-added products, pointing to value chain inefficiencies including a possible lack of processing capacity and a weak organisation of the supply chain. This is the case for milk for example.

Organic farming is growing both in number of farms and area. Area under organic production has nearly doubled in the past ten years. However more than half the organic milk and eggs produced, approximately one-third of meat and cereals and one-tenth of organic vegetables are sold to conventional processors, pointing to excess supply, lack of markets and supply chain deficiencies. These deficiencies must be addressed as more public funds encourage conversion to and maintenance of organic production.

....and to prepare the sector for future challenges

Agricultural innovation can also be harnessed to prepare the sector for future challenges including climate change adaptation and mitigation and the trade-accelerated propagation of pests and diseases. In recent years, Latvia's agriculture has been exposed to magnified weather variability and trade disruptions. Agricultural innovation can contribute to the sector's resilience.

This report aims to take stock of progress and successes and identify policy areas where more needs to be done to ensure that Latvia can harness agricultural innovation, continue transition and prepare for future challenges and opportunities to increase the sector's productivity and sustainability.

1.3. Framework conditions for investment

Governance has improved with reforms in the public administration

Since 2011, Latvia's government is striving to address identified issues with the quality of public institutions. Efforts are ongoing and progress is observed. The 2017 "Going for Growth" reform indicator has ranked Latvia as a top reformer, which confirms the positive trend in the overall performance of the country. However the quality of public institutions does not yet equal that of the EU28 and OECD averages, mainly explained by a less efficient legal framework in settling disputes and in challenging regulations.

Further improvements in the regulatory environment would facilitate investments in food and agriculture

Despite progress, Latvia's regulatory environment for enterprises performs less well than the OECD average and opportunities for improvement exist. Barriers to entrepreneurship remain in the licence and permits system and the administrative burden both for corporation and for sole proprietor firms may hinder investment decisions.

Regulations apply to private ownership of agricultural land that seek to guarantee Latvian farmers' access to land and to prevent speculation on agricultural land as CAP support is attributed to agricultural land. These regulations may hinder a more efficient allocation of land resources (Section 1.3 on the Framework conditions for investment). Other instruments could be considered that may better address concerns and support a wellfunctioning land market.

Latvia applies EU regulations on farm inputs, on food safety, traceability and quality. It has developed national legislation and institutions that fall under the authority and governance of the Ministry of Agriculture (MoA) for their implementation.

The Latvian economy is open to trade and investment

Latvia is well integrated in international markets but exports are mainly low value-added goods. While participation in GVCs has improved, the share of companies that participate in knowledge-intensive sectors remains low. Latvia could trade up its participation in GVCs through policies that encourage capital and labour flow to firms with high growth potential. Latvia could lower its regulatory barriers to trade which are higher than the OECD and the European Union. In addition, physical trade infrastructures, including transport and storage need to be strengthened to match trading needs and ambitions.

Latvia is open to Foreign Direct Investment (FDI), generally more so than the EU average. However, while it is also open to FDI, the agricultural sector stands out as more restrictive, less open, compared to other sectors and to the European Union as, for example, restrictions apply to agricultural land purchase.

Access to credit has improved

While indicators of financial market development point to significantly lower performance than the OECD average and are slightly lower than the EU28 average, the legal rights index that encapsulates the strength of the credit system is above the OECD average. Farmers' access to credit has also improved and credit for agricultural business development can be sourced through EU and national programmes, and the State Joint Stock Company Altum. Efforts should be continued to support the development of the financial market.

The tax system is being reformed

The overall tax load in Latvia is considered as moderate. A tax reform introduced in 2018 is expected to reduce inequality, to reduce the size of the informal economy and to increase the efficiency of tax administration. Tax revenues would increase to 30% of GDP as a result of the reform. The basic personal income tax rate is reduced with some progressivity, including a non-taxable minimum and the corporate tax rate increased. The lowest wages pay no or little income tax. This is why progressivity in taxation may be less effective to fight informality in agriculture where the lowest salaries are widespread.

The corporate income tax system has been used to support research and development (R&D) up to 2018, with an allowance for R&D expenses that proved to be too low to be effective. With the 2018 reform, reinvested profits are exempted from corporate income tax and tax allowances are provided to investment projects, including in R&D activities. This new measure should be monitored and adjusted as necessary to achieve desired outcomes.

A broad range of environmental taxes applies in Latvia. In 2016, they accounted for 3.7% of GDP, higher than the EU average of 2.4%. Three-quarters of environmental taxes are levied on energy, to which transport adds another 20%, a structure similar to that of the EU average. In 2015, agriculture contributed 4% of the overall environmental tax receipts, compared to a 2% EU average.

Agriculture complies with the overall requirements of the tax codes. However, reliefs and exemptions from several taxes are provided to agricultural activities. These include the allowance for agricultural producers to file for personal income tax rather than corporate tax, VAT compensation for unprocessed agricultural products, real estate and vehicle tax reliefs and, under specific conditions and volume limitations, a reduced excise tax rate for limited amounts of fuel and exemption from the excise tax on gas for specific uses.

1.4. Improving capacities and services

Infrastructure networks have improved, but more needs to be done in rural areas to connect people and markets

Overall, the quality of Latvia's transport infrastructure is below the OECD average. While port facilities are relatively well developed and Riga hosts the biggest airport in the Baltic region, the gap with both OECD and EU averages is wider for railroad infrastructure and widens even more for road infrastructure.

The rail system operates on a gauge that is identical in Baltic neighbours and countries of the Commonwealth of Independent States, thus facilitating eastbound communications. Investments are planned to better connect to the EU rail network. This would help better connect agro-food production with wider markets.

The road transport infrastructure which serves urban areas is improving but is less developed in rural areas. This is an identified obstacle to the functioning of the labour market. Urban areas, with two-thirds of the population, also benefit from better electricity and telecoms infrastructures. Mobile phone coverage and internet services are high by OECD and EU standards equally in rural and urban territories.

Despite improvements supported by EU and domestic funding, access to infrastructure and services in rural areas with low population density is an identified challenge for policy makers. Past investment may have lacked a consistent territorial development plan that the recent development of a central public service system under the State Regional Development Agency should help tackle.

Shortages in labour and skills are a serious impediment to innovation take up and rural development

Latvia's labour market efficiency is close to the average OECD and EU levels. Temporary employment contracts are less used than in other EU countries. While permitted, the participation of non-EU labour is discouraged by higher than average industry-wage obligations. Of particular relevance to agriculture, labour agreements concerning specific tasks are also less frequent. While taking into account job quality aspects, increasing the recourse to contracting for farm labour and farm services and considering relaxing the wage obligations on non-EU labour could encourage employment, increase farm productivity and improve the viability of rural areas.

The labour regulation facilitates seasonal work with a separate income tax on short-term seasonal agricultural workers within specific boundaries on the duration, the income and the tasks. Taxes on labour are found to have a high and negative effect on work incentives, mostly affecting low wages that are dominant in food and agriculture. While it has been reduced, the burden on low wages should be further eased.

There is a high demand for skills in the whole economy, including food and agriculture. Latvia's education system has improved in the past 25 years but more efforts are now needed to ensure that all students have access to a quality education. The education system in Latvia is highly decentralised and influenced by multiple demographic factors that have contributed to declining student enrolment numbers in recent years from previous very high levels. These factors include low birth rates, rural-to-urban migration and emigration. Since 2016, the Employment Council addresses labour market issues, including those related to education and demographic trends.

Educational attainment is above the OECD and EU averages and a higher share of the population has upper secondary or post-secondary non-tertiary education. At tertiary level, Latvia's attainment rate is slightly below the OECD average level. In particular, the share of Latvia's tertiary educated students in the science, technology, engineering and mathematics fields (STEM), critical for the acceptance, dissemination and take up of innovation, has been below the OECD and the EU average rates. However, more students have chosen STEM fields since 2015.

Adult participation in training has increased significantly, although from low levels and mostly in non-formal education. Measures that ensure the availability, accessibility and affordability of lifelong development opportunities should be strengthened in both the qualification-certified education and the non-formal acquisition of skills.

The agricultural education system is integrated into the general system and available at vocational and higher education levels. Non-formal agricultural education opportunities also exist. After a long period of relative decrease, agriculture attracts a larger share of students today than it did in 2009/10.

The overall education system needs to adapt to the changing demographic reality; and the pool of potential students could be enlarged to attract foreign students and encourage lifelong learning.

Improving data and analysis for decision making

Better information and better data are needed to support better decision making from the farm to policy making. Better use of farm data and better access to market, regulatory and policy information would enhance farm and risk management choices. From a policy

maker's point of view, better data availability would allow better targeting of policy instruments to objectives and needs, a more accurate monitoring of outcomes, and altogether improve policy relevance. Participation in internationally comparable data collection and reporting exercises should prove useful in this regard. More specifically, this review points to the following areas for data and information improvement: farm income, environmental performance (particularly data on pesticide use and GHG emissions), adult education and learning, farmer participation in knowledge exchange networks and agricultural research investment.

1.5. Agricultural policies

Latvia implements the EU's Common Agricultural Policy (CAP) and, while some measures are fixed, an increasing share of its CAP budget can be spent on choice measures. Currently agricultural support accounts for more than 60% of the farm income² on average. While support offers a stable and predictable income, mostly to those who hold eligible land, it influences production choices and the allocation of resources, diverting resources from more efficient agricultural holdings.

In Latvia, the bulk of agricultural support to individual farmers and to the sector at large is provided within the CAP, mostly through a uniform (flat rate) and broad based per-hectare payment under the Single Area Payment (SAP) scheme. Under this scheme, the attribution of support is dependent on eligible hectares. While it does not influence production decisions, it may keep unproductive farmers in the sector, as only half of Latvian farms are commercial farms. In addition, specific commodities receive about onefifth of Pillar I direct support in 2016.³ While temporary payments supporting adjustment in specific commodity sectors in the early days of EU accession were phased out, other commodity-specific payments remain based on Latvia's choices in the implementation of Pillar I support. These distort the allocation of resources across sectors. Agriculture is also supported by several national policy instruments, including support to credit and tax exemptions.

Among EU Member States, Latvia has the lowest level of EU financed agricultural expenditure per hectare and the national budget finances a supplement to the SAPS to close part of the gap with the average EU per hectare payment. The supplement was not paid in 2017 and 2018 due to lack of public finance.

Under Pillar 2 of the CAP (Rural Development Programme, RDP), Latvia supports investments to improve the overall performance of agricultural holdings and their competitiveness, to facilitate business start-ups, to support small farms' growth and to diversify activities in rural territories. Part of the RDP funds have been redirected to programmes with higher environmental constraints.

Latvia has chosen to redirect part of the funding for the uniform per hectare direct payments in Pillar 1, on the one hand to Pillar 2 resources for farmer elected mediumterm contractual schemes, and on the other hand to attribute the maximum allowed budget to production-distorting direct support to specific commodity sectors in Pillar 1. Policy signals received by farmers may be contradictory and detrimental to the longerterm productivity and competitiveness of the sector.

Recommendations

- Focus sectoral policies on improving long-term productivity. Address social needs with social policies. Provide a legal status to agricultural family labour and adjust tax, social security and pension systems accordingly.
- Use advisory services and retraining to support non-commercial farms to develop and transition to market oriented activities, within or outside the agricultural sector. Improve job opportunities for unpaid farm labour through education and better connection to job markets.
- With few exceptions, Latvia's agricultural policy choices generally go in the right direction, they minimise production distorting support, and target issues. Their outcome should be monitored to adjust where necessary for the sector to reap their full benefits.
- Reduce commodity-specific support and de-link livestock support from production volumes (per hectare of grass rather than per animal head).
- Target innovation directly: implement Pillar 2 measures that strengthen the value chain and facilitate the creation and diffusion of innovation in agriculture and food processing, including advisory services, participation in innovation networks, co-operation.
- Current support levels reduce incentives for farmers to engage in on-farm risk management actions. Very little budget is allocated to RDP-funded risk management instruments. While innovation can improve farm resilience, it may also increase the financial vulnerability of the farm. Thus risk management should be promoted and risk management tools strengthened to encourage farmers' take up.

1.6. Agricultural innovation systems

Innovation enabled economic growth is at the centre of Latvia's medium and long-term plans.

EU policies and funding shape Latvia's agricultural innovation system. These include the overarching Europe 2020 framework strategy, its research and innovation programme Horizon 2020, structural funds, the CAP and the European Investment Fund and the Research and Innovation programme.

The Science Technology development guidelines (ZTAI) set general innovation policy objectives and the investment trajectory for innovation in the bioeconomy, including agriculture. It defines the action lines necessary to upgrade Latvian science, technology and innovation to a competitive level. The ZTAI is supported by the Research and Innovation Smart Specialisation Strategy (RIS3) and its implementation is monitored.

In a context where little private expenditure is invested in agro-food R&D, public monies fund numerous agricultural innovation programmes. Their outcomes may be strengthened with improved co-ordination, monitoring of their implementation and evaluation of their direct outcomes and socio-economic and environmental impacts.

A life sciences university, the LLU, and its affiliated scientific institutions carry out most agricultural-related research in Latvia. Their research infrastructure was assessed recently and subsequently modernised. Time should be allowed for the new structure to deliver

expected results. Latvia is well connected to international research networks. However, the lack of funding hampers the participation of research institutions in EU and other international initiatives and their access to innovations generated elsewhere.

So far, Latvia has been adapting existing innovations created abroad to its own needs more than investing in agricultural R&D to develop national solutions. This is illustrated by the low rate of patents and other R&D outcomes. To efficiently adopt existing innovations requires a well-functioning knowledge-transmission chain from the sources of innovations up to the farm. It also requires educated farm holders and qualified specialist.

Adopting existing innovations should be supported by Latvia's capacity to connect to R&D networks. Public funding must be maintained to enable co-operation with private companies and with foreign research organisations. Latvia's participation in thematic networks on global challenges funded by the European Innovation Programme for agriculture (EIP-AGRI) has helped strengthen links between research, innovations and implementation. Their success is an encouraging development and funding should be increased to meet the stakeholders' interest. Public-private co-operation should also be strengthened in particular on joint projects directed towards the introduction of research results in the market.

With support from EU funding, advisory and education services in agriculture and food production have become more widely available. They should be further strengthened to facilitate better access by the farming workforce. In turn, this should facilitate innovation take up. Advisory services could also be used to support the analysis of farm profitability and accompany farmers in their development choices. Implementation of new technologies and techniques and foreign experience are an important part of innovations. However little information is available on farmer participation in such activities, they are neither monitored nor measured.

Recommendations

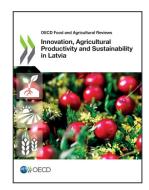
- Monitor factors that drive the adoption of innovative technologies, practices, at the farm level and along the food chain.
- Ensure funding to strengthen Latvia's capacity to connect to R&D networks. Enable the research infrastructure in food and agriculture to engage in cooperation with private companies and to participate in collaborative efforts.
- Foster regional collaboration in research and innovation.
- Bridge the skill gap; improve the educational attainment of farm holders and train qualified specialists.
- Harness the farm advisory system to improve access and participation of farmers, in particular smaller farms. The system can also be used to support small farms' evaluation of their profitability and possibly transition to more profitable market activities.

Notes

¹ Calculated average of the shares of agro-food imports and exports in total trade.

² Farm income net of wages paid.

³ Direct support to specific commodity sectors under Pillar 1 includes the voluntary coupled support (VCS) that was introduced as a choice measure of the CAP 2014-20 and the transitional national aid (TNA) (Sections 6.2 and 6.3).



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