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REPUBLIC OF NORTH MACEDONIA

SELECTED ISSUES

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REPUBLIC OF NORTH MACEDONIA

SELECTED ISSUES

January 28, 2022

Approved By
European Department

Prepared by Thomas Gade and Anton Mangov

CONTENTS

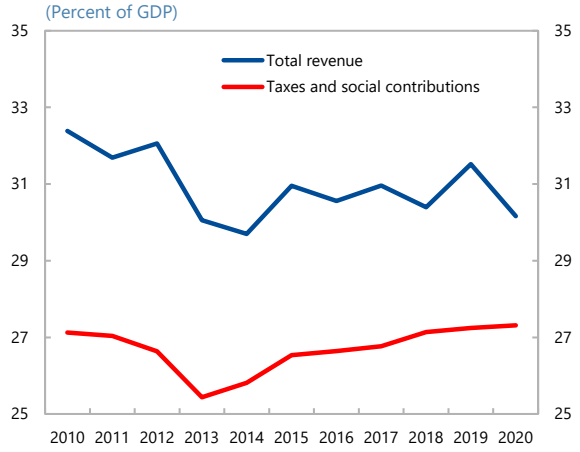
TABLE

BOOSTING REVENUE COLLECTIONS TO CREATE FISCAL SPACE AND INVEST IN POST-PANDEMIC GROWTH[1]

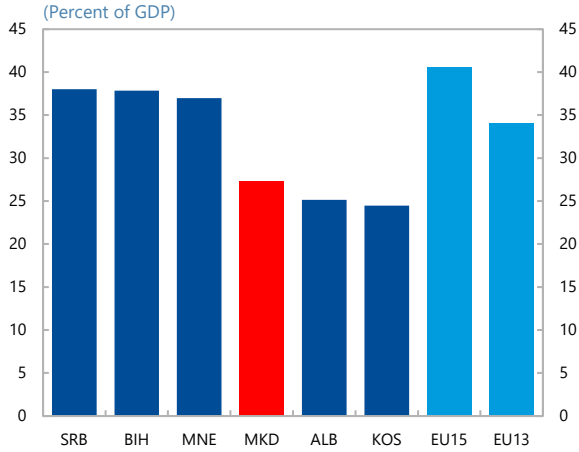
Increasing revenue mobilization is a top priority for North Macedonia. This can be achieved through tax policy reform coupled with enhanced revenue administration, a focus of IMF capacity development. Options include more progressive income taxation, streamlined special regimes, and more and better use of property and environmental taxes. The administrative capacity to enforce taxes can be strengthened through strong reform leadership and governance, IT modernization, a more systematic approach to compliance risk management, and improved tax audit methods.

A. Introduction

1. Raising additional revenue will be critical to building fiscal space and fostering stronger and more inclusive growth through higher investment. Prior to the pandemic, North Macedonia's tax burden was among the lowest in the Western Balkans and well below European Union (EU) levels. The crisis and related policy support have reduced fiscal buffers further. In order to boost income convergence with the EU, the country needs to scale up investment in both human and physical capital. Fiscal policy has also an important role to play in addressing income inequality and poverty concerns.[2] At the same time, there appears to be little room for a sizeable reduction of government spending.[3] Against this backdrop, boosting revenue is a top priority.



Sources: MoF; SSO; and IMF staff calculations.



Sources: IMF Government Finance Statistics Database; National authorities; and IMF staff calculations.

[1] Prepared by Anton Mangov.

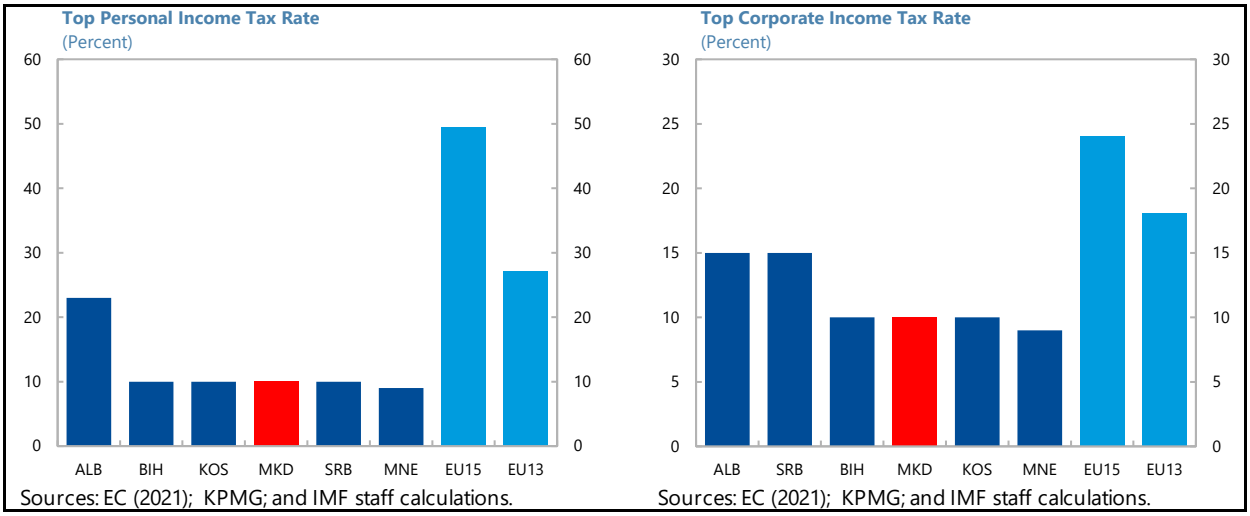
[2] In 2019, the income quintile share ratio, a measure of inequality, was 5.6 in North Macedonia, against 5.1 in the EU. The at risk of poverty rate was 21.6 percent, against 17.2 percent in the EU (source: Eurostat).

[3] In 2019, general government expenditure accounted for 32.9 percent of GDP, well below EU levels (source: IMF Government Finance Statistics Database). While a low ratio as such does not necessarily exclude the existence of large spending inefficiencies, it nevertheless suggests a more limited potential for outright spending cuts.

2. Recognizing the urgency, the authorities have taken to the task. The government adopted a comprehensive strategy in December 2020.[4] The strategy sets out reform priorities to tackle identified challenges including those summarized above. The top objectives include improving tax fairness, strengthening revenue collection, increasing tax transparency and quality of taxpayer services, and introducing environmental taxation. Annual Action Plans will determine the specific measures to be implemented and the sequencing of reforms.

B. Tax Policy

3. North Macedonia has long pursued an internationally competitive tax regime. Favorable income taxation has been at the core of this strategy, designed to attract foreign investment to the country. Both corporate and personal income are taxed at 10 percent, among the lowest rates in the region and well below EU levels. A progressive personal income tax was introduced in 2019, but the reform was suspended the following year, until 2023. The system also provides generous tax holidays. For example, investors located in multiple special development zones and their employees are exempt from corporate and personal income tax (for a period of up to 10 years), as well as import duties, value added, and other taxes on non-end customer transactions.



Sources: EC (2021); KPMG; and IMF staff calculations.
Sources: EC (2021); KPMG; and IMF staff calculations.

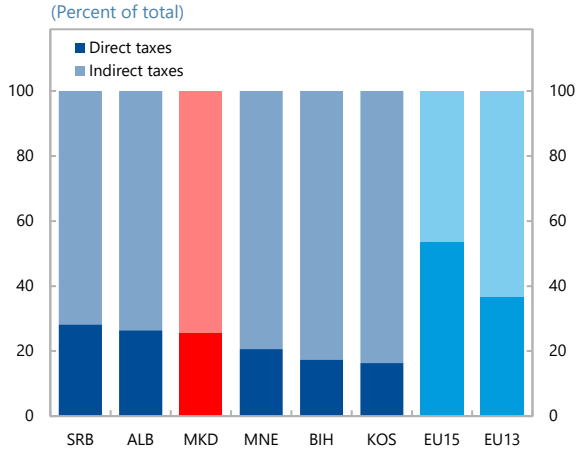
4. The system therefore relies disproportionately on indirect taxation, though preferential treatments have proliferated over time. In 2019, indirect taxes accounted for about three-quarters of tax revenue (excluding social contributions), against less than half on average in EU countries. Value added tax (VAT) alone represented 40 percent, the cornerstone of North Macedonia's tax system. However, a combination of preferential treatments (reduced rates and exemptions) along with a significant compliance gap have weakened VAT revenue, which has been

[4] See Government of the Republic of North Macedonia (2020).

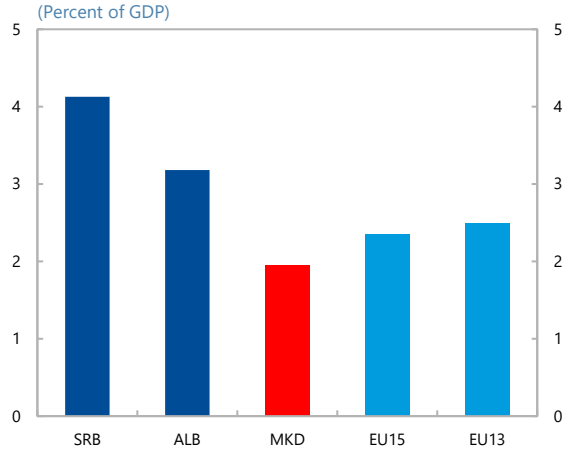
losing ground in the past ten years. Several recently adopted policy measures, with an estimated overall impact of about 0.6 percent of GDP, will likely aggravate that trend (Box 1).

5. At present, there is no comprehensive assessment and reporting of special regimes. Tax expenditures are not identified, measured, and reported in a systematic way that provides an overall estimate of their cost.[5] This also hampers comparison with alternative spending programs, which generally play a more prominent role in achieving government priorities and are usually more carefully looked at. The new Organic Budget Law, which is still to be adopted by parliament, provides for such assessment, and the authorities' plan is to release a full report by 2023.

6. Environmental taxation is also relatively low. In 2019, taxes on energy, transport, pollution, and resources accounted for 1.9 percent of GDP. This is below most regional peers and EU countries. Excise duties on fuels and taxes related to the ownership and use of motor vehicles are by far the main source of revenue. Excise rates are generally lower than the minimum rates prescribed by the EU Energy Taxation Directive. The difference is particularly evident for diesel, which made up three-quarters of fuel excise revenues in 2019.[6] A variable fuel rate surcharge based on market prices was introduced in 2020 and made permanent in 2021, which helped narrow the gap. In addition, the government has come up with a proposal for a new ecotax on fuels, with an estimated revenue impact of about 0.5 percent of GDP.



Sources: IMF Government Finance Statistics Database; National authorities; and IMF staff calculations.



Sources: Eurostat; National authorities; and IMF staff calculations.

[5] Tax expenditures are generally defined as a reduction in tax liability compared with a "benchmark" tax system. They may take different forms, such as exemptions, allowances, credits, rate reliefs, and tax deferrals, can be temporary or permanent, and can be included in tax laws or other laws (see Heady et al. (2019)).

[6] See WB (2020).

Box 1. VAT in North Macedonia: Recent Measures, Tax Efficiency, and Potential Revenue Space[1]

In addition to a relatively low statutory rate, reduced rates apply extensively and have been growing in scope. The standard VAT rate stands at 18 percent and is lower than (but close to) the rates prevailing in the region. There are two reduced rates of 5 and 10 percent.[2] The 5 percent rate applies to food, agricultural inputs, hotels, residential water supply, transport, and pharmaceuticals, among other goods and services. The list has expanded significantly over time. The 10 percent rate applies to restaurant services (see below).

Recent measures

A VAT reimbursement scheme was introduced in July 2019. Intended to increase compliance, the "MyVAT" program refunds individuals who remit consumption invoices to the tax authority with a portion of the VAT paid. The amount is capped per family of four at MKD 28,800 per year (MKD 7,200 or approximately €120 per person). In 2020, refunds amounted to about 0.2 percent of GDP, but so far there is no strong evidence that the program has had a positive effect on VAT collections. The authorities have recently announced their intention to increase the cap.

A new reduced VAT rate of 10 percent on restaurant services came into effect in January 2021. This rate applies to both on-site and delivery services, excluding alcoholic beverages which are subject to the standard rate. The reduction in the VAT rate carries a significant cost in forgone revenues, estimated at about 0.2 percent of GDP.

Residential electricity consumption was included under the 5 percent rate as of mid-July 2021. This is intended to be a temporary measure, with the rate increasing to 10 percent as of July 2022 and back to the standard rate of 18 percent as of July 2023. The purpose is to mitigate the impact on energy prices resulting from the planned liberalization of the electricity market. The fiscal cost of the measure is considerable, at approximately 0.1 and 0.2 percent of GDP respectively in 2021 and 2022.

Tax efficiency

VAT efficiency in North Macedonia is relatively weak. The efficiency of the tax is typically measured in two ways: (i) The VAT C-Efficiency ratio, which is the percentage of revenue actually collected as compared to the amount of VAT that would have been obtained had the full consumption base been taxed at the standard rate. (ii) The VAT Productivity ratio, which is the tax revenue as a percentage of GDP per percentage point of the rate. This allows for a comparison of tax revenue across countries, despite differences in VAT rates.

Both the VAT C-Efficiency ratio (0.58) and Productivity ratio (0.42) are among the lowest in the region. Importantly, if North Macedonia raised its productivity ratio to a level similar to the region's average, VAT receipts could potentially increase by over 2 percent of GDP (relative to 2019) with the existing statutory rate.

Potential revenue space

Generally speaking, the shortfall in VAT C-Efficiency has policy and administration components. While the former reflects the policy exceptions to fully taxing the consumption base at the standard rate, the administration component represents the difference between the potential revenue that could have been collected given the existing policy framework and actual revenues. The combined VAT shortfall resulting from the C-Efficiency estimation shown above is 42 percent of potential tax revenue. A recent World Bank

Box 1. VAT in North Macedonia: Recent Measures, Tax Efficiency, and Potential Revenue Space[1] (concluded)

study provides a similar estimate, with the respective shares of the "policy" and "compliance" gaps at 45 and 55 percent. Applying these proportions to the above estimation of the total VAT C-Efficiency shortfall results in a VAT policy gap of 19 percent of potential tax revenue, representing close to 2.5 percent of GDP.

[1] Source: IMF (2021b).
[2] The system also includes a considerable number of exemptions, though most of them inconsequential in terms of revenues. These apply, for example, to goods with no commercial use (e.g., military supplies, donations, traveler's luggage, documents) or in transit (e.g., temporary imports).

North Macedonia and Comparators: VAT C-Efficiency, Productivity, and Rates, 2019

	VAT C-Efficiency 1/	VAT Productivity 2/	VAT Rate (percent)
North Macedonia	0.58	0.42	18
Albania	0.47	0.39	20
Bosnia and Herzegovina	0.81	0.66	17
Bulgaria	0.68	0.45	20
Croatia	0.84	0.54	25
Kosovo	0.74	0.63	18
Montenegro	0.81	0.62	21
Serbia	0.67	0.50	20
Average (excluding North Macedonia)	0.72	0.54	20.1
EU-27	0.58	0.37	21.5
OECD-36 3/	0.59	0.38	19.3

Source: IMF (2021b).
1/ VAT C-Efficiency = VAT Revenue / (Total Final Consumption net of VAT Revenue x VAT Rate (percent)).
2/ VAT Productivity = VAT Revenue (percent of GDP) / VAT Rate (percent).
3/ Data for Australia and Mexico from 2018.

C. Revenue Administration[7]

7. The Public Revenue Office (PRO), the country's tax administration authority, has some components of sound revenue administration. The availability of a large number of taxpayer services, such as pre-filling and electronic submission of tax returns, results in high on-time filing rates. Extensive use of electronic and withholding and advance payment arrangements supports revenue collections. Annual reports and strategic and operational plans are made public in a timely manner, increasing transparency and accountability.

[7] Source: IMF (2021a).

8. The benefits of these strengths are, however, not fully utilized due to:

- **Fragmented IT processes.** For example, the PRO has limited access to, and control of, the central taxpayer register, which is under the responsibility of a separate government agency. Therefore, there is no real-time whole-of-taxpayer view and consistent quality of services.
- **Limited in scope compliance risk management.** Despite a growing understanding of the need to change working methods, compliance risk management is not yet strategically executed across the PRO. Related processes are not centralized and audit and verification activities are guided by sporadic risk analyses performed by individual units. As a result, the process of identifying, assessing, ranking, and quantifying compliance risks does not cover all tax types and major economic sectors. Relatedly, compliance improvement and risk mitigation plans are approved and monitored on an ad-hoc basis.
- **Shortcomings in the management of large taxpayers.** On-time payment of VAT by large taxpayers is weak compared to international standards. Audit programs are not focused toward large taxpayers. There are no documented compliance improvement plans for this segment.

TADAT: Distribution of Performance Scores

Source: IMF (2021a).

Note: TADAT assesses the performance of a country's tax administration system by reference to the nine outcome areas depicted in the figure. A set of 32 high-level indicators critical to tax administration performance are linked to these performance outcome areas. It is these indicators that are scored and reported on. A four-point "ABCD" scale is used to score each indicator, with "A" denoting performance that meets or exceeds international good practice and "D" denoting inadequate performance. For example, the outcome area "Integrity of the Registered Taxpayer Base" is assessed based on 2 indicators: P1-1 "Accurate and reliable taxpayer information" and P1-2 "Knowledge of the potential taxpayer base". In the case of North Macedonia's Public Revenue Office, the scores given are respectively "D" and "C". For a summary of the framework, see: https://www.tadat.org/tadatAtAGlance.

9. In addition, the tax authority's effectiveness and trust of the system by taxpayers are undermined by:

- **Suboptimal dispute resolution arrangements.** The administrative review process is not independent from the audit process, as the final decision as to whether to accept or reject an appeal essentially lies with the auditors themselves. De facto, the administrative court is the first stage to resolve tax disputes, and the procedure normally takes more than a year.
- **Deficiencies in the management of VAT returns and refunds.** With a limited degree of automatic risk assessment of VAT returns, a large share of the work is still manual including for lower-risk claims. As a result, only a third of refunds (by amount) are paid within 30 days.
- **Insufficient consultations with taxpayers.** Taxpayer surveys to obtain feedback on products and services are conducted on a regular basis, albeit not through an independent agency, and meetings with partner organizations are mostly held on an ad-hoc basis.

D. A Set of Policy Recommendations

10. Tax policy reform can bring substantial additional revenues. Focus should be on increasing progressivity, reducing preferential treatments as appropriate, and making more and better use of property and environmental taxes.

- **Income progressivity.** Reinstating the personal income tax reform would provide additional revenue while making the system more equitable. The exemption threshold, the top rate and the income level at which it applies, as well as the rate on capital income could among others be reconsidered as needed, to strike a balance between equity and efficiency.[8]
- **Preferential treatments.** The planned comprehensive analysis of tax expenditures would increase transparency in fiscal management and allow evaluating the cost benefit of special regimes in both direct and indirect taxation (including by comparing them with direct spending policies), to ultimately review their scope. The sizeable VAT policy gap is one indication of the potential revenue space. In that respect, the recent introduction of a second reduced VAT rate, which was initially limited to restaurant services but whose scope could expand, together with already widespread use of preferential treatments, illustrates the inherent difficulty to contain the pressure for granting these special treatments to an expanding set of taxpayers, weakening revenue and without clarity as to the net social benefits that they may entail.
- **Property taxation.** Raising the recurrent tax on immovable property and reducing related exemptions, gradually and over several years, has a non-negligible revenue potential and could also strengthen the ongoing process of fiscal decentralization. In addition, property taxes are found to be among the least distortive for economic growth.
- **Environmental taxation.** Carbon taxes are an efficient instrument to address climate and other externalities. They should reflect the social cost of emissions, by pricing in the pollution that is

[8] For a discussion on tax policy reforms, also from a post-pandemic perspective, see De Mooij et al. (2020).

currently externalized. They also have the potential to raise collections while supporting a green post-pandemic recovery.[9]

11. Improved revenue administration is key to reaping the full benefits of such reform. Despite progress in some areas, there are several priorities which, if implemented, could lead to better collection capacity, a critical success factor for an overhaul of the country's tax system. Strong reform leadership and governance are needed to drive the reform program as a coherent set of initiatives and ensure adequate oversight and project management. IT modernization and subsequent transformation of the PRO's organization and processes would help enhance taxpayer services and increase reliance on data driven processes. A more systematic approach to compliance risk management is important to improve coverage and targeting of risks. Improving tax audit methods (including through reliance on indirect methods) and strengthening the Large Taxpayer Office should also be a priority.

[9] See WB (2020).

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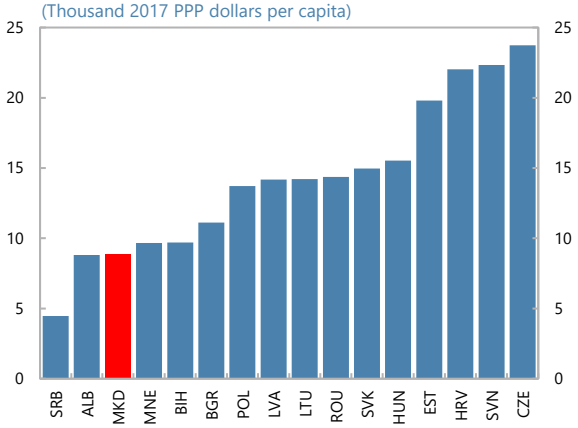
SCALING UP INVESTMENT[1]

North Macedonia has considerable public investment gaps related to economic infrastructure, social infrastructure, and the environment. To address this, the government has announced a Growth Acceleration Plan, which intends to scale up public investment substantially over the next five years. To maximize the benefits to the economy and boost income convergence with the EU, the plan should be accompanied by a strengthening of the public investment management framework. Nevertheless, a careful assessment is needed of the expected growth dividends and spillovers.

A. Introduction

1. North Macedonia lags the EU in the quantity and quality of its public capital stock. The per capita stock of public capital has increased over time at a slower pace than peers in Central, Eastern, and Southeastern Europe (CESEE), resulting in a large gap with new EU member countries. Physical measures of infrastructure—such as roads and railways, power generation capacity, medical and school equipment, and digital economy indicators—reveal similar deficiencies. The country also lags the EU in terms of the quality of infrastructure.



Sources: IMF Investment and Capital Stock Dataset, 2021; IMF staff calculations.

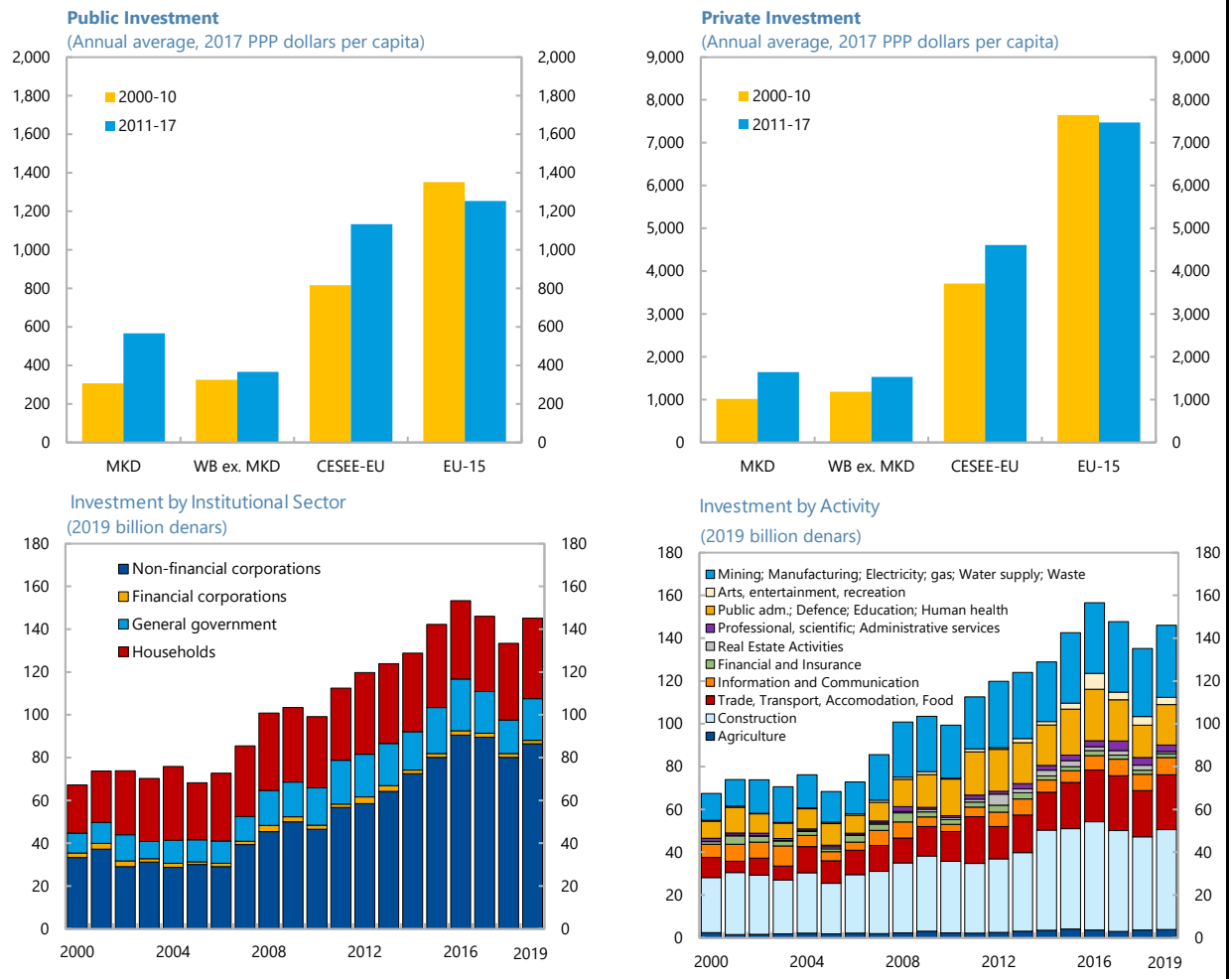
2. Investment levels are below CESEE peers and the EU15. While comparable with regional peers, cumulative public and private per capita investment in 2000–10 was nearly 3 times and 7 times lower than in CESEE-EU and EU15 countries respectively.[2] This large difference has since moderated somewhat. Public investment in physical infrastructure and human capital accumulation can be an important catalyst for domestic private investment and for foreign investment.

3. Both private and public investment have stagnated in recent years. Much of the pick-up in investment took place in the early 2010s, especially in areas such as mining, manufacturing, electricity and gas supply, construction, trade, transport, and hospitality, as well as public administration and defense. The real stagnation since 2016 is also explained by adverse price developments on investment goods and materials. Private investment declined sharply during the Covid-19 pandemic due to a rise in uncertainty, supply disruptions, and mobility restrictions.

[1] Prepared by Thomas Gade and Anton Mangov.

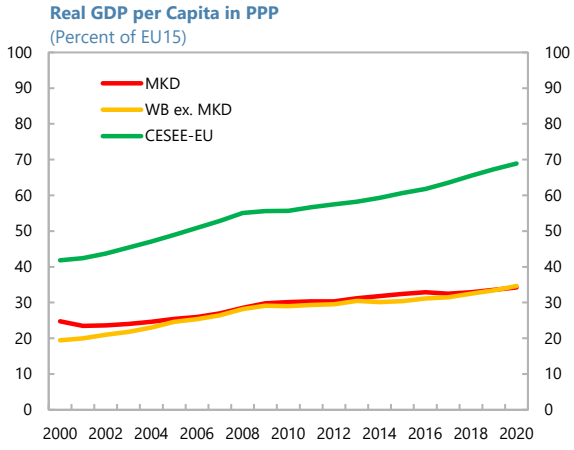
[2] CESEE-EU includes Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic, and Slovenia. EU15 includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom. While the United Kingdom left the EU in 2020, for the purposes of this paper, it is included in the EU15.

Figure 1. Investment Trends



Sources: IMF Investment and Capital Stock Dataset, 2021; Haver Analytics; SSO; and IMF staff calculations.

4. With a low capital stock and high marginal returns, a scaling-up of investment could speed up economic convergence with the EU. North Macedonia, along with the Western Balkan region, has experienced modest income convergence with the original EU15 over the last



Sources: IMF WEO; and IMF staff calculations.

two decades.[3] Income convergence has practically stalled since 2010. The contrast with CESEE-EU countries, which outpaced the Western Balkans, is particularly stark. As a result, per capita income remains well below the EU average and the gap with new EU member countries has widened.

B. The Government's Growth Acceleration Plan

5. The government has announced a plan ("Growth Acceleration Plan") combining public and private financing to scale up investment and boost medium-term growth. The plan aims to make more efficient use, including by improving systematic under-execution, of publicly funded investment in the amount of 4 billion euros (32 percent of GDP) over 2022-26. The government aims to mobilize an additional 8 billion euros in private investment, reaching a total of 12 billion euros over the five-year period. The plan consolidates all existing and new plans, initiatives, and allocated funds of the government and international development partners into several priority areas: the green agenda, digitization, innovation and technology, human capital development, physical infrastructure including energy, social cohesion, and good governance. Some projects have been identified as in the implementation phase, others have been identified as mature projects, while others remain stated as strategic objectives.

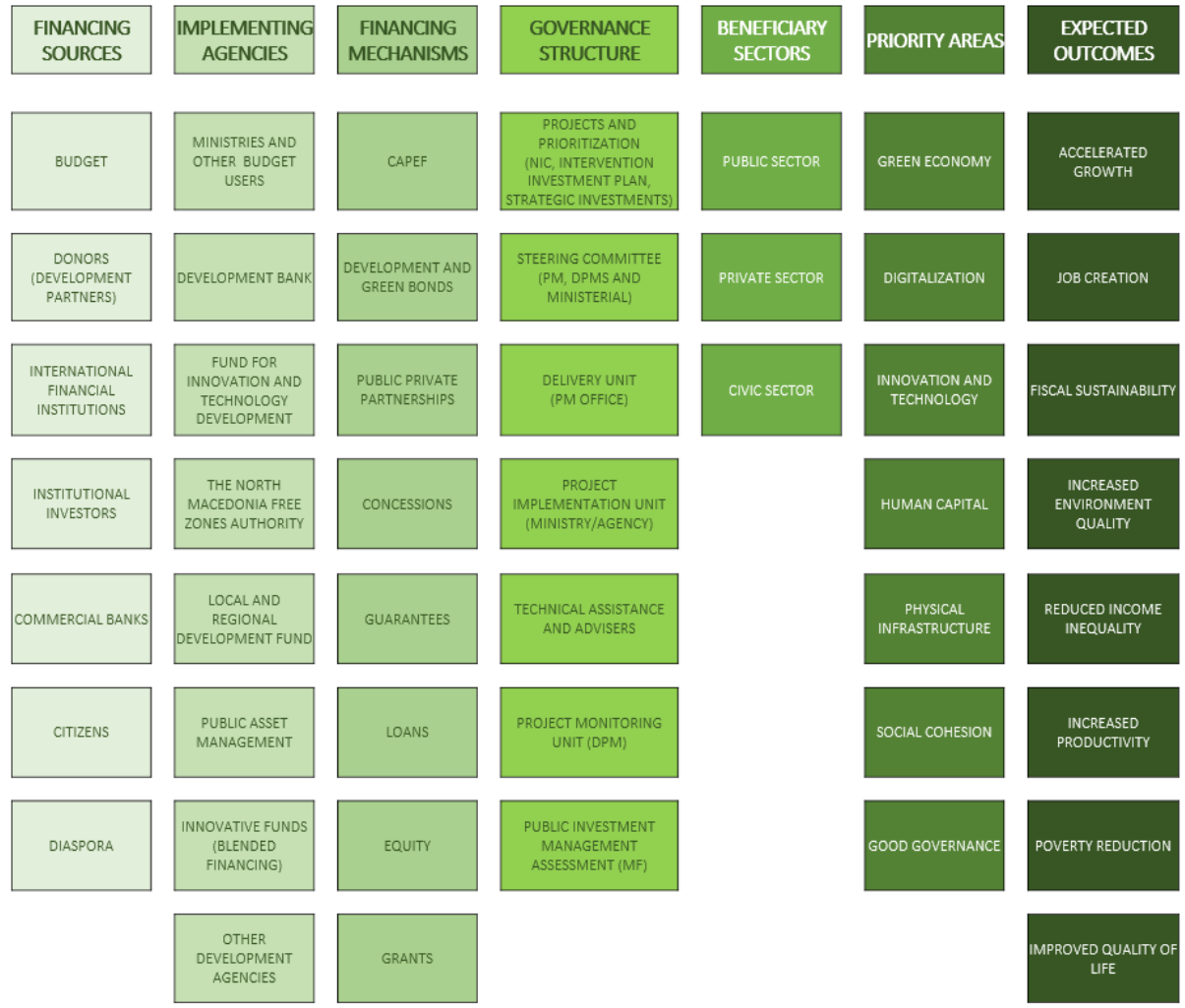
6. The plan would be financed through a multitude of financing sources and instruments and has a complex governance structure. This includes public and private means, as well as support from international development partners. Possible financing instruments include development bonds, project bonds, green bonds, public-private partnerships (PPPs), privatization of non-essential public assets, as well as through the use of several state funds and development of more innovative instruments such as fund of funds, venture capital, and crowdfunding. The investment plan follows a governance cycle building from project identification, prioritization, implementation, facilitation, monitoring, and evaluation, with the latter being a feedback loop. Many of these functions are performed at the political level with multiple public entities involved. While the governance structure has the right elements, it would require transparency and independent assessments to avoid political interference.

7. The government expects substantial growth dividends from the investment plan. The government aims to more than double public investment in 2022-26 compared to the previous decade (in nominal terms). Together with the assumed increase in private investment, total investment is projected to rise from an average of 30.2 percent of GDP in the previous decade[4] to 38.2 percent of GDP by 2026. On this basis, the government expects the annual real GDP growth rate to rise to 5.7 percent by 2026, from an average of 2.6 percent in the previous decade. This is based on favorable macroeconomic assumptions, including regarding productivity, employment and wage growth, private consumption, and external trade.

[3] Real GDP per capita relative to the EU15 may be underestimated due to positive net emigration during the same period. This is the case not only for North Macedonia but also for the Western Balkan region as a whole.

[4] Gross investment increased significantly in the previous decade, from 24.5 percent of GDP in 2010 to 34.5 percent of GDP in 2019.

Figure 2. Growth Acceleration Plan: Overview



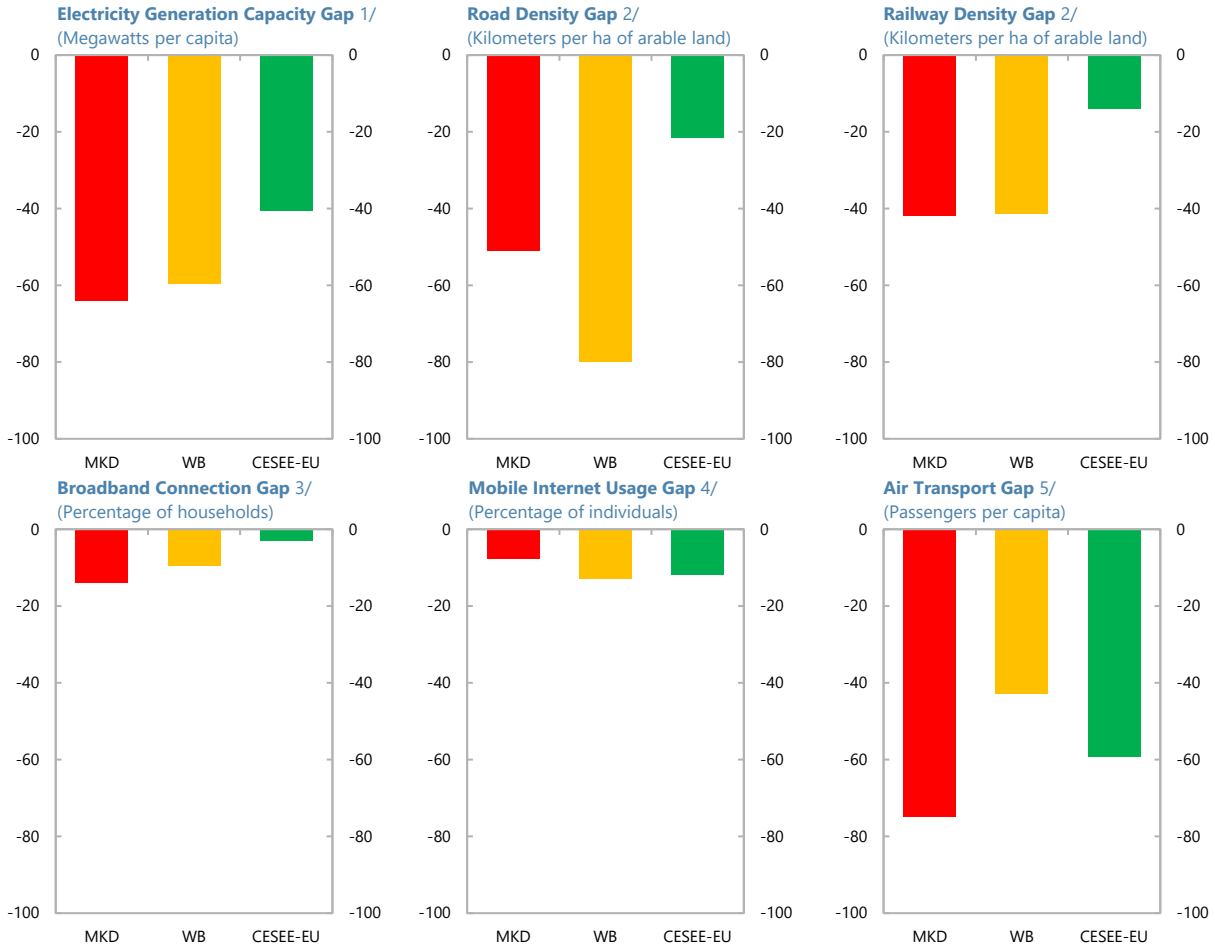
Source: Government of the Republic of North Macedonia (2021).

C. Measuring and Benchmarking Infrastructure in North Macedonia

8. Infrastructure is an important component of the public capital stock, and the public sector is its main provider. In this paper, we examine both economic infrastructure (e.g., roads, electricity) and social infrastructure (e.g., schools, hospitals) using a wide range of volume measures, including following Atoyan et al. (2018) and Ari et al. (2020). We look at the quality of infrastructure, too, as this is equally important for the impact of capital on productivity growth and income convergence. Health and education also shape the productivity of workers, which underscores the importance of investing in human capital. Finally, public investment is key to ensuring the green and digital transformation of the economy, and we assess how North Macedonia scores on a number of green and digital indicators.

9. North Macedonia lags EU peers in economic infrastructure. Electricity generation capacity (adjusted for population) is two-thirds less that of the EU15 and also well below new member countries. Road and railway density is some 40-50 percent below the EU15 level. Air passenger transport displays an even larger gap. The country also lags in digital infrastructure, though to a much lesser extent, possibly linked to an active involvement of the private sector in this area. Economic infrastructure appears overall at par with infrastructure in other Western Balkan countries.

Figure 3. Economic Infrastructure Gaps



Sources: Eurostat; and IMF staff calculations.

Note: The indicators presented in Figures 3 and 4, except for the ratio of pupils and students to teachers and the index of shortage of material resources, are computed as gaps relative to the EU15 average following Atoyan et al. (2018) and Ari et al. (2020). WB = Western Balkan countries excluding North Macedonia (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, and Serbia.

1/ Data for 2019 or latest available year.

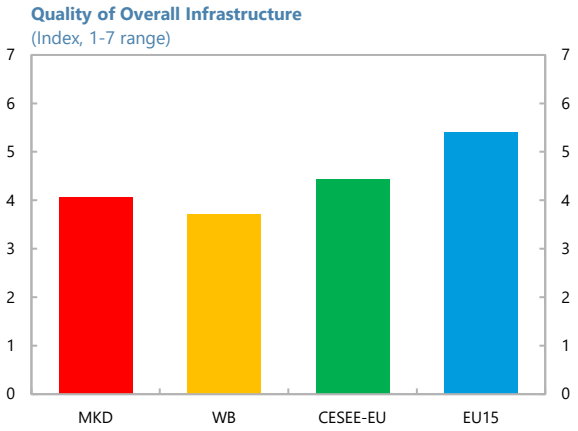
2/ Data for 2019 or latest available year. WB: Data for Kosovo and Serbia.

3/ Household broadband Internet connection. Data for 2021 or latest available year.

4/ Use of a mobile phone (or smartphone) to access the Internet. Data for 2019.

5/ Air passengers carried by reporting country. Data for 2019. WB: Data for Montenegro and Serbia.

10. There is also scope for improvement of the quality of infrastructure. While physical indicators provide a sense of the coverage of infrastructure networks and physical output of public investment, they do not fully capture infrastructure quality. Despite progress made in recent years, the overall quality of the economic infrastructure as measured by business executives' (subjective) assessment remains below regional and EU levels.



Sources: World Economic Forum, The Global Competitiveness Index Dataset; and IMF staff calculations.

11. There appears to be somewhat stronger convergence in the coverage of social infrastructure. A sizeable share of public investment is devoted to infrastructure related to the provision of social services such as health and education. The country has a higher number of hospital beds relative to the EU15 but less medical equipment such as magnetic resonance imaging and computed tomography scanners and also fewer medical staff, in particular physicians and nurses (all adjusted for population size). School infrastructure as measured by educational staff to students and overall population ratios appears in line with EU levels. At the same time, the most recent PISA results suggest among others a sizeable shortage of educational materials (e.g., textbooks, IT equipment) and infrastructure (e.g., buildings, heating/cooling systems).

Figure 4. Social Infrastructure Gaps

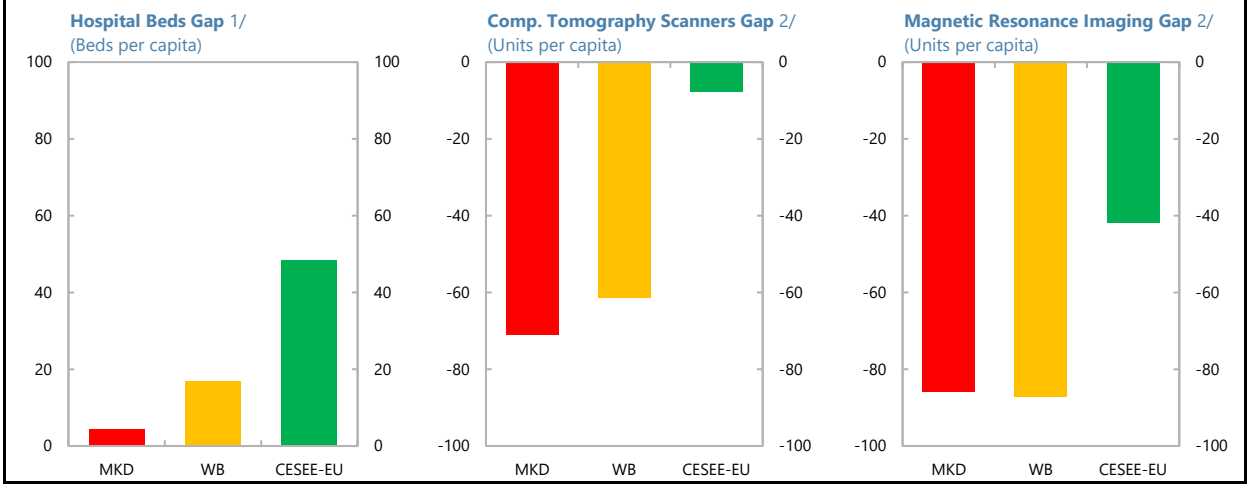
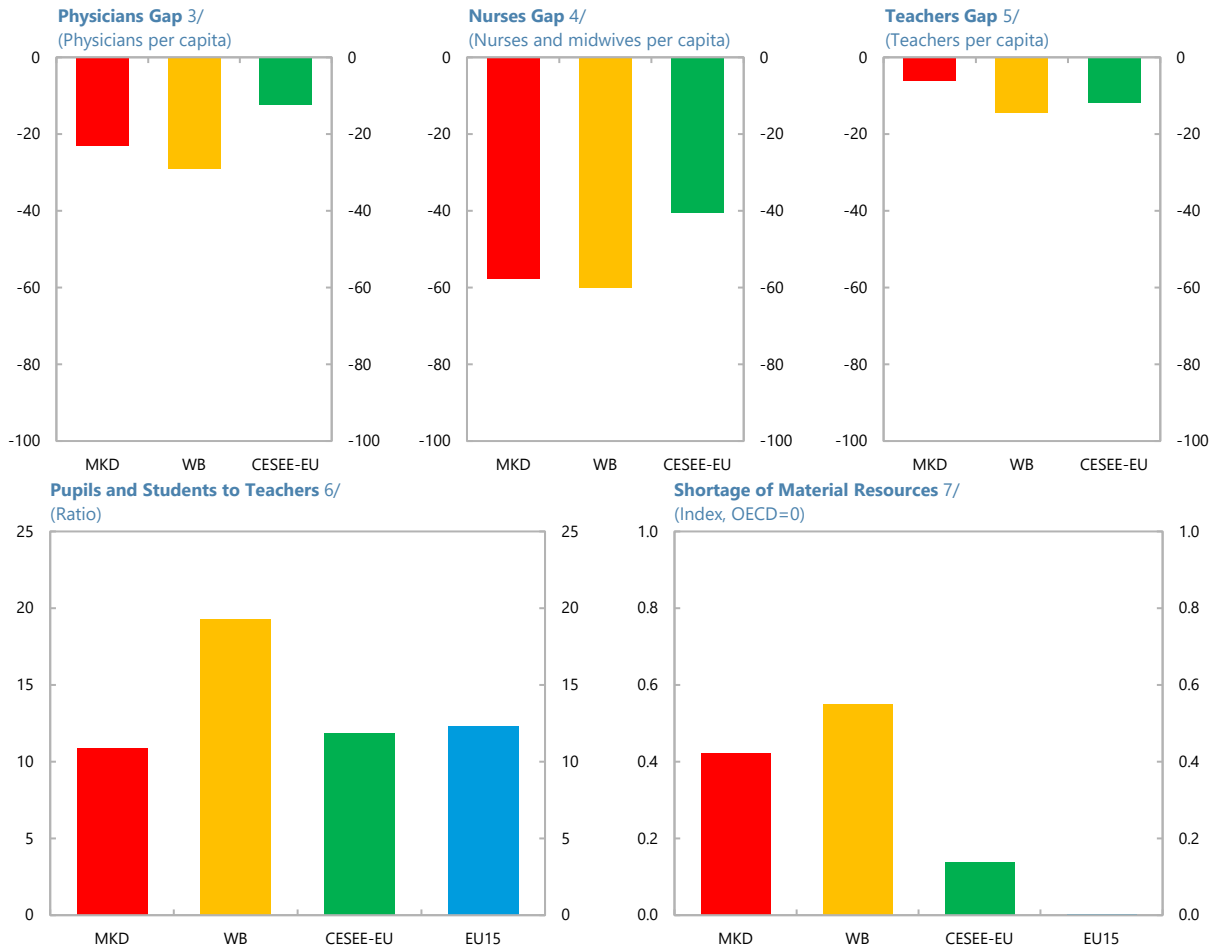


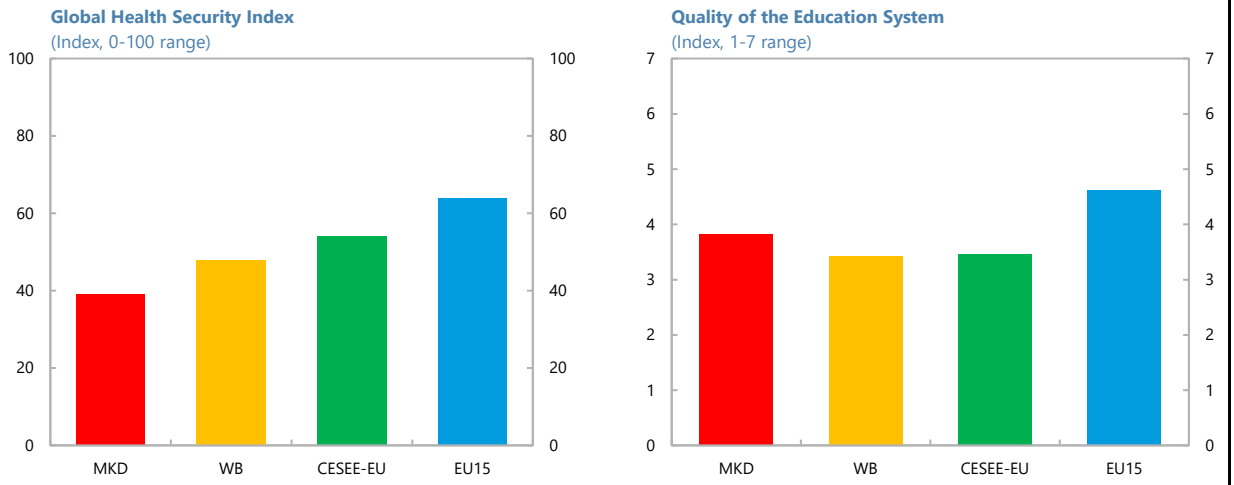
Figure 4. Social Infrastructure Gaps (concluded)



Sources: Eurostat; OECD, PISA 2018 Database; and IMF staff calculations.
1/ Data for 2019. WB: Data for Montenegro and Serbia.
2/ Data for 2019 or latest available year. WB: Data for Albania and Serbia. CESEE-EU: Data not available for Hungary.
3/ Data for 2019 or latest available year. WB: Data for Montenegro and Serbia.
4/ Nursing professionals and midwives in hospitals. Data for 2019 or latest available year. WB: Data for Montenegro and Serbia. CESEE-EU: Data not available for the Slovak Republic.
5/ Classroom teachers and academic staff in primary and secondary education. Data for 2019 or latest available year. WB: Data for Bosnia and Herzegovina, Montenegro, and Serbia.
6/ Ratio of pupils and students to teachers and academic staff in primary and secondary education. Data for 2019 or latest available year. WB: Data for Bosnia and Herzegovina, Montenegro, and Serbia.
7/ Shortage of educational materials (e.g., textbooks, IT equipment) and infrastructure (e.g., buildings, heating/cooling systems), based on principals' opinions. Data for 2018.

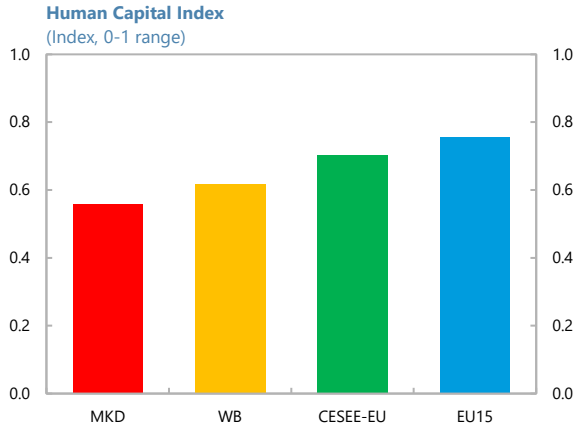
12. However, survey-based measures suggest disparities with the EU in the quality of social infrastructure. An overall health security index, which assesses countries' health security and capabilities across several categories (disease prevention, detection, rapid response, health system, compliance with international norms, and risk environment), suggests lower quality relative to both the EU15 and CESEE-EU. Similarly, the country is perceived to lag the EU in the quality of its education system.

Figure 5. Quality of Hospitals and Schools



Sources: Global Health Security Index; World Economic Forum, The Global Competitiveness Index Dataset; and IMF staff calculations.

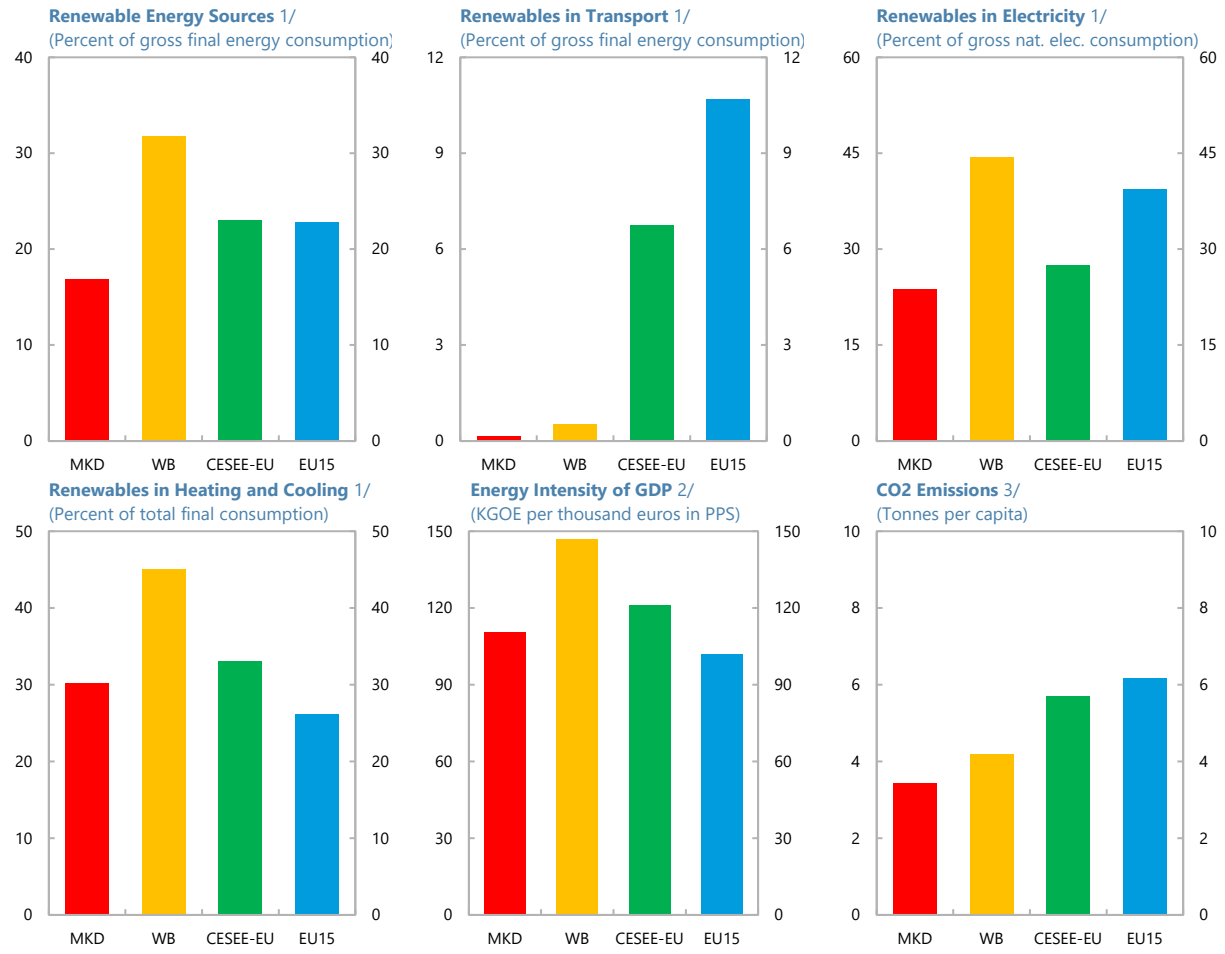
13. This in turn has implications for human capital outcomes. Human capital consists of the knowledge, skills, and health that people accumulate over their lives. The World Bank's Human Capital Index, which measures the human capital that a child born today can expect to attain by age 18 given the health and education conditions prevailing in their country, indicates that North Macedonia lags most regional and EU peers, mainly due to differences in the quantity and quality of schooling.



Sources: World Bank, Human Capital Index, 2020 Update; and IMF staff calculations.

14. The use of energy from renewable sources can be increased in line with goals to combat climate change. The share of renewables in energy consumption is slightly lower than that of the EU15/EU but also well below other WB countries. This applies in particular for electricity consumption. By contrast, the share of energy used for heating and cooling from renewable sources exceeds that of EU15 countries. Virtually no renewable energy is used in transport. The country is slightly less efficient than the EU15 in the consumption of energy as measured by energy intensity. As in other countries, CO2 emissions have declined steadily over time, remaining below regional/EU levels.

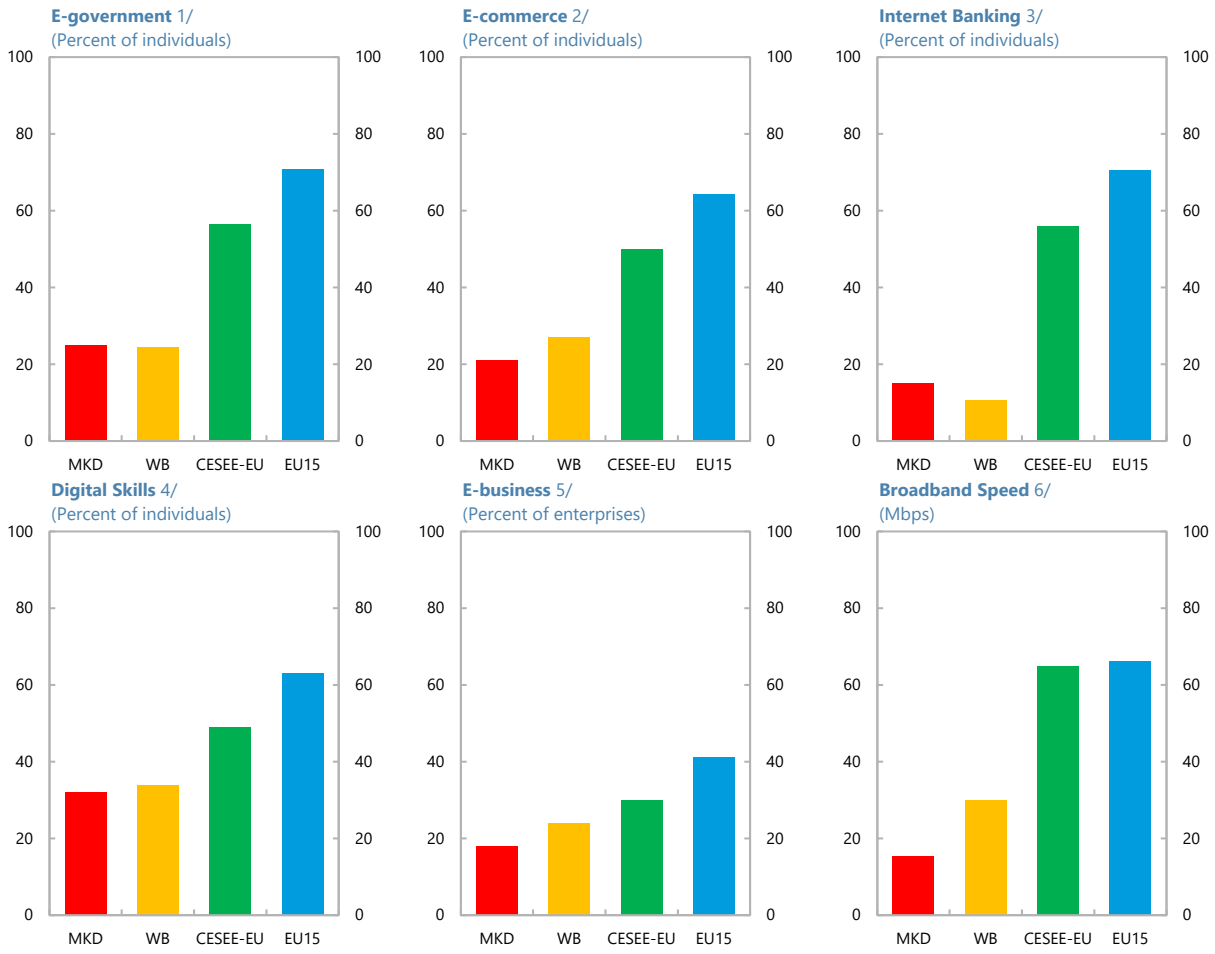
Figure 6. Environmental Indicators



Sources: Eurostat; Our World in Data based on the Global Carbon Project; and IMF staff calculations.
1/ Data for 2019.
2/ Kilograms of oil equivalent (KGOE) per thousand euros in purchasing power standards (PPS). Data for 2020 or latest available year. WB: Data not available for Kosovo.
3/ Data for 2020. WB: Data not available for Kosovo.

15. Information and communications technologies have become increasingly available to the public, but the country still lags the EU in terms of their use. Electronic interaction of individuals with public institutions (e.g., obtaining information, downloading forms, returning filled-in forms) is well below EU levels. Purchase of goods and services via the Internet and digital banking remains relatively underdeveloped too. This points to insufficient digitalization of public authorities and businesses, in addition to relatively low digital competences and skills of individuals. Use of electronic communications by firms to run, integrate, and improve their business processes, share information internally, or communicate with business partners and customers is also below EU levels. While broadband is widely available, internet connections appear to lag in speed.

Figure 7. Digital Indicators



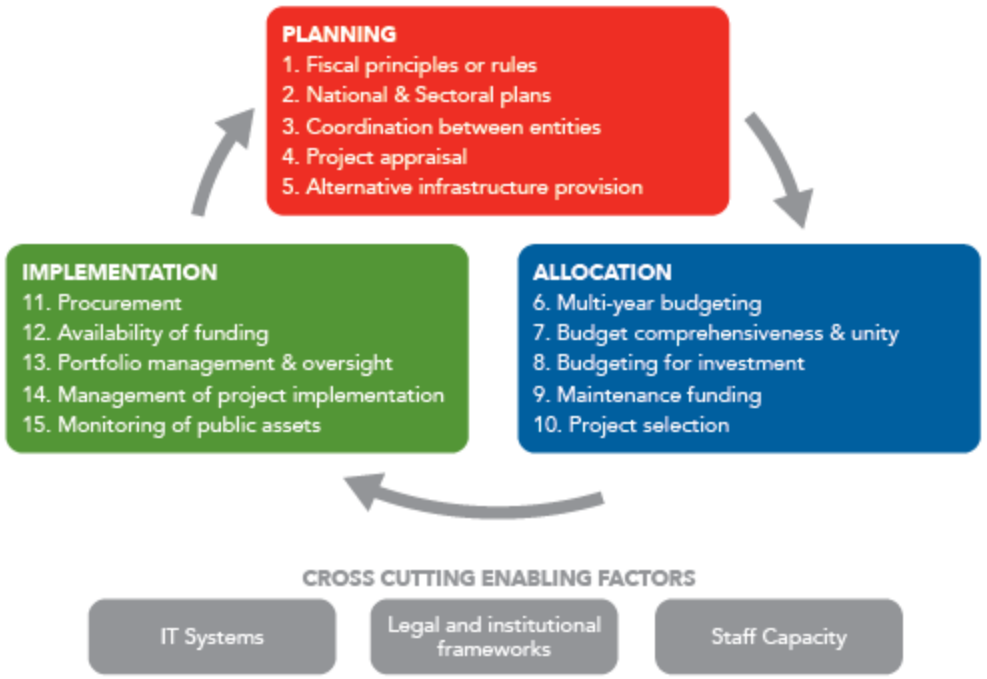
Sources: Eurostat; Worldwide Broadband Speed League 2021; and IMF staff calculations.
1/ Interaction with public authorities (last 12 months). Data for 2021 or latest available year.
3/ Online purchase (last 3 months). Data for 2021 or latest available year.
3/ Data for 2021 or latest available year.
4/ Individuals who have basic or above basic overall digital skills. Data for 2019 or latest available year.
5/ Enterprises which have an ERP software package to share information between different functional areas. All enterprises excluding financial sector (10 or more employees and self-employed persons). Data for 2021 or latest available year. WB: Data for Bosnia and Herzegovina and Serbia.
6/ Data for 2021.

D. Public Investment Management

16. A successful infrastructure investment plan hinges on good public investment management. Infrastructure investment comes with significant governance challenges and risks. For example, infrastructure projects can suffer from implementation delays and cost overruns. Evidence suggests that the average country loses about 30 percent of the returns on its investment to inefficiencies in its public investment management (PIM) processes (IMF (2015)). Improvements in PIM can significantly narrow the efficiency gap, thereby boosting the impact on growth.

17. The IMF has developed a comprehensive framework to assess infrastructure governance for countries at all levels of economic development. The Public Investment Management Assessment (PIMA) evaluates the procedures, tools, decision-making, and monitoring processes used by governments to provide infrastructure assets and services to the public; helps identify reform priorities; and recommends practical steps for their implementation. The PIMA framework examines the institutional design and effectiveness of 15 key practices called "institutions" and 3 cross-cutting enabling factors supporting infrastructure governance, which shape decision-making at the three key stages of the public investment cycle––planning, allocation, implementation.

Figure 8. PIMA Framework



Source: IMF (2019).

18. Governance weaknesses can hamper the efficiency of public investment in North Macedonia. The IMF undertook a PIMA assessment in January 2020.[5] The assessment found pockets of strong performance. The procurement process for capital projects is open and transparent, and during implementation financing for capital spending is made available in a timely manner. However, many of the country's policies and procedures governing public investment are either not aligned or only partially aligned with good practices, with fragmentation affecting all stages of the PIM cycle. In addition, the framework is assessed to perform differently "on paper" (institutional design) and "in practice" (effectiveness).

[5] The remainder of this section is based on this assessment (IMF (2020)).

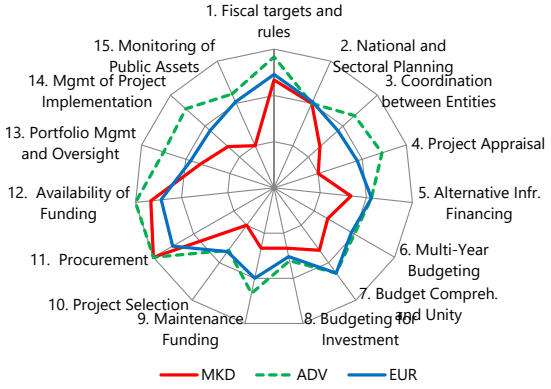
- ***At the planning stage,* there is scope to improve project prioritization, enhance coordination between government layers, and improve oversight of public corporations.** Multiple sectoral strategies point to infrastructure development needs in key economic and social sectors. A closer alignment of these sectoral strategies with the strategic plans of line ministries and other procurement agencies and, by extension, their budgets would improve the prioritization process. Major capital projects would benefit from being systematically subject to rigorous technical, economic, and financial analysis, relying on a standard methodology for project appraisal and central support. Coordination between central and local governments could be strengthened, capital transfers to municipalities could be made more transparent, and reporting of contingent liabilities from projects financed outside the budget the central government could be improved. Similarly, the country has scope to enhance the monitoring of public corporations, making it more conducive to efficient investment.

- ***At the allocation stage,* project prioritization and selection and multiyear budgeting stand out as two areas of weakness.** A single pipeline of appraised capital projects would facilitate prioritization and provide a level playing field for budgetary resources. Project selection would be improved by using standard and comparable methodologies across sectors. Similarly, maintenance funding would be better protected if there was a standard methodology for determining maintenance needs. Introducing multiyear ceilings on capital expenditure at the level of line ministries, sectors, or programs would help ensure that budget allocations align with investment priorities. Individual capital projects would gain to be presented comprehensively and systematically in the budget, to foster transparency concerning funding commitments for ongoing projects and funding needs for new projects. Budget comprehensiveness would be increased by reporting all public investment spending, regardless of sources of funding, given that a significant portion of investments is undertaken off-budget by de facto extrabudgetary entities involved in large infrastructure projects.

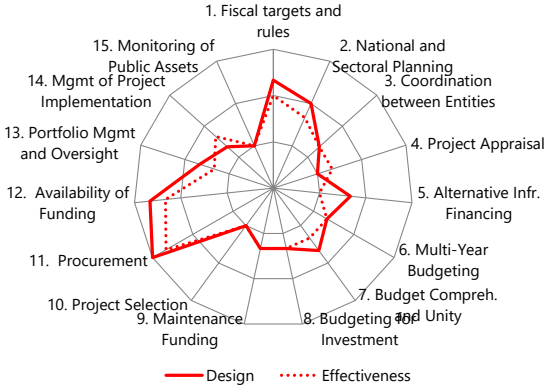
- ***At the implementation stage,* portfolio management and oversight could be improved.** Infrastructure projects are managed individually, but neither a sectoral nor a national oversight function is performed within the public sector, preventing the Ministry of Finance, or the government, to clearly identify cost overruns and project delays, to take corrective actions on a timely manner, and to learn from implementation experience. Transparent monitoring and reporting of public assets would inform planning of infrastructure investment and maintenance needs.

Figure 9. North Macedonia: Public Investment Management Assessment

Institutional Design: North Macedonia vs. EU and Advances Economies



North Macedonia: Institutional Design vs. Effectiveness



Source: IMF (2020).
Note: The lines depict the scores given to the 15 "institutions" shown in Figure 8. In the case of North Macedonia, they indicate, for example, relatively strong performance in procurement and weaker performance in project appraisal.

19. In addition, the role of the Ministry of Finance in the PIM framework should be strengthened. Laws and regulations could better support its role as gatekeeper of public finance during the public investment cycle. Improving skills and knowledge, by establishing a dedicated team and introducing an adequate information system, would enhance PIM related functions in the Ministry. It would also be important that individual capital projects can be identified and thus presented in the budget documentation.

20. The authorities are committed to improving the PIM framework. In addition to introducing a new, incentive-based mechanism whereby capital spending appropriations can be reallocated across budget users based on in-year execution ("CAPEF"), the government has adopted a PIM action plan and established working groups responsible for its implementation. A new Organic Budget Law has been prepared and is being discussed in parliament, and it is planned that a new PPP law will be adopted soon. The functional and technical requirements of an integrated financial management information system have been further developed and include now detailed specifications for the PIM component.

E. The Macroeconomic Effect of Scaling Up Investment

21. A scaling-up of public investment can boost domestic demand and growth in the short term and lift potential growth in the medium term. The short-term impact depends on several characteristics such as the type of investment, state of the business cycle, marginal return on additional capital, level of public debt, financing sources, absorptive capacity constraints (bottlenecks), and complementarity of public investment to private investment. The medium- and long-term impact depends on whether the investment expands the productive capacity of the

economy, which requires strong management, governance, and efficiency of public investment. If public investment management is sound, the growth dividend in the long term will be larger.

22. The estimated size of the effects varies depending on the methodological approach. Traditionally, the economic effects have been estimated via an empirical approach, typically a panel estimation, covering several countries, or a model-based simulation, usually in a general equilibrium model. The empirical approach is often used to assess the short-term effects, exploring various co-factors or economic characteristics, while the model-based simulation provides an estimate of short-term and long-term effects, consistent with convergence to a long-term equilibrium. The empirical approach generally finds a larger effect than model-based simulations given the different setups, and the endogeneity and policy reactions to higher investment that are embedded in models, such as monetary policy reaction or fiscal financing requirements to ensure debt sustainability.

23. Empirical estimates indicate a significant and persistent effect of an increase in public investment, especially if in the context of strong governance frameworks. IMF (2014) finds that a 1 percent of GDP increase in investment spending sustained over a 10-year period raises the level of GDP by about 0.4 percent in the same year and by 1.5 percent four years after the shock, for advanced economies, an effect which close to doubles in countries with a high degree of public investment efficiency. The result is broadly similar to that found in Ari et al. (2020), which also shows that public investment booms tend to be associated with larger increases in output in CESEE countries,[6] as well as the average Western Balkan country, and the effect increases with slack in the economy, a lower capital stock, and higher infrastructure quality.

24. Model-based simulations suggest that an appropriately designed investment plan could lift the GDP level significantly and is likely to speed up income convergence. Using the IMF's Global Integrated Monetary and Fiscal Model (GIMF) calibrated to the average Western Balkan country, Ari et al. (2020) find that a sustained 1 percent of GDP increase in public investment over a 10-year period would increase the level of output 0.7 percent above the baseline in the first year, to about 2.5 percent above the baseline after 10 years. The effect may vary depending on the financing, investment efficiency, and regional coordination. The effect gradually increases by an additional 0.3 percentage points if it is accompanied by improved investment efficiency. Regional coordination has positive spillover effects, especially if through greater connectivity. The impact on growth is typically strongest as public investment is scaled up. The medium-term growth dividends through an expanded productive capacity are significant, but they are lower than in the initial scaling-up stage, and may be negative as public investment is normalized, i.e., scaled down again. Public investment is typically normalized at a higher level due to higher maintenance spending following a large increase in investment.

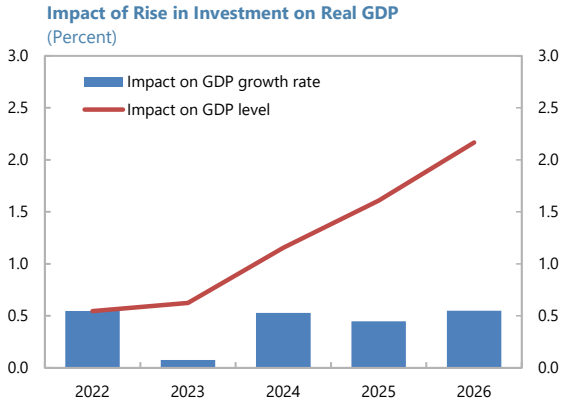
[6] Ari et al. (2020) follow the approach of IMF (2014) to estimate the typical effects of a large and sustained surge in public investment (boom periods) for a group of CESEE countries. Given the setup, the study finds a set of stylized facts around investment booms but cautions on a causal interpretation.

Table 1. North Macedonia: GDP Level Deviation from Baseline of a Stylized Shock that Brings Public Infrastructure Investment Above its Baseline by 1 Percent of GDP for a Period of 10 Years

	T+0	T+5	T+10	T+15
Financing				
Tax	0.66	1.42	2.51	2.41
Expenditure	0.74	1.52	2.83	2.47
Debt	0.70	1.65	2.52	2.43
Investment Efficiency				
Unchanged Efficiency	0.70	1.65	2.52	2.43
Improved Efficiency	0.73	1.81	2.82	2.70
Regional Coordination				
Coordinated Investment	0.73	1.81	2.82	2.70
Improved Connectivity	1.10	2.96	4.54	4.74

Source: Ari et al. (2020).

25. North Macedonia could see a significant and sustained effect on output if public investment increases and public investment management improves. The government's most recent medium-term fiscal strategy, adopted in December 2021, targets an increase in capital expenditure of 0.8 percent of GDP in 2022 and a further rise from 2024. This represents a substantial scaling-up of public investment, reflecting the Growth Acceleration Plan.[7] To determine the appropriate multiplier based on Ari et al. (2020), we take into account that the economy is still recovering (the output gap is not expected to close until 2026), and the existing capital stock is low. This would suggest higher marginal return on capital and a higher multiplier. However, absorption capacity and public investment efficiency are relatively weak, and public investment would need to be accompanied by reforms of the PIM framework to achieve a higher multiplier. On this basis, we find that public investment would contribute 0.5 percentage points to GDP growth in 2022, relative to a baseline where government capital spending is kept constant as a share of GDP at the level for 2021 projected in the medium-term



Sources: MoF; and IMF staff calculations.
Note: Potential effects of scaling up public investment as foreseen in the Dec. 2021 MTFS, relative to keeping investment constant as a share of GDP.

[7] In addition, there may be planned investments by the state road fund, PESR, and other nonfinancial SOEs which are not fully reflected in the medium-term fiscal strategy. Similarly, the Growth Acceleration Plan may contain investment projects, mature and non-mature, that are not included in the medium-term fiscal strategy.

fiscal strategy.[8] The growth effect continues in the outer years as public investment is further scaled up from 2024, adding 0.4–0.5 percentage points to annual growth in the outer years.[9]

F. Policy Considerations

26. A scaling-up of investment would boost the economy's growth potential, facilitate the digital and green transitions, and limit scars from the pandemic. Narrowing the sizeable gaps in both economic and social infrastructure could have a significant impact on North Macedonia's potential output, as suggested by both empirical estimates and model-based simulations, thereby accelerating economic convergence with the EU. If well designed, a permanent increase in investment could also facilitate the transition to a highly digitalized and low carbon economy. Finally, it could provide a much needed stimulus to economic activity in the aftermath of the pandemic crisis, thus limiting its damage in the medium term.

27. Yet, with limited fiscal space, it is essential to maximize the efficiency and productivity of public investment while reducing fiscal risks. This can be achieved by:

- **Strengthening public investment management.** Strong investment frameworks are usually associated with higher infrastructure quality and larger output gains, which can in turn foster economic convergence.[10] North Macedonia would benefit from more rigorous and transparent arrangements for the appraisal, selection, and implementation of investment projects. It would also gain from better integration of PPPs within the overall PIM framework and increased consistency between national strategic planning and capital budgeting. In that respect, ongoing work to address the PIMA recommendations is welcome and should be completed without delay.

- **Assessing and managing fiscal risks.** Public infrastructure projects are typically large and complex, with long planning, implementation, and operational periods, which exposes them to uncertainties and risks. Sources of such uncertainties and risks include unrealistic costings, underestimated scope, appraisal and coordination failures, funding shortfalls, poor project management, and insufficient demand. They can materialize as large fiscal costs with significant macroeconomic implications. North Macedonia would benefit from developing a risk-management function to minimize the probability that risks materialize, assess their fiscal impact, and better cope with risks which nevertheless materialize.[11]

- **Diversifying financing sources.** Private sector involvement in the provision and financing of infrastructure can deliver substantial savings. Although private financing is typically more

[8] Government capital spending was already scaled up by 0.9 percent of GDP in 2021. The lagged effect of this increase is not included in the simulation.

[9] The calculations do not assume under-execution of public investment, which has been substantial in the past.

[10] See for example IMF (2015).

[11] See Monteiro et al. (2020) for a discussion on the nature and sources of fiscal risks in infrastructure and how to assess and manage such risks.

expensive than government borrowing, private sector participation can generate efficiencies through, for example, a higher level of technical expertise, economies from bundling the construction, maintenance, and management of the asset, and increased cost recovery potential. However, the benefits of private engagement hinge upon the government's ability to allocate risks efficiently to provide the right incentives and reduce overall project costs while also ensuring that private partners meet their obligations. Furthermore, to attract private infrastructure financing, governments can make use of risk mitigation instruments, such as minimum revenue guarantees, guarantees and insurance contracts on infrastructure finance instruments, export credit guarantees, grants, and tax incentives.[12]

- **Considering the regional dimension of new investment.** Regional coordination has the potential to amplify the benefits of scaling up infrastructure investment. Cross-border projects could improve North Macedonia's connectivity and integration with other countries in the region and strengthen links with the EU single market. However, such projects carry complex risks, for example in terms of coordination, compatibility of legal and regulatory frameworks, (a)symmetric information and shocks, and risk sharing. The presence of supranational initiatives, such as the Western Balkans Investment Framework, and international donors can mitigate these risks to some extent, facilitating coordination and commitment between countries.

- **Transition needs to mitigate and adapt to climate change should be an important part of the recovery.** Going forward, reducing the carbon footprint, and mitigating the effects of climate change, will become increasingly important. Given the large effects of climate change, the increasing financial cost of CO2 emissions, potential fiscal costs of future natural disasters, taking into account economic transition needs due to climate change should already now be an important element of public investment planning for the years ahead.

- **Applying credible assumptions on the growth impact and potential spillovers.** A scaling-up of public investment will have a significant economic impact. The growth effect is largest in the initial stages as public investment is scaled up. While the level of GDP is higher, especially if public investment is scaled up within a sound public investment management framework, growth dividends are more modest in the long term. The overall growth effect may even become temporarily negative as public investment is normalized.

[12] Ari et al. (2020) describe the main risk mitigation instruments generally available for infrastructure financing to address key related risks.

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