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COMMISSION STAFF WORKING DOCUMENT

**Follow-up of the progress report on the implementation of the Council Recommendation
of 20 September 2016 on the establishment of National Productivity Boards**

1. Introduction and main findings

The COVID-19 crisis takes place against the backdrop of faltering productivity growth. Slow productivity growth had been a long-lasting challenge in virtually all advanced economies, even before the onset of the COVID-19 crisis. While it is still early to assess in full the implications that it may have on future productivity trends, a more protracted crisis entails a higher risk of negative repercussions through a number of channels, including firms scaling down investments, a deterioration of skills among the long-term unemployed and the creation of fewer new businesses. In addition, the COVID-19 crisis has been a setback for many Member States, which had been gradually reducing their imbalances since 2013. In general, public and private debt stocks have increased. While this is due in good part to the substantial level of much-needed public support for the economy, in many cases it adds to existing vulnerabilities. At the same time, vulnerabilities linked to cost pressures that had been building up in recent years are softening. Moreover, while recently buoyant labour cost and house price dynamics are expected to fade, there is risk of excessive downward correction, particularly for house prices. The COVID-19 crisis is not, however, expected to have a major impact on the current accounts of most EU Member States.¹

The COVID-19 crisis further strengthens the need for the European economy to become more productive, competitive and resilient. Reforms and investment need to take place in the Member States to ensure a sustainable recovery and promote convergence. Against this backdrop, National Productivity Boards can support the development of policy measures tailored to the individual needs of each country, including in the process of the implementation of the Recovery and Resilience Plans (RRP),² while taking into account the domestic and the broader euro-area dimension. The latter is particularly important for policies with spillover effects on other countries, such as those fostering the green transition or those where the Single Market is involved.

In February 2019, the European Commission published a report about the state of play of the set up of Productivity Boards.³ It noted good progress in a number of EU countries and welcomed their growing contribution to domestic policy debates. The report showed that there was scope for enhancing the functional autonomy of some Boards and their access to information. It stressed that National Productivity Boards have the potential to inform the discussions on productivity and competitiveness-related policies. The report concluded, however, that it was too early to evaluate the effectiveness of Productivity Boards, as most of them had been appointed only recently.

The Commission announced that it would assess again the implementation of the Council Recommendation on the establishment of the Productivity Boards (the Recommendation).⁴ This note provides this updated assessment. It is based on the replies to a survey sent by Commission staff to the appointed Productivity Boards as well as on the views of the European Semester Officers and ECFIN's geographical desks. It describes the state of play on the set-up of Productivity Boards as of April 2021, evaluates their role in domestic policy debates and suggests ways to enhance their functioning. Its main findings are the following:

¹ See the 2021 Alert Mechanism Report.

² For information about the Recovery and Resilience Facility, go to [Recovery and Resilience Facility | European Commission \(europa.eu\)](https://ec.europa.eu/economy_finance/recovery-and-resilience-facility)

³ COM(2019) 152 final.

⁴ Hereinafter referred to as “the Council Recommendation”.

- **National Productivity Boards are now established in 18 Member States.** Six new Boards have been established since the publication of the first progress report in 2019 (Germany, Greece, Malta, Latvia, Slovakia, and Croatia). In 2020, one country, Romania, wound down its Productivity Board. All but four euro-area countries (Austria, Estonia, Italy and Spain) have established a Productivity Board.
- **Productivity Boards contribute to evidence-based policy-making.** Fifteen Productivity Boards (Belgium, France, Cyprus, Denmark, Finland, Germany Greece, Ireland, Lithuania, Latvia, Luxembourg, Malta, Portugal, Slovakia and Slovenia) **have published at least one annual report** as envisaged by the Recommendation; the three remaining Boards have yet to publish their first reports. The reports give an up-to-date overview of productivity and competitiveness developments in the respective countries. Moreover, there is a variety of analytical approaches and therefore, potential for exchanging insights into methodologies, drivers of productivity, competitiveness and related policies.
- In the current context, **Member States could have sought the expert opinion of Boards to a higher degree on the reforms and investments included in the Recovery and Resilience Plans.** While there is no requirement for governments to consult them, the Commission’s Guidance to Member States on the Recovery and Resilience Plans⁵ calls on Member States to seek the advice of their Productivity Boards on the plans. However, only a minority of governments have consulted the Productivity Boards on their draft Recovery and Resilience Plans. Looking ahead, National Productivity Boards could assess the effect of productivity-related reforms adopted in the framework of the Recovery and Resilience Plans.
- Boards **based on existing independent institutions and with strong analytical capacity appear to be more effective** in communicating their analyses to the public and in channelling them to policy-makers.
- There is **room for increasing the cooperation among Productivity Boards**, including on identifying topics to be discussed at the periodic workshops organised by the network.

2. State of play on the establishment of National Productivity Boards as of April 2021

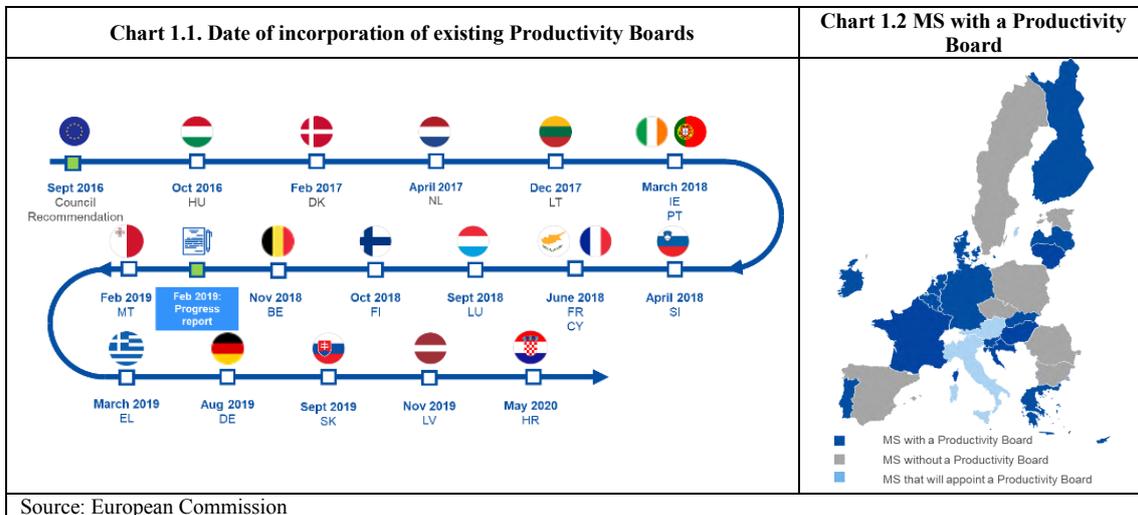
2.1 Geographical coverage

18 EU Member States have appointed a Productivity Board (see Charts 1.1 and 1.2):

- Fifteen of those are euro-area countries: Belgium, Cyprus, Germany, Greece, Finland, France, Ireland, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia and Slovenia. So far, the remaining four euro-area countries – Austria, Estonia, Italy and Spain – have not yet created their own Productivity Board. However, Italy and Austria have announced their intention to set up one, with the COVID-19 pandemic having delayed their establishment. Once completed, all but two euro-area countries will have appointed a Productivity Board.
- In addition, three non-euro-area countries – Croatia, Denmark, and Hungary – have appointed a Productivity Board. The remaining non-euro-area countries (Bulgaria, the Czech Republic, Poland, Sweden) have decided not to create one.

⁵ See the Commission staff working document - Guidance to Member States Recovery and Resilience Plans [Part I](#) and [Part II](#).

- Six Boards have been appointed since February 2019, the date of the publication of the Commission’s first progress report, while one, the Romanian Board, was abolished.⁶ At the time of writing, a decision to re-establish the Board had not been taken following the December 2020 Romanian general elections.



2.2 Organisational structure

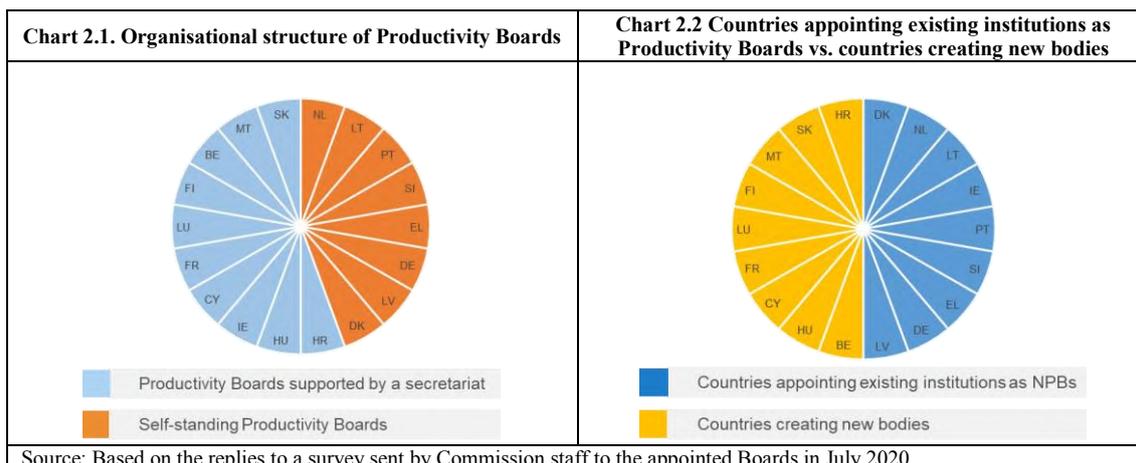
The Recommendation leaves wide discretion in terms of the organisational structure of Productivity Boards. Member States broadly choose between two approaches:

- (i) The Productivity Board consists of several members coming from academia, business associations, unions, government departments and is headed by a chair. Such Boards are typically supported by a secretariat from an existing institution.
- (ii) The role of the Productivity Board is entrusted to an already existing body or an institution as a whole, led by a remunerated director or chair working full time and equipped with its own staff, whose mandate has been expanded to cover the objectives of the Council Recommendation.

A majority of Member States have opted for the first approach. This is the case of Belgium, Cyprus, Finland, France, Hungary, Ireland, Luxembourg, Malta, Slovakia and Croatia (chart 2.1). The technical and/or secretarial support is usually provided by a government department (Cyprus, Finland, Hungary, Ireland and Luxembourg) or an institution other than a government department (France, Malta, Slovakia and Croatia) or a mix of both (Belgium⁷). In the case of the second approach, the role of the Productivity Board is entrusted to an independent economic institute (Denmark, Germany, the Netherlands, Slovenia) or a ministerial department (Lithuania, Portugal).

⁶ In spring 2020, Romania’s National Commission for Strategy and Forecast was the object of a reorganisation. The reorganisation wound down Romania’s National Productivity Board, i.e., the Economic Programming Council, which was part of the former body.

⁷ In Belgium, the secretariat is done by the Federal Public Service of Economy while at the same time, 3 independent federal bodies - the National Bank of Belgium, the Secretariat of the Economic Council and the Federal Planning Bureau – provide technical assistance.



2.3 Functional autonomy

Functional autonomy is crucial for the conduct of the Productivity Boards’ mandate. It allows the Boards to carry out their analysis free of undue political influence. According to the Recommendation, functional autonomy should be further underpinned in the domestic legal framework with provisions: i) setting out procedures for nominating members on the basis of their experience and competence; ii) guaranteeing appropriate access to information to carry out their mandate; and iii) capacity to communicate publicly in a timely manner. Therefore, functional autonomy is best ensured when anchored in domestic legislation and supported by the abovementioned elements.

- The regulations for the individual Boards explicitly guarantee their *functional autonomy* in around 60% of the cases, up from 46% reported in February 2019 (table 1). This is because four out of the six new Boards have their functional autonomy provided for in domestic legislation and also because the terms of reference of the Irish Board were amended in November 2020 to grant it autonomy from the government.
- Irrespective of whether their functional autonomy is set out in domestic legislation, all Productivity Boards have reported that they decide freely on their work programme, including some Productivity Boards without any provision underpinning their functional autonomy (e.g. Croatia, Portugal). However, in August 2020, the Slovak government initiated draft legislation to transform Slovakia’s Productivity Board into a public sector body in charge of the government’s better regulation agenda and of carrying out the duties of the current Board. While at the time of writing, work on the draft legislation was still ongoing, the planned reform raises some compatibility concerns with the September 2016 Recommendation, in particular, concerning the functional autonomy and the mandate of the planned new body.
- As regards the *eligibility criteria* to be met by the Boards’ members/management, they help to ensure the quality and independence of the Productivity Boards’ output. The criteria, which appear in the legislation of 10 Boards, consist of academic qualifications (Germany, Greece, Ireland, Slovenia), expertise in the field (Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Hungary, the Netherlands) and rules to avoid conflicts of interest (Germany, Belgium and Denmark). In other cases, the Boards have noted that there is no legal provision on criteria for nominating board members, although this is achieved through other means. For example, in Latvia, board members have been selected based on their reputation and experience in policy-making and in economics.

- While the majority of countries secure their Productivity Board’s *access to information* through legal provisions, according to the Boards’ self-assessment, access to information does not appear to be an issue in most cases. In addition, two Productivity Boards (Germany, the Netherlands) have signed memoranda of understanding with their statistical offices.

Table 1: Overview of National Productivity Boards’ functional autonomy

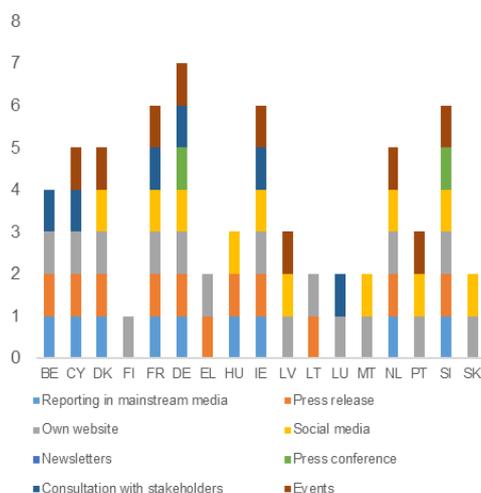
	Functional autonomy set out in the domestic legislation on the Productivity Board	Elements of the functional autonomy set out in the domestic legislation		
		Access to information (*)	Rules for nominating members / management	Publication of an annual report (**)
HU			X	
DK	X	X	X	X
NL	X	X	X	
LT				X
IE	X	X	X	X
PT				
SI	X	X	X	X
CY		X		X
FR			X	X
LU	X	X		X
FI	X		X	X
BE	X	X	X	X
MT	X	X		X
EL	X	X	X	X
DE	X	X	X	X
SK	X			X
LV				
HR				X

(*) I.e. set out in domestic legislation, including legal texts adopted by the government, and/or through memorandum of understanding with the National Statistical Office.
(**) The domestic legislation requires the Board to publish an annual report, and its output is not subject to external approval before publication.
Boards sorted by date of incorporation.

- As for the capacity of Productivity Boards to communicate in public, in all but four cases, domestic legislation requires Productivity Boards to publish an annual report (table 1) – a formal requirement embedded in the Recommendation; the Portuguese and the Latvian Productivity Boards have, however, published one, even without such a legal requirement. Besides the annual report, which is an essential communication tool, Productivity Boards can also resort to a broader set of communication tools to convey their analysis to a wider public. And while most Boards have their own website or dedicated page on the website of their supporting institution, only a small number (Germany, Denmark, Ireland, France, the Netherlands and Cyprus) appear in the mainstream media (see chart 2.3).

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 Council Recommendation. 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.

Chart 2.3. Overview of the communication tools used by the National Productivity Boards, and press coverage⁸



Source: Based on replies provided in a survey conducted in July 2020 by the European Commission among the Productivity Boards.

3. The role of National Productivity Boards in domestic policy debates

3.1 The work of the Productivity Boards over 2019-2020

Effectively contributing to domestic policy discussions is the key objective of the Productivity Boards and an ultimate criterion of their success. This can take place through a number of channels such as publications and outreach activities.

Over 2019 and early 2020, many Boards organised events, ranging from press conferences to specialised seminars or workshops. The Boards were increasingly active and such events took place in Cyprus, France, Latvia, Malta, the Netherlands, Portugal, Slovakia, Slovenia, Germany and Denmark.

The outbreak of COVID-19 has affected the activities of the Productivity Boards. Some Boards had to cancel scheduled seminars and conferences. However, the outreach to external stakeholders has resumed with the organisation of digital productivity dialogues (Germany, Slovenia, Latvia). To better quantify the impact of the COVID-19 pandemic on their economies, some Productivity Boards (Germany, Slovenia, Denmark and the Netherlands) have increased the frequency of their forecasts. In addition, the Belgian, Cypriot, French, German, Greek, Irish, Latvian, Lithuanian, Maltese, Portuguese and Hungarian Boards have also analysed the challenges of the COVID-19 pandemic without a formal request from the government, thus showing their ability to decide autonomously on their work programme.

Member States could have consulted Productivity Boards to a higher degree in the preparation of the Recovery and Resilience Plans. More specifically, Productivity Boards could have been used to: i) provide detailed analysis on the impact of reforms and investment; ii) help establish clear, realistic and well-defined targets and milestones; iii) contribute to the setting-up of the costing framework; and iv) provide an assessment on how the measures contribute to the green and digital transitions. Accordingly, and while there has been no

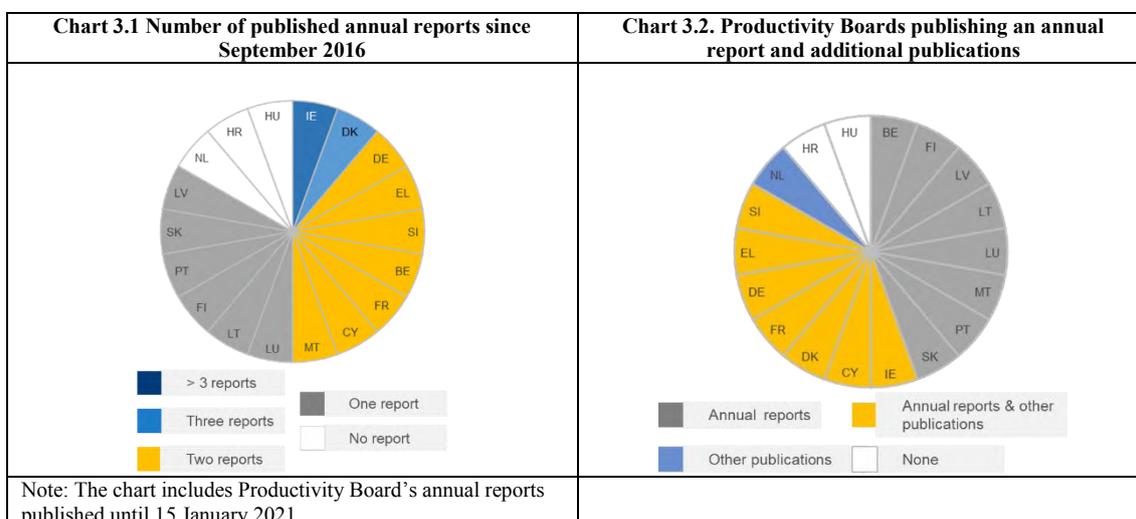
⁸ At the time of writing, Croatia's Productivity and Competitiveness Board (HPK) had not started operations (its first meeting is scheduled for autumn 2021). Therefore, chart 2.3 does not show Croatia.

requirement for governments to consult them, the Commission’s Guidance to Member States on the Recovery and Resilience Plans⁹ called on Member States to seek the opinion of their Productivity Boards and/or Independent Fiscal Institutions on the plans. Only a minority of governments (Cyprus, Germany, Greece, Malta, Latvia, the Netherlands and Slovenia) sought the advice of their own Productivity Board, although a number of Boards had expressed their readiness to be further involved in the preparation and assessment of the Recovery and Resilience Plans (Belgium, Cyprus, France, Greece, Malta and Slovakia). Looking ahead, as Member States implement their RRFs, Productivity Boards could assess the effect of productivity-related reforms adopted in the context of the RRF.

3.2 Annual reports¹⁰

General comments

Annual reports are one of the main communication tools of Productivity Boards. Since September 2016, 15 Productivity Boards have published at least one annual report (chart 3.1). Three Boards have not published one so far (Croatia, Hungary and the Netherlands). The Dutch CPB produces studies throughout the year on productivity and competitiveness-related matters, which, however, do not take the form of an annual report. Nevertheless, it will publish an annual report on productivity starting from 2021. Hungary’s Productivity Board is not required by national regulations to produce an annual report, although this is set out in the Recommendation.¹¹ Croatia’s Productivity Board is expected to draw up a report at least once a year. However, its work has not yet started. Moreover, several Productivity Boards (Cyprus, Denmark, France, Germany, Greece, Ireland, Slovenia) publish analyses in addition to the annual reports (chart 3.2).



Topics and methodological aspects

The Council Recommendation gives guidance on the scope of the Productivity Boards’ analyses, in particular:

⁹ See the Commission staff working document - Guidance to Member States Recovery and Resilience Plans [Part I](#) and [Part II](#).

¹⁰ This section focuses on the reports published in 2019 and 2020, with a cut-off date of 15 January.

¹¹ Hungary’s Productivity Board has reported to the Commission staff that it conducts analyses that are presented to the government, but that are not published.

- Productivity Boards should analyse productivity and competitiveness developments, including in relation to global competitors.
- They should take into account the long-term drivers and enablers of productivity and competitiveness, including innovation, and the capacity to attract investment, businesses and human capital.
- They should address cost and non-cost factors that can affect prices and the quality content of goods and services, including in relation to global competitors in the short term.
- The Productivity Boards may assess the effects of policy options by making trade-offs of policy explicit.
- The analysis should also take into account euro-area aspects.

Broadly speaking, the annual reports cover the topics set out in the Council Recommendation. The reports discuss developments in productivity, while around 60% discuss cost and / or non-cost factors that affect competitiveness. Most reports also discuss the impact innovation and human capital on both variables. Furthermore, 11 reports (Belgium, Cyprus, Denmark, Germany, Greece, Ireland, Lithuania, Slovenia, Slovakia, Malta, Latvia) include a section on policy recommendations / policy options, while three others (Finland, France, Portugal), do so implicitly in the concluding section. The recommendations can be addressed to national governments, as well as to the European institutions. However, the euro-area dimension (e.g. to evaluate competitiveness and productivity developments not only from a national perspective, but also in relation to their implications for the euro-area) is largely absent in most reports.

The reports published in 2019 echo the much debated productivity slowdown in advanced countries. They provide a comprehensive overview of productivity trends in the countries in question, as well as general and country-specific factors behind the slowdown, which has occurred despite rapid technological advancement globally.¹² Most reports published in 2020 address the **impact of the COVID-19 crisis on productivity** and, more broadly, on the economy. Besides the challenges posed by the pandemic, they also consider the opportunities brought about by it in terms of the green and digital transitions.¹³

The reports take a variety of approaches in their analysis of developments in productivity and competitiveness. For example, some Productivity Boards have developed their own methodologies to assess competitiveness, while others have included innovative indicators in their annual reports (more details can be found in annex 1). Against this backdrop, there is potential for Productivity Boards to exchange insights into methodologies, drivers of productivity, competitiveness and related policies.

Recommended policies and the euro-area dimension

- **Many reports view the COVID crisis as an opportunity/trigger for the digital and green transitions.** The crisis has given an extra stimulus to the digitalisation process, as witnessed by the growth in e-commerce and the rise in teleworking. In some countries, it has also revealed gaps in the digitalisation of public administrations, including healthcare

¹² The general factors consist of the growing importance of the services sector, the decline in the number of business startups and the ageing populations. The country-specific features point to the restrictiveness of the domestic labour and product market regulations (Germany and Portugal), the quality of education (Greece), skills and innovation (France) while others relate to the quality of institutions and the availability of finance (Greece, Slovakia).

¹³ The focus varies across the Boards. For example, the Belgian Board gives an overview of the possible effects of the crisis on the various components of the growth accounting model (i.e. labour resource utilisation, capital deepening and total factor productivity). The French report considers the effects on productivity induced by the reallocation of resources originating from the foreseeable wave of firm bankruptcies. The Maltese and the Greek reports rely on input-output analysis to quantify the impact of the crisis on economic activity.

and education systems. Boards press for the implementation of a comprehensive set of reforms to boost digitalisation through higher: i) innovation (e.g. by accelerating the diffusion of digital technologies and the transfer of knowledge); ii) education (e.g. by addressing the shortage of STEM graduates); and iii) digital skills. In addition, various Boards call for improvements in business dynamics through a reduction of administrative burdens and improvements in the quality of regulation. In parallel, the reports press for greater investment in infrastructure for digital connectivity and also for sustainable development (e.g. for mobility, renewable energy sources, water and sanitation).

- **In the COVID context, several Boards point to the need to remove exit barriers for unviable businesses.** The French report, however, notes that while in normal times the exit of less efficient firms contributes positively to productivity and growth, it can lead to the failure of too many productive companies in times of crisis. To avoid the exit of viable and productive companies, it puts forward options for restructuring corporate debt.
- **Some Boards call for the implementation of productivity-enhancing policies at EU level,** such as those that aim to remove existing barriers to competition in the services market and to deepen the European digital single market.
- **The euro-area dimension is only present in the French and German publications.** The reports cover productivity and competitiveness developments from a domestic perspective. However, they could also take into account the broader euro-area dimension. The reason is that in highly integrated economic areas, productivity and competitiveness developments spill over across countries. Against this backdrop, virtually all reports benchmark productivity and competitiveness against the EU average or country peers. However, only a few of them, namely the reports of France and Germany, consider the implications of domestic price competitiveness and current account positions on the external balance of the euro-area, albeit with different conclusions.

Other features

Some other good practices are worth highlighting. Belgium and Luxembourg's Productivity Boards list the activities undertaken by them throughout the year, thus helping to raise awareness about their work and their role in the domestic policy debate. Moreover, the Belgian and French Productivity Boards seek the views of stakeholders before finalising their annual reports, and publish the opinions of the stakeholders. Also, Luxembourg's National Economic and Social Council, an advisory body to the government, publishes on its website its expert opinion on the Productivity Board's annual report. Furthermore, the German Productivity Board publishes in its annual reports the dissenting views of board members, thus increasing transparency. In addition, the Irish Board's annual report makes recommendations to specific government departments. In November 2020, the Irish government published its response to these recommendations. Lastly, the Danish annual reports include sections that assess the effects on productivity of policies adopted and make recommendations to increase their impact on productivity.

4. Conclusions and way forward

There is scope to further enhance the role of Productivity Boards. Productivity Boards can contribute to enhancing the overall quality of policy-making through their independent analysis. However, while the network of Productivity Boards has grown steadily, it is still incomplete, as so far, several EU countries have yet to establish one.

- Moreover, the analysis shows that there is scope to strengthen the functional autonomy of some Productivity Boards, starting with domestic legislation, as in around 40% of cases, the regulations governing the individual Boards do not explicitly state their functional autonomy.
- In addition, functional autonomy can be strengthened by providing adequate resources and stable funding. The choice of organisational structure may also impact functional autonomy, as for example, it is more difficult to achieve for those Boards that are part of a ministerial structure.
- Furthermore, the Romanian Board was wound down last year following a reorganisation of the National Commission for Strategy and Forecast, which shows that there is a risk of reversal in the process of building institutions supporting evidence-based policy. Hence there is a need for a constant commitment from national governments to support organisations providing independent and high-quality analysis. This is even more crucial in the current context, as Member States will have to adopt and implement structural reforms and investments under the Recovery and Resilience Facility.

There is room for enhancing the visibility of Productivity Boards. The position of Productivity Boards in domestic policy debates also depends on their ability to communicate and engage with relevant policymakers and stakeholders. Increasing their visibility is therefore critical. Boards with higher visibility are, in general, those that are based on an existing institution that had managed to build up a good reputation among policymakers and the public at large. Conversely, newly created Productivity Boards tend to be less visible, as they need time and resources to establish their reputation. Against this backdrop, several Productivity Boards could benefit from setting up a more comprehensive communication strategy, including by, among other things, broader and more systematic use of social media, publishing regular newsletters, engaging with journalists to interview their board members, placing op-eds in the national press, or by publishing their work in academic journals.

There is room for strengthening the exchange of best practices among Productivity Boards. The analysis has shown that there is potential for Boards to exchange insights into methodologies, drivers of productivity, competitiveness and related policies. The Commission has assisted the network of Productivity Boards through various channels including workshops, productivity dialogues and technical support:

- In 2019 and 2020 the Commission organised several workshops to discuss relevant policy issues with the network of Productivity Boards.
- The Commission has also helped with the organisation of Productivity Dialogues in Member States, where Productivity Boards present their analyses and/or recommendations. These dialogues stimulate contributions from a variety of stakeholders and create momentum in public discussion on productivity.
- It is also assisting some Productivity Boards (Cyprus, Lithuania, Hungary and Slovakia) in the strengthening of their analytical capacity through the Structural Reform Support Programme.
- In parallel, the Commission ensures good cooperation and complementarity with the OECD's Global Forum on Productivity.

Looking ahead, Productivity Boards can pursue joint efforts to understand productivity and competitiveness developments and investigate interdependencies, including by carrying out common research projects. The European Commission can also provide support to Member

States through the Technical Support Instrument, to among other things, improve data availability for National Productivity Boards to be able to perform cross-country analyses.

Annex 1. The analysis of productivity and competitiveness in the Productivity Boards' annual reports

This section provides some insights into the methodologies used by National Productivity Boards to analyse productivity and competitiveness developments in their 2019 and 2020 annual reports.

The analysis of productivity

- **All reports assess labour productivity as well as total factor productivity from a multiannual and macro perspective.** In addition, they all benchmark productivity performance *vis-à-vis* the EU and/or country peers. In addition to these, the Finnish report also benchmarks with respect to a 'synthetic control economy'.¹⁴
 - The sectoral and firm-level analysis of productivity is also well represented: 10 and 5 reports include data on labour and total factor productivity at the sectoral level, respectively, while 12 discuss productivity developments at firm level (chart 4.1).
 - Investment, which is a driver of productivity, is discussed by nine Boards, with a focus on the subcomponents of gross fixed capital formation, foreign direct investment, and to a lesser extent, on intangibles.
 - However, the regional dimension is largely absent in the reports, with the exception of the 2019 Greek annual report, which noted a visible productivity gap between the capital and other regions.
- **Boards use a variety of methods in their productivity analyses.** Examples are the use of shift-share analyses in labour productivity growth in Luxembourg and Latvia's 2020 annual report and in Portugal and Slovenia's 2019 annual reports, the latter including various specifications. The German 2019 report uses the quantification of the impact of various types of shocks¹⁵ on productivity growth, based on a two-country DSGE model.¹⁶ Finland's and Luxembourg's reports analyse productivity developments in a limited number of NACE sectors, such as manufacturing and market services, due to difficulties surrounding the measurement of productivity in the other branches. In addition, the 2019 Slovenian report includes a comprehensive chapter on productivity based on firm-level data,¹⁷ as does the Latvian 2020 report.¹⁸ Others, such as the 2020 French annual report, use firm-level data to estimate the expected increase in bankruptcies in the trade sector in 2021 and its effects on labour productivity.

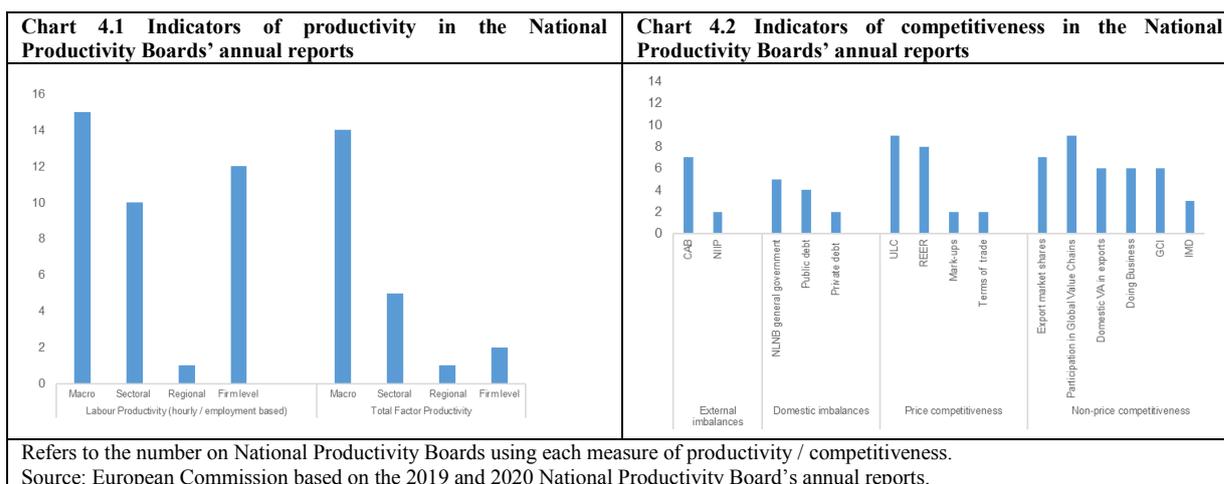
¹⁴ I.e., rather than benchmarking against country peers, the Finnish report compares Finland's productivity performance to a synthetic counterfactual. It is derived as a weighted average of the productivity of other economies, with the set of weights minimizing the mean square error between Finland's productivity and the linear combination of the productivity of the other countries during the time period used for the estimation (i.e., from 2000 until 2007).

¹⁵ I.e., productivity, investment, demand and wage mark-up shocks.

¹⁶ See box 6 (page 96) of the German 2019 annual report. https://ec.europa.eu/info/sites/info/files/economy-finance/productivity_improving_conditions_for_growth_report_2019.pdf

¹⁷ The Slovenian report covers topics such as productivity dynamics and distributions, the productivity of firms at the extreme ends of the distribution and productivity by firm size, export orientation and technological intensity.

¹⁸ The Latvian 2020 report covers topics such as firm level productivity and firm size, sector, sub-sector, age and proximity to the capital city and other major cities, as well as companies' survival rates, based on their characteristics. The findings of the firm level data are used to define criteria for granting of state aid to undertakings, with a view to promoting productivity growth.



The analysis of competitiveness

- **Most reports include a definition of competitiveness.** While for some it relates to external competitiveness, for others it boils down to productivity (annex 1).¹⁹ In practice, 60% of National Productivity Boards evaluate measures of costs and productivity, in accordance with the September 2016 recommendation. Implicit in this is the need to maintain a balance between productivity and costs and the acknowledgement that the latter rising above the former creates imbalances, the adjustment of which may carry significant costs.
- **The analysis of competitiveness is based on a large number of indicators** (chart 4.2).
 - The evaluation of external imbalances usually relies on the current account balance, and to a lesser extent, on the net international investment position. In addition, three Boards refer to the current account norm to evaluate the current account position.
 - A smaller number of reports evaluate domestic imbalances, such as the general government's net lending / net borrowing, its debt-to-GDP ratio and the private sector's debt.
 - Conversely, virtually all reports review the economy's price competitiveness in terms of the evolution of the real exchange rate and unit labour costs. However, a relatively low number of reports discuss the role of profit margins.
 - The analysis of non-price competitiveness, when available, is typically based on export market shares, the participation of the economy in global value chains, and the assessment of the domestic value added in exports. Several Productivity Boards also use country rankings such as from the World Bank's Doing Business indicators, the Global Competitiveness Index and the International Management Development (IMD) competitiveness index.
 - While there is no a hierarchy of indicators in the reports, the French 2019 report treats the current account balance as the main measure to assess a country's competitiveness, while giving all other indicators a complementary status.
- **Some National Productivity Boards have developed their own methodology to assess competitiveness.** This is the case of Ireland's competitiveness scorecard²⁰ and the

¹⁹ The former defines competitiveness as the ability of a country to compete in external markets. Central to it is the trade balance and measures of cost. The latter, as the ability of a country to raise living standards (Krugman, 1995). Productivity is therefore the central indicator, as it is the main driver of prosperity and income growth.

²⁰ The Irish competitiveness scorecard consists of four pillars, ranging from i) the essential conditions underpinning growth (i.e., endowments, institutions and macroeconomic sustainability), to the ii) policy inputs

competitiveness framework used in the Cypriot report.²¹ Both are indicator-based frameworks that benchmark performance across a range of competitiveness measures. Other Productivity Boards have included innovative indicators in their annual reports, such as Malta's Human Capital Volume and Human Capital Quality Indices.²² This is also the case of France's indicator to measure export price and cost competitiveness,²³ as well as the variations in market shares broken down by price and non-price competitiveness components.

Definitions of competitiveness in the National Productivity Boards' annual reports

Type	Country	Definition
Competitiveness as productivity		<i>A competitive economy is defined as an economy that is able to produce a sustainable, inclusive growth in living standards (page 3 of Belgium's National Productivity Board's annual report 2019)</i>
Competitiveness as a separate concept as productivity		<i>Productivity and competitiveness are two different concepts with very different implications, in particular within the context of a monetary union. (...) It is defined here as a country's ability to balance its flows of resources with the rest of the world. Measured by the current account, this external balance depends largely on the ability to sell one's goods and services internationally, which in turn is mainly determined by cost-competitiveness and non-cost competitiveness (e.g. product quality). (page 7 of the French National Productivity Board's 2019 annual report)</i>
Productivity as an essential component of competitiveness		<i>The National Competitiveness and Productivity Council defines national competitiveness as the ability of enterprises to compete successfully in international markets. Two of the most important determinants of competitiveness are productivity and costs, and a competitive economy is one where productivity is not out of line with the cost base. (page 11 of Ireland's 2019 Competitiveness Challenge)</i>
		<i>Competitiveness as the set of institutions, policies and other factors that underpin and uphold value creation by enterprises in Cyprus, and thereby, support high and rising living standards of Cypriots on a sustainable basis"</i> <i>Three core characteristics define whether a nation can be described as 'competitive': i) A successful economic performance that supports rising real incomes, living standards, and well-being of citizens; ii) Open, free, and fair market conditions; and iii) A sustainable policy environment that avoids the creation of imbalances that risk compromising successful economic, social and environmental performance in the longer term. (page 18 of Cyprus' National Productivity Board's 2020 annual report)</i>
		<i>Productivity growth is essential for increasing an economy's material prosperity over the long term. At the same time, productivity – in conjunction with wage levels – affects the international competitiveness of the products and services produced in the economy when they are sold in global markets. (page 101 of the German National Productivity Board's 2019 annual report)</i>
Productivity as an essential component of competitiveness		<i>Competitiveness can be analysed in two different dimensions, namely domestic competitiveness and external competitiveness. Whilst internal competitiveness shows the efficiency with which production adjusts to an ever-changing market environment, external competitiveness analysis a country's attractiveness relative to other competitor countries across the globe. (page 6 of Malta National Productivity Board's 2020 annual report)</i>
		<i>Competitiveness is closely related to productivity and is a concept frequently used in an interchangeable way. The capacity to sell in international markets is obviously dependence upon the efficiency to produce quality goods at a competitive price. So, as long as productivity gains are observed in tradeable sectors, productivity is an important driver of competitiveness. However, this correlation between both concepts can also occur in the opposite way. The capacity to compete in more demanding markets can also contribute to greater effectiveness in production. As such, firms more exposed to international competition are normally more productive, and competitiveness indicators can also be informative for a diagnosis of productivity.</i>

(i.e., business environment, physical infrastructure clusters and firm sophistication and knowledge and talent), iii) outputs (i.e., business performance, costs, productivity and employment and iv) competitiveness outcomes (i.e., sustainable growth). For more information, go to <http://www.competitiveness.ie/publications/2017/irelands%20competitiveness%20scorecard%202017.pdf>

²¹ The Cypriot framework distinguishes the following five categories of competitiveness indicators, i) Competitiveness objectives; ii) Sustainability conditions for achieving and maintaining competitiveness in the long-term; iii) Competitiveness outcomes; iv) Competitiveness drivers, ranging from production inputs to market and institutional conditions that affect the business environment and v) Endowments and exogenous factors that cannot be changed through public policy.

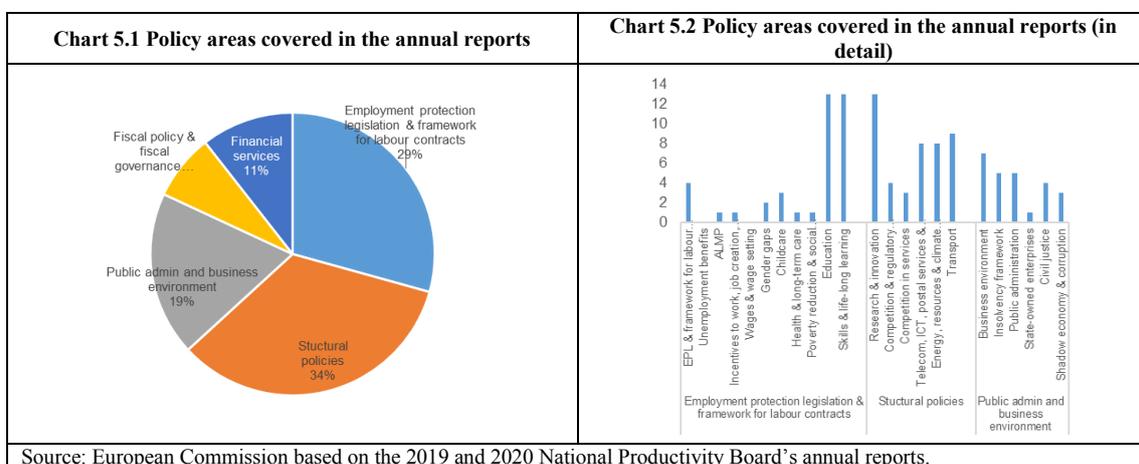
²² Pages 79 and 81, respectively of the 2019 National Productivity Board report. https://ec.europa.eu/info/sites/info/files/economy-finance/mt.npb_annual_report_2019_0.pdf

²³ See page 72 and 76 of the French Productivity Board's 2019 annual report. Export price competitiveness defined as the ratio of the export price of foreign goods and services to the export price of French goods and services. The export cost competitiveness indicators is defined as the ratio of unit wage costs of competing economies (labour cost adjusted for productivity) to France's.

Type	Country	Definition
		(page 5 of Portugal National Productivity Board's 2019 annual report) Productivity is a concept linked to quantities of inputs and outputs, while competitiveness (per se) is linked to cost. Unit labour costs, defined as labour cost per unit of output, is generally used to measure competitiveness. A positive evolution of unit labour cost is observed whenever productivity is growing faster than the average cost of labour. The analysis of competitiveness is therefore an extension of productivity analysis, and remains as an interesting arena to study in up-coming years. (page 107 of Luxembourg National Productivity Board's 2020 annual report)
		International competitiveness is the relationship between business costs and productivity. The competitive position can be weak, but this is a temporary phenomenon that is self-correcting as a result of inbuilt economic mechanisms. (page 6 of the English summary of the DK annual report 2017)

The analysis of policies

- **The majority of annual reports discuss productivity-enhancing policies.** They cover almost all the policies monitored by the Commission in the context of the European Semester. However, policy areas linked to the labour market and education, structural policies, public administration / quality of institutions and the business environment appear to have received more attention (chart 5.1), as those have direct links to a country's productivity and competitiveness.
- In particular, the following ones were frequently covered in the reports (chart 5.2): i) education, skills and life-long learning (e.g., quality of initial education, STEM graduates, skills mismatches, upskilling the labour force, including on new digital and management skills); ii) research and innovation (e.g., investments in R&D, efficiency of public R&D resources, knowledge and technology transfer); iii) infrastructure network (e.g., digital, transport, energy); and iv) business environment (e.g., business licensing, red tape, regulated professions, etc.).



Annex: overview of the characteristics of National Productivity Boards

Member State	Name of institution	Date of appointment	Institutional set-up	Analysis and activities
AT			<i>To be established</i>	
BE	National Productivity Council	Nov 2018	<ul style="list-style-type: none"> • New entity • Open-ended mandate for the institution • 6 members (Secretariat of the Central Economic Council, National Bank of Belgium and Federal Planning Bureau) were appointed by the federal government and 6 other members were appointed by the regional governments • A secretariat, consisting of experts of the Federal Public Service of Economy, supports the work of the Productivity Board • Decides autonomously on its work programme; wage formation is excluded from the Board's work programme • Output produced not subject to validation by the authorities 	<ul style="list-style-type: none"> • Ability to carry out research and analysis by itself • Access to information guaranteed by legal provisions • Stakeholders and other relevant economic actors are not permanent members of the Productivity Board but are consulted • Capacity to communicate publicly in a timely manner guaranteed by legal provisions, e.g. through its website
BG			<i>Will not appoint a National Productivity Board</i>	
CY	Cyprus Economy and Competitiveness Council	Jun 2018	<ul style="list-style-type: none"> • New entity • Open-ended mandate for the institution • 8 members come from academia, the business sector and the financial sector and one from the public sector • A secretariat, with members from a government department, supports the work of the Productivity Board • Decides autonomously on its work programme • Output produced not subject to validation by the authorities • Functional autonomy guaranteed by legal provision 	<ul style="list-style-type: none"> • Research and analysis produced by the Board's subgroups as well as by other institutions and by outsourcing work to external consultants, following preliminary analysis by the Board's subgroups on each topic of interest • The Competitiveness Report is to be produced by the Council on a biennial basis. • Stakeholders and other relevant economic actors are not permanent members of the Productivity Board but are consulted • Public communication of Productivity Board's output, e.g. through its website and press releases
CZ			<i>Will not appoint a National Productivity Board</i>	

Member State	Name of institution	Date of appointment	Institutional set-up	Analysis and activities
DE	<i>German Council of Economic Experts</i>	<i>Aug 2019</i>	<ul style="list-style-type: none"> Based on an existing institution Open-ended mandate for the institution 5 Council members, supported by a scientific staff Decides autonomously on its work programme Output produced not subject to validation by the authorities Functional autonomy guaranteed by legal provision 	<ul style="list-style-type: none"> Ability to carry out research and analysis by itself and possibility to commission analysis to a third party Access to information guaranteed by legal provisions Stakeholders and other relevant economic actors are not permanent members of the Productivity Board but they are consulted Dissenting opinions are conveyed to the public through its annual report available on the Council's website Public communication of Productivity Board's output, e.g. through its website and press releases
DK	Danish Economic Councils	2017	<ul style="list-style-type: none"> Based on an existing institution Open-ended mandate for the institution Chaired by four university professors A secretariat, with experts appointed for that task, supports the work of the Productivity Board Decides autonomously on its work programme Output produced not subject to validation by the authorities 	<ul style="list-style-type: none"> Ability to carry out research and analysis by itself and possibility to commission analysis to a third party Stakeholders and other relevant economic actors are not permanent members of the Productivity Board but they are consulted Public communication of Productivity Board's output, e.g. through its website and press releases
EE			<i>To be established</i>	
EL	Centre of Planning and Economic Research (KEPE)	Apr. 2019	<ul style="list-style-type: none"> Based on an existing institution Open-ended mandate for the institution The chairman/scientific director and the 4 members of the board of directors of KEPE A steering committee with 5 research fellows support the Productivity Board. Decides autonomously on its work programme Output produced not subject to validation by the authorities 	<ul style="list-style-type: none"> Ability to carry out research and analysis by itself and possibility to commission analysis to a third party Stakeholders and other relevant economic actors are not permanent members of the Productivity Board but they can be consulted on relevant policy areas. Public communication of Productivity Board's output, e.g. through its website and press releases
ES			<i>To be established</i>	

Member State	Name of institution	Date of appointment	Institutional set-up	Analysis and activities
FI	Finish Productivity Board	Aug 2018	<ul style="list-style-type: none"> • New entity • Open-ended mandate for the institution • 4 members are from the Ministry of Finance, academia and research institutes • A secretariat, with members from a government department, supports the work of the Productivity Board • Decides autonomously on its work programme • Output produced not subject to validation by the authorities • Functional autonomy guaranteed by legal provision 	<ul style="list-style-type: none"> • Ability to carry out research and analysis by itself and possibility to commission analysis to a third party • Stakeholders and other relevant economic actors are not permanent members of the Productivity Board, but the Productivity Board will present its work to them
FR	Conseil National de Productivité	Jun 2018	<ul style="list-style-type: none"> • New entity • Open-ended mandate for the institution • 12 members are independent, academic economists • France Stratégie provides technical and secretarial support to the work of the Productivity Board • Decides autonomously on its work programme • Output produced not subject to validation by the authorities 	<ul style="list-style-type: none"> • Ability to carry out research and analysis by itself and possibility to commission analysis to a third party • Stakeholders and other relevant economic actors are not permanent members of the Productivity Board but they are consulted • Public communication of Productivity Board's output, e.g. through its website and press releases
HR	Croatian Productivity and Competiveness Committee	May 2021?	<ul style="list-style-type: none"> • New entity • Open-ended mandate for the institution • 16 members from government, business and financial sector, trade union and academia • Croatia's Employers' Association (HUP) provides technical and secretarial support to the work of the Productivity Board. • Decides autonomously of its work programme 	<ul style="list-style-type: none"> • Research and analysis either produced by HUP and possibility to commission analysis to a third party • Stakeholders and other relevant economic actors can be nominated as members of the Productivity Board • Public communication of Productivity Board's output, at least once a year on the websites of the Ministry for Economic Affairs and the HUP.
HU	National Competitiveness Council	Oct 2016	<ul style="list-style-type: none"> • New entity chaired by the Minister of Finance • Open-ended mandate for the institution • 8 members are from government, business and academia 	<ul style="list-style-type: none"> • Ability to carry out research and analysis by itself and possibility to commission analysis to a third party • Publication of an annual report is not foreseen in the Productivity Board's mandate

Member State	Name of institution	Date of appointment	Institutional set-up	Analysis and activities
			<ul style="list-style-type: none"> • A secretariat, with members from a government department, support the work of the Productivity Board • Decides autonomously on its work programme • Output produced not subject to validation by the authorities 	<ul style="list-style-type: none"> • Stakeholders and other relevant economic actors can be nominated as members of the Productivity Board
IE	National Competitiveness and Productivity Council	Mar 2018	<ul style="list-style-type: none"> • Based on an existing institution • Open-ended mandate for the institution • 16 members from business, business associations and unions; representatives from Government Departments take part in the meetings of the National Competitiveness and Productivity Council in an advisory capacity • A secretariat, with members from a government department, support the work of the Productivity Board • Decides autonomously on its work programme and on its own procedures • Annual reports are presented to Government for information prior to publication, as a way to raise Government awareness of these reports 	<ul style="list-style-type: none"> • Ability to carry out research and analysis by itself and possibility to commission analysis to a third party • Representatives of employer and employee bodies are members of the Productivity Board • Dissenting opinions are conveyed to the public through the publication of meeting minutes • Public communication of Productivity Board's output, e.g. through its website and press releases
IT			<i>To be established</i>	
LT	Ministry of Economy and Innovation	2017	<ul style="list-style-type: none"> • Based on an existing institution • Open-ended mandate for the institution • A team of three analysts within the Ministry of Economy and Innovation • Decides autonomously on its work programme • Output produced subject to validation 	<ul style="list-style-type: none"> • Ability to carry out research and analysis by itself and possibility to commission analysis to a third party • The annual report is to be turned into three reports a year (first, second and third quarter). • Stakeholders and other relevant economic actors are not permanent members of the Productivity Board but they are consulted

Member State	Name of institution	Date of appointment	Institutional set-up	Analysis and activities
LU	Conseil national de la productivité	Sep 2018	<ul style="list-style-type: none"> • New entity • Open-ended mandate for the institution • At least 5 members, of which, the president is from the Observatory for Competitiveness • The Observatory for Competitiveness provides technical and secretarial support to the work of the Productivity Board • Decides autonomously on its work programme • Output produced not subject to validation by the authorities • Functional autonomy guaranteed by legal provision 	<ul style="list-style-type: none"> • Ability to carry out research and analysis by itself and possibility to commission analysis to a third party • Access to information guaranteed by legal provisions • Stakeholders and other relevant economic actors can be nominated as members of the Productivity Board • Public communication of Productivity Board's output, e.g. through its website and press releases
LV	Productivity Research Institute <i>UL Think tank LV</i> <i>PEAK</i>	Oct 2019	<ul style="list-style-type: none"> • Based on an existing institution • Open-ended mandate for the institution • Chaired by the Dean of Business, Management and Economics, University of Latvia, with members including the State Secretary of the Ministry of Economics and representatives from Latvian Chamber of Commerce and Industry, the Latvian Employers' Confederation. • Decides autonomously on its work programme • Output produced not subject to validation by the authorities 	<ul style="list-style-type: none"> • Ability to carry out research and analysis by itself and possibility to commission analysis to a third party • Stakeholders and other relevant economic actors can be nominated as members of the Productivity Board • Public communication of Productivity Board's output, e.g. through its website and press releases
MT	National Productivity Board of Malta	Feb 2019	<ul style="list-style-type: none"> • New entity • Open-ended mandate for the institution • 11 members, of which, representatives from ministry of Finance, workers' and national employers' organisations, chaired by the chairperson of Malta Council for Economic and Social Development • Malta Council for Economic and Social Development provides technical and secretarial support to the work of the Productivity Board • Decides autonomously on its work programme • Output produced not subject to validation by the authorities • Functional autonomy guaranteed by legal provision 	<ul style="list-style-type: none"> • Ability to carry out research and analysis by itself and possibility to commission analysis to a third party • Stakeholders and other relevant economic actors can be nominated as members of the Productivity Board • Public communication of Productivity Board's output, e.g. through its website and press releases • Access to information guaranteed by legal provisions

Member State	Name of institution	Date of appointment	Institutional set-up	Analysis and activities
NL	CPB Netherlands Bureau for Economic Policy Analysis	Apr 2017	<ul style="list-style-type: none"> Based on an existing institution Open-ended mandate for the institution Research institute with a director and its own staff, Decides autonomously on its work programme and communication strategy Output produced not subject to validation by the authorities Functional autonomy guaranteed by legal provisions 	<ul style="list-style-type: none"> Ability to carry out research and analysis by itself and possibility to commission analysis to a third party Stakeholders and other relevant economic actors not involved in the work of the Productivity Board Public communication of Productivity Board's output, e.g. through its website and press releases
PL	<i>Will not appoint a National Productivity Board</i>			
PT	Conselho para a Produtividade	Mar 2018	<ul style="list-style-type: none"> Based on an existing institution Two year mandate for the Productivity Board (*) 2 general directors + 8 civil servants (four from the Ministry of Finance and another four from Ministry of Economy), albeit not working full time for the Board. Decides autonomously on its work programme Output produced not subject to validation by the authorities 	<ul style="list-style-type: none"> Ability to carry out research and analysis by itself Stakeholders and other relevant economic actors are not permanent members of the Productivity Board but they can be consulted Public communication of Productivity Board's output, e.g. through its website
RO	Council of Economic Programming	Aug 2018	<ul style="list-style-type: none"> Based on an existing institution Open-ended mandate for the institution 11 members are from academia and civil society National Commission for Strategy and Prognosis provides technical and secretarial support to the work of the Productivity Board Decides autonomously on its work programme Output produced not subject to validation by the authorities 	<ul style="list-style-type: none"> Ability to carry out research and analysis by itself and possibility to commission analysis to a third party Access to information guaranteed by legal provisions Stakeholders and other relevant economic actors are not permanent members of the Productivity Board but they can be consulted Dissenting opinions are conveyed to the public through its website Public communication of Productivity Board's output, e.g. through its website and press releases
SE	<i>Will not appoint a National Productivity Board</i>			

Member State	Name of institution	Date of appointment	Institutional set-up	Analysis and activities
SI	Institute of Macroeconomic Analysis and Development	Apr 2018	<ul style="list-style-type: none"> Based on an existing institution Open-ended mandate for the institution Research institute with a director, up to two deputy directors and its own staff Decides autonomously on its work programme Output produced not subject to validation by the authorities 	<ul style="list-style-type: none"> Ability to carry out research and analysis by itself Stakeholders and other relevant economic actors are not permanent members of the Productivity Board but they can be consulted Public communication of Productivity Board's output, e.g. through its website and press releases
SK	Národná rada pre produktivitu	Sept 2019	<ul style="list-style-type: none"> New entity 11 members with voting rights (from research bodies linked to various ministerial departments; private sector think tanks, the SK Central Bank and the SK independent fiscal institution), 6 members with no voting rights (representatives of business and workers' associations). The Institute for Strategy and Analyses provides technical and secretarial support to the work of the Productivity Board Open-ended mandate for the institution(**) Research institute with a director and its own staff Decides autonomously on its work programme Output produced not subject to validation by the authorities 	<ul style="list-style-type: none"> Ability to carry out research and analysis by itself and possibility to commission analysis to a third party Stakeholders and other relevant economic actors can be nominated as members of the Productivity Board Public communication of Productivity Board's output, e.g. through its website and press releases

(*) The assessment of the current institutional framework is undergoing.

(**) The SK Government is preparing a new piece of legislation to replace the National Productivity Board with a Council of the Government of the Slovak Republic for Competitiveness and Productivity.