

The Evolving Growth Model of Lithuania

Saioa Armendariz and Alberto Musso

SIP/2025/139

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The Evolving Growth Model of Lithuania, Republic of Lithuania
Prepared by Saioa Armendariz and Alberto Musso*

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ABSTRACT: Lithuania has seen strong income convergence since regaining independence, but in recent years progress in this respect has stalled as the contribution of capital deepening and TFP growth to labor productivity growth became lackluster. Persisting constraints faced by firms, such as lack of access to credit, low spending in R&D and limited availability of workers with sufficient digital skills, explain low rates of corporate investment, productivity and innovation. Looking ahead, targeted structural reforms are essential to support a lasting recovery in labor productivity growth. Key structural reforms include changes in labor market and education needed to reduce skill mismatches and improve labor quality, reforms in the financial sector allowing for deeper capital markets, and reforms aimed at accelerating transition to a digitalized economy and a more comprehensive AI preparedness.

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SELECTED ISSUES PAPERS

The Evolving Growth Model of Lithuania

Republic of Lithuania

Prepared by Saioa Armendariz and Alberto Musso¹

¹ The authors would like to thank Kazuko Shirono and experts from the Bank of Lithuania for very helpful comments and Sadhna Naik and Kofi Zhou for excellent research assistance.



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THE EVOLVING GROWTH MODEL OF LITHUANIA¹

Lithuania has seen strong income convergence since regaining independence, but in recent years progress in this respect has stalled as the contribution of capital deepening and TFP growth to labor productivity growth became lackluster. Persisting constraints faced by firms, such as lack of access to credit, low spending in R&D and limited availability of workers with sufficient digital skills, explain low rates of corporate investment, productivity and innovation. Looking ahead, targeted structural reforms are essential to support a lasting recovery in labor productivity growth. Key structural reforms include changes in labor market and education needed to reduce skill mismatches and improve labor quality, reforms in the financial sector allowing for deeper capital markets, and reforms aimed at accelerating to transition to a digitalized economy and a more comprehensive AI preparedness.

A. Introduction

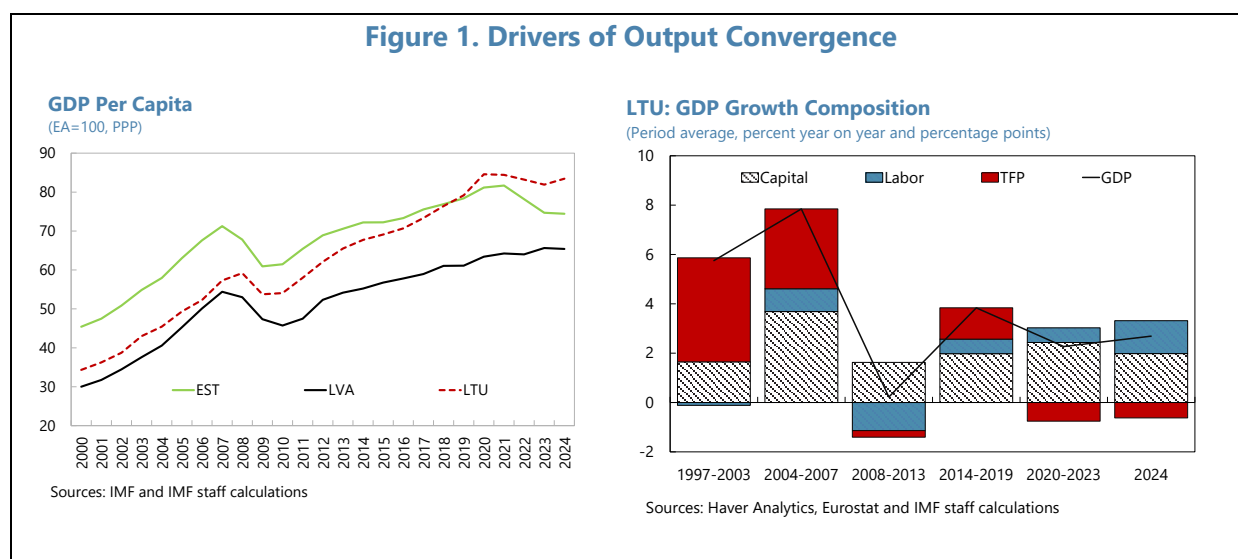
1. **Lithuania has recently reached key milestones in its European integration, with ten years in the euro area and two decades in the EU.** During this period, it has experienced a rapid income convergence, with GDP per capita rising by 116% percent. The economic structure has also evolved over time, with the rise of higher value-added sectors including ICT contributing to increasing service exports while favorable migration dynamics in recent years—including the increasing number of returning Lithuanians and a temporary surge in migration from Ukraine and Belarus—has supported labor markets which would have been otherwise constrained by declining labor force due to rapid population aging. In part reflecting these developments, the economy has been resilient to a series of recent shocks and recovered strongly in 2024 with faster growth than Baltic peers and other EA countries.
2. **However, the pace of income convergence has slowed while the adjustment is incomplete.** The recent strong growth performance was largely driven by labor accumulation while capital intensity remains low, and productivity growth has been weak. The long-standing income inequality also persists. There are structural factors limiting productivity and long-term growth which remain unaddressed. In addition, new challenges are emerging with increased defense spending needs adding to the long-term spending pressures. Given the adverse demographics due to aging and uncertainty about migration flows, structural reforms to support capital accumulation and increase productivity are key to safeguarding sustained medium-term growth to bring the economy back to the convergence path.
3. **Against this background, this note analyzes structural factors limiting productivity and long-term growth and possible structural reform options to unlock productivity growth.** To put this in a context, the note first briefly reviews the evolution of the growth model of the

¹ Prepared by Saioa Armendariz (EUR) and Alberto Musso (RES). The authors would like to thank Kazuko Shirono and experts from the Bank of Lithuania for very helpful comments and Sadhna Naik and Kofi Zhou for excellent research assistance.

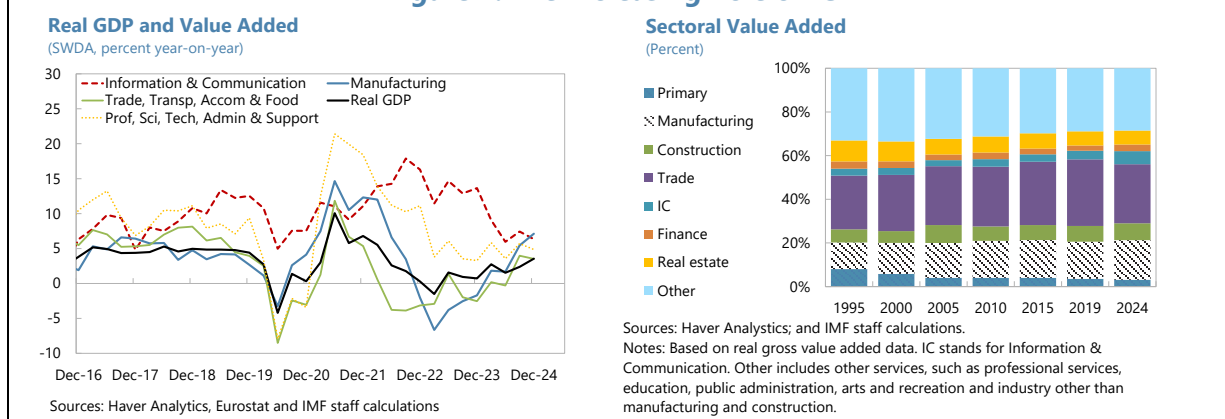
Lithuanian economy and then examines the structural impediments to growth focusing on capital deepening and TFP, followed by a discussion on a range of structural reform considerations.

B. Output Convergence and Transformation

4. Lithuania has seen strong income convergence since regaining independence. GDP per capita of Lithuania has increased from about 30 percent that of the euro area in the second half of the 1990s to about 85 percent in recent years. Income convergence has been particularly fast in the decade preceding the GFC and during the 2010s (Figure 1, LHS), with growth during both of these periods largely driven by strong TFP growth and capital accumulation (Figure 1, RHS). Over the past five years convergence has stalled, as the positive contribution to output growth from labor accumulation—largely driven by positive net migration flows (see SIP on Potential Growth and Migration)—has been offset by negative TFP growth.



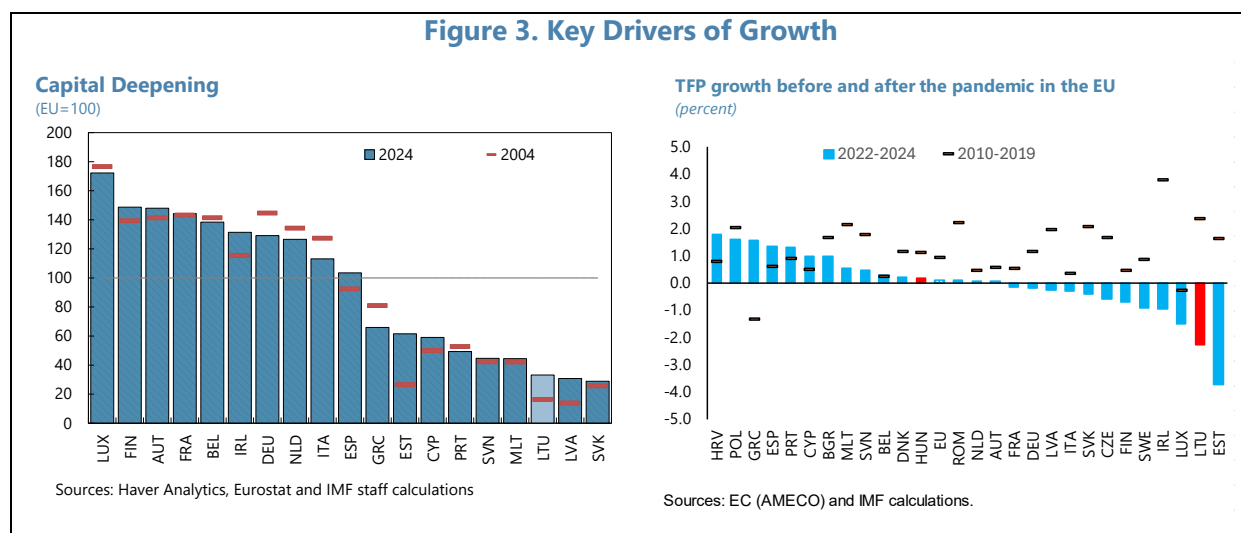
5. The Information and Communication Technologies (ICT) sector has become an increasingly important driver of growth over the past decade. The past ten years have seen a significant expansion of the ICT sector in Lithuania, growing on average by about 10 percent per year (Figure 2, LHS), leading to a marked increase in the share of GDP (6 percent by the end of 2024, up from 3 percent in 2015) (Figure 2, RHS). The expansion of the ICT sector was supported by proactive policy measures from the government, including tax incentives for startups, investments in technology infrastructure and focused policy initiatives (e.g., 2021-27 Smart Specialization, 2023-28 Fintech Strategy). The increasing share of ICT economic activity has not yet translated into a systematic increase in labor productivity growth in this sector, which could come at a later stage once the market selection of the most productive firms is fully completed. Over the past ten years, the share of GDP of other sectors has decreased, including that of trade, travel, accommodation and food, and that of real estate activities. By contrast, the shares of manufacturing and of construction have slightly increased, while that of financial and insurance activities has remained broadly stable.

Figure 2. The Increasing Role of ICT

C. Structural Impediments to Growth

6. Despite the recent strong performance, Lithuania faces multiple structural challenges to productivity and potential growth. Medium- to long-term challenges to underlying growth include aging, structural change induced by technological progress, remaining frictions in financial, labor and product markets (including shallow capital markets, skill mismatches, inefficient firm insolvency regulations) associated to persistent misallocation of resources, and the need to accelerate the green transition and defense spending pressures which might require to allocate increasing resources to less productive activities (IMF, 2024; Armendariz et al., 2025). Aging poses challenges not only to labor accumulation but also to productivity growth (IMF, 2025).

7. The contribution of key components of labor productivity growth remains lackluster. Capital deepening, a key driver of labor productivity growth, remains very low in Lithuania (Figure 3, LHS). At the same time, TFP growth, after displaying strong dynamics during the decade before the pandemic, has turned negative in more recent years (Figure 3, RHS).

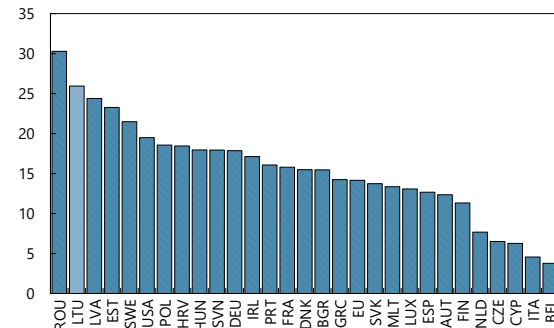
Figure 3. Key Drivers of Growth

8. Firms face persistent constraints in investment. In part, low capital intensity reflects insufficient investment by Lithuanian firms, linked to various factors including lack of access to credit reported by a large share of non-financial corporations (Figure 4). Moreover, total expenditure in Research and Development (R&D), broadly deemed essential to enhance innovation, remains relatively low in Lithuania. This is the case for both government spending in R&D and private business R&D expenditure, as few firms take advantage of the available tax incentives for business R&D (OECD, 2025). Firm productivity growth is constrained also by the limited availability of workers with sufficient digital skills, as only about half of Lithuanians have basic or above basic digital skills. In turn, this can explain the limited digital take-up by the business sector, as nearly 80% of firms have low or very low digital intensity in Lithuania, despite the available performing digital infrastructure.

Figure 4. Factors Constraining Firm Growth

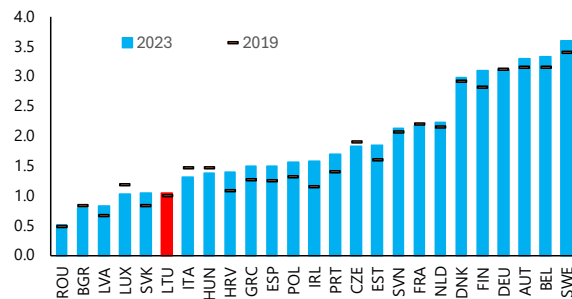
Firms Investing Too Little

(Percent)



Sources: EIB (2025) and IMF staff calculations

Gross expenditure on R&D (private and public) in the EU
(percent of GDP)

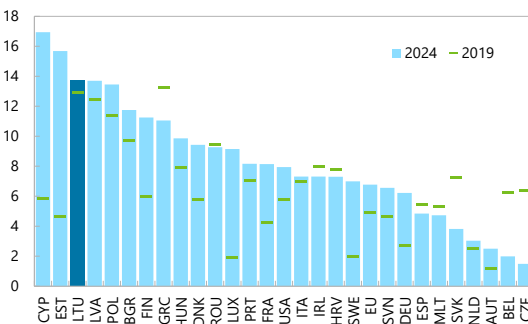


Sources: OECD (MSTI database).

Note: Total expenditure (current and capital) on R&D by all resident companies, research institutes, university, and government laboratories.

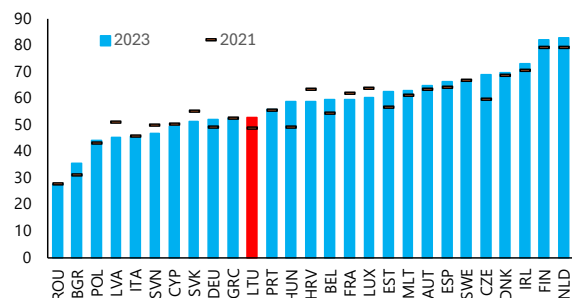
Share of Financially Constrained Firms, 2024

(Percent)



Sources: EIB Investment Survey; and European Investment Bank.

Individuals with basic or above basic digital skills in the EU
(percent)

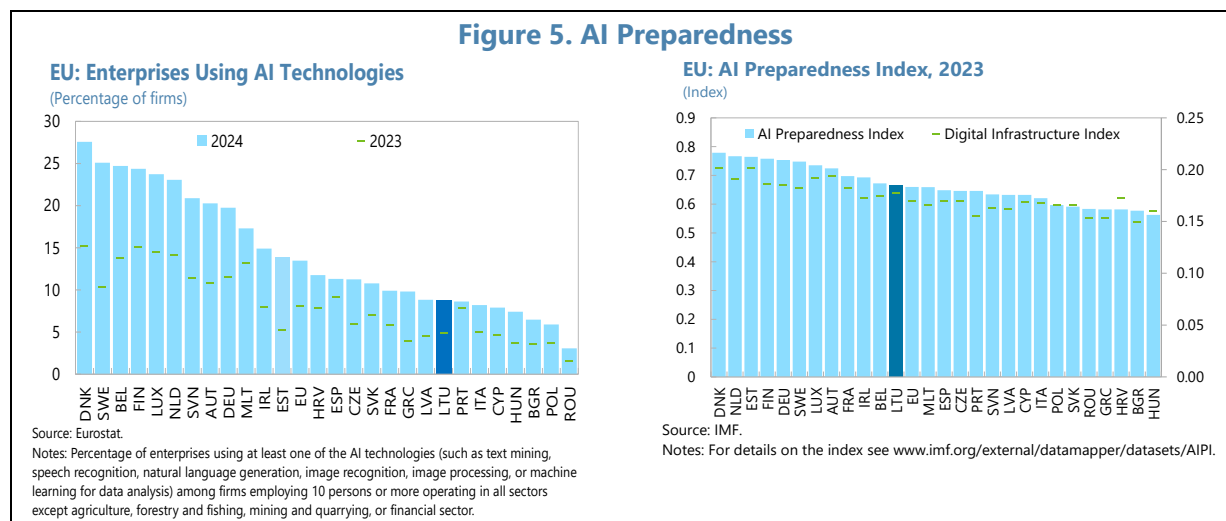


Sources: Eurostat (Database on Digital Economy and Society).

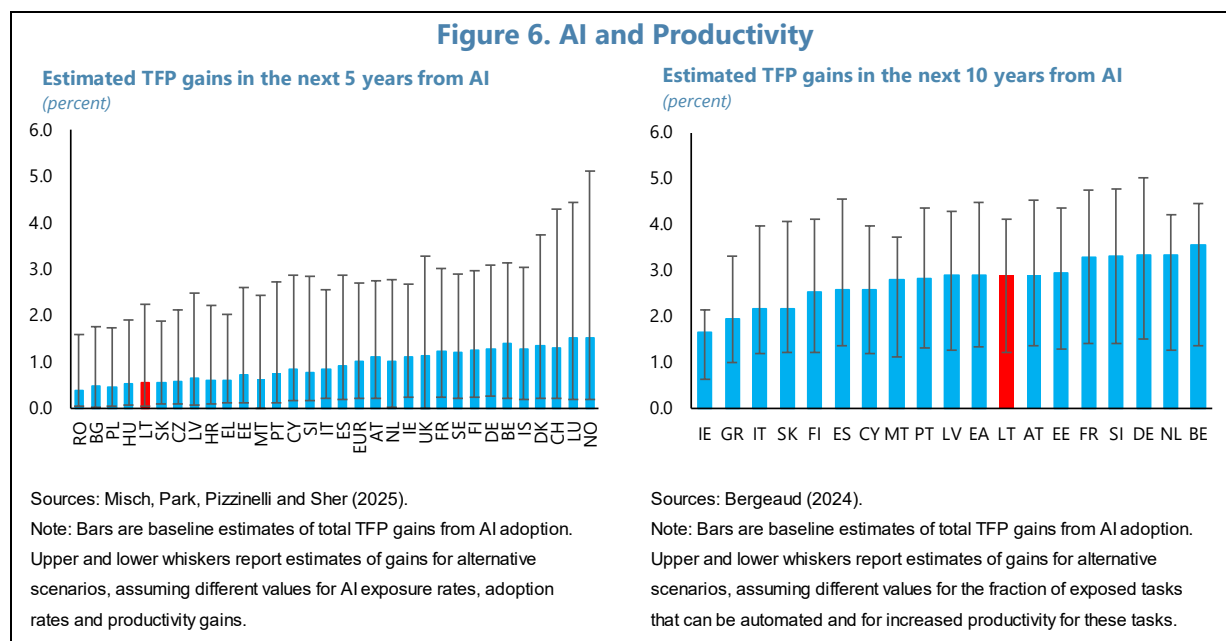
D. The Potential Benefits of AI

9. Looking ahead, further investment in digitalization and AI preparedness is necessary to ensure the Lithuanian economy can compete and grow. Lithuania has invested significantly in digitalizing its economy in recent years, has created one of the main Fintech Hubs of Europe, and has adopted a national AI strategy. However, a relatively limited number of firms have adopted one

or more AI technologies in their business process, also compared to EU averages (Figure 5, LHS). Moreover, progress in digitalization and in AI preparedness has not yet brought its digital infrastructure far from the EU average (Figure 5, RHS). To unlock substantial productivity gains, policies should aim to facilitate technological diffusion, job transition and AI adoption among firms, while introducing measures to mitigate associated risks in terms of possible job replacements and deepening inequality.



10. Enhancing AI preparedness has the potential to bring non-negligible productivity growth gains in the medium- to long-run. While estimates tend to be highly uncertain, variants of the simple framework proposed by Acemoglu (2024) suggest that AI adoption has the potential to enhance TFP growth in Lithuania by between 0.11 percentage points per year (Misch et al., 2025) and 0.29 percentage points per year (Bergeaud, 2024) according to baseline scenarios (Figure 6).



E. Unlocking Productivity Growth via Structural Reforms

11. Structural reforms are essential to support a lasting recovery in labor productivity growth and the expansion of activity in high-value-added sectors that can ensure a complete income convergence (Table 1). Structural reforms in the labor market and education are needed to reduce skill mismatches and improve labor quality in an environment where specialized training in new technologies is essential. Reforms in the financial sector allowing for deeper capital markets—ideally in the context of a Capital Markets Union at the EU level—will support medium to large firms to overcome difficulties in accessing credit. In parallel, a reform to allow for more frequent updates of the property register could lead to a more updated and credible value of collateral to be posted when applying for loans, especially important for SMEs, thereby enhancing their access to external finance. Finally, reforms aimed at accelerating to transition to a digitalized economy, AI preparedness, not least via increased R&D spending and innovation, can facilitate the diffusion of new technologies and expansion of high-tech activities needed to support productivity growth.

Table 1. Lithuania: Summary of Structural Reforms to Enhance Productivity Growth

Category	Reform	Details	Priority
Labor Market	Boost ALMPs to address skill mismatches	Strengthen ALMPs, including life-long learning and apprenticeships and reskill and retrain especially of older workers, and increase its funding. Strengthen collaboration with firms when designing activation programs, including training.	High
Education	Education reform to address skill mismatches	Adapt PES-provided training and university curriculum to market needs and strengthen collaboration with firms. Improve vocational training system, university courses targeting to address skills mismatch by producing those jobs the labor market needs.	High
Financial Market	Deepening of capital markets and facilitating access to financing for SMEs	Capital markets in Lithuania are not well developed, limiting investment and innovation, especially for SMEs. Lithuanian firms tend to remain small and would benefit from facilitated access to financing for innovation (including boosting venture capital to ease financial conditions) targeting young growing firms.	Medium to high
Innovation and R&D	Innovation, R&D, and digitalization	Consolidating research institutions, simplifying access to public R&I support and incentivizing business R&I investment.	Medium to high

Sources: IMF.

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