



Enhancing the Slovak National Productivity Board's set-up and analytical capacity





This report, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

This report was produced with the financial assistance of the European Union. The views expressed herein can in no way be taken to reflect the official opinion of the European Union or the OECD and its member countries.



Funded by
the European Union



CONTENTS

Acknowledgements	2
Introduction and overview	3
<hr/>	
1. Key findings and recommendations	5
<hr/>	
2. A framework to assess institutional set-up and analytical capacity of National Productivity Boards	10
2.1. Purpose of the Analytical Framework	10
2.2. Building blocks of the Analytical Framework	13
<hr/>	
3. Assessment of the set-up and capacity of the Slovak NPB	15
3.1. Institutional set-up	15
3.2. Responsibilities and functions	22
3.3. Stakeholder Engagement, Dissemination and Policy-Making	37
<hr/>	
References	43
<hr/>	
Figures	
<hr/>	
Figure 1. Building Blocks of the Analytical Framework	12
Figure 2. Members of the Slovak NPB	18
Figure 3. Relative Comparative Advantage by industry within EU27	26
Figure 4. Divergences in Productivity	28
Figure 5. Employment shares by education attainment and industry, 2019	29
Figure 6. Real labour productivity growth, in persons and hours worked 2020-19, by country	31
Figure 7. Covid-19 effect on key financial variables	32
Figure 8. Share of jobs that can be potentially performed from home	33
Figure 9. Number of patent applications under Patent Cooperation Treaty (PCT) per thousand R&D personnel	34
Figure 10. e-Government sub-dimension ranking of the Digital Economy and Society Index, 2020	35
<hr/>	
Boxes	
<hr/>	
Box 1 EU Council Recommendation on the establishment of National Productivity Boards	11
Box 2. Analytical and Methodological support provided on Theme 1: Macroeconomic developments and international competitiveness	26
Box 3. Analytical and Methodological support provided on Theme 2: Productivity of factors of production	28
Box 4. Analytical and Methodological support provided on Theme 3: Skills and Human Capital	29

ACKNOWLEDGEMENTS

This report presents the main findings and insights from the project “Slovak Republic: Evaluation of the Position and Performance of the National Productivity Board”, funded by the European Union via the Structural Reform Support Programme. The project was implemented by the OECD in co-operation with the Directorate-General for Structural Reform Support of the European Commission and in collaboration with the Slovak National Productivity Board.

The project is the result of the work of an OECD interdisciplinary team bringing together the OECD Economics Department (ECO) (Filippo Cavassini, Fatima Talidi, Francesca Papa and Michele Rimini) and the Directorate for Science, Technology and Innovation (STI) (Chiara Criscuolo, Peter Horvat and Colin Webb). Alvaro Pereira, Director, Isabell Koske, Deputy Director, Country Studies (ECO), Andy Wickoff, Director, Dirk Pilat, Deputy-Director (STI) provided support, guidance and inputs throughout the implementation of the project. Mathieu Miranda (ECO) provided administrative support, and Andrew Esson prepared the report for publication.

The project benefitted from inputs and insights from numerous participants in a series of Expert Working Sessions and Study Visits. Special thanks go to a high-level panel of international experts from national productivity institutions from Belgium, France, Ireland, Luxembourg and Portugal: Luc Denayer, President of the Belgian National Productivity Board, and Secretary of the Central Economic Council; Chantal Kegels, Vice-president of the Belgian National Productivity Board, member of the Belgian Federal Planning Bureau; Catherine Fuss, member of the Belgian National Productivity Board and Head of Econometric and Modelling division of the National Bank of Belgium; Siska Vandecandelaere, Attaché at the Central Economic Council and member of the Belgian National Productivity Board; Philippe Martin, President of the French National Productivity Board and of the Council for Economic Analysis; Vincent Aussilloux, General Rapporteur of the French National Productivity Board, and Head of the Economics and Finance Department at France Stratégie; Dimitris Mavridis, Rapporteur of the French National Productivity Board at France Stratégie; Anne Epaulard, Professor of Economics at Paris Dauphine University, member of the French National Productivity Board, and Research Fellow at France Stratégie; Frances Ruane, Chair of the National Competitiveness and Productivity Council of Ireland; Serge Allegrezza, President of the National Productivity Council in Luxembourg, and Director of the Observatory for Competitiveness at the Ministry of Economy; Rita Bessone Basto, Deputy Director of the Office of Strategy and Studies of the Portuguese Ministry of Economy, and member of the Portuguese National Productivity Board; and Ricardo Alves, Former Co-ordinator of the Portuguese National Productivity Board, and former Director of the Research Office at the Ministry of the Economy.

The preparation of the report was supported by the Slovak National Productivity Board, currently chaired by Veronika Rybanská, and previously by Marián Áč. The contributions of the members of the Secretariat of the Slovak National Productivity Board (Kristína Gardoňová; Martin Hulényi; Zuzana Zavorská) were instrumental to the project.

The OECD would also like to thank the voting and advisory Members of the Slovak NPB and all the Slovak institutions and stakeholders that participated in the Expert Working Sessions and Study Visits, including the Slovak Government Office; Ministry of Finance; Ministry of Economy; Ministry of Labour, Social Affairs and Family; Ministry of Education, Science, Research and Sport; Ministry of Interior; Ministry of Agriculture and Rural Development; National Bank; Statistical Office; and the Supreme Audit Office of the Slovak Republic; Slovak Academy of Sciences; Slovak Banking Association; the Slovak Confederation of Trade Unions; Slovak Federation of Employers' Association; the National Union of Employers; and the Slovak Chamber of Commerce. Last but not least, the OECD would also like to thank Vladimír Peciar, Macroeconomic department, Institute for Financial Policy at the Ministry of Finance of the Slovak Republic.



Introduction and overview

Enhancing the capacity to understand the drivers of productivity gains to inform public policy action is particularly important and timely for the Slovak Republic. The country is faced with rapid technological changes and the need to upgrade the skills of its workers to protect their longer-term employability and make the economy more resilient to external shocks.

Productivity growth in Slovakia has significantly slowed since the global financial crisis, even if it remains high by international standards. The slowdown partly reflects diminishing benefits from Slovakia's integration into global value chains and has been accompanied by a marked downturn in Foreign direct investments (FDI) inflows. However, it is also due to limited knowledge spill-overs from large, multinational enterprises, concentrated in the manufacturing sector, to smaller, domestic firms in the services sector (OECD, 2019[1]). The productivity gap compared to peers in services sectors remains large.

While the pandemic has already and may further accelerate the digital transformation and automation, and therefore contribute to boost productivity, this transformation can also have important consequences for the labour market in Slovakia due to its large share of low-skill routine jobs, which are at risk of automation. Boosting productivity is particularly important for sustaining living standards in Slovakia's rapidly ageing society, with one of the fastest future declines in working-age population in the OECD (OECD, 2022[2])

To help respond to some of these challenges, the Slovak Republic established its National Productivity Board (NPB) in September 2019. This body responds to the 2016 Recommendation of the Council of the European Union inviting all Member States of the euro area to set-up National Productivity Boards. These institutions are intended to monitor economic competitiveness within each EU country and produce relevant policy recommendations (Council of the EU, 2016[3]). The 2016 Council Recommendation envisaged productivity boards as objective, neutral and independent institutions with the function of analysing productivity and competitiveness challenges and contributing to evidence-based policy-making.

The Slovak National Productivity Board (NPB) is located at the Institute for Strategy and Analysis (ISA) of the Government Office of the Slovak Republic. ISA was appointed as the Secretariat of the Board, to prepare the annual report and develop analyses about competitiveness and innovation in cooperation with the NPB members, and to participate in the European network of NPBs. The Slovak NPB released its first Annual Productivity Report in March 2020 (ISA, 2020[4]), while the second Annual Productivity Report was released in August 2021 (ISA, 2021[6])¹.

In the framework of the project "Slovak Republic: Evaluation of the Position and Performance of the National Productivity Board", funded by the European Union through the Structural Reform Support Programme, the OECD has been supporting the Slovak NPB to align its work and activities with best international practices, in co-operation

Introduction and overview

with the Directorate-General for Structural Reform Support (DG REFORM) of the European Commission (EC). The goal of the project is to strengthen the Slovak NPB's institutional set-up and analytical capabilities to collect and analyse productivity data, as well as develop policy-oriented recommendations.

The report provides an overview of practical strategies to enhance the capacity of the Slovak NPB to analyse productivity trends and contribute to the development of pro-productivity policies. It draws on international practices and experience of other NPBs and pro-productivity institutions. It provides lessons tailored to the Slovak NPB that can provide guidance and insights also for other institutions working on productivity analysis in other EU and OECD countries.

Specifically, the report presents: a) an assessment of the institutional set-up and capacity of the Slovak NPB, which was informed by two Study Visits of the Belgian and French NPBs taking place in September 2021; b) an analysis of the focus, structure and process and content of the first annual productivity report of the Slovak NPB which was informed by the First Working Session of the Expert Group on OECD National Productivity Boards in September 2020; and c) guidance on OECD methodologies for analysing productivity trends and developing analytical work, as well as key analytical insights and messages of the data and indicators, to contribute to the preparations of the second annual productivity report of the Slovak NPB which was informed by the Second Working Session of the Expert Group on OECD National Productivity Boards in June 2021.

The first section of this report introduces the building blocks of the analytical framework used to assess the capabilities and effectiveness of the Slovak NPB, while the second section assesses the institutional set-up of the Slovak NPB and its capacity to deliver on sound productivity analyses that can inform policy-making.

-
1. The 2019 Report is accessible at: https://www.vlada.gov.sk/data/files/7814_report-on-productivity-and-competitiveness-of-the-slovak-republic-npb-isa-final2.pdf
The 2020 Report is accessible at: https://www.vlada.gov.sk/share/uvsr/isa/npr-sr/23082021_Report_on_Productivity_and_Competitiveness_2020_FINAL.pdf



1. Key findings and recommendations

MAIN FINDINGS	KEY RECOMMENDATIONS
Institutional Set-up	
<p>Legal Status and mandate: the Slovak NPB is a Government advisory body within the analytical unit at the Government Office. The mandate of the NPB is to monitor, analyse and assess the productivity and competitiveness of the Slovak Republic.</p> <p>Mandate and legal status are currently undergoing changes. It is envisaged that the NPB will be replaced by a new Council with a different institutional set-up that will work on a broad range of issues and areas and serve as an ex-ante evaluation body advising the government in the day-to-day preparation of policies and legislative proposals</p>	<ul style="list-style-type: none"> ● Strengthen the NPB’s mandate of providing independent expert advice on productivity trends and bottlenecks. The NPB should maintain and become even stronger in producing robust evidence, expert advice and strategic thinking, without being too implicated into daily policy making. ● Introduce safeguards to functional autonomy in the current or any new mandate, to ensure the NPB is the ultimate decision-maker on timeline, subjects and work agenda and can publish work without output validation from government.
<p>Composition and Functioning of the Board: the NPB does not currently have formal eligibility criteria for the selection of Board members. Board members are included ex officio based on their functions (e.g. heads of departments or divisions). There are no incompatibility criteria.</p> <p>Board engagement is limited and the Annual Reports are prepared primarily by the Board Secretariat.</p>	<ul style="list-style-type: none"> ● Introduce formal eligibility criteria based on expertise rather than functions. Ideally, members should include recognised experts in the field. They could also include international experts. ● Board members should be selected through a call for interest or a search of suitable candidates who meet the eligibility criteria. Their role and commitment should be clarified upfront to make sure that they are committed and are willing to devote time to the NPB. ● Ensure the composition of the productivity Board is unbiased and balanced in all respects, including gender. ● Incompatibility criteria could be introduced to avoid conflicts of interest. ● Assign concrete responsibilities to the Board for the preparation of the Annual Productivity Reports so that members can effectively contribute to the NPB’s work.
<p>Board Chairperson: Currently, the head of the Institute of Strategic Analysis, an analytical unit within the Government Office, serves as Chair of the Board. In the proposed new Council, the Chair would be the Minister of Economy.</p>	<ul style="list-style-type: none"> ● Select a Chair who is different from the head of the Board’s secretariat to avoid confusion in the respective roles. Ideally, the Chair should be a recognised expert in the field with the capacity and prestige to contribute to the public debate. ● If the plan to appoint a Minister as Chair of a new body is completed: <ul style="list-style-type: none"> ● Appoint a delegated Chair in addition to the Minister who is an expert in productivity and can independently lead the analytical work of the NPB. The delegated Chair should be different from the head of the Secretariat. ● Establish clear rules for the appointment of a delegated Chair such as qualifications, experience and nominations under the approval of the Prime Minister or Parliament. ● Safeguard the delegated Chair’s autonomy and independence in the choice of issues to be addressed, analyses to be performed and advice to be provided.

1. Key findings and recommendations

MAIN FINDINGS	KEY RECOMMENDATIONS
<p>Board Secretariat: The ISA serves as Board Secretariat and is currently overburdened. Engagement with the Board is limited.</p>	<ul style="list-style-type: none"> ● Ensure a congruous division of labour between Board members and the Secretariat to contribute to the NPB's effective functioning and foster Board engagement. Board members could be responsible for specific sections of annual reports and produce ad-hoc analyses to the benefit of annual reports. ● This division of labour should be well specified in the mandate but also monitored empirically to track whether tasks are fairly shared in practice and ensure a balanced workload for both parties. ● Organise regular meetings between the Secretariat and Board members to facilitate active engagement and promote ownership of the results. Meetings could be held on a quarterly basis and cover the whole process of preparation of annual reports from beginning to end.
<p>Resources: The NPB does not have a dedicated budget, staff salaries of the Secretariat constitute the NPB's budget.</p>	<ul style="list-style-type: none"> ● Ensure that adequate funding is provided on a continuous basis and grounded in the NPB's mandate. A stable flow of financial and in-kind resources is necessary for the NPB's regular functioning. Project-based funding could hamper the NPB's autonomy in deciding on work priorities and should be avoided. ● Ensure that the expertise of the Secretariat is well-matched with the outputs and activities the NPB needs to deliver. ● Engage in collaborations with partnering institutions such as the Statistical Office, the National Bank and the Council of Fiscal Responsibility on all aspects where in-kind contributions can ease the workload of the Secretariat (e.g. research, outreach and dissemination). ● The option of mobilising staff resources from all the administrations which are part of the NPB could also be grounded in the NPB's mandate. This would allow that all administrations represented at the Slovak NPB could become regular contributors to the NPB work. ● Engage with academia and research institutions to benefit from knowledge-sharing. Relying on a pool of consultants and/or academic experts can also be used to resort to additional expertise as needed.

MAIN FINDINGS

KEY RECOMMENDATIONS

Responsibilities and Functioning

Data collection: the NPB experiences challenges to access data from other national institutions. Obstacles related to data access and exchange persist despite frequent interactions with other public bodies. The current mandate only recommends that the NPB be given access to data, with no mandatory requirement for other institutions to provide data. The NPB also lacks expertise in data science, analysis and modelling.

Analysis and modelling for producing annual reports: The First annual report provided a good overview of the major trends affecting productivity in the Slovak Republic, without elaborating on specific sectoral or geographic barriers to productivity in line with reports from other NPBs.

Obstacles related to data access have prevented the NPB has from developing models and micro-data routines for micro-level analysis.

The Second annual report benefitted from the OECD methodological guidance for data analysis and modelling which included a set of indicators that can be monitored over-time as well as future avenues of research.

- **Mandate permanent access to micro-data** at the firm and individual level by grounding data access in legislation and as a requirement in the NPB mandate.
- **Partner and network with institutions that produce data, especially those represented at the Board**, to address different data needs of different analyses (e.g. macroeconomic and firm-level analyses).
- **Continue extracting data from International institutions** to benchmark the Slovak Republic with other countries.
- **Build partnerships with business associations** to collect sectorial data.
- **Acquire some qualified additional resources** to develop expertise for analysis and modelling.
- **Leverage the expertise of partnering institutions** for data science and analysis as well as on their already existing economic models to compensate for the lack shortage of in-house capabilities...
- **Expand the analysis on Slovakia's international competitiveness** by looking at the composition of Current Accounts and at Slovakia's participation in regional and global value chains, including through data from the updated OECD TiVA and relating databases. Indicators that could be used in this area include: a) backward and forward linkages to assess Slovakia's position in GVCs; b) trade in employment data to reveal the sensitivity of employment to potential external shocks at the industry level; c) data on CO2 emissions embodied in international trade to assess Slovak industries' readiness for the green transition.
- **Ensuring access to existing firm level data within Slovakia** will allow to better analyse the heterogeneity of Slovak firms in terms of productivity performance and the efficiency of the resource reallocation process within and across sectors in Slovakia.
- **Having access to firm level data would also allow to participate in cross-country distributed micro data projects to analyse productivity trends.** The OECD Multiprod and Dynemp projects can shed light on several aspects concerning productivity and business dynamism. The NPB could participate in these projects and extend the analysis to specific issues of interest for Slovakia to inform NPB annual reports and productivity policy making in the country.
- **Make use of data from international skills assessment surveys (e.g. OECD PIAAC) to analyse human capital and productivity.** With the lowest participation in lifelong learning among EU member countries and a poorly performing education system, Slovakia's labour force may face significant challenges in the future. For the diagnosis of current challenges in labour productivity, the NPB could also consider using measures of managerial quality using proxies such as managers' skills.

1. Key findings and recommendations

MAIN FINDINGS

Expertise in policy research, analysis and recommendations: the NPB Secretariat does not produce any sectorial analysis and relies on partnering institutions to develop policy recommendations.

KEY RECOMMENDATIONS

- **Conduct further analysis on the drivers of low investment in the economy and its effects on productivity growth.** Potential areas for further analysis relate to the effect of the composition of public expenditures on productivity and the causes of decreasing investment intensity. Further analysis could be conducted on other types of intangible assets (e.g.: organisational capital, design, distribution networks) which are not readily available in National Accounts data.
- **Consider using indirect proxies to assess institutional quality and its effect on productivity.** These can include trust in public institutions, perception of corruption and the effectiveness of the judiciary system or measures of regulatory quality.
- **Exercise caution when analysing data for 2020 and make use of labour productivity indicators based on hours worked.** The pandemic has created challenges for the National Statistical Offices to collect and analyse data, potentially leading to breaks in officially published data series. Labour productivity measured in hours worked better accounts for the evolution of labour productivity during the Covid-19 crisis.
- **Make use of available data to develop models to provide analysis on emerging topics.** Through firm-level data and the use of specific accounting methodologies as well as econometric estimation and simulation techniques it is possible to analyse the impact of Covid-19 and similar shocks on key financial indicators and identify the proportion of distressed firm in the economy to better tailor government support to otherwise viable firms.
- **Leverage the wealth of indicators available to analyse Research and Innovation activities,** by extracting data on patents, scientific publications, e-government and venture capital from various sources, including the OECD, to better understand the underlying drivers of low performance in research and innovation.
- **Leverage the expertise of other government advisory bodies** and deliver joint assessments on specific policy areas that bear an influence on productivity.
- **Ensure that the process of producing policy recommendations starts with the Secretariat** to ensure their coherence with the analyses of the annual reports.
- **Strengthen the Secretariat's capacity in developing policy recommendations** including by engaging in policy evaluation, while clearly distinguishing this role from the NPB function).
- **Expand the array of outputs informing policy making beyond annual reports** to cover different stages of the policy cycle (for example through short notes on key topics).

MAIN FINDINGS	KEY RECOMMENDATIONS
Stakeholder Engagement, Dissemination and Policy-making	
<p>Stakeholder engagement: While the NPB includes a wide range of actors including social partners, it does not have a formal consultation process and could strengthen its stakeholder engagement strategy. Social partners participate in the NPB as non-voting members.</p>	<ul style="list-style-type: none"> ● Enhance the participation of members with non-voting power by stimulating their active engagement during Board discussions. ● Develop an open and formal consultation process with trade unions and social partners enabling them to comment on the report. ● Consult with relevant stakeholders on a regular basis for example through thematic workshops. ● Make the engagement process and materials available to the public in a timely manner. ● Engage with international stakeholders by making use of the numerous opportunities to exchange knowledge and experiences with peers, including through the European Commission’s network of NPB and the OECD Global Forum on Productivity.
<p>Dissemination: the NPB conducts limited outreach activities. The 2020 Annual Report was presented in a workshop with government officials. The 2021 Annual Report was simply posted on the website of the Institute for Strategic Analysis.</p> <p>The impact of outreach activities is not monitored.</p>	<ul style="list-style-type: none"> ● Organise a range of outreach activities, including open dialogues with academia and dissemination events with the Parliament. ● Set-up a comprehensive communication strategy to engage with media and establish contacts with national specialised and generalist press, including by strengthening the NPB online presence. This role should be developed by the Secretariat, which could then facilitate exchanges with individual board members. ● Ensure that communication around research and policy recommendations is of non-technical nature to enhance real-world applicability and reach a wider audience; ● Harness synergies with other institutions to expand the array of dissemination activities. ● Start monitoring the impact of outreach and dissemination activities, for instance by tracking references to the annual report in the media.
<p>Policy-making: Policy recommendations are general and have received limited attention in the public debate.</p> <p>The government is not mandated to respond to recommendations and has shown limited responsiveness thus far.</p>	<ul style="list-style-type: none"> ● Establish regular communication channels with government and Parliament including through presentations to relevant parliament committees. ● Conduct ex-post policy evaluation for selected pro-productivity policies to familiarise with policy measures and refine recommendations for better impact on policy-making. ● Nurture relationships with the media as well as government at the technical and political level to contribute to policy-making. ● Provide some targeted advice on short-term issues to raise the impact and visibility of the NPB while also analysing long-term challenges to improve the NPB influence and credibility.



2. A framework to assess institutional set-up and analytical capacity of National Productivity Boards

2.1. PURPOSE OF THE ANALYTICAL FRAMEWORK

The starting point of the analytical framework that is used to assess the legal and institutional set-up as well as the analytical capacity of the Slovak NPB is the Council of the European Union's Recommendation on the establishment of National Productivity Boards (NPBs), which sets the boundaries, characteristics and missions of pro-productivity and competitiveness institutions in the European Union (Council of the EU, 2016[3]).

The Recommendation identifies a twofold function of productivity boards. First, NPBs have the goal of diagnosing and analysing productivity and competitiveness trends within each country, conducting high-quality economic and statistical analyses and discussing long-term drivers and enablers of productivity and competitiveness, such as innovation as well as the capacity to attract investment, businesses and human capital.

Second, NPBs are also intended to provide governments with independent analysis of related policy challenges; evaluating the impact of different policy options, and explicitly assessing potential policy trade-offs. As such, the establishment of NPBs is meant to contribute to the enhancement of ownership and implementation of the productivity policies at national level, with the long-term goal of sustained economic growth and convergence.

In terms of institutional set-up, the Recommendation envisages NPBs as objective, neutral bodies, fully independent with regard to their analysis and content. Most importantly, NPBs should be functionally autonomous with respect to all national authorities in charge of designing and implementing reforms for productivity and competitiveness. Their autonomy is fundamental to produce independent high-quality economic analysis of policy challenges and ensure transparency in policy debates. As a result, the composition of productivity boards should be unbiased, to prevent overrepresentation of a particular group of stakeholders and ensure that productivity boards are well equipped to generate expert assessments in the general interest.

To ensure a high degree of functional autonomy, accountability and impact of their work, NPBs should publish an annual report and make their analyses publicly available. To this end, it is essential for NPBs to be grounded on national provisions that guarantee full transparency, including (Council of the EU, 2016[3]):

1. *“the capacity to communicate publicly in a timely manner;*
2. *procedures for nominating members on the basis of their experience and competence;*
3. *appropriate access to information to carry out their mandate.”*

Where appropriate, productivity boards can be based on already established and respected national bodies, without prejudice to the overall independence of the board. Relying on previously established bodies can enable preserving existing structures and human capital as well as reduce administrative spending.

Importantly, the Recommendation promotes the interaction among productivity boards of different Member States, with the goal of sharing experiences and best practices, and, where appropriate, producing joint analysis that would be of relevance for the broader Euro area (see Box 1).

BOX 1: EU COUNCIL RECOMMENDATION ON THE ESTABLISHMENT OF NATIONAL PRODUCTIVITY BOARDS

I. OBJECTIVES AND SCOPE

1. The objective of this Recommendation is the identification or setting up of national productivity boards to analyse developments and policies in the field of productivity and competitiveness, thereby contributing to foster ownership and implementation of the necessary reforms at the national level, and hence foster sustained economic growth and convergence.
2. This Recommendation is addressed to the euro area Member States. The non-euro area Member States are also encouraged to identify or set-up similar bodies.
3. The application of this Recommendation should fully observe Article 152 TFEU and should respect national practices and institutions for wage formation. This Recommendation takes into account Article 28 of the Charter of Fundamental Rights of the European Union, and accordingly does not affect the right to negotiate, conclude or enforce collective agreements or to take collective action in accordance with national laws and practices.

II. THE PRODUCTIVITY BOARDS

4. Each Member State should have in place a productivity board tasked with:
 - (a) Diagnosis and analysis of productivity and competitiveness developments in the Member State concerned. The analysis should take into account euro area and Union aspects and address the long-term drivers and enablers of productivity and competitiveness, including innovation, and the capacity to attract investment, businesses and human capital, and to address cost and non-cost factors that can affect prices and quality content of goods and services including relative to global competitors in the short term. Analysis should be based on transparent and comparable indicators; and
 - (b) Independent analysis of policy challenges in the field of productivity and competitiveness, and, if and to the extent foreseen in their national mandate, assessment of the effects of policy options, making trade-offs of policy explicit.
5. Each Member State should identify one productivity board, which could in turn rely on, or consist of, different existing bodies.
6. Productivity boards should carry out their activities on a continuous basis. They should make their analyses publicly available and publish an annual report. They should be engaged in contacts with productivity boards of non-euro area Member States with the aim of exchanging views and best practices, and where appropriate produce joint analysis, also taking into account the broader euro area and Union dimension. The Commission will on a regular basis exchange views with all participating productivity boards, including during fact-finding missions to Member States, and could facilitate the exchange of views between the productivity boards.

III. CHARACTERISTICS OF THE PRODUCTIVITY BOARDS

7. Productivity boards should have functional autonomy vis-à-vis any public authority in charge of the design and implementation of policies in the field of productivity and competitiveness in the Member State or at European level. To fulfil the tasks of this Recommendation they should be underpinned by national provisions ensuring a high degree of functional autonomy and accountability, including:
 - (a) the capacity to communicate publicly in a timely manner;
 - (b) procedures for nominating members on the basis of their experience and competence;
 - (c) appropriate access to information to carry out their mandate.
8. Productivity boards should be objective, neutral and fully independent regarding analysis and content. They may consult relevant stakeholders, but should not convey only or mainly the opinions and the interests of a particular group of stakeholders.
9. Productivity boards should have the ability to carry out economic and statistical analyses with a high degree of quality, including as recognised by the academic community. The analysis could be produced by existing and separate bodies provided that it is of the same high quality.

IV. RELATIONSHIP WITH THE EUROPEAN SEMESTER

10. The independent expertise provided by those boards, including through the annual reports, could be used by Member States and the Commission in the context of the European Semester and the Macroeconomic Imbalance Procedure. This Recommendation does not alter the assigned responsibilities for the European Semester, including designing and monitoring of the Country Specific Recommendations, or the application of the Macroeconomic Imbalances Procedure as established in Regulation (EU) No 1176/2011.

V. ACCOUNTABILITY AND TRANSPARENCY

11. As a rule, the analyses produced by those boards should be made public.

VI. FINAL PROVISIONS

12. The Member States of the euro area are invited to implement the principles set out in this Recommendation by 20 March 2018.

By 20 March 2019, the Commission is invited to prepare a progress report, on the basis of relevant information from all Member States on the implementation and the suitability of this Recommendation, including whether the adoption of further provisions appears necessary. If warranted, the report shall be accompanied by a proposal to adapt this Recommendation.

2. A framework to assess institutional set-up and analytical capacity of NPBs

The analytical framework used for the assessment of the Slovak NPB incorporates the elements that have been previously used to assess pro-productivity institutions, including analyses of key characteristics of pro-productivity institutions across OECD member economies (Renda and Dougherty, 2017[7]) and builds on a taxonomy of existing institutions and what makes them effective (Banks, 2015[8]). It refines the analysis to help identify practical advice on how to translate practices and approaches into policy action. The analytical framework considers functional autonomy, which directly emanates from the EU Council Recommendation, as part of a broader package of institutional design features of a pro-productivity institution. It develops further the analysis of the skills and capacity that pro-productivity institutions need to generate sound and policy-relevant information. It also expands on the notion of enriching the domestic policy debate through easy-to-understand analysis and outreach activities.

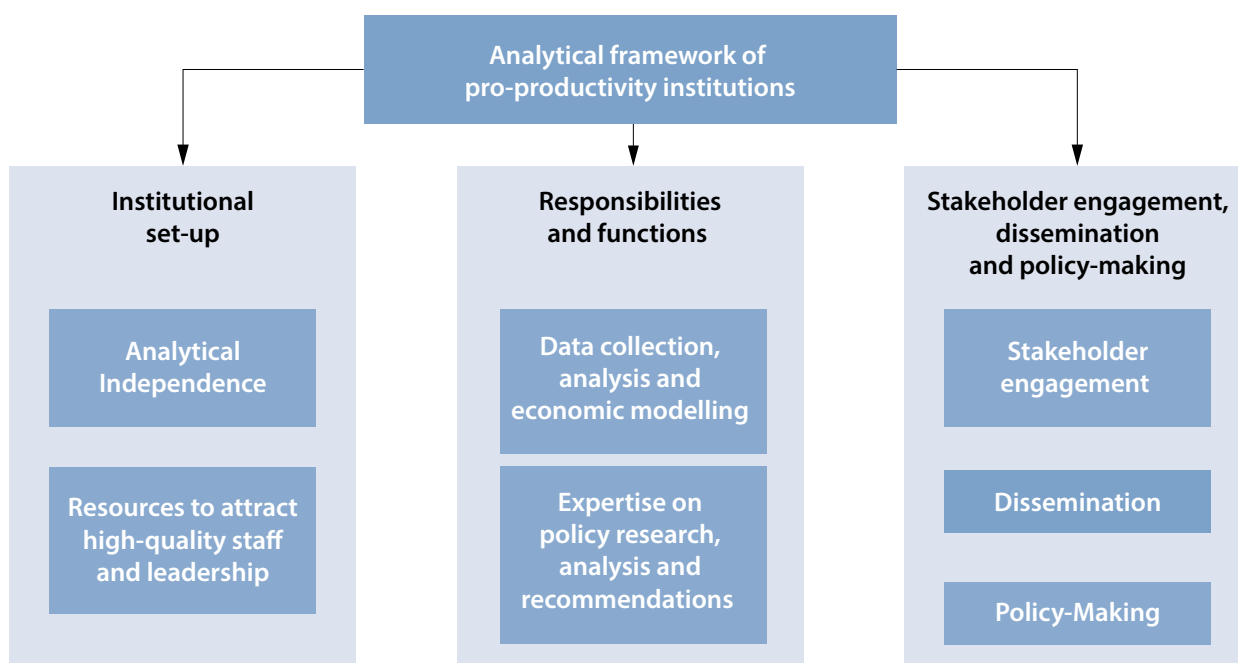
The following section provides more detail on the elements of the OECD analytical framework and the reasoning behind their inclusion. The analytical framework evolves around three categories of essential elements for the set-up of pro-productivity institutions which can be used to assess their functioning and possible areas of improvement. The three categories are:

- i) institutional design,
- ii) responsibilities and functions, and
- iii) engagement (Figure 1).

The analytical framework aims to capture the internal capacity of NPBs. The overall effectiveness of NPBs also hinges on national governments' commitment to supporting such institutions, as well as governments' capacity to review and implement the policy recommendations generated by the institution. These factors are somewhat external preconditions which can only be marginally affected by the internal capacity of a pro-productivity institution to develop policy analysis. Nevertheless, institutional design should take into consideration these contextual elements to ensure that NPBs can effectively contribute to the domestic policy debate.

Finally, from a comparative perspective, existing political and institutional arrangements, different root causes affecting the slowdown in productivity in each country and varying overall political objectives should also be accounted to draw conclusions on how to improve NPBs' effectiveness.

Figure 1. Building Blocks of the Analytical Framework



Source: OECD elaborations.

2.2. BUILDING BLOCKS OF THE ANALYTICAL FRAMEWORK

2.2.1. Institutional set-up

Pro-productivity institutions have been primarily entrusted with providing a coordinated approach to issues surrounding productivity, through acting as a single source for incorporating inputs and evidence from across government bodies and industry sectors into policy recommendations (Renda and Dougherty, 2017[7]). The analysis of NPB institutional features constitutes the first step into assessing the set-up and capacity of pro-productivity institutions, as these influence the ability of institutions to effectively communicate their policy recommendations, and allow these to be incorporated into policy-making. Design features include the institution's ability to provide independent analysis and the governance frameworks that can be used to guarantee independence and autonomy. Moreover, defining available resources is also an important element of institutional design, together with ensuring that the institution remains plugged into the policy cycle through appropriate accountability and reporting mechanisms.

Analytical independence

Analytical independence is key to ensure that institutions provide objective analysis, which is not influenced by government bodies and changes in political cycles, and to allow evidence-based policy recommendations to be put forward. Analytical independence can help promoting productivity reforms that require long-term commitment beyond the political cycle. A pro-productivity institution's ability to conduct independent research on topics selected at its own initiative indicates a level of analytical independence. The ability to conduct independent research and provide policy recommendations is underpinned by the institution's mandate and legal status, the eligibility criteria of Board members and management, the composition of the Board as well as the relationships between the institution and other government bodies.

Stable financial resources to attract high-quality staff and leadership

A flow of stable and sufficient resources and clearly defined budgets are important enablers of NPBs' engagement in the collection and/or production of data through inquiries and research, and to perform analysis and modelling that can contribute to the policy debate. One aspect to consider is whether budgets are allocated annually or on a multi-year basis, which helps to shield the institution from undue influence. Budget and human resources should also be sufficient to attract top quality resources and to allow for peer review and quality control of research methodologies and results. With tight budgetary constraints, pro-productivity institutions can also draw on a pool of academic experts to alleviate workload and provide additional expertise when needed without hiring additional resources.

2.2.2. Responsibility and functions

The functioning of pro-productivity institutions is the result of the assignment of clear responsibilities and functions. Responsibilities and functions determine the quality and variety of outputs of pro-productivity institutions and the extent to which they are able to deliver on their mandate. Some institutions may compile existing research, while some may be more active in the production of new findings. Data collection, analysis and economic modelling, together with expertise on policy research, analysis and recommendations and the ability to disseminate the results of specific studies are all important function for an institution effectiveness. Expertise in these fields is instrumental for the preparation of Annual Productivity Reports, the flagship output of National Productivity Boards.

Data collection and analysis

Data collection, analysis and economic modelling are of paramount importance to the activities of pro-productivity institutions. The majority of institutions do not produce their own data, and rely on the remit of national banks, national statistics offices and other public bodies to supply data, including international sources. Data access and exchange with government are essential to conduct high-quality data analysis and become the go-to source for national productivity trends over time. Data analysis, including the development of modelling scenarios, allows to forecast productivity trends and to provide ex-ante analysis of potential policy recommendations.

2. A framework to assess institutional set-up and analytical capacity of NPBs

Expertise on policy research, analysis and recommendations

The capacity to conduct high-quality analysis and the ability to develop appropriate recommendations, which are founded upon an understanding of the inner workings of government, are fundamental concerns for pro-productivity institutions. At the design stage, it is important to consider the need for a balance of expertise, to ensure that the functions of the institution can be delivered, with input from a variety of experts. A pro-productivity institution can seek the collaboration of experts in the field of innovation, public administration or education for example to access the expertise for the different policy areas touched by productivity-enhancing reforms.

2.2.3. Stakeholder Engagement, Dissemination and Policy-Making

Engagement with stakeholders and dissemination are also important activities that pro-productivity institutions should perform to increase their effectiveness. Dissemination helps raising awareness on the work of NPBs and contributes to increase the chances of influencing policymaking.

Stakeholder engagement

Ongoing dialogue with government, academia, industry and international organisations ensures that pro-productivity institutions are attuned with the experiences of these institutions, gathering access to data and stakeholder views, and facilitating lessons learned. These activities shape the level and breadth of expertise which pro-productivity institutions can draw upon, and facilitate information gathering and knowledge sharing.

- **Engagement with academia, trade unions, business organisations**

Pro-productivity institutions can nurture long-term relationships with industry and business associations to be able to rely on them as vehicles to gain access to specific members, depending on the sector of interest. In addition, establishing a continuous line of communication with academic experts and research institutions allows pro-productivity institutions to draw upon their expertise on institutional, policy and economic theory and to keep abreast of new findings in these areas.

- **Engagement with international bodies and counterparts**

International bodies can facilitate the exchange of good practices and lessons learned and can work with pro-productivity institutions in an advisory capacity. International exchanges among institutions from different countries can also be beneficial. For example, participation in international platforms for mutual learning such as the OECD Global Forum on Productivity, are an opportunity to discuss the latest analyses and best practices for responding to the productivity slowdown and engage in knowledge-sharing on institutional set-up and policy analysis with international counterparts and other actors interested in productivity reform.

Dissemination

Dissemination activities aim to enhance the impact of publications on public opinion, while also ensuring that pro-productivity institutions are held accountable for their work to the public and that the government has the opportunity to respond to recommendations emanating from specific studies, inquiries and reports. When effective in mobilising public opinion, dissemination and media outreach activities can boost the impact of policy recommendations and help the NPB gaining influence on policy-making.

Policy-making

It is essential that pro-productivity institutions remain accountable for fulfilling their mandated tasks, to ensure that the wider public can benefit from the activities of the institution, through the opportunity to engage in public inquiries, and through benefiting from the implementation of policy recommendations. At the government level, reporting on a regular basis helps to facilitate a relationship of trust as well as feedback loops whereby policy recommendations are informed by insights from policy makers. As argued by Banks (2015[8]), pro-productivity institutions can be more effective when they are “plugged in” to policy-making processes bearing on productivity or in a position to influence decision making in the area. Accountability to the wider public can also help overcoming the resistance of opposing vested interests, as it can build a broader awareness and societal consensus on the need to reform.



3. Analysis of the set-up and capacity of the Slovak NPB

The analytical framework introduced in the previous section of this report has been used to examine the overall institutional set-up and capabilities of the Slovak National Productivity Board. By applying a similar framework for analysing pro-productivity institutions, the experience of the Slovak NPB can be compared to that of other existing National Productivity Boards.

The information presented in the following sections draws on an analysis of the current mandate and set-up of the Slovak NPB as well as information collected through two Working Sessions and two Study Visits organised with the Slovak NPB and experts from the OECD and other National Productivity Boards in the context of this project. The section also reflects information collected through an ad-hoc questionnaire which was distributed to the Institute of Strategic Analysis (ISA) in July 2021, as well as to the Belgian and French NPBs in preparation of the respective Study Visits in September 2021.

3.1. INSTITUTIONAL SET-UP

The first step to analyse the capacity of the Slovak NPB to deliver on its mandate consists in examining its institutional set-up, i.e. the framework that identifies who participates in an institution and how collective decisions within that institution are taken. In turn, institutional set-up influences the remit and scope of an institution's work, the resources available to it, and the responsiveness of Government to an institution's recommendations. As described above, within the analytical framework, institutional design includes the following elements: analytical independence, available resources as well as the accountability framework.

Analytical Independence

The analytical independence of a pro-productivity institution is underpinned by its mandate, legal status and relationships with other government bodies.

Legal status and mandate

The Slovak NPB, officially known as the National Council for Productivity, was formally established on 1 September 2019 by a Government decree. The Statute defines the Slovak NPB as a "Government advisory body within the analytical unit at the Government office of the Slovak Republic".

According to the Statute, "The conclusions drawn by the NPB are subsequently discussed in the presence of relevant public and private sector institutions and social partners".

In August 2020, the Slovak government initiated draft legislation that would further transform Slovakia's NPB into a public sector body in charge of the government's better regulation agenda and of carrying out the duties of the current

3. Analysis of the set-up and capacity of the Slovak NPB

Board (European Commission, 2021[9]). The Council of the Government of the Slovak Republic for Competitiveness and Productivity, which is to replace the current NPB, is currently under interdepartmental comment procedure and has not yet been established. Following the amendment to the Competence Law 2020 on July 1st, 2020, the Minister of Economy of the Slovak Republic is the Chair of the would-be new institution.

The new Council would work on a broad range of issues and areas and morph into an ex-ante evaluation body serving the government in the day-to-day preparation of policies and legislative proposals. Its functions would be to a) ensure the evaluation of legislative materials and non-legislative materials submitted to the government for their impact on the competitiveness and productivity of business entities; b) be responsible for better regulation policy, the Regulatory Impact Assessment 2020 agenda and oversee the reduction of administrative burdens; and c) submit proposals to the government for simplification of business regulation.

Relevant experiences from other countries

When looking at different NPBs' mandates, the NPB roles and tasks appear relatively homogeneous across EU countries. These present a shared commitment to analysing the evolution of domestic trends of productivity and competitiveness and guiding national policies, including through the assessment of the impact and implementation of the recommendations of the European institutions in this respect. In some countries, these competences are also delimited by setting sectorial limits to NPB roles and tasks and specifying topics that lie beyond of NPB competences. For example, in Belgium, the 2018 federal law establishing the Belgian NPB explicitly excludes the analysis of wage setting mechanisms from the NPB competences, which is within the responsibilities of the social partners.

However, across countries, a variety of NPB governance set-ups exists to carry out these functions, reflecting each country's specific circumstances and institutional context. In some countries, the Board receives technical and/or secretarial support from a government department (Finland, Ireland, Hungary and Cyprus), a public institution other than a government department (Luxembourg, Romania), or from a group of experts appointed for that task (Belgium and Denmark). For example, in France, the NPB is hosted within France Stratégie, an independent public think tank affiliated with the Prime Minister's Office. In other countries, the role of Productivity Board is entrusted to a body such as a research institute (the Netherlands and Slovenia) or a ministerial department, led by a director or chair working full time and equipped with its own staff (European Commission, 2019[10])

In some cases, these bodies are created as ad-hoc taskforces set-up by the central government to conduct inquiries, obtain information and provide advice on certain policy issues. For example, the Danish and Norwegian Productivity Commissions provide examples of institutions set-up with a time-bound mandate, to provide an overview of the state-of-play of productivity in their respective countries.

Different governance set-ups present different trade-offs as they display varying degrees of engagement with the central government. A clear advantage associated with a higher level of independence (e.g. as is the case for Luxembourg, France, Belgium), is that a body can depart from the short-term needs of government, and concentrate on broader, transformative, long-term issues that are often difficult for government bodies to factor into their thinking, while also being less exposed to pressure from vested interests. However, institutions with a closer relationship to government (e.g. Portugal) have a greater opportunity to contribute more significantly to the policy process, encouraging evidence-based policy-making internally (Renda and Dougherty, 2017[7]).

Overall, across all governance set-ups, what is of utmost importance is analytical independence to provide good recommendations (i.e. independence in technical terms), as well as the government's willingness to recognise the value of NPB work and translate it into policy. As evidenced by international experiences, analytical independence can be guaranteed in any set-up through a number of safeguards. For example, in some countries, including the current Slovak NPB, functional autonomy is legally guaranteed and the EU Council Recommendation recommending the creation of Productivity Boards explicitly mandates functional autonomy (Council of the EU, 2016[3]). A common feature that also appears to be fundamental for effective NPB activities is freedom to decide on the content and scope of the work and the possibility to act autonomously (Renda and Dougherty, 2017[7]). For example, in countries such as

Belgium, France, Luxembourg and Portugal, the Board is the ultimate decision-maker on timeline, subjects and work agenda of the NPB.

Learnings from countries' experiences

While, at the time of writing, work on the draft legislation for the new Slovak Council of the Government of the Slovak Republic for Competitiveness and Productivity is still ongoing, the 2021 EC follow-up report on the progress on the establishment of NPBs raises some compatibility concerns of the planned reform (European Commission, 2021[9]). The current proposal would not be in line with the September 2016 Recommendation, concerning in particular the functional autonomy and the mandate of the planned new body.

In light of the proposed institutional changes, the experiences presented above illustrate a few lessons of relevance for the Slovak NPB with regard to analytical independence:

- **Strengthen the NPB's role in providing independent expert advice on productivity trends and bottlenecks.** The NPB should maintain and become even stronger in producing robust evidence, expert advice and strategic thinking, without being too implicated into daily policy making.
- **Introduce safeguards to functional autonomy in the new mandate**, such as, with regard to legal status and mandate:
 - Mandate the Board to be the ultimate **decision-maker on timeline, subjects and work agenda of the NPB**. It is important that both the agenda and the outcome of the technical work are not supervised by government.
 - Include provision to warrant the NPB the ability to publish results **without need to ask for output validation** from government (this safeguard is for example in place in Belgium, and France).
- **Ensure continuity of key NPB functions during the institutional transition.** Changes in the institutional status of an NPB are not unprecedented and have taken place in some countries. However, when these changes occur, it is essential to prevent them from disrupting NPB activities and notably the preparation of the annual report, for example by preparing a transition plan for a smooth handover of responsibilities and adequate on boarding and training of any new staff.

Composition and Functioning of the Board

Institutionally, the NPB of the Slovak Republic is composed of representatives of analytical units of selected ministries, together with experts of a variety of economic fields. It is composed by eleven members with voting rights and six members whose vote is of advisory nature.

Members with voting rights represent a wide arrange of government ministries and include representatives of the National Statistical Office and the National Central Bank (see Figure 2 for the full list of members). For what concerns their rights and responsibilities, members with voting rights can:

- Partake in the assembly of the National Council;
- approve the Report;
- approve the agenda of the assembly of the National Council;
- put forward their proposals for supplementation of the agenda of the assembly of the National Council;
- comment on the material presented at the assembly of the National Council;
- put forward their proposals, information, recommendations, opinion and any other material related to the discussed agenda based on their own initiative and the decision of the National Council;
- propose resolutions from the assembly of the National Council;
- call upon, i.e. request a meeting of the assembly of the National Council.

3. Analysis of the set-up and capacity of the Slovak NPB

Figure 2. Members of the Slovak National Productivity Board

With a voting right (representatives of):	With advisory role (representatives of):
<ul style="list-style-type: none"> ● Institute for Strategy and Analysis ● Institute of Financial Policy ● Institute Social Policy ● Institute of Educational Policy ● Center for Economic Issues ● Office of the Deputy Prime Minister for Investments and Informatisation ● Slovak Academy of Sciences ● National Bank of Slovakia ● Council for Budget Responsibility ● Slovak Banking Association ● Statistical Office of the Slovak Republic 	<ul style="list-style-type: none"> ● Confederation of Trade Unions of the Slovak Republic ● Federation of Employers' Association of the Slovak Republic ● National Union of Employers ● Slovak Chamber of Commerce ● Supreme Audit Office of the Slovak Republic ● Club 500 (non-profit business association)

Source: (ISA, 2020⁵⁹)

Members whose vote is of advisory nature hold a similar role of that of members with voting rights, with the exception of not being able to vote on the approval of the Annual Report and the agenda, propose resolutions and call upon the assembly of the National Council. Depending on the nature of the topics discussed, the chair may also invite additional individuals to join the assembly of the NPB and serve as advisors without voting right.

In terms of eligibility criteria as well as nomination and appointment procedures, Board members, irrespective of their voting powers, are nominated by the institution they represent, based on their field of expertise and knowledge of productivity issues from different perspectives. In practice, there are no formal criteria to be met by members for their appointment.

There is no set duration for the mandate of Board members. However, since all Board members are nominated by their respective institution, their appointment to the Board is connected with their employment in that institution. Once a member leaves the institution it works for, they also cease to represent their institution at the Board and the institution is required to nominate a new Board member.

Members of the Board can hold political or public posts during their terms of office. Finally, decisions concerning the approval of reports and agenda, as well as the identification of priorities and the release of opinions are taken based on qualified majority rules of members with full voting rights.

Relevant experiences from other countries

In most EU Member States, the ability for NPBs to function on a continuous basis and produce impactful research relies on the robust and diverse expertise of members. For this reason, most EU Boards consist of a variety of members chosen from academia, business associations, private sector, unions, government departments and/or other public sector bodies.

However, the composition of pro-productivity institutions varies significantly across countries, as different countries attribute different weights to these categories of experts. For example, the Danish NPB is entirely chaired by academics, while Ireland has a significant private sector constituency. Meanwhile, in France, the NPB places high value in including academics with previous exposure to policymaking and economic institutions (e.g. OECD, Banque de France), to guarantee relevance and applicability of the NPB's work. This ensures that the main messages from the NPB are not disconnected from public policy constraints and can be understood by policymakers as well as more widely by the public. The number of members ranges from four (Finland and Denmark) to twelve (e.g. France, Belgium) and a maximum of sixteen in Ireland.

In Belgium, the Board also includes a strong regional representation. The inclusion of members at the regional level is particularly important to bring key stakeholders around the table when developing annual reports and addressing regional disparities, including through close technical collaboration with the secretariat of the Economic Council and Regional statistical offices.

With regard to technical expertise, some institutions are comprised of experts in trade, macroeconomics, and public policy, in addition to microeconomic experts focusing on productivity. The French experience is useful in this sense, as it provides an example of a board of productivity economists where each member brings expert knowledge of a different topic within the study of productivity. In some cases, institutions also bring in external advisors and consultants to complement their in-house expertise.

Experience from NPBs suggests that Board members bring credibility to the institution if they are seen as experts in the field, with recognised knowledge and experience and without representational interests or being seen as ‘political’ or ‘partial’.

In this sense, **formal eligibility criteria to select the Board’s members and its management can strengthen the ability of the Board** to perform continuously and independently. The criteria, which appear in the legislation of 10 EU NPBs, can consist of academic qualifications (Germany, Greece, Ireland, and Slovenia), expertise in the field (Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Hungary, and the Netherlands) and rules to avoid conflicts of interest (Germany, Belgium and Denmark). In other cases, such as Slovakia, the Boards do not have a legal provision on criteria for selecting board members, although this is achieved through other options. For example, in Latvia, board members have been selected based on their reputation and experience in policy-making and in economics (European Commission, 2021[9]). Finally, **incompatibilities criteria are also important**, insofar as they are designed to avoid conflicts of interest and undue influence from the political power, as in the case of the German NPB, where Board members cannot belong to any employee association or trade union, nor be members of government.

Learnings from countries’ experiences

The experiences presented above point to a few recommendations through which the Slovak NPB could strengthen its composition and functioning:

- **Introduce formal eligibility criteria based on expertise rather than functions.** Ideally, members should include recognised experts in the field. They could also include international experts. This ensures that the board can focus on technical issues concerning productivity. It is also crucial for the Board’s credibility that the expertise of Board members is recognised in the political arena and that at least some Board members have had previous experience with policy making.
- **Board members should be selected through a call for interest or a search of suitable candidates who meet the eligibility criteria.** Their role and commitment should be clarified upfront to make sure that they are committed and are willing to devote time to the NPB.
- **Ensure the composition of the productivity board is unbiased** and balanced in all respects, including gender.
- **Incompatibility criteria could be introduced to avoid conflicts of interest.** Specifically, this could mean forbidding members to hold political and/or certain positions during their terms of office.
- **Assign concrete responsibilities to the Board for the preparation of the Annual Productivity Reports** so that members can effectively contribute to the NPB’s work.

3. Analysis of the set-up and capacity of the Slovak NPB

Board Chairperson

The Slovak NPB has a chair and two vice-chairs.

The head of the Institute for Strategy and Analyses of the Government Office of the Slovak Republic currently serves as NPB chair. Under the proposed changes, the chairperson of the new Council of the Government of the Slovak Republic for Competitiveness and Productivity would be the Minister of Economy of the Slovak Republic. The new Council has not been established yet.

According to the current Statute, members with voting rights elect the vice-chairs at the first assembly. The chair of the NPB and the vice-chairs are members of the NPB with a voting right.

The chair decides on the organisation of meetings and manages the regular activities of the NPB. The vice-chairs of the NPB act as a deputy to the chair at times of the chair's absence in full scope based on delegation by the chair.

Relevant experiences from other countries

The NPB head can influence the public credibility of the institution and, in turn, its value as a vehicle for policy reform. NPBs are usually headed by a chair/president/scientific director, or a chairing group (e.g. the **Danish** NPB is chaired by four academics) which can be supported by a number of vice-chairmen (e.g. two in **Belgium** as in the current Slovak NPB).

In the vast majority of international experiences, NPB chairs are most commonly experienced economists or academic experts. The proposed new Slovak Council would thus differ from international practice in this sense, aligning with few cases, such as **Hungary**, whereby the NPB head is a political figure such as a minister.

The appointment of high-level political figures may be a sign of high interest by policy makers; however, there have to be strong safeguards to guarantee the independence of the work of the NPB, which could be defined in the mandate. There are examples of other advisory bodies chaired by the political leadership. For example, this is the case for the French Council of Economic Advisors (*Conseil d'analyse économique*), chaired by the Prime Minister. In this case, however, the institution's mandate and institutional set-up are designed in a way that guarantees independence of the analysis and the advice produced, for example, through the appointment of a delegated chair who is different from the political chair and, as an independent economist, is responsible for leading the work of the body which is composed of independent economists. Additional safeguards include full autonomy in the choice of the issues addressed, the analysis conducted and the advice provided.

Learnings from countries' experiences

The proposed change in favour of a ministerial chair for the new Slovak NPB, has raised concerns from the European Commission with regard to the functional autonomy of the institution and its departure from the original Council recommendation on the setting up of NPBs.

As such, if the Minister of Economy is to chair the new Slovak NPB, strong safeguards should be introduced to guarantee the independence of the work of the NPB, which could be defined in the mandate. Recommendations include:

- **Select a Chair who is different from the head of the Board's secretariat to avoid confusion in the respective roles.** Ideally, the Chair should be a recognised expert in the field with the capacity and prestige to contribute to the public debate.
- **If the plan to appoint a Minister as Chair of a new body is finalised, appoint a delegated Chair in addition to the Minister who is an expert in productivity and can independently lead the analytical work of the NPB.**
- **Establish clear rules for the appointment of a delegated Chair** such as nominations under the approval of the Prime Minister or Parliament.

- **Safeguard the delegated Chair's autonomy and independence** in the choice of issues to be addressed, analyses to be performed and advice to be provided.

Board Secretariat

The Secretariat of the NPB is the **Institute for Strategy and Analysis (ISA)** of the Slovak Republic- an analytical unit at the Office of the Government supporting the government's economic and social policy strategy. As Secretariat of the NPB ISA is responsible for the organisational and administrative aspects of the NPB.

According to the Statute, the Secretariat of the NPB primarily:

- prepares proposals of the Report,
- consults the proposal of the Report with members of the National Council, with the supplementary aim of data access; the proposal of the Report is, however, drafted independently,
- prepares analyses in the area of competitiveness and innovation, possibly in cooperation with external actors within the public sector and the academia,
- participates in the European network of national councils of productivity.
- Facilitates the organisational preparations associated with the assembly of the National Council (invitations, documents, meeting minutes, etc.)

The ISA was in charge of drafting the first two Annual Reports together with the members of the NPB, with members' involvement in data collection and external advice from the public sector and academia.

The secretariat consists of the ISA staff who has relevant knowledge of the topics that are planned to be assessed in the NPB Report. The secretariat is supported by **four full time equivalent staff** and meets with the Board on an annual basis.

Relevant experiences from other countries

NPB Secretariats are essential to provide administrative, technical and analytical support to the institutions. International experiences (e.g. from France, Belgium) show that secretariats are often housed in already-existing independent public agencies or research institutes. Secretariats can comprise a number of full time equivalent staff, but most often rely on staff that has other responsibilities in addition to NPB tasks.

As such, controlling the workload of the Secretariat is essential to avoid overburden. To this end, it is especially important to secure active engagement of Board members in the preparation of annual reports. In addition, as shown by the **French** example, seeking collaborations with external institutions, including international experts, can be helpful to support the analyses of the Secretariat.

Learnings from countries' experiences

- **Ensure a congruous division of labour between Board members and the Secretariat** to contribute to the NPB's effective functioning and foster Board engagement. Board members could be responsible for specific sections of annual reports and produce ad-hoc analyses to the benefit of annual reports.
- **This division of labour should be well specified in the mandate but also monitored empirically** to track whether tasks are fairly shared in practice and ensure neither party is disproportionately overburdened.
- **Organise regular meetings between the Secretariat and Board members to facilitate active engagement and promote ownership of the results.** Meetings could be held on a quarterly basis and cover the whole process of preparation of annual reports from beginning to end. The use of smaller working groups and presentations among Board members can reduce the workload of the Secretariat.

3.1.2. Resources available to conduct regular activities and attract qualified staff

The Slovak NPB does not have a dedicated budget, its activities are mostly conducted by the Secretariat, whose full-time equivalent salaries are considered as costs sustained by the Ministry of Economy as budget for the NPB. Board

3. Analysis of the set-up and capacity of the Slovak NPB

members participate in good faith, without entitlement for compensation. In line with this, the budget is not grounded in any legal provision of the national law, nor in any mechanism that ensures funding stability over the longer term.

Relevant experiences from other countries

Adequate funding ensures stability in the functioning of Productivity Boards and strengthens their functional autonomy. It allows Productivity Boards to carry out their activities on a continuous basis, as required by the EU Council Recommendation, as well as to attract and retain high-quality specialist staff. With a few exceptions (such as Denmark), most members of EU NPBs are non-salaried, part-time employees, although they may receive compensation for attending meetings (European Commission, 2019[11])

Resource limitations can thus prove an issue for pro-productivity institutions, both in terms of available funding and human resources. In particular, for the institutions which do not engage directly in data collection and the creation of productivity indicators, budgetary limitations can often restrict the capacity to conduct research.

In response to internal resource limits, NPBs have taken different approaches to ensure that they have sufficient resources. For example, some institutions, such as in **France** and **New Zealand**, decided to leverage expertise from external bodies.

Good practices among the Boards also include increasing the overall budget of the institution entrusted with the task of Productivity Board (as in **Denmark** and **Germany**); and increasing the human resources allocated to the ministerial department entrusted with the task of Productivity Board (as in Lithuania). Conversely, a project-based funding scheme, as observed in **Latvia**, may make it more challenging for the Productivity Board to conduct its mandate continuously and may undermine the NPB's independence in the long-run (European Commission, 2021[9]).

Learnings from countries' experiences

In presence of limited budgets, it is key to make the most out of existing resources. Strategies for the Slovak NPB can include:

- **Engage in collaborations with partnering institutions** on all aspects where in-kind contributions can ease the workload of the Secretariat (e.g. research, outreach and dissemination). More specifically, the NPB could collaborate more with the analytical units of the Ministry of Finance and Labour as well as with the National Bank and the National Statistical Office. As in the case of France, the NPB could benefit from the inputs of rapporteurs from partnering institutions on the annual reports. It could also seek help from the European Commission for outreach and dissemination activities.
- **Ensure that the expertise of the Secretariat is well-matched with the outputs and activities the NPB needs to deliver.** Different profiles may be required for activities such as economic, policy analysis and outreach and include economists, policy analysts and communication experts among other profiles.
- The option of **mobilising staff resources from all the administrations which are part of the NPB could also be grounded in the NPB's mandate.** This would allow that all administrations represented at the Slovak NPB could become regular contributors to the NPB work, as in the case of France.
- **Engage with external institutions, such as other advisory bodies like the Council of Fiscal Responsibility, to benefit from knowledge-sharing.** Relying on a pool of consultants and/or academic experts can also be used to resort to additional expertise as needed.

3.2. RESPONSIBILITIES AND FUNCTIONS

Clear responsibilities and functions are fundamental elements for pro-productivity institutions to operate effectively and fulfil their mandate, as they influence the in-house expertise of an institution to analyse data and provide policy

recommendations. Data collection, analysis and economic modelling, together with expertise on policy research, analysis and recommendations and the ability to disseminate the results of specific studies are all important functions for an institution's effectiveness. When allocating resources within NPBs, it is important that a balance is achieved between these functions.

The production of annual reports is one of the key responsibilities of National Productivity Boards as per the EU Council Recommendation (see Box 1), as a result, part of the project consisted in assessing the first annual report and in providing guidance on methodologies for analysing productivity trends and develop analytical work in preparation of successive annual reports.

Data collection, analysis and modelling

Comparative analysis

In performing its analyses, the Slovak NPB uses a host of indicators to measure productivity, drawing upon publicly available sources rather than producing its own indicators or drawing upon non-public sources. In particular, the Slovak NPB uses indicators for total factor or multifactor productivity, labour productivity and sector productivity to conduct its analyses.

The Slovak NPB uses a wide array of sources for the data used in its analysis. Data come either from government and related public institutions (e.g. National Statistical Office, Central Office of Labour, Social Affairs and Family) or, from international sources, such as the OECD and Eurostat. **However, the Slovak NPB reports difficulties in accessing data from other government institutions, especially at the disaggregated level (regional, sectorial or firm level).**

In addition, the Slovak NPB uses economic models developed by other bodies to project productivity trends, and use scenarios to inform policy recommendations. In particular, the 2020 Annual Report benefitted from several inputs and models produced by the OECD. These covered issues such as Productivity analysis in the Covid-19 context for 2020, firm insolvency and debt leverage ratios, venture capital financing, cross country and cross industry productivity trends, trade in value-added, teleworking potential, trends in scientific publications, distribution of skills as well as e-government and patent applications figures. The OECD support provided in these areas is further described below.

Relevant experiences from other countries

The capacity for data collection, analysis and modelling greatly varies among pro-productivity institutions and crucially hinges on the Secretariat's internal capabilities and access to data and external resources on a continuous basis. In terms of data access, a relevant experience for the Slovak NPB is that of the Belgium, where permanent and continuous access to relevant data from government institutions is enshrined in the NPB's mandate. In France, access to data is also facilitated by the fact that the NPB is part of a wider network of government advisory bodies that are used to share data and information. The French NPB also compares data with national and international institutions on a regular basis. As for data collection from external sources, an interesting example is that of Chile, whereby the NPB is able to collect micro and sectoral data from business associations to address sector specific inquiries. In producing working papers that inform annual reports, the Portuguese NPB has collected micro-data from the National Agency for Research and the National Statistics Institute.

With respect to the internal capacity of the Secretariat, the experience of France deserves particular attention. In addition to being able to collect micro-data from different sources, Board members and the French Secretariat jointly developed an econometric model to gauge the impact of Covid-19-related government support on mitigating bankruptcy rates across different sectors of the economy. Other institutions, such as the NPBs of Denmark and Netherlands have substantial in-house economic modelling capabilities. The most widely-used model by the Danish NPB is the Simulation Model of the Economic Council (SMEC), a macroeconomic model used for forecasting the Danish Economy and assessing the impacts of economic policy interventions in the short and medium terms (Danish NPB, 2020[12]). The NPB of the Netherlands developed a state space model (SSM) to account for the effects of banking crises on the potential or underlying growth rate of productivity (CPB, 2017[13]).

3. Analysis of the set-up and capacity of the Slovak NPB

Learnings from countries' experiences

The experiences presented above illustrate a few dimensions through which the Slovak NPB could strengthen its capacity for data collection, analysis and modelling.

Data collection could be strengthened by:

- **Mandating permanent access to micro-data** at the firm and individual level from the various institutions that collect them (Statistical Office, Central Banks, Ministries) **by grounding data access in the government legislation that establishes the NPB.**
- **Partnering and networking with institutions that produce data**, such as the National Central Bank, the National Statistical Office, relevant ministries and other government advisory bodies to share and compare data. The Central Bank can be a good source for macroeconomic data, whereas firm-level and individual-level data can be obtained through Business Registries, Labour Force Surveys and relevant ministries.
- **Extracting and elaborating data from international institutions** such as the European Commission, the OECD, the IMF, and the World Bank to benchmark the Slovak Republic with other countries.
- **Tapping on the expertise in data science from supporting institutions to compensate for the lack of in-house capabilities** to collect relevant data for analysis, drawing from the example of the French NPB.
- **Building partnerships with business associations** to collect regional and sector-specific data and address sector-specific issues. For example, the Slovak NPB could partner with the Automotive Industry Association of the Slovak Republic to investigate sectoral issues.

Data analysis and modelling could be strengthened by:

- Strengthening the in-house analytical capacity of the Secretariat by **acquiring qualified additional resources** to develop strong methodologies for data collection and internal modelling capabilities, which can respond to the specific challenges faced by Slovakia based on experience from other countries.
- **Leverage the expertise and capabilities of partnering institutions** to perform productivity analyses in case internal resources are not sufficient. The Slovak NPB can rely on the expertise of its Board members and the institutions they represent to conduct analyses that require familiarity with datasets and techniques specific to the remit of participating institutions. This will also increase Board engagement with the NPB's outputs.
- **Leverage on already existing economic models** from national and international institutions to produce analyses and scenarios attuned for the Slovak context. Nationally, the NPB could benefit from the modelling expertise of the Ministry of Finance, the Central Bank and the Council for Fiscal Responsibility. Internationally, ensuring continued use of the OECD Multiprod dataset would enable the NPB tracking firms' productivity performance overtime.

Lessons from the assessment of the first annual report and methodological support for the second annual report

To assess the capability for data collection and analysis, the OECD examined the first Annual Report on Productivity and Competitiveness in 2019 with the goal of identifying gaps, lessons and suggest specific areas of interest that would inform the preparation of the second Annual Report in 2020. This activity was informed by the first Working Session of the Expert Group on OECD National Productivity Boards held on 30 September 2020, bringing together the expertise of national experts from France, Belgium, Luxembourg and Portugal, sharing their lessons learnt in the process of setting up and leading NPBs.

The NPB's first Annual Report provided a very good analysis and comprehensive overview of productivity trends characterising the Slovak economy and identified main areas limiting productivity growth. While the first annual productivity reports can be relatively broad, as the work of NPB evolves, it is important that the following annual

reports focus on more specific or granular barriers (sectoral/ geographic) to productivity and make recommendations that are even more tailored and practical.

With the preparation of the Second annual report in mind, the OECD also provided analytical and methodological support to the Slovak NPB to enhance its analytical capacity to collect and analyse productivity data. This effort resulted in a guidance on OECD methodologies for analysing productivity trends and develop analytical work, drawing on the OECD *Multiprod* and *Dynemp* projects, as well as in the provision of key analytical insights and messages of data and indicators. The analytical advice also benefitted from discussions with other NPBs participating in the second Working Session the Expert Group on OECD National Productivity Boards held on 3 June 2021.

These two activities provided an opportunity to draw some interesting lessons on the themes and type of analyses that could be covered by future annual reports. These lessons are detailed in the following section.

Theme 1: Macroeconomic developments and international competitiveness

The indicators of macroeconomic development and competitiveness and their comparisons with neighbouring countries presented in the Macroeconomic development chapter of the First Annual Report were relevant and up to date. Nevertheless, there is potential to extend the analytical capacities of the NPB's secretariat by developing new methods and enriching the data sources. Analysis was mostly based on data from Eurostat, OECD and European Central Bank, and if indicators included forecasted values, these were sourced from the European Commission (EC) estimates.

Lessons and recommendations for future reports and analysis:

- Slovakia's competitiveness could be analysed further through the lenses of the Current Account and its components. Since 2004, the Slovak Republic has reported a negative Current Account balance, except for the period from 2012 to 2014 when it was positive. Although the deficit from 2015 does not raise concerns in terms of Euro area imbalance procedure (annually it is less than 4% of GDP), analysis based on the business cycle² could reveal potential problems, essentially applying the IMF methodology³ to estimate the current account norm for the Slovak Republic.
- The openness⁴ of the Slovak economy appears to be very high (185% in 2019). Future reports could benefit from a more detailed analysis on how the structure of trade, the origin of value added (domestic or foreign) embodied in gross exports and in domestic final demand, and the presence of MNEs all affect Slovak productivity. Such analysis could be performed using the OECD's Trade in Value Added (TiVA) data⁵ (see Box 1). More generally, expanded analysis of the Slovak Republic's participation in regional and global value chains, including the potential impacts of global shocks on the domestic economy, could be considered. Another possible extension could be analysis of a price competitiveness of exports indicator.⁶
- Harmonised competitiveness indicators based on unit labour cost can be misleading when applied to the total economy; measurement problems with some sectors included in a total economy indicator can distort productivity comparisons by country. Analysis of the non-agricultural business sector excluding real estate⁷ could provide a clearer picture.
- Additional insights into Slovakia's competitiveness could be drawn from analysis of additional indicators such as OECD's Indicators of Employment Protection⁸ or Service Trade Restrictiveness index.⁹

2. Through analysing the deviations from equilibrium rate of REEL, NAIRU and potential output.

3. The Slovak Republic is not in a sample of External Balance Assessment by IMF.

4. Calculated as the ratio of the sum of imports and exports to GDP in nominal values.

5. GVC related indicators and comparisons of multinationals versus domestic firms' labour productivity building on OECD's Trade in Value Added (TiVA) database, Inter Country Input-Output (ICIO) tables, Trade in eMployment (TiM) indicators and, the Analytical Activities of Multi-National Enterprises (AMNE) database.

6. Either comparison of Slovak export prices or its partners' weighted by the import share or exports prices comparison of major goods.

7. ISIC Rev. 4 Divisions 05 to 66 and 69 to 82.

8. <https://www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection.htm>

9. <http://www.oecd.org/trade/topics/services-trade/>

3. Analysis of the set-up and capacity of the Slovak NPB

BOX 2: ANALYTICAL AND METHODOLOGICAL SUPPORT PROVIDED ON THEME 1: MACROECONOMIC DEVELOPMENTS AND INTERNATIONAL COMPETITIVENESS

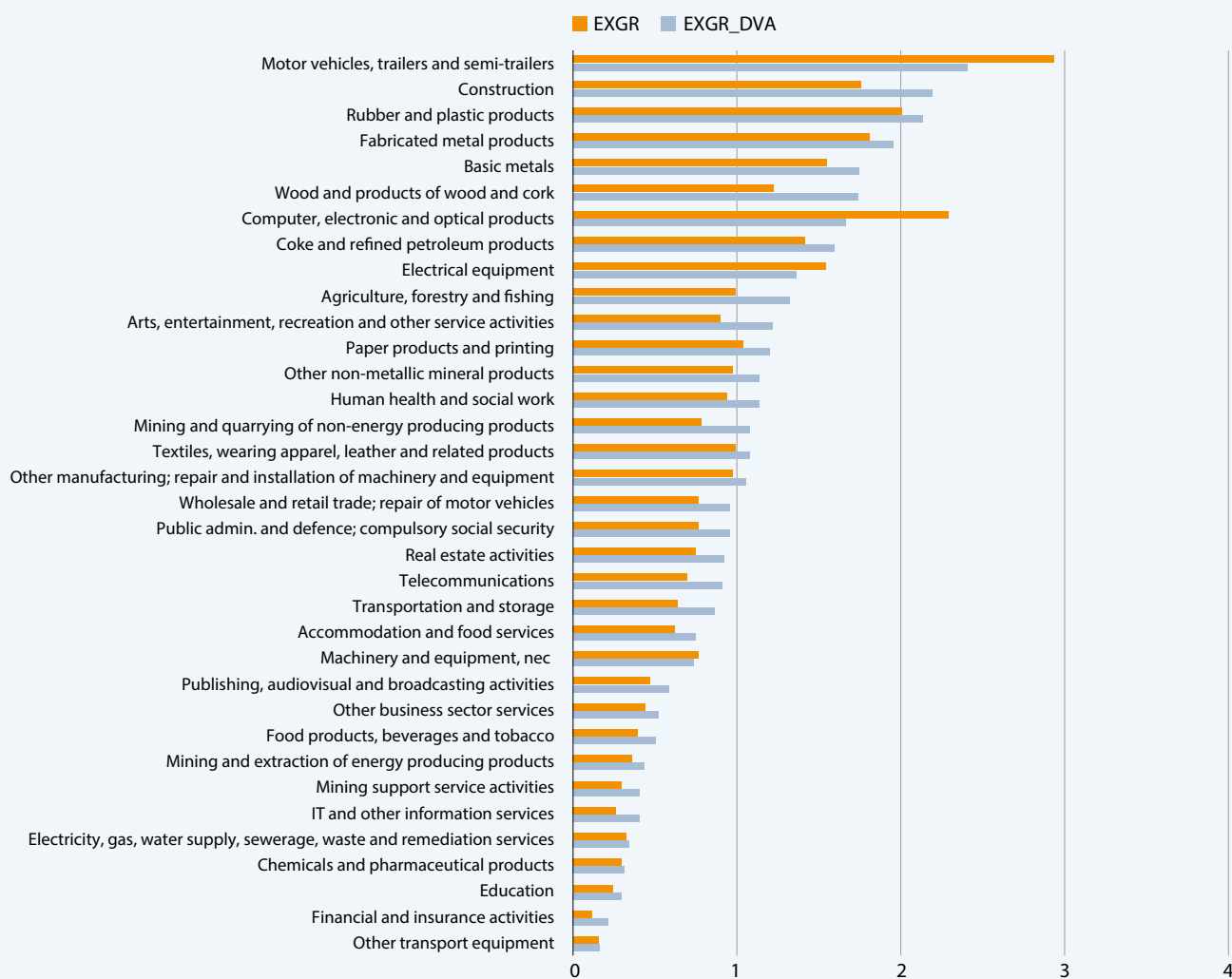
The OECD team provided insights concerning the potential uses of the OECD Trade in Value Added (TiVA)¹⁰ data to shed lights on indicators on the position of the Slovak Republic in Global Value Chains (GVCs) to the benefits of the second and subsequent editions of the annual productivity reports.

Proposed OECD indicators in the areas included: a) the share of domestic value added driven by final demand abroad; b) the share of domestic consumption catered by foreign value-added content and c) the foreign value-added content of exports.

Additionally, the OECD also produced indicators on Revealed Comparative Advantage (RCA) which show a country's industry specialisation by comparing its industry share (of total exports, value added etc.) with an equivalent EU27 average industry share (Figure 3). Compared to a traditional approach that measures RCA on the basis of gross exports of goods, the TiVA database, can help distinguish countries' value added in exported goods and services.

Figure 3. Relative Comparative Advantage by industry within EU27

RCA index with EU27 in value added and gross terms in 2015, by industry



Note: EXGR denotes gross exports; EXGR_DVA denotes the domestic value added content of gross exports.
Source: OECD' calculations based on TiVA indicators

10. The new version of the TiVA dataset is expected to be released on 17th November 2021 with data extending up to 2018.

Theme 2: Productivity of factors of production

The first annual report presented traditional indicators of productivity (Total factor productivity, nominal labour productivity, nominal unit labour costs and labour costs per hours worked) for the total economy.

Based on the analysis, the Slovak Republic faces an interesting policy decision problem. The high productivity levels compared to countries in the region are not reflected in higher GDP per capita, mainly due to a relatively low labour force participation rate. Policies to increase the labour force participation rate, if not linked with retraining or other upskilling methods, could have an adverse effect on productivity if the skills of those who are outside of the labour force are lower than those of employed persons.

The second part of the chapter showed an industry perspective on wage-adjusted labour productivity and value added at the relatively aggregate SNA A10 level of industry. Future productivity analyses could provide a more disaggregated view on major exporting activities that are highly concentrated in a few industries¹¹ with a completely different production function.

Lessons and recommendations for future reports and analysis:

- Drawing from the experience of the MultiProd and DynEmp projects¹², future analysis could benefit from an overview of best practices across countries for overcoming existing barriers preventing NPB from analysing confidential national microdata¹³.
- Instead of total economy indicators future reports could use the notion of *non-agricultural business sector excluding real estate*¹⁴ as a better basis for international productivity comparison.
- An alternative view of productivity could be provided by an indicator of annual average labour productivity growth over a given period and comparison with the evolution of multi-factor productivity (MFP) for the same period (Box 3). For example, in the report it is possible to distinguish at least two periods with completely different MFP growth patterns, from 1995 to 2007 with high MFP growth and 2010-2018 with more moderate MFP growth.
- Since the 2000s, ICT adoption has driven productivity growth in many developed countries. Another indicator could provide insights into the ICT stock contribution to productivity in the Slovak Republic and comparison by country.

11. In 2019, Manufacture of Motor vehicles -ISIC Rev. 4 Division 29 (34.2%); Machinery and equipment- Divisions 26 to 28 (29.4%); and Metal products- Divisions 24 to 25 (10%) amount to almost 3 quarters of the total exports of goods, Source: BTDXiE database.

12. The MultiProd project studies productivity patterns and the extent to which different policy frameworks can shape firm productivity (<https://www.oecd.org/sti/ind/multiprod.htm>); the DynEmp project presents new evidence on the employment dynamics of start-ups and incumbents across more than 20 OECD and non-OECD economies since 1998 (<https://www.oecd.org/sti/ind/dynemp.htm>).

13. For example, of possible insights please see: <http://www.oecd.org/sti/ind/oecd-insights-on-productivity-and-business-dynamics.htm>

14. For the purpose of productivity analysis, including the agriculture, real estate and public sectors may not be optimal due to measurement issues related to volume and employment series. For more details see the discussion in chapter 3 of the STAN database documentation (<http://stats.oecd.org/wbos/fileview2.aspx?IDFile=e57f76c1-1e5b-4a39-879b-28e5c5ef9cc7>)

3. Analysis of the set-up and capacity of the Slovak NPB

BOX 3: ANALYTICAL AND METHODOLOGICAL SUPPORT PROVIDED ON THEME 2: PRODUCTIVITY OF FACTORS OF PRODUCTION

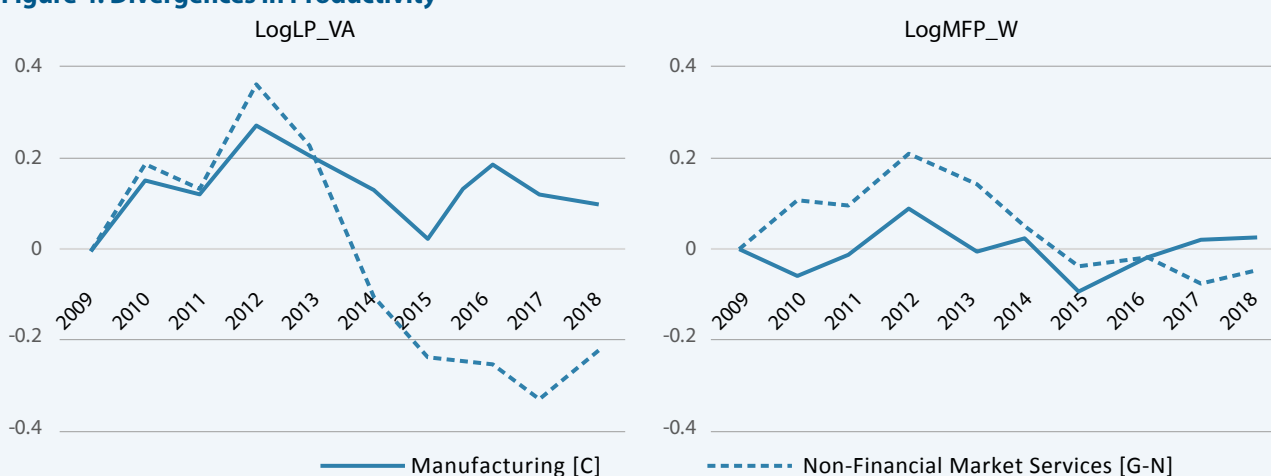
The OECD team accessed a firm-level dataset provided by the Slovak Ministry of Finance containing merged data from the Register of Financial Statements and Register of Organisations. The dataset covers large enterprises very well however, micro firms (<10 employees) are underrepresented. Elaborations on this dataset demonstrated the potential for expanding the analysis on firms' productivity in the Slovak Republic in multiple directions.

The OECD MultiProd methodology (OECD, 2021[14]) has been applied to the Slovak dataset to analyse the dynamics and dispersion of productivity and wages across disaggregated groups of firms and provide policy insights on productivity trends in the Slovak Republic. This methodology presents several benefits for the cross-country analysis of firm-related statistics (employment, productivity, wages, firms' age, etc.), including a high degree of reproducibility of the analysis, as well as high international harmonisation and comparability.

The resulting analysis revealed a few interesting trends on the evolution of productivity dispersion and productivity dynamics in the Slovak Republic. Notably, for a country like Slovakia, with a large manufacturing sector, the increasing gap in growth dynamics between the top and bottom deciles of the manufacturing productivity distribution (Figure 4) and a high concentration of top firms are worrying signs for future development and call for more analysis of spill over effects, for example, from multinationals on the domestic firms.

Moreover, firm demographics in Slovakia reveal an overall healthy trend in firms' turnover rate in recent years (approximately 10% in the timeframe 2010-2017), with entry rate exceeding exit rate for almost all years. As for business dynamism, new entrants are, on average, less productive, which can drag aggregate productivity downwards, but recent entrants, especially at an early age, have high potential to grow. On the other side, the exit of less productive firms can lead to better resource reallocation, which contributes to the growth of aggregate productivity.

Figure 4. Divergences in Productivity



Note: Divergences are calculated as differences of the 90th and 10th percentile of log productivity and normalised for 2009 to 0.

Source: OECD calculations based on Multiprod methodology

Theme 3: Skills and human capital

Human capital represents one of the biggest challenges for the future competitiveness of the Slovak Republic. The first annual report identified challenges through indicators developed for international comparisons¹⁵, and the authors' analysed possible causes in detail and provided measurable recommendations based on a solid analytical background.

15. For example, PISA results for education; PIAAC results for the skills of employed persons; regional, marginalised communities and gender gaps of wages and employment

16. Based on PISA results (OECD, 2012,2015,2018[23])

Lessons and recommendations for future reports and analysis:

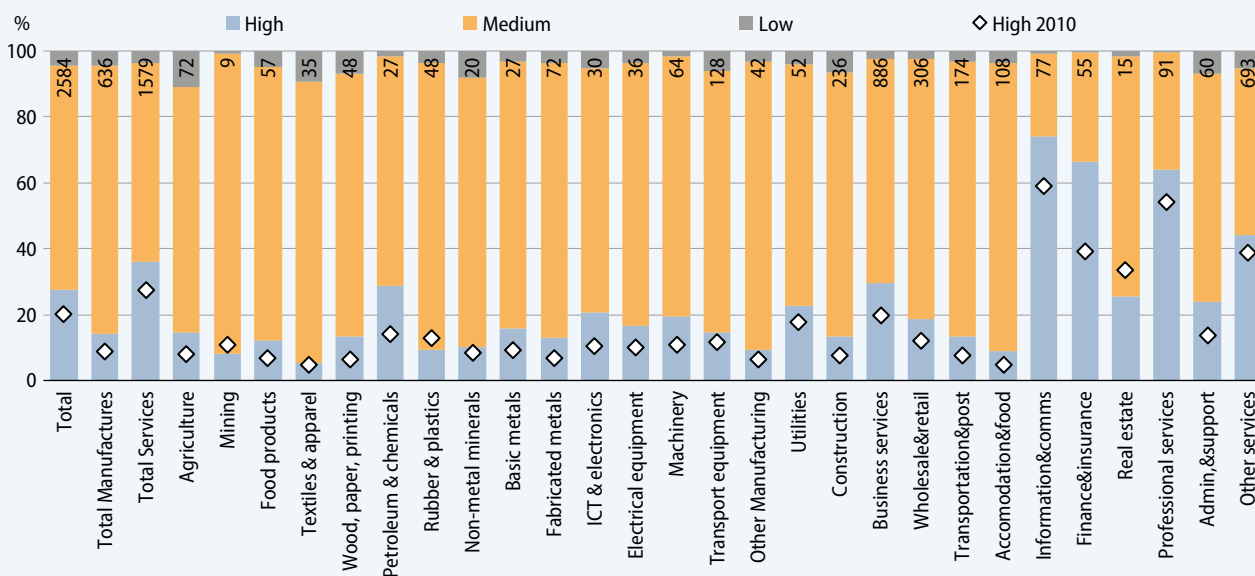
- Future reports could investigate how, despite having the lowest participation in lifelong learning among EU member countries with a quite poorly performing education sector¹⁶ and, a high prevalence of horizontal mismatch and over-qualification on the labour market, the position of the Slovak Republic compared to the EU28 average is not worsening. Future analyses on labour force's skills based on PIAAC data could test whether the private sector is substituting for the role of the state in lifelong learning by providing more on-the-job training (see Box 4).
- Another possible addition for future reports is an indicator of residential mobility. The availability of rental apartments is relatively low and the share of publicly owned housing even lower, which can limit the labour mobility.
- An assessment of managerial quality would also be helpful for future reports, although relevant indicators might be challenging to obtain, as the Slovak Republic is not a part of the World Management Survey.
- Slovakia's international students' balance is also important. Future analyses could look at the prevalence of foreign migrant workers on the Slovak labour market and their skills.
- Part-time jobs are still not very common in the Slovak Republic. Future analysis could determine whether gender employment and wage gaps could be partially explained by the unavailability of part-time jobs.

BOX 4. ANALYTICAL AND METHODOLOGICAL SUPPORT PROVIDED ON THEME 3: SKILLS AND HUMAN CAPITAL

The OECD team provided insights on the Slovak workforce's skills distribution across time and industries to compare the performance of the Slovak Republic with that of neighbouring countries. To do so, the OECD team drew data on the evolution of workforce's educational attainment from the European Labour Force Survey.

Data shows that while the Slovak labour market shows signs of upskilling, the number of jobs occupied by persons with tertiary education is still below the EU average. The manufacturing industries are less demanding for high skilled workers. On the other hand, the share for total services is more than twice of manufacturing with exceptionally high shares (60% and more) in information, financial or professional, technical or scientific services over years and across industries (Figure 5).

Figure 5. Employment shares by education attainment and industry, 2019



Source: European Labour Force Survey

3. Analysis of the set-up and capacity of the Slovak NPB

Theme 4: Investment, infrastructure and energy

The first annual report identified a declining share of gross fixed capital formation (GFCF) in GDP and its structure as one of the three main factors curbing productivity growth in the Slovak Republic together with stagnating inflows of FDI and low absorption of ESI funds which leads to deteriorating capital intensity in the economy. This trend is even more pronounced when looking at the accumulation of ICT capital. In the presence of scarce resources, future analysis could focus on the structure of public expenditure and their potential effect on productivity, e.g. public expenditures on housing, infrastructure, health care or education versus, for example, social protection.

The report also highlighted the increasing share of renewable energy in the total energy mix, quoting available research which found positive linkages with productivity through increased pressure on innovation. A big part of Slovak industry is energy-intensive (for example, car manufacturing) and the price of renewables although decreasing over time is still higher than fossil fuels, which together with low R&D expenditures can have different effects on productivity that are not necessarily positive.

Lessons and recommendations for future reports and analysis:

In light of the lower share of public investment compared to other countries, future analyses could look at the composition of public expenditures and their evolution over time based on their possible effects on productivity.

- A future report could look at the causes of decreasing investment intensity. One possible explanation is that the decreasing investment intensity is related to the increasing saving rate of the ageing population. If so, based on current demographic trends, this may lead to a worsening situation.
- At the beginning of the millennium, productivity growth was fuelled by ICT adoption in developed countries. An indicator of the evolution of these assets and, potentially, other intangible assets would be beneficial. GFCF series published by the national statistical office might not include all the intangibles relevant for productivity analysis. Corrado *et al* (2016)¹⁷ calculated that over the period of 2000 to 2013, the intangibles captured by National Accounts on average accounted only to 29.4% of total intangibles.
- The next report could benefit from a more detailed analysis of the effects of the National Program for Emissions reduction on productivity and competitiveness of the Slovak industry.

Theme 5: Institutional quality and the business environment

From all the factors affecting productivity and competitiveness, institutional quality is one of the most difficult to measure. There are no direct measures, but it can be estimated through proxies such as trust in public institutions, perception of corruption and the effectiveness of the judiciary system that are discussed in this chapter. However, regulatory processes and institutions that can impact more directly on the economy and the investment climate are not currently analysed. On the other hand, the business environment¹⁸ shows healthy dynamics, despite the relatively low quality of institutions, barriers on entry and relatively high regulations related to the product market.

Lessons and recommendations for future reports and analysis:

Another proxy for the quality of institutions could be obtained from analysis of outcomes of public administration, such as the perceived level of corruption or, the stability of GDP growth and inflation, compared to inputs based on, for example, the share of the public sector's wage bill or employment, by country. Alternatively, less complex comparisons of individual sectors could be considered such as the return on expenditures by the health care sector, for example.

17. C. Corrado, J. Haskel, C. Jona-Lasinio, M. Iommi (2016). "Intangible investment in the EU and US before and since the Great Recession and its contribution to productivity growth" in "Investment and Investment Finance in Europe", Chapter 2, p. 73-102, European Investment Bank Report, November 2016.

18. Characterised by the share of new entrants, their survival rate and by the share of fast-growing enterprises.

- A future report could provide a detailed view of business dynamism by size class, especially for exiting or fast growing firms. As mentioned in the report more than 90% firms belong to non-productive micro firms with a total share of value added of 14%. Analysis based on size class could shed more light on the current business climate.
- Another indicator of institutional quality could be based on the ranking in the World press freedom index of Reports without Borders, where the Slovak Republic worsened its position from 12th place in 2016 to 33rd in 2020.
- The analysis of institutional quality could be enriched through indicators on regulatory quality and institutions like the governance of sector regulators, the regulatory impact of sectoral regulation and regulatory policy and governance.¹⁹

Themes included in the Second Annual Report

The Second Annual Report included a focus on the impact of Covid-19 pandemic on the Slovak economy and presented a set of indicators on Research and Innovation activities on which the OECD provided methodological support.

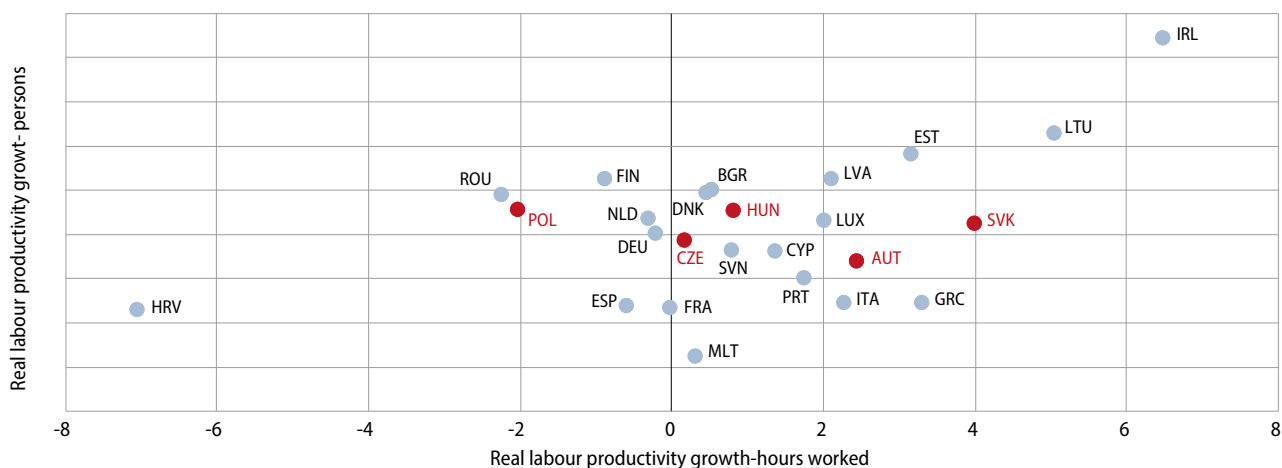
To gauge the impact of Covid-19, the OECD provided guidance on how Official Statistics on productivity and related measures could be handled and interpreted, as well as an assessment of the impact on Covid-19 on firms' insolvencies and debt leverage ratios. The OECD also provided insights on the ability to work from home and on internet access during the pandemic as well as a set of research and innovation indicators related to scientific publications, e-government practices, patenting activity and venture capital. The methodological support provided also resulted in recommendations for further analysis.

The remaining part of this section presents the analysis developed by the OECD on these themes and lessons and recommendations for future reports and analysis.

Measuring productivity and using Official Statistics in the time of Covid-19

OECD analysis showed that the pandemic has created challenges for the National Statistical Offices to collect and analyse data, potentially leading to breaks in officially published data series. National Accounts statistics for 2020 may be subject to significant revisions. Due to data availability limitations, the only up-to-date productivity measures are those related to labour productivity. The direction of Labour productivity growth between the years 2019 and 2020 depends on the measure: for most European countries, including Slovakia, growth was negative when measured in persons and positive for hours worked (Figure 6). As a result, and more in general, if correctly measured, hours worked based figures are better for portraying productivity development – especially during shocks such as the crisis induced by Covid-19 where furlough schemes maintain employment levels but reduce hour worked as in the case with the Slovak “Kurzarbeit” scheme.

Figure 6. Real labour productivity growth, in persons and hours worked 2020-19, by country



Note: Growth is calculated based on Index where 2015=100

Source: OECD's calculations based on Eurostat's National Accounts database.

19. Indicators of Product Market Regulation – Related indicators and Database, <https://www.oecd.org/economy/reform/indicators-of-product-market-regulation/>

3. Analysis of the set-up and capacity of the Slovak NPB

Recommendation for future reports and analysis:

- **Exercise caution when analysing data for 2020 and make use of labour productivity indicators based on hours worked.** The pandemic has created challenges for the National Statistical Offices to collect and analyse data, potentially leading to breaks in officially published data series. Labour productivity measured in hours worked better accounts for the evolution of labour productivity during the Covid-19 crisis.

Firms' insolvency and debt leverage ratio

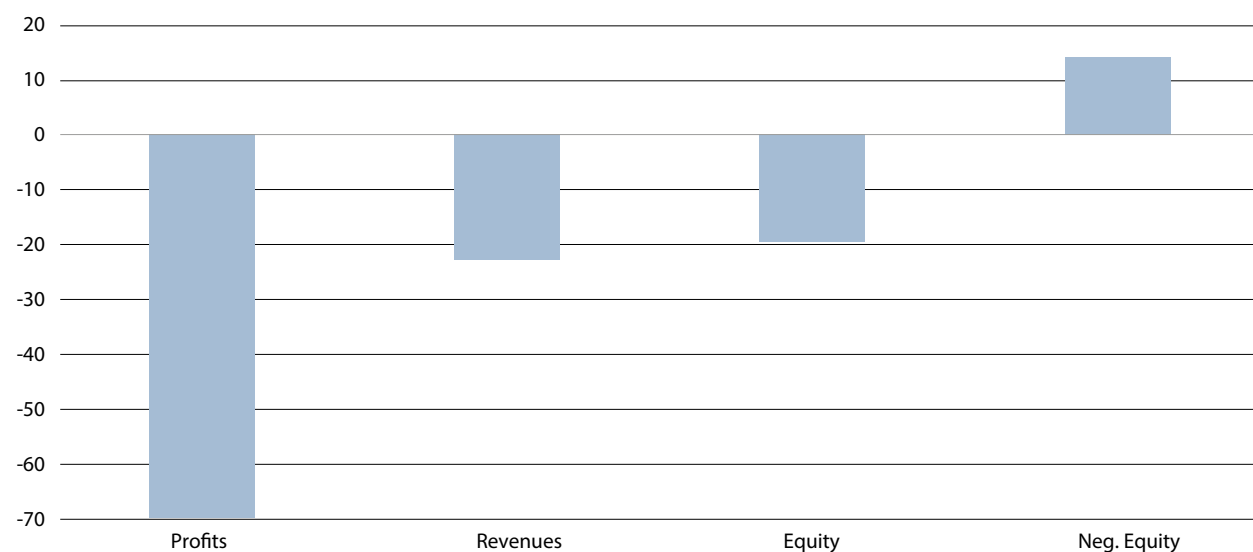
The OECD team applied the accounting methodology pioneered by Demmou et al. (2021[15]) to the firm-level data provided by the Ministry of Finance to estimate the number of firms' insolvencies and debt leverage ratios but lacked information on firm's interest expenses to estimate debt overhang. The estimations revealed that Covid-19 created challenges for all firms, but less productive, younger and smaller firms were disproportionately affected. These firms had, on average, a higher leverage ratio prior to the crisis and were also prone to lose more significant share of their profits. Even though without the pandemic, they would be profitable. The non-significant share of these firms has the productivity growth potential, which can be stifled or lost due to the increased risk of the debt overhang.

More specifically, the impact of Covid-19 related restrictions on manufacturing and non-financial market services has been significant. Based on simulation results, firms' revenues have fallen, on average, by 22.5% compared to "business as usual". Lower revenues, in turn, influence firms' profits, which shrank by almost 70% and the share of firms which are not able to cover the loss in profits by their pre-Covid-19 equity (firms with negative equity) exceeds 14% of otherwise viable firms.

At the industry level, the Covid-19 shock had a disproportionate effect on the Hotels, Restaurants and Transport services (40% of firms in this sector are potentially distressed and around 20 percentage point increase in their leverage ratio, which is after Covid-19 close to unity); younger firms (25%, 12 p.p. increase in leverage ratio); and, less productive firms (17%, 8 p.p. increase in leverage ratio). Increased leverage ratios cut revenues and profits, and will increase the risk of the "debt overhang" of younger firms, which could curb their potential for future growth.

Figure 7. Covid-19 effect on key financial variables

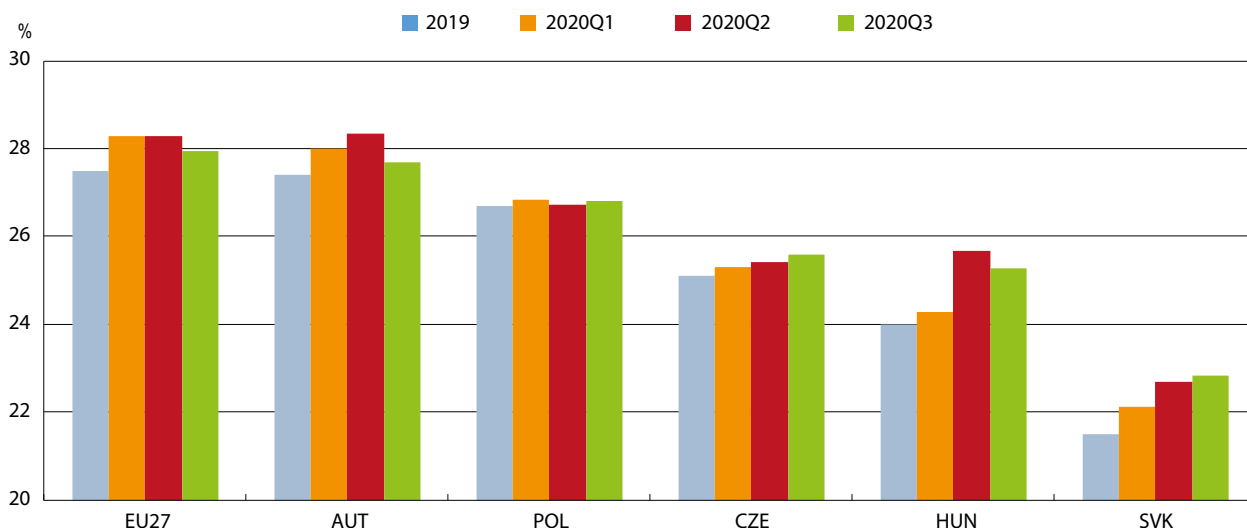
As a percentage of business-as-usual year



Note: Data are filtered (only firms with recorded profits in 2018 are included)

Source: Simulation results based on (Demmou et al., 2021[15]) methodology

Figure 8. Share of jobs that can be potentially performed from home



Note: EU27 corresponds to a weighted average of the 27 European member countries as of January 2020

Source: European Labour Force Survey (European Commission, 2021[16]).

Recommendation for future reports and analysis:

- **Make use of available data to develop models to provide analysis on emerging topics.** Through firm-level data and the use of specific accounting methodologies as well as econometric estimation and simulation techniques it is possible to analyse the impact of Covid-19 and similar shocks on key financial indicators and identify the proportion of distressed firm in the economy to better tailor government support to otherwise viable firms.

Ability to work from home and internet access

According to data from the European Labour Force Survey, the immediate aftermath of the restrictive measures in Slovakia was reflected in an overall decrease in employment, but the change in composition favoured occupations that could be performed from home. However, the composition of the labour market, mainly the size of the manufacturing employment and the overall occupations composition, lower the potential share of jobs that can be performed from home as the lowest in the region, underlined in both shares of men and manufacturing jobs (Figure 8).

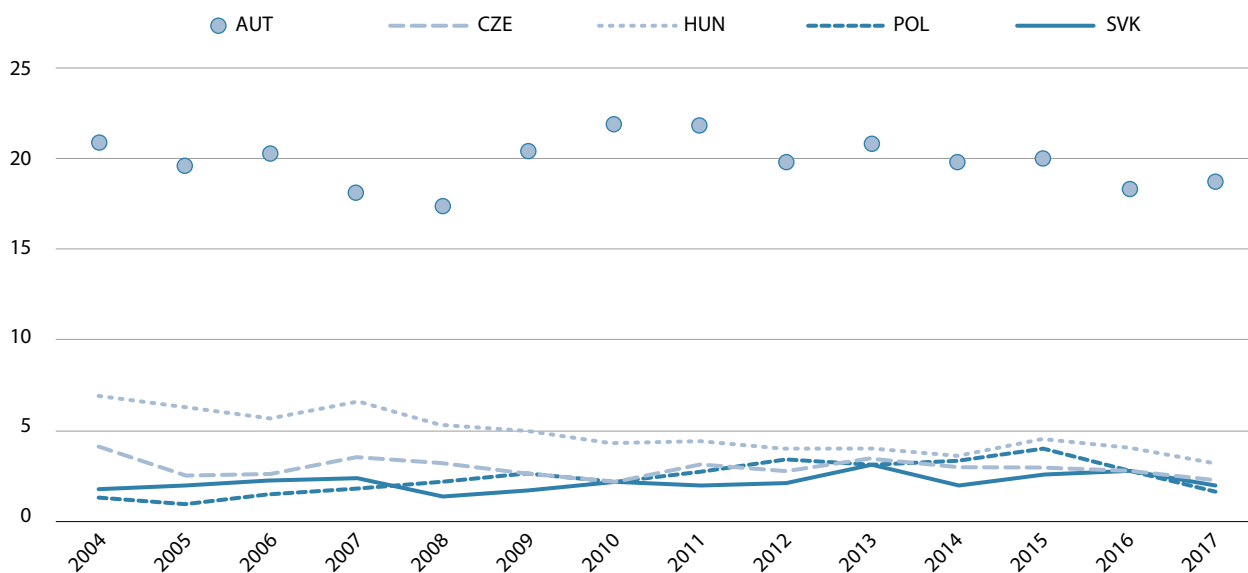
Access to the internet became imperative for successful work or study from home during periods of restricted movement. Based on the ICT usage survey from the European Commission, the share of Slovak households with dependent children with access to the internet is following a decreasing trend, even though in 2017 it was already the lowest in the region. This trend is in contrast to the overall development in the country. The lack of internet connection may disproportionately affect children from disadvantaged socioeconomic backgrounds and widen existing gaps. Slovak students from disadvantaged backgrounds are far more likely not to have access to the internet at home than children from advantaged backgrounds or disadvantaged students in other regions in the country.

Research and Innovation

The OECD provided analysis and indicators concerning issues related to Research and Innovation in the Slovak Republic. As for **scientific research**, indicators drawn from Elsevier show that further investment and reforms, mandated by the European Recovery and Resilience Plan are needed to enhance its quality with a lower propensity of scientific publications from Slovakia to reach the global 10% of most cited scientific papers when compared to Austria and other V4 countries. On average, around 3% of all publications from authors affiliated with Slovakia will get it into the top 10% of cited publication in their respective field.

3. Analysis of the set-up and capacity of the Slovak NPB

Figure 9. Number of patent applications under the Patent Cooperation Treaty (PCT) per thousand R&D personnel



Source: OECD's Patent statistics database with Eurostat's R&D personnel database.

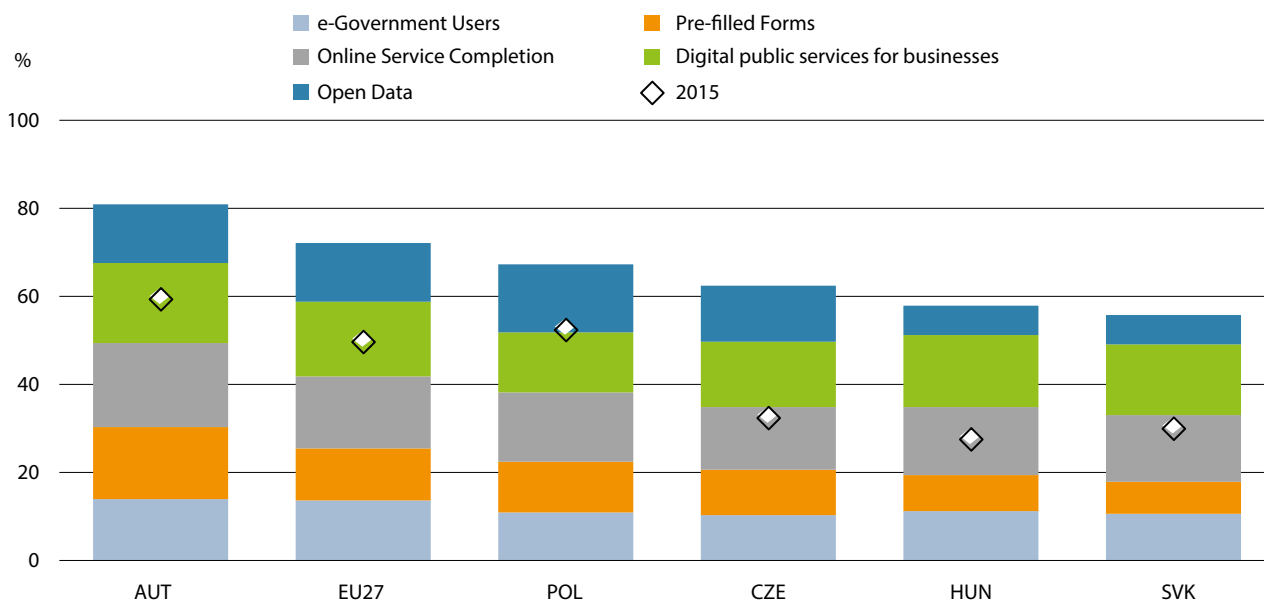
For what concerns **patenting activity** Slovakia has room to improve R&D personnel patent applications productivity, which lags behind that of other countries (Figure 9) according to the OECD Patents statistics database. The number of patents can reflect the innovative potential of firms or even countries. Slovakia, however, is less productive in producing patents than their Austrian neighbour. In Austria, on average, 32 patents applications are submitted per thousand R&D personnel compared to 2.7 in Slovakia. Additionally, most Slovak patent submissions are the fruit of international collaboration or owned by foreign nationals, limiting the potential benefits of commercialising patents. Also, a relatively significant share of patents owned by Slovak residents relate to inventions abroad.

Venture capital (VC) investment is becoming one of the key factors for small and young enterprises with high growth possibilities to reach their potential. The VC financing is an important element of stimulating innovation, but the data quality and availability for analysis is the main concern. The quality and availability of aggregate data on venture capital have improved considerably in recent years; international comparisons, however, remain complicated because of two main challenges: the lack of a standard international definition of venture capital and diverse methodologies employed by data compilers.

To extrapolate tendencies in VC financing in Slovakia the OECD made use of two sources: the OECD Entrepreneurship Financing Database, where venture capital is made up of the sum of early stage (including pre-seed, seed, start-up and other early stage) and later stage venture capital and Dealroom proprietary data on the number and size of VC deals include pre-seed, seed, angel, series funding, growth funding, late stage funding, and other, less conventional sources of funding such as media for equity and product crowdfunding. The results show that Slovakia also trails behind international peers in terms of venture capital investment with approximately 5 VC deals per year. According to available data, the share of funding obtained by Slovak firms is inconsiderable as a share of GDP compared to the EU average or even countries such as Lithuania or Estonia.

With regard to e-Government, Slovakia experiences the lowest overall score in the region for the European Commission's Digital Economy and Society Index (Figure 10), with deteriorating or stagnating scores concerning the number of e-government users and the number of individuals submitting forms electronically an evolution which stands in contrast with other V4 countries, Austria and the EU27 average. Slovakia also scores lower than its neighbours on the Open Government data index, notably due to low scores in data availability and limited activity in promoting the re-use of data both within and outside government.

Figure 10. e-Government sub-dimension ranking of the Digital Economy and Society Index, 2020



Note: EU27 corresponds to a weighted average of the 27 European member countries as of 2020.
Source: DESI index 2020 (European Commission, 2020[17]).

Recommendation for future reports and analysis:

- **Leverage the wealth of indicators available to analyse Research and Innovation activities**, by extracting data on patents, scientific publications, e-government and venture capital from various sources, including the OECD, to better understand the underlying drivers of low performance in research and innovation.

Expertise on policy research, analysis and recommendations

When it comes to the NPB expertise on policy research, analysis and recommendations, a first element to consider is that the Slovak NPB does not produce any other publication in addition to the annual report. The topics chosen in the annual report reflect both the indications and mandate received from the government as well as ISA's own initiative.

The activities of the Slovak NPB do not include sector-specific analysis, covering for example the public or the financial sector, or advice to encourage effective productivity policy reform and its policy advice does not expand beyond productivity.

The in-house expertise of the NPB among its staff reflects a prevalence of economists (75%) compared to policy or legal analysts (25%). The NPB does not currently have data scientists or staff dedicated to dissemination and engagement with stakeholders. The NPB possesses the necessary expertise to incorporate emerging trends such as digitalisation, climate change and Covid-19 in their productivity analyses.

In the past, the NPB has been able to make contractual arrangements with other entities or individuals to complement its expertise by either hiring external consultants or academic advisors. It is important to note that while the Secretariat produces the annual report, it relies on inputs from the different analytical units of the Ministries sitting on the Board to produce policy recommendations.

Relevant experiences from other countries

Pro-productivity institutions can be involved in all elements of the policy cycle, from providing initial recommendations for policy measure design, to conducting analysis of the effectiveness of existing measures. However, this differs between institutions.

3. Analysis of the set-up and capacity of the Slovak NPB

NPBs take different approaches to develop policy recommendations based on their knowledge of the inner functioning of their government. Similar to other countries, the Belgian NPB provides recommendations in policy areas that are adjacent to productivity but are still influencing productivity outcomes, either directly or indirectly. Policy recommendations are produced as part of the joint effort of the Secretariat and the Board to produce the annual report. The case of the French NPB is also noteworthy, as the institution is embedded in a network of government advisory bodies covering a wide spectrum of economic policies, which enables the NPB to gain access to a broad expertise of policy areas. The Australian NPB is an interesting example of an institution that provides policy advice through a broad set of outputs beyond annual reports including public inquiries to cover the whole policy cycle.

More broadly, many institutions go beyond this annual reporting requirement. Some institutions produce semi-regular working papers and bulletins, which provide more detailed insights into particular economic research areas. For example, the Portuguese NPB releases a series of working papers throughout the year on various research topics, which complement its annual productivity report. Elsewhere, the Netherlands Bureau for Economic Policy Analysis (CPB) publishes a series of scientific discussion papers, analysing determinants of productivity growth, as well as releasing policy briefs throughout the year.

Learnings from countries' experiences

The experiences presented above illustrate a few dimensions through which the Slovak NPB could strengthen its capacity for policy research, analysis and recommendations.

Concerning policy research and analysis, the Slovak NPB could:

- **Enhance its capacity to provide sectorial and thematic policy advice in areas that are connected to productivity growth.** For example, analyses concerning skills developments could inform discussions on labour productivity, while analyses of key sectors in the economy (e.g. automotive) could inform discussions on moving up in the value chains.
- **Leverage the expertise of other government advisory bodies** and deliver joint assessments on specific policy areas that bear an influence on productivity. Conducting joint work by drawing from the expertise of the Slovak Institutes of Social, Financial and Educational Policy would help the NPB acquiring specific knowledge on relevant policy issues and ensuring a shared ownership of the resulting policy recommendations as done by the French and Belgian NPB for example.

Concerning the provision of policy recommendations, the Slovak NPB could:

- **Strengthen the capacity of the Secretariat in developing policy recommendations by engaging in policy evaluation.** The Slovak NPB could, for example, evaluate the potential impact on productivity of measures associated with the Recovery and Resilience Plan if requested by the government. This could help the NPB learning about the nuances, characteristics and limits of policy measures and develop a common language with policy makers. Such activities should be clearly distinguished from the regular NPB's functions.
- **Ensure that the process of producing policy recommendations starts with the Secretariat,** grounding the recommendations in the outcomes of the analyses contained in the annual reports. This should occur prior to any consultations with stakeholders.
- **Expand the array of outputs informing policy making beyond annual reports** to cover different stages of the policy cycle. These may include working papers that complement the analysis made in annual reports, or Commentary and Evidence Review Bulletins, which briefly informs on the international position of Slovakia in comparative studies and provide evidence on specific topics. The Slovak NPB could also engage in performance monitoring and benchmarking exercises on behalf of the government, as done by the Australian NPB.

3.3. STAKEHOLDER ENGAGEMENT, DISSEMINATION AND POLICY-MAKING

Engagement and dissemination are also important activities that NPBs should perform to increase their effectiveness. These activities shape the level and breadth of expertise which pro-productivity institutions can draw upon, and facilitate information gathering and knowledge sharing. Dissemination helps raising awareness on the work of NPBs and contributes to increase the chances of influencing policy-making. Bearing an influence on policy-making is the ultimate goal of Productivity Boards.

Stakeholder Engagement

The Slovak NPB has not established any formal consultation process for the production of annual reports. In particular, due to a particularly tight timeline, the NPB secretariat produced the first annual report without conducting any consultations with external stakeholders. However, Board members represent a wide array of stakeholders from different ministries, employers' organisations and business associations, who can express their voice and opinions from within the NPB. Board members with voting rights are tasked to approve the annual report, while members whose vote is of an advisory nature can also provide comments on the report itself.

The NPB engages with external institutions mainly through data requests, and has faced challenges in accessing relevant data from other government related institutions. The NPB does not engage in public inquiries.

When it comes to discussing the findings of its research with the external public, the Slovak NPB is relatively free to communicate with other parties. However, as the Slovak NPB is still in its infancy, it has not developed a strategy to engage with non-government stakeholders beyond the cycle relative to the production of its annual reports. Yet, it did sporadically engage in bilateral conversation for knowledge-sharing purposes.

Sharing knowledge and exchanging good practices can help NPBs to learn from similar contexts while, at the same time, improving capacity to deliver. In this sense, the Slovak NPB has become involved in exchanges with other pro-productivity institutions to exchange good practices and lessons learned only in the last year, through the project "Slovakia: Evaluation of the Position and Performance of the Slovak National Productivity Board". The NPB is not a member of the Steering Group of the OECD Global Forum on Productivity. It has not yet participated in events of the European Commission's network of productivity boards.

Relevant experiences from other countries

The way in which different NPBs decide to engage with stakeholders varies considerably across OECD countries. While some institutions consult and meet with stakeholders throughout the course of their activities, others involve social partners as members, and as such resort less often to public stakeholder consultation. In general, three kinds of NPBs' engagement strategies can be distinguished: stakeholders' membership in the Board, as in the case of the Slovak NPB, formal and ad-hoc consultations. The three models each have their own advantages and reflect the broader institutional setups in which NPBs operate. At the same time, lessons can be drawn from all engagement methods that have been adopted by NPBs around the world.

The Belgian NPB offers an interesting example on how stakeholders' consultations on annual reports can take place through an existing external and centralised delegated body (Conseil Central de L'Economie-CCE) and how the outcomes of such consultations are annexed to the annual report. Another interesting lesson from the Belgian NPB relates to how the NPB Chair stimulates Board members' engagement in the discussion. Board members are invited to provide their opinions as subject-matter experts where everyone is invited to explain their opinion and convince others of the validity of their own arguments, thus attempting to delink people from the institutions they represent. This approach is applied in all consultations that the CCE holds with social partners, including those regarding the content of NPB's annual reports.

The French NPB has been institutionalising stakeholders' consultations in the production cycle of annual reports. Every year, the first completed draft of their annual report is sent to social partners for feedback, which can be

3. Analysis of the set-up and capacity of the Slovak NPB

integrated in the report where appropriate. Additionally, the French NPB opens a one-month consultation process with the public. The Chilean NPB goes a step further with respect to open consultations. In particular, it actively encourages citizens to participate in the formulation of policy proposal based on the results of its annual reports striving to ensure inclusiveness and representation. Moreover, for its analysis of productivity in the construction sector, it relied on 400 interviews with experts, consultants, and representatives of construction businesses. Finally, the Portuguese NPB organised a series of conferences around the content of annual reports to seek stakeholders' inputs.

Learnings from countries' experiences

The experiences presented above illustrate a few dimensions through which the Slovak NPB could strengthen its engagement with stakeholders. While the Slovak NPB has been conceived as multi-stakeholder by design, it could benefit from an engagement strategy that:

- **If multiple stakeholders are to stay, enhances their participation (currently as members with non-voting power) in the discussions concerning the annual reports.** However, their contribution should be of technical rather than political nature to help reaching a common understanding of the bottlenecks hampering productivity growth.
- **Develops an open and formal consultation process with trade unions and social partners,** especially with those that are not members of the NPB, by requesting feedback on the annual reports prior to their finalisation. Given the complexity of productivity issues, it will be important to ensure that the duration of the consultation timeframe is sufficient for stakeholders to adequately weigh the evidence and develop informed feedback. Stakeholders' opinions could be annexed to the report. The Slovak NPB could also commit to address submissions from social partners with a reasoned statement of acceptance or rejection.
- **Consults with relevant stakeholders on a regular basis** when developing sector specific studies to share data and knowledge and reach a common understanding on advice that can be effectively implemented. This can be achieved by organising thematic workshops to ensure the consultations are relevant and targeted to specific topics of interest.
- **Conducts regular consultations with the public** to ensure the engagement strategy is inclusive and takes into account the inputs of those who may benefit from the implementation of productivity-enhancing reforms. Inclusion should be achieved by considering how to involve under-represented stakeholders and groups. Efforts should be made to preserve integrity and prevent corruption by ensuring that diverse voices are engaged in roundtable discussions and specific groups.
- **Considers making the engagement process and related materials** – including agendas and briefing documents for consultations – **available to the public in a timely manner**, in line with OECD best practices for engagement strategies by public bodies (OECD, 2020). Better public communication should be leveraged to inform the public about the process, evidence presented, outcomes, and incorporation of stakeholders' feedback.
- **Engage with international stakeholders by making use of the numerous opportunities to exchange knowledge and experiences** with other National Productivity Boards through the European Commission's network of productivity boards and the OECD Global Forum on Productivity, for example.

3.3.2. Dissemination

In accordance with the NPB Statute, annual reports from the Slovak NPB are presented to the government once a year. The NPB also conducts outreach activities to disseminate its reports to external stakeholders and the wider public at its own initiative. The purpose of these outreach activities is to share expert knowledge on productivity matters, and to network with fellow productivity institutions. The impact of these outreach activities is not monitored.

Relevant experiences from other countries

Dissemination activities aim to enhance the impact of publications on public opinion, encouraging institutions to ensure that their work reaches a high-quality standard to allow for public dissemination. When effective in mobilising public opinion, dissemination and media outreach activities can boost the impact and echo of the policy recommendations put forward by the NPB and help the NPB gaining influence and traction on policy-making.

Dissemination activities can include conferences, sectoral and regional workshops, and regular bulletins as well as building a dedicated website, drafting press releases, interviewing with the press, preparing presentations for social partners, academia as well as preparing meetings at the national and the international level. NPBs that engage more in dissemination activities are usually those who can leverage on the strategy of an existing institution that had managed to build up a good reputation among policymakers and the public at large. This is the case, for example, of the Belgian and French NPB who have been able to disseminate the results of the annual reports to share expert knowledge, engage with civil society and other interest groups. Notably, the French NPB pays particular attention to its media outreach and tracks the frequency by which its research appears on regular media. Similarly, the Irish NPB has been developing bulletins to catch the attention of policy makers and raise the interest of media about the findings of annual reports.

The Portuguese NPB has also been very active in organising several dissemination activities such as conference and webinars, call for papers, working paper series, while also collaborating with the Central Bank and the National Statistical Office to conduct joint dissemination activities and raise public awareness. The German and Slovenian NPB organised a series of regular conferences to disseminate their results. For example, Slovenia's IMAD held an online conference in 2020 to gather the views of key European Commission, national government and industry stakeholders, on its productivity report findings, whereas, the German Council of Economic Experts (GCEE) is tasked with organising a National Productivity Dialogue which provides a platform for regular exchange at both the national and international level on productivity. This allows relevant stakeholders to offer their views on the latest National Productivity Report, and to discuss how to respond to its findings.

Learnings from countries' experiences

The experiences presented above illustrate a few dimensions through which the Slovak NPB could strengthen its dissemination activities. As in the case of other Productivity Boards that were recently established, it needs time and resources to establish its reputation. To this end, the NPB could:

- **Organise a range of outreach activities** including thematic workshops, annual presentations to social partners, surveys and roundtable discussions, to raise public awareness on national productivity challenges.
- **Organise open dialogues with academia** to elicit students' interests in productivity. In turn, this could also be beneficial to future research activities insofar as reaching out to students engenders interest in research collaboration on productivity topics.
- **Organise dissemination events with the Parliament.** This could help raise awareness among politicians on the work of the NPB and on the challenges associated with lacking productivity growth.
- **Set-up a comprehensive communication strategy** to engage with media and establish contacts with national specialised and generalist press, including strengthening NPB's online presence. This role should be developed by the Secretariat which could then facilitate exchanges with individual board members.
- **Ensure that communication around research and policy recommendations is of non-technical nature.** Specific policy recommendations should be underpinned by solid economic analysis yet communicated in a non-technical manner for them to be easily understood by media and the wider public and attract more attention. The experience of the Irish NPB shows that non-technical bulletins can be effective in drawing media attention.

3. Analysis of the set-up and capacity of the Slovak NPB

- **Harness synergies with other institutions to expand the array of dissemination activities.** Wherever possible, the NPB should seek synergies with partner institutions and international networks to optimise dissemination efforts in light of limited resources. For example, report translation could be delegated to the European Commission, who facilitates the Network of NPBs and can provide in-kind support to several activities.
- **Start monitoring the impact of outreach and dissemination activities,** for instance by tracking references to the annual report in the media.

Policy-making

The Slovak National Productivity Board is entrusted to monitor, analyse and assess domestic productivity and competitiveness. Its assessment can cover areas of innovation, business environment, education, effectiveness of the public sector, as well as the attractiveness of the Slovak Republic for foreign investment. In doing so, the NPB publishes its analyses in an annual report on the development of productivity and competitiveness.

Annual reports aim to uncover the long-term driving forces and determinants of productivity and competitiveness as per the mandate of the National Council. The topics of the 2020 Annual Report ranged from assessing the impact of the Covid-19 crisis on productivity and competitiveness, to research and innovation policies (ISA, 2021[6]). The report was publicly released in August 2021.²⁰

To guarantee accountability, the Statute mandates that, according to need and at least once a year, the NPB members must gather with the goal of presenting the Report's conclusions and addressing possible remarks from members. The NPB Statute details the procedure for the secretariat to receive feedback on the draft Report from experts.

The first Annual Report contains ten broad policy recommendations, which were presented in a workshop with government officials in September 2020. To disseminate the results to the public, the report was presented at a Slovak economic association conference in December 2020. The second Annual Report has not been disseminated and simply posted on the ISA website.

Visibility and impact of the policy recommendations seems to be limited. The Statute does not provide for a mechanism by which the Board formally presents its reports to the government and/or Parliament. Responses to the Reports from the government are not mandated. The recommendations stemming from the first annual report have not translated into policy actions that could be tracked over time.

Relevant experiences from other countries

Pro-productivity institutions can be expected to be more effective when they are “plugged in” to policy-making processes bearing on productive performance, or at least to be in a position to directly influence decision-making in those areas (Banks, 2015[8]). However, NPBs face some trade-offs between being able to influence policy-making and maintaining functional independence. Most NPBs across OECD countries walk along a continuum of options in this regard. The US Council of Economic Advisers is an example of an institution that regularly co-operates in ex-ante economic analysis of the impacts of new federal regulations and is therefore very close decision-making power and so is the Chilean NPB where all new major legislative proposals are subject to a specific productivity impact assessment (Renda and Dougherty, 2017[7]). Similarly, the 2020 annual report of the Danish NPB includes sections that assess the effects on productivity of policies adopted in the wake of the Covid-19 crisis and make recommendations to increase their impact on productivity (European Commission, 2021[9]).

The extent to which productivity boards are plugged into policy-making bears also an influence on the type of recommendations that are likely to be more effective. Countries experiences seem to illustrate two different approaches, the Belgian NPB's approach has been that of providing recommendations that are broad in scope letting the government decide on the most appropriate policy actions. Conversely, the French NPB has developed targeted

20. The report is accessible at: https://www.vlada.gov.sk/share/uvsr/isa/npr-sr/23082021_Report_on_Productivity_and_Competitiveness_2020_FINAL.pdf

recommendations in the wake of the Covid-19 crisis which have informed policy action for accelerated and simplified procedures for affected businesses. While more targeted recommendations are likely to have more impact, they also risk encountering political resistance more easily. Ultimately, the choice of the most appropriate type hinges on the relationship the NPB cultivates with policy-makers. Similarly, relevance comes from more timely analysis as in the case of Covid-19, but such analysis should be harnessed by sound data and knowledge not to undermine the institution's credibility. The value of NPBs lies also in providing long-term strategic reflections on productivity and competitiveness that have to reach policy makers with no immediate impact. Both short-term oriented and long-term oriented policy recommendations are necessary to fulfil NPBs mandate.

The connection with policy-making can be more or less formal and grounded in the NPB mandate. In the case of the Irish NPB, the latest annual report detailed twenty policy recommendations around four key challenges emerging from the pandemic. In response to the recommendations, the government detailed policy actions that will be undertaken. This type of relationship with the government is underpinned by the longstanding recognition of the quality of the NPB economic analysis as well as the expertise and reputation of its Board members. These characteristics may prompt government responsiveness to policy recommendations even in absence of specific provision in the mandate of the NPB, as in the case of France described earlier.

Learnings from countries' experiences

The experiences presented above illustrate a few elements through which the Slovak NPB could gain influence on policy-making processes.

- **Establishing regular communication channels with government and Parliament could strengthen the position of the NPB**, while maintaining functional autonomy. In addition to strengthen the engagement of Board members representing the analytical units of relevant ministries, the Slovak NPB could establish regular exchanges with government officials and parliamentarians and relevant Parliament Committees who deal with dossiers that are connected with productivity.
- **Engaging in policy evaluation can help the NPB to familiarise with policy measures and refine recommendations for better impact on policy-making.** The Slovak NPB could evaluate the potential impact on productivity of measures associated with the Recovery and Resilience Plan if requested by the government. This could help the NPB understand the characteristics and limits of policy measures and develop a stronger engagement and a common language with policy makers. In doing so, the NPB should preserve its independence and credibility by being critical when needed.
- **Providing timely advice on short-term issues can be an opportunity to raise the reputation and legitimacy of the NPB.** The Covid-19 crisis prompted the issuance of numerous assessments of its impact on productivity and other economic outcomes. The Slovak NPB could showcase its analysis and policy recommendations on the impact of Covid-19 to both policy makers and the general public to increase its visibility and provide timely policy advice. Evaluating The Recovery and Resilience Plan offers a further opportunity to improve the NPB's visibility with policy-makers.
- **Media can be powerful allies in influencing policy-making.** Media can have a strong influence on policy-making insofar as politicians are interested in maintaining consensus. Conveying policy recommendations through media can improve their likelihood to be adopted. Recommendations that are not in line with the current government thinking may have a greater echo, but they risk to undermine the NPB's credibility if not yet sufficiently established.
- **Nurturing relationships with the government at the technical and political level is essential to influence policy-making.** Engaging with the government at the technical and political level is essential, insofar as it is done without undermining the NPB's independence. Maintaining independence against specific political interests can strengthen the NPB's credibility in the long run.

3. Analysis of the set-up and capacity of the Slovak NPB

- **Focusing on long-term challenges can improve the NPB's influence and credibility.** The Slovak NPB should create a reputation of being an institution that provides a shared diagnostic and a long-term strategy for productivity in the country. By framing short-term issues from a long-term perspective, capturing economy-wide ramifications and incorporating future social, economic and technological transitions, the NPB can express its opinions on short-term issues without undermining its long-term credibility.

References

- Banks, G. (2015), “Institutions to Promote Pro-Productivity Policies: Logic and Lessons”, *OECD Productivity Working Papers*, No. 1, OECD Publishing, Paris, <https://dx.doi.org/10.1787/5jrql2tsvh41-en>. [8]
- Berlingieri, G. et al. (2020), “Laggard firms, technology diffusion and its structural and policy determinants”, *OECD Science, Technology and Industry Policy Papers*, OECD Publishing, Paris, <https://doi.org/10.1787/281bd7a9-en>. [20]
- Council of the EU (2016), *Council Recommendation of 20 September 2016 on the establishment of National Productivity Boards.*, Official Journal of the European Union, Vol. 59, C349, 24 September. [3]
- CPB (2017), “Productivity Slowdown, Evidence for the Netherlands”, *CPB Communication*, CPB Netherlands Bureau for Economic Policy Analysis, <https://www.cpb.nl/sites/default/files/omnidownload/CPB-Communication-7march2017-Productivity-Slowdown.pdf>. [13]
- Danish NPB (2020), *Models, data and methods*, *De Økonomiske Råd.*, <https://dors.dk/modeller-metoder>. [12]
- Demmou, L. et al. (2021), *Insolvency and debt overhang following the COVID-19 outbreak: Assessment of risks and policy responses*, OECD Economics Department Working Papers, No. 1651, OECD Publishing, Paris, <https://doi.org/10.1787/747a8226-en>. [15]
- Dingel, J. and B. Neiman (2020), “How many jobs can be done at home?”, *Journal of Public Economic*, Vol. 189, <https://doi.org/10.1016/j.jpubeco.2020.104235>. [18]
- Elsevier (2019), *Scopus Custom Data*, <http://customdata.scopus.com/> (accessed on 16 February 2021). [24]
- European Commission (2021), “Community survey on ICT usage in households and by individuals”, *ICT usage in households and by individuals*, <https://ec.europa.eu/eurostat/web/digital-economy-and-society/data/comprehensive-database> (accessed on 25 February 2021). [21]
- European Commission (2021), “European Union Labour Force Survey”, *EU LFS*, <https://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey> (accessed on 10 February 2021). [16]
- European Commission (2021), *Follow-up of the progress report on the implementation of the Council Recommendation*, *Commission Staff Working Document*, SWD(2021)216. [9]
- European Commission (2020), *The Digital Economy and Society Index*, <https://ec.europa.eu/digital-single-market/en/desi> (accessed on 20 February 2021). [17]
- European Commission (2019), *Progress Report on the Council Recommendation on the establishment of National Productivity Boards | European Commission*, https://ec.europa.eu/info/files/progress-report-council-recommendation-establishment-national-productivity-boards_en (accessed on 20 August 2021). [11]
- GCEE (2021), *National Productivity Dialogue*, <https://www.sachverstaendigenrat-wirtschaft.de/en/topics/productivity/productivity-dialogue.html>. [30]

References

- GCEE (2019a), *Objectives and tasks*,
<https://www.sachverstaendigenrat-wirtschaft.de/en/about-us/objectives.html>. [27]
- IMAD (2018), *About IMAD*, <https://www.umar.gov.si/en/imad/>. [26]
- International Labour Organization (2008), “International Standard Classification of Occupations”, ISCO-08, <https://www.ilo.org/public/english/bureau/stat/isco/isco08/>. [22]
- ISA (2021), *Report on Productivity and Competitiveness of the Slovak Republic 2020*. Accessible at:
https://www.vlada.gov.sk/share/uvsr/isa/npr-sr/23082021_Report_on_Productivity_and_Competitiveness_2020_FINAL.pdf. [6]
- ISA (2020), *Presentation on National Productivity Board*. Accessible at:
https://www.vlada.gov.sk/data/files/7654_nrp-sr-isa-en.pdf. [5]
- ISA (2020), *Report on productivity and competitiveness of the Slovak Republic*, Available at:
https://ec.europa.eu/info/sites/info/files/economy-finance/7814_report-on-productivity-and-competitiveness-of-the-slovak-republic-npb-isa-final2.pdf. [4]
- OECD (2022), *OECD Economic Surveys: Slovak Republic 2022*, OECD Publishing, Paris,
<https://doi.org/10.1787/78ef10f8-en>. [2]
- OECD (2021), *MultiProd*, <https://www.oecd.org/sti/ind/multiprod.htm>. [14]
- OECD (2019), *Pensions at a Glance 2019: OECD and G20 Indicators*, OECD Publishing, Paris. [1]
- OECD (2012,2015,2018), “Programme for International Student Assessment”, PISA,
<https://www.oecd.org/pisa/> (accessed on 15 February 2021). [23]
- Renda, A. and S. Dougherty (2017), “Pro-Productivity Institutions: Learning from National Experience”, *OECD Productivity Working Papers*, No. 7, OECD Publishing, Paris,
<https://doi.org/10.1787/d1615666-en>. [7]



4901.701

1.01439

4972.23647

4901.62186233

0.001

4.90162186

4901.62186233

0.00304021

14.9999922

4901.62186233

0.04599855

225.467498

4901.6817

0.99459

4875.16360

4901.62186233

0.00361509

17.7198041

4901.62186233

0.00276554

13.557293

4901.62186233

0.0027471

11.864554

4901.62186233

0.0150094

76.420817

4901.62186233

0.0384543

186.494986

Enhancing the capacity to understand the drivers of productivity gains to inform public policy action is particularly important and timely for the Slovak Republic. The country is faced with rapid technological changes and the need to upgrade the skills of its workers to protect their longer-term employability and make the economy more resilient to external shocks. In addition, sustaining productivity gains, largely based on integration into global value chains, is essential to revive economic convergence and boost living standards in Slovakia's ageing society.

To help respond to some of these challenges, the Slovak Republic established its National Productivity Board (NPB) in September 2019. This body responds to the 2016 Recommendation of the Council of the European Union inviting all Member States of the euro area to set-up National Productivity Boards. These institutions are intended to monitor economic competitiveness within each EU country and produce relevant policy recommendations. The 2016 Council Recommendation envisaged productivity boards as objective, neutral and independent institutions with the function of analysing productivity and competitiveness challenges and contributing to evidence-based policy-making.

The Slovak NPB is located at the Institute for Strategy and Analysis (ISA) of the Government Office of the Slovak Republic. ISA was appointed as the Secretariat of the Board, to prepare the annual report and develop analyses on productivity, competitiveness and innovation in cooperation with the NPB members, and to participate in the European network of NPBs. The Slovak NPB released its first Annual Productivity Report in March 2020, while the second Annual Productivity Report was released in August 2021.

Through this project, the OECD supported the Slovak NPB to align its work and activities with best international practices, in co-operation with the Directorate-General for Structural Reform Support (DG REFORM) of the European Commission. The goal of the project is to strengthen the Slovak NPB's institutional set-up and analytical capabilities to collect and analyse productivity data, as well as develop policy-oriented recommendations.

The report provides an overview of practical strategies to enhance the capacity of the Slovak NPB to analyse productivity trends and contribute to the development of pro-productivity policies. It draws on international practices from OECD countries, and the practical experience of a number of NPBs and pro-productivity institutions, including the Belgian, French, Irish, and Luxembourgish and Portuguese NPBs, which were actively involved in the project as international peers. The report provides lessons tailored to the Slovak NPB that can provide guidance and insights also for other institutions working on productivity analysis in other EU and OECD countries. Specifically, the report presents: an assessment of the institutional set-up and capacity of the Slovak NPB; an analysis of the focus, structure and process and content of the Slovak NPB annual reports; and guidance on OECD methodologies for analysing productivity trends and developing analytical work, as well as key analytical insights and messages of the data and indicators.

The project was implemented by an OECD multidisciplinary team with experts from the Economics Department, and Science, Technology and Innovation Directorate.

