

BULGARIA

SYSTEMATIC
COUNTRY
DIAGNOSTIC

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Development / The World Bank
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Acknowledgments

This report was prepared by a multi-sector World Bank Group team co-led by Reena Badiani-Magnusson, Desislava Nikolova and Andrea Liverani, under the overall guidance of Gallina Andronova-Vincelette (Country Director), Fabrizio Zarcone (Country Manager), Jasmin Chakeri (Practice Manager, Macroeconomics, Trade and Investment) and Salman Zaidi (Practice Manager, Poverty and Equity Global Practice). Ary Naim (Country Manager) and Olga Sclovsciaia (Head) provided guidance on the IFC and MIGA side.

Many staff contributed to this report, with inputs to specific chapters or to the preparation of a series of background notes that helped inform this diagnostic.

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Adela Ivanova Delcheva Nachkova provided invaluable administrative assistance throughout the process, while Ivelina Taushanova and Sylvia Stoyanova helped with advice on the scd Update process and consultations. The cover and interior were designed and typeset by Piotr Ruczyński.

The report was enriched by comments from peer reviewers Gayatri Acharya, Ana Maria Oviedo, and Eduardo Olaberria, guidance from Emilia Skrok, Mona Prasad and Ashley Taylor, several discussions held within the Bulgaria country team, the sCD Central Support team, as well as in-country consultations with government. In particular, the team would like to thank the representatives of the Bulgarian government consulted during the early stages of the diagnostic: Marinela Petrova, former Deputy Minister of Finance and current Director, Economic and Financial Policy Directorate, and Ivan Ivanov, Director, Central Coordination Unit, Council of Ministers. Valuable and constructive feedback on the final draft of the sCD Update was received from the Ministry of Finance, the Bulgarian National Bank, the Ministry of Labour and Social Policy, the Ministry of Environment and Waters, the Ministry of Education and Science, The Ministry of Agriculture, Food and Forestry, the Ministry of Economy, the Ministry of Energy, the Ministry of Healthcare, the Ministry of Transport, Information Technology and Communication, the National Social Security Institute and the Public Procurement Agency. The team is grateful for the helpful feedback.

Abbreviations

AI	Artificial Intelligence	GBARD	Government Budget Appropriations on R&D
ALMP	Active Labor Market Program	GDP	Gross Domestic Product
AROP	Anchored at Risk of Poverty	GERD	Gross Expenditure on R&D
CAFE	Clean Air for Europe	GoB	Government of Bulgaria
CEDEFOP	European Center for the Development of Vocational Training	GP	General Practitioner
CEE	Central and Eastern European Countries	GVA	Gross Value Added
CESA	Center for Employment and Social Assistance	HCBD	Home and Community Based Service
CSO	Civil Society Organization	HE	Higher Education
DESI	Digital Economy and Society Index	HEI	Higher Education Institutions
DH	District Heating	IP	Intellectual Property
DMI	Differentiated Minimum Income	JRC	EU Joint Research Center
DPA	Disaster Protection Act	LLL	Lifelong Learning
DRM	Disaster Risk Management	MHEWS	Multi-hazard Early Warning System
EA	Employment Agency	M&E	Monitoring and Evaluation
EC	European Commission	MoE	Ministry of Economy
ECB	European Central Bank	MoES	Ministry of Education and Science
ECD	Early Childhood Development	MoH	Ministry of Health
ECJ	European Court of Justice	MoEW	Ministry of Environment and Water
EEA	European Environment Agency	MSB	Monthly Social Benefit
EGD	European Green Deal	NAQMP	National Air Quality Management Program
EOHSP	European Observatory on Health Systems and Policies	NDRRP	National Disaster Risk Reduction Program
ERM	Electronic Medical Record	NDRRS	National Disaster Risk Reduction Strategy
ERM	Exchange Rate Mechanism	NEA	National Employment Agency
EIP	European Innovation Platform	NECP	National Energy and Climate Plan
ESF	European Social Fund	NEEAP	National Energy Efficiency Action Plan
ESL	Early School Leavers	NEEP	National Energy Efficiency Program
ESO	Electricity System Operator	NEET	Not in Employment, Education or Training
EU	European Union	NHIF	National Health Insurance Fund
EU-LFS	European Union Labour Force Survey	NPLs	Non-Performing Loans
EU RRF	EU Recovery and Resilience Facility	NRRP	National Recovery and Resilience Plan
EU-SILC	European Union Statistics on Income and Living Conditions	NSI	National Statistics Institute
Eurostat	Statistics Office of the European Union	NSSI	National Social Security Institute
FRA	Fundamental Rights Agency	NUTS	Nomenclature of Territorial Statistics

OECD	Organisation of Economic Cooperation and Development	RISE	Resilience, Inclusion, Sustainability, Efficiency
OSI	Open Society Institute Sofia	RRF	Recovery and Resilience Facility
PER	Public Expenditure Review	SCD	Systematic Country Diagnostic
PISA	Programme for International Student Assessment	SFB	Single-Family Building
PPP	Purchasing Power Parity	SHI	Social Health Insurance
PPS	Purchasing Power Standards	SOEs	State Owned Enterprises
PRO	Public Research Organizations	SMEs	Small and Medium Enterprises
PSIBA	Public Social Insurance Budget Act	STI	Science, Technology and Innovation
R&D	Research and Development	VAT	Value Added Tax
RAS	Reimbursable Advisory Services	VET	Vocational Education and Training
RIA	Regulatory Impact Assessment	WB	World Bank
		WGI	World Governance Indicators

Benchmarking coverage and country acronyms

The analysis in this report relies on comparisons with neighboring countries and subregions within the European Union that are similar in their transition, legacy, and reform requirements for continuing convergence with European Union living standards. The regional aggregates and country acronyms used in this report are defined as follows:

Baltics: Estonia (EST), Latvia (LVA), Lithuania (LTU);

Central and Eastern Europe (CEE): Bulgaria (BGR), Croatia (HRV), Czech Republic (CZE), Hungary (HUN), Poland (POL), Romania (ROU), Slovak Republic (SVK), Slovenia (SVN);

Western Balkans: Albania (ALB), Bosnia and Herzegovina (BIH), Kosovo (KOS), North Macedonia (MKD), Montenegro (MNE), Serbia (SRB);

EU-15: Austria (AUT), Belgium (BEL), Denmark (DNK), Finland (FIN), France (FRA), Germany (DEU), Greece (GRC), Ireland (IRL), Italy (ITA), Luxembourg (LUX), Netherlands (NLD), Portugal (PRT), Spain (ESP), Sweden (SWE), United Kingdom (GBR);

European Union (EU-27): Austria (AUT), Belgium (BEL), Bulgaria (BGR), Croatia (HRV), Cyprus (CYP), Czech Republic (CZE), Denmark (DNK), Estonia (EST), Finland (FIN), France (FRA), Germany (DEU), Greece (GRC), Hungary (HUN), Ireland (IRL), Italy (ITA), Latvia (LVA), Lithuania (LTU), Luxembourg (LUX), Malta (MLT), Netherlands (NLD), Poland (POL), Portugal (PRT), Romania (ROU), Slovak Republic (SVK), Slovenia (SVN), Spain (ESP), Sweden (SWE);

EU-28: EU-27 plus United Kingdom (GBR);

Other: Argentina (ARG), Australia (AUS), Brazil (BRA), Canada (CAN), Chile (CHL), Colombia (COL), Iceland (ISL), Israel (ISR), Japan (JPN), Republic of Korea (KOR), Mexico (MEX), Republic of Moldova (MDA), New Zealand (NZL), Norway (NOR), Russian Federation (RUS), Singapore (SGP), Switzerland (CHE), Turkey (TUR), Ukraine (UKR), United States of America (USA).

EXECUTIVE SUMMARY

The Systematic Country Diagnostic Update examines the key constraints to and opportunities for sustainably accelerating inclusive growth and boosting shared prosperity in Bulgaria. It builds on the first Systematic Country Diagnostic (SCD) published in 2015, entitled “Bulgaria’s Potential for Sustainable Growth and Shared Prosperity”¹. The analysis is organized in three components related to economic growth: strength, inclusiveness and sustainability. Although the earlier diagnostic remains valid for the most part, several contextual factors such as the health, social and economic repercussions of COVID-19, a drive to embrace the digital and green transformation, and a rapidly aging population—have emerged or gained prominence, creating new challenges or sharpening existing ones in all three growth areas. Alongside these mega-trends, institutions and governance continue to play a prominent role through their impacts on all segments of growth.

There are multiple reasons to be optimistic about Bulgaria’s progress since the last SCD in 2015. Growth picked up after the global financial crisis (GFC), accelerating from 1.1 percent in 2010–2014 to an average of 3.6 percent between 2015 and 2019, exceeding the European Union (EU) average. During this period, economic growth translated into improvements in living standards for the average household and for the bottom 40 of the population, contributing to the halving of absolute anchored at-risk-of-poverty rates. Rising labor incomes were the decisive driver in the decline in poverty, linked also to historically high employment rates for both men and women. The country’s economic complexity grew, higher value-added investment goods occupied a growing share of Bulgaria’s exports, and a vibrant private sector, most notably the IT and business process outsourcing sectors were among the key growth drivers, creating jobs and supporting the country’s external competitiveness. The country embarked on a firm course towards eurozone accession and was included in the Exchange Rate Mechanism II in 2020. And notably, the country’s fiscal prudence and low debt levels left it well positioned to extend supportive measures to protect against the economic and social impacts of the pandemic.

Nevertheless, progress has been uneven. Lackluster institutional reforms and muted growth rates compared to the pre-GFC period imply that convergence to average EU development levels has been slower than anticipated and the COVID-19 crisis threatens to further derail economic prospects. Although the country continues to make strides in conceptualizing sectoral plans and strategies, the quality and pace of implementation is uneven, which limits progress on outcomes. The surge in institutional improvements recorded in the period before EU accession has slowed to a trickle, and low regulatory enforcement combined

1. The cut-off date for all the data used in the SCD Update is March 30, 2021. Data that has been released after that date has not been used in the analysis.

with limited confidence in the judiciary acts as a drag on business development, investment (including FDI), and productivity more broadly. Digital penetration remains slow, while innovation and R&D activity lag behind peers. Pre-pandemic growth rates were almost half those seen in the run-up to accession and long-term growth rates have lagged behind some regional peers; as a result, convergence to average EU living standards is projected to take no less than 2.5 decades. Moreover, the COVID pandemic has exposed the institutional, governance and capacity-related weaknesses in a number of sectors, such as health care, education and public administration, shifting the country's growth trajectory downward.

The pandemic has also reversed the trend of declining poverty and has magnified inequalities. An inclusive recovery will therefore need to proactively address the structural barriers that have held back poorer households. Stronger progress in the labor market among poorer households has been constrained by a lower labor force attachment, in part due to skills and regional disparities in growth: the disconnect between the skills required in the sectors driving job growth and those found in poorer households has limited the pass-through of growth to poverty reduction. Furthermore, there is a spatial disconnect between the areas where labor markets are most vibrant and those with high unemployment which, when combined with sticky mobility among poorer population segments, contributes to widening disparities in regional development. The crisis is expected to push an estimated 100,000 people into the risk of poverty and has exacerbated existing inequalities as lower-wage workers and those on non-standard contracts have experienced heavier impacts.

Inequality remains stubbornly high, reflecting in part uneven service delivery across regions and groups. Inequality in human capital, services and incomes as well as regional disparities continue to be the highest in the EU and have widened over time. Public service provision is strong in the capital city and several other well-developed areas, but in other regions, and especially the Northwest region, more limited access to quality social and municipality services has undermined both the inclusiveness and strength of growth. High rates of inequality further reflect persistent disparities in skills and labor market outcomes combined with a fiscal system characterized by limited redistribution. And although poverty has declined among both the Roma and ethnic Turkish populations since 2015 (Poverty and Social Inclusion Indicators, NSI), poverty rates, human capital and living conditions for these communities continue to lag behind the population average by a large margin.

Bulgaria's path to a post-pandemic recovery will also need to confront its sustainability challenges. Its economy remains among the most energy and carbon intensive in the EU, and pollution indicators for air quality are reflected in actual economic costs and impacts on wellbeing, including the highest number of air pollution-related deaths by total population in the EU. The policy direction set by the European Green Deal provide an opportunity to address policy, institutional and financing gaps that, according to the SCD analysis and global benchmarks, place Bulgaria behind its EU peers. The disparities are also motivating Bulgarian citizens to strongly demand redress.

The gap between citizen aspirations and the development trajectory has fed into political and social instability and contributed to outmigration, further weakening growth prospects. Migration outflows accelerated in the post-accession period and have remained elevated, even if increasingly counterbalanced by migration inflows in the last years, sharpening the pace of the long-term demographic transition underway. High emigration reflects a combination of opportunities available in other EU countries and unmet aspirations for better jobs, stronger service delivery, reliable and transparent institutions, and a healthy and sustainable environment in Bulgaria. The education system's failure to equip all students with the skills needed to succeed in the labor market, and the emigration of well-qualified workers exacerbates the already challenging demographic dynamic.

Pathways to more equitable and sustainable growth

This SCD identifies four policy areas with the potential to transform the economy and achieve the objective of faster, more equitable and sustainable growth. These are (i) overcoming institutional weaknesses; (ii) boosting productivity, skills, and employability for all; (iii) strengthening the effectiveness, efficiency and adequacy of public spending for improved service delivery; and (iv) enhancing the sustainability of the growth model. Prioritization of reform areas within each pathway was conducted through identifying the reform areas that are critical enablers to advance the three dimensions of growth, with the additional criteria of prioritizing those that demonstrate cross-cutting complementarity. In addition, reform actions were prioritized by the time horizon needed for completion. The 11 priority reform areas that were identified as part of this diagnostic and prioritization are summarized in tables ES.1 below. The reforms documented in the SCD Update are aligned to those identified in the previous SCD (illustrated in the table ES.2 below) but are grouped differently, to allow environmental sustainability to be recognized as a pathway in its own right – given the greater prominence of the green transition in national priorities – and for the identification of factors to boost productivity.

TABLE ES.1 Summary of 11 reform priorities

1. Overcoming institutional weaknesses for good governance	2. Boosting productivity, skills, and employability for all	3. Strengthening the effectiveness, efficiency, and adequacy of public spending for improved service delivery	4. Enhancing the sustainability of the growth model
<ul style="list-style-type: none"> Strengthening regulatory quality and accountability mechanisms Increasing the efficiency and effectiveness of public institutions 	<ul style="list-style-type: none"> Addressing productivity bottlenecks Strengthening skills Enhancing employability and mobility 	<ul style="list-style-type: none"> Furthering redistribution through fiscal policy Managing demographic change and supporting healthy lives Promoting inclusive and sustainable regional development 	<ul style="list-style-type: none"> Shifting the decarbonization trajectory Reducing waste and pollution Leveraging natural assets and adapting to climate change

Overcoming institutional weaknesses for good governance

Institutional weaknesses continue to weigh on the country's development trajectory and have meant that a strong legislative foundation has not translated into implementation commensurate with the ambitions of the regulatory environment. These bottlenecks affect progress at the sectoral level – for example, limited monitoring and evaluation reduces the use of evidence to strengthen program performance and increase the efficiency of public resource evaluation. This suggests more generally that financing does not track performance to support the desired outcomes, thus depressing productivity and investment, and reducing the efficacy of public service delivery. Furthermore, institutional weaknesses undermine public confidence in the state and threaten social cohesion and political stability.

Sustained reforms that can have a catalytic impact include: (i) **Strengthening regulatory quality and accountability mechanisms** by increasing the transparency, accountability, and predictability of the regulatory environment and of government, including through expanded use of regulatory impact assessments, open data portals and e-government platforms. Accountability and transparency can further be expanded through further opportunities for social dialogue and citizen engagement, to broaden consensus of the government reform agenda and ensure that vulnerable population groups are adequately represented and consulted (ii) **Increasing the efficiency and effectiveness of public institutions**. The latter can be achieved through enhancement of the recruitment and compensation framework for public sector employees as well as the management of public investment, as well as efforts for modernizing the public administration, embracing digital government services, introducing monitoring and evaluation systems and linking financing and performance systematically.

Boosting productivity, skills, and employability for all

The strength of growth has been held back by barriers to productivity. Key structural shifts will be needed in the post-pandemic recovery to remove obstacles to stronger productivity, including measures for improving the business environment via regulatory, administrative and judicial reforms, and maintaining access to finance. The latter would require specific attention to banks' asset quality and non-performing loans (NPLs). A substantial NPL overhang can lead to reduced access to credit for the private sector while the banking sector cleans up its NPL portfolios, limiting firms' ability to obtain financing that is needed for capital investments and improving productivity. Introduction of an early warning system that detects and signals debt distress in a timely manner, and effective implementation of the corporate insolvency framework would be key reform priorities. A number of studies associate effective insolvency reform with a lower cost of and increased access to credit, improved creditor recovery, strengthened job preservation, promotion of entrepreneurship, and other benefits for small businesses.

In the medium to long run, enhancing innovation and R&D activity, and supporting the adoption of technological advances in small and medium-sized enterprises would be key to shifting out the research frontier. Removing productivity bottlenecks also requires enhancing digital connectivity and infrastructure, in particular with respect to lagging regions and last-mile connections, as well as strengthening logistics capacity. Last but not least, the focus of fiscal policy needs to shift to a pro-growth policy mix, including growth-enhancing tax policy and prudent management of state-owned enterprises with the aim of easing their on-balance fiscal burden and contingent liabilities, as well as removing market distortions in specific sectors.

Boosting skills and employability requires policies that strengthen learning outcomes and improve labor market skills and employment opportunities for all, regardless of ethnicity, age, income or location. Early childhood development and education is the foundation of skills formation and labour market integration in mature age, hence its sufficiently wide coverage, particularly among children from vulnerable backgrounds, should be ensured. Also, an effective early warning system is needed to detect students at risk of dropping out, together with targeted measures to support re-integration and retention of returning dropouts. In addition, teacher training needs to be enhanced, while school and university curricula needs to be reformed to further align to the demand for specific skills. Introducing a skills anticipation system can be instrumental for this purpose, improving both the design and quality of higher education programs. Labor market policies increasingly need to focus on preparing existing workers for new jobs, informed by labor market information systems that monitor local labor market needs and translate this info re- and up-skilling programs. In addition, the system needs to strengthen inclusion through specialized and integrated labor support services that address the challenges of the most vulnerable groups, including Roma, as well as the needs of internal migrants and returnees.

Strengthening the effectiveness, efficiency, and adequacy of public spending for improved service delivery

Bulgaria is amongst a handful of EU countries in which the fiscal system shows limited impact on poverty. To improve the redistributive efficiency of social assistance, the government needs to address the coverage and adequacy challenges of the main poverty-targeted programs and to shift toward an automatic indexation of the Guaranteed Minimum Income. To encourage a transition back to work for those who able to do to so, this should be complemented with earned income disregards or other in-work benefits. Since Bulgaria's population is among the 10 oldest in the world, prompt action to reduce pressure on several public sectors, including health, pensions and long-term care is needed.

Service delivery will need to evolve to strengthen inclusion while adapting to embrace demographic challenges. The challenges of aging will require a shift away from a

hospital-centric service delivery structure, towards a model of preventative and outpatient care, addressing coverage gaps for the one in nine Bulgarians without health insurance, rebalancing healthcare expenditure away from private contributions — out-of-pocket payments amount to almost half of healthcare spending — in favor of government expenditure and a spectrum of options for long-term care. Spatial dimensions of development require focused interventions, as uneven delivery of services has fed into uneven opportunities and lower growth. Shifts in the population concentration affect the cost of local services, while variations in the capacity of local governments affect service quality. Addressing these concerns will require a strategic shift in local government planning and investment as well as support to lagging areas to identify and address existing and emerging challenges.

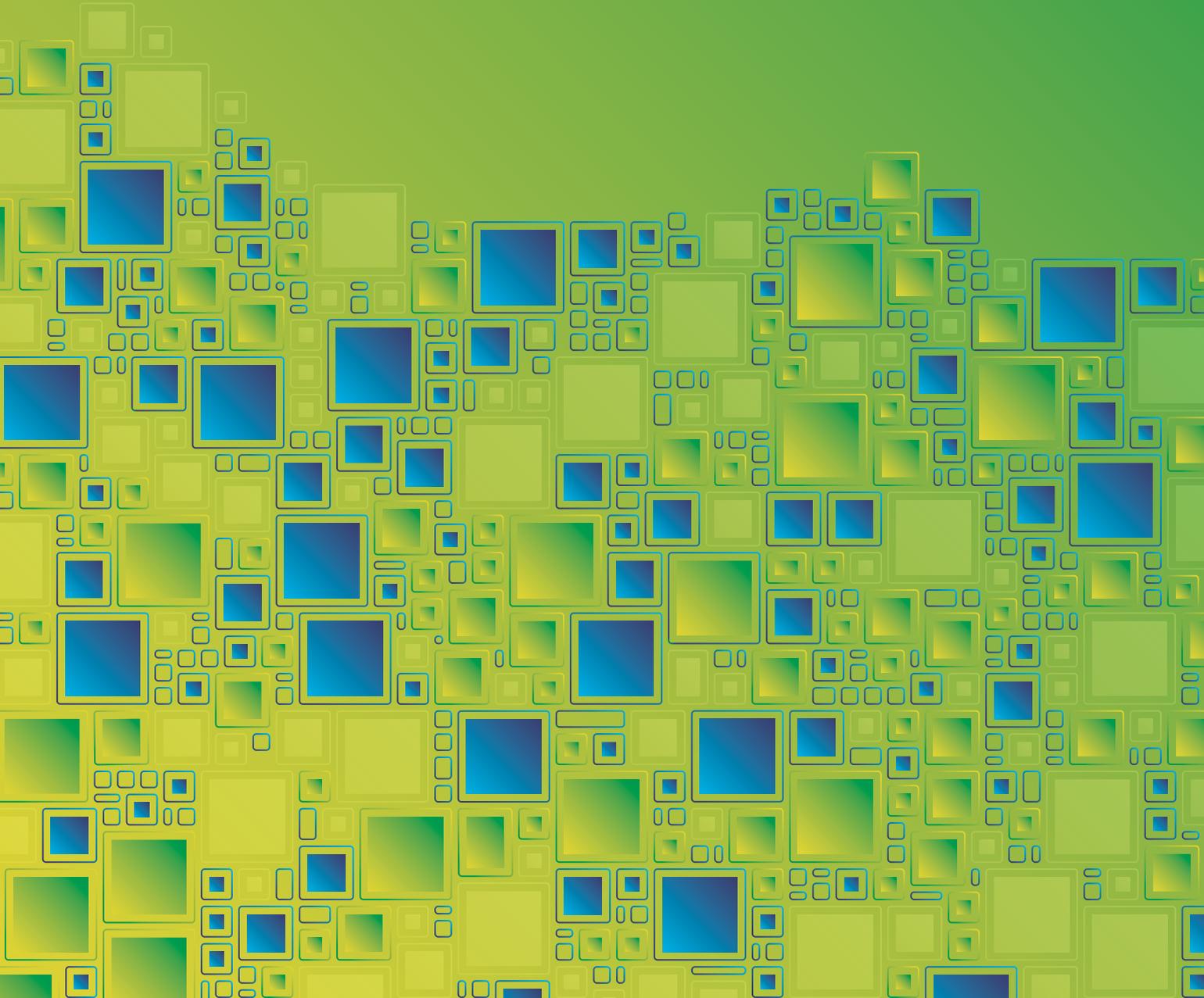
Enhancing the sustainability of the growth model

Enhancing the sustainability of Bulgaria's growth model will require a deliberate focus on strengthening resilience and decarbonization. The impact of the expected large EU funds will be limited without enabling reforms, including through standards and financing for decentralized renewable energy, energy efficiency, sustainable heating and fleet electrification. Scaling up renewable energy will require measures to strengthen the grid, expand distributed renewables, and couple heating and power generation closely. Bulgaria can redress its poor performance in pollution management by leapfrogging in such areas as resource efficiency and circularity. Weaknesses in institutional coordination and public capacity undermine efforts to improve air quality. Speeding up the renovation of the building stock will not only capture energy savings, but also reduce a key driver of air pollution — residential heating. The country's positive track record in plastic recycling positions it well to increase recycling and reduce landfill rates. Pollution of marine and inland water resources requires a focus on the implementation of existing regulatory frameworks.

Although it is a potential growth driver, Bulgaria's natural capital remains under threat. Despite being endowed with outstanding natural assets, Bulgaria's normative framework for preserving and leveraging the country's natural resources is plagued by institutional deficiencies around enforcement and whole-of-government coordination. Similarly, ample water resources do not prevent persistent spatial inequalities in both quality and quantity of water supply. Securing investments in water security and sanitation will require the pursuit of multiple financing options and a reduction of losses, including in irrigation infrastructure. High exposure to natural hazards and climate shocks may exert a toll on the country's growth prospects. Bulgaria faces potentially catastrophic earthquake risks and more severe and frequent flooding and drought events. An adequate risk diagnosis will lead to critical preparedness investments, including in multi-hazard early warning systems and critical response infrastructure, while financial capacity could be strengthened by developing sovereign, household and business risk financing and insurance instruments.

1

INTRODUCTION



Bulgaria has the lowest income per capita of all European Union (EU) member states.

At current growth rates, convergence to average EU living standards is projected to take no less than 2.5 decades. In the early 2000s, Bulgaria's ambition to join the EU acted as a strong impetus for market-oriented transformation. However, the dynamism of the pre-EU accession period has segued into a lackluster pace post-accession. Nevertheless, in mid-2020, the Bulgarian lev joined the European Exchange Rate Mechanism (ERM) II and the country was admitted to the European Banking Union² after the government delivered on a number of prior commitments in banking and non-banking financial supervision, State Owned Enterprise (SOE) governance, and money laundering.

Social challenges and regional disparities remain significant. While the country has managed to maintain sound macroeconomic fundamentals, it has not made progress on a number of social indicators. Inequality remains the highest in the EU and the second highest in the Europe and Central Asia region. Bulgaria continues to occupy the bottom places in the EU in terms of standards of living, poverty, education achievements, health system performance, and governance-related measures, to name a few. Continued outmigration has exacerbated labor shortages, accelerated aging and widened regional disparities. Bulgaria is home to some of the EU's poorest regions: GDP per capita in five out of the six NUTS-2³ regions is between 32 and 41 percent of the EU average (in PPS terms in 2019) and hence considered lagging due to their low-income status.

Institutional weaknesses continue to weigh on the country's development trajectory. A generally low trust in institutions and perceived lack of independence of the judiciary and regulators have marred the business environment throughout the entire transition period. Citizens' patience for reform has been tested, as seen by long-lasting protests in recent years. Institutional gaps are also confirmed by international surveys such as the Corruption Perceptions Index, World Governance Indicators and the Global Competitiveness Index, where Bulgaria traditionally performs worse than its Central and Eastern Europe (CEE) peers on key dimensions related to corruption, rule of law, governance and protection of property rights. Dissatisfaction with stalled institutional reforms and state capture by private interests is among the factors driving continued outmigration, especially by high-skilled professionals.

Bulgaria has a significant opportunity to make progress in light of financing that will be made available to EU member states to support recovery from the COVID-19 pandemic and the digital and green transitions, alongside broader social and economic development goals. The COVID-19 pandemic has had a significant economic and social impact in most EU countries, including in Bulgaria. Economic prospects are expected

2. Formally, 'the Bulgarian National Bank entered into close cooperation with the European Central Bank' in order for Bulgaria to join the two pillars of the EBU currently in operation — the Single Supervisory Mechanism and the Single Resolution Mechanism.

3. Nomenclature of Territorial Statistics.

to strengthen in 2021, subject to a successful vaccine deployment and related containment of the pandemic. It will be important for the government to withdraw support to firms and households gradually and after the economy is brought back onto a growth path. To support recovery, the country will be able to access some EUR 29 billion of EU funds under the EU multiannual financial framework and the NEXT Generation EU recovery package during 2021–27. EU funds will finance investments which will support recovery, growth, and inclusion with some 46 percent of the resources under the national Recovery and Resilience Plan⁴ earmarked to activities that are considered to be green and supportive to the country's green transition.

The Systematic Country Diagnostic (scd) Update provides an update on poverty and growth diagnostics, identifying new challenges and redefining existing ones to achieve faster, inclusive and sustainable growth. While the scd Update has retained broadly the structure of the first scd in 2015, the organizing analytical framework—described in Figure 1.1—remains broadly intact. The original diagnostic approach has been done in the following ways⁵:

1. Institutional and governance weaknesses have been incorporated as a cross-cutting constraint—and, similar to the first scd, is a critical pathway for strengthening the development trajectory;
2. Environmental sustainability has been emphasized, and fiscal and social stability have been repositioned to faster and inclusive growth respectively. As a consequence, environmental sustainability is now considered to be a critical pathway for strengthening Bulgaria's development model.
3. Several megatrends and cross-cutting issues have been analyzed 'horizontally', due to their implications on faster, inclusive and sustainable growth and in shaping the critical pathways. These areas are: governance and institutions, aging and demographic trends, the green and digital agendas and COVID-19.

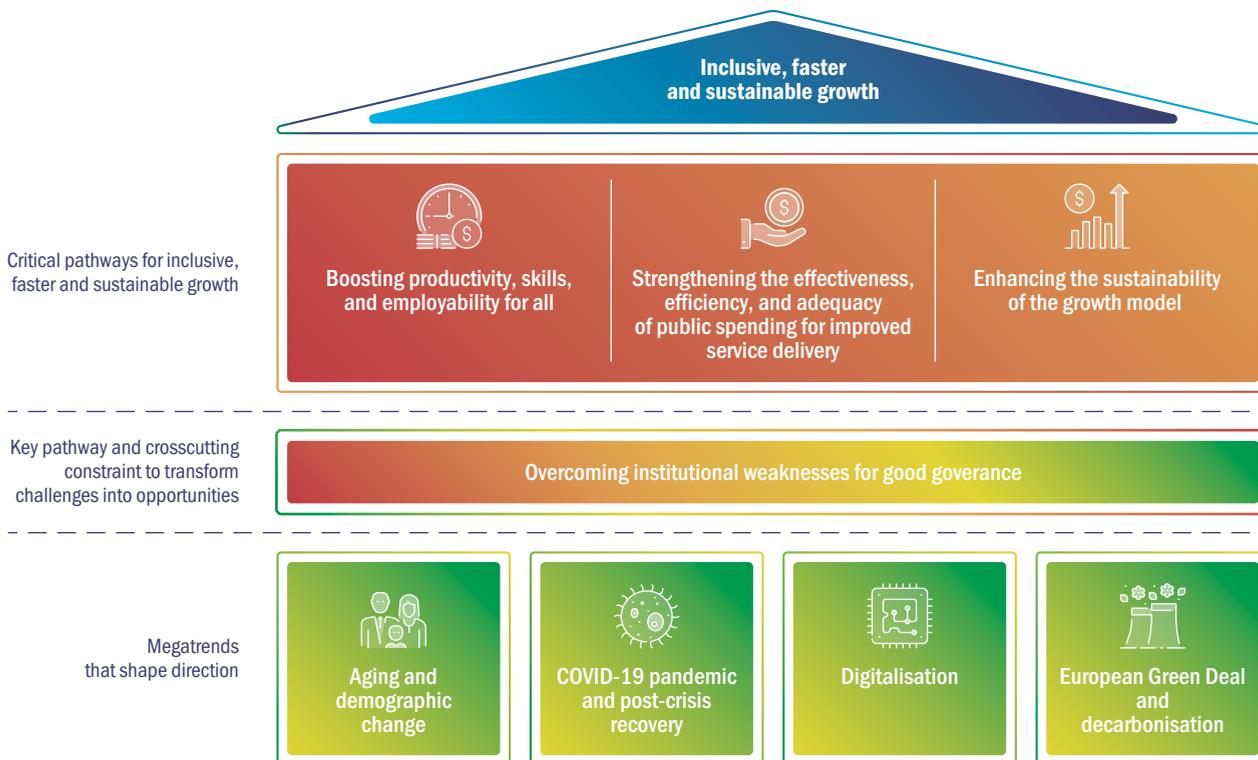
Chapter 2 discusses the megatrends and cross-cutting issues—and their implications for the country's development path. Subsequently the analysis turns to the features of growth: faster (chapter 4), inclusive (chapter 5) and sustainable progress (chapter 6). Finally, chapter 6 puts forward the critical pathways and priorities within them to support more

4. The latest version of the National Recovery and Resilience Plan in Bulgarian language can be found here: <https://www.nextgeneration.bg/upload/58/npvu-15102021.pdf>

5. The first scd for Bulgaria used an asset-based framework (Bussolo and Lopez-Calva, 2014) which provides a framework for examining how micro- and macro-economic characteristics affect poverty and shared prosperity. The key idea of the approach is that the level, accumulation, intensity of use and return on people's assets in terms of human, physical, financial, natural and social capital influences their capacity to generate income and escape poverty. The scd update reassessed the original characteristics that affect poverty and shared prosperity, and packages the analysis using the analytical framework described in the text.

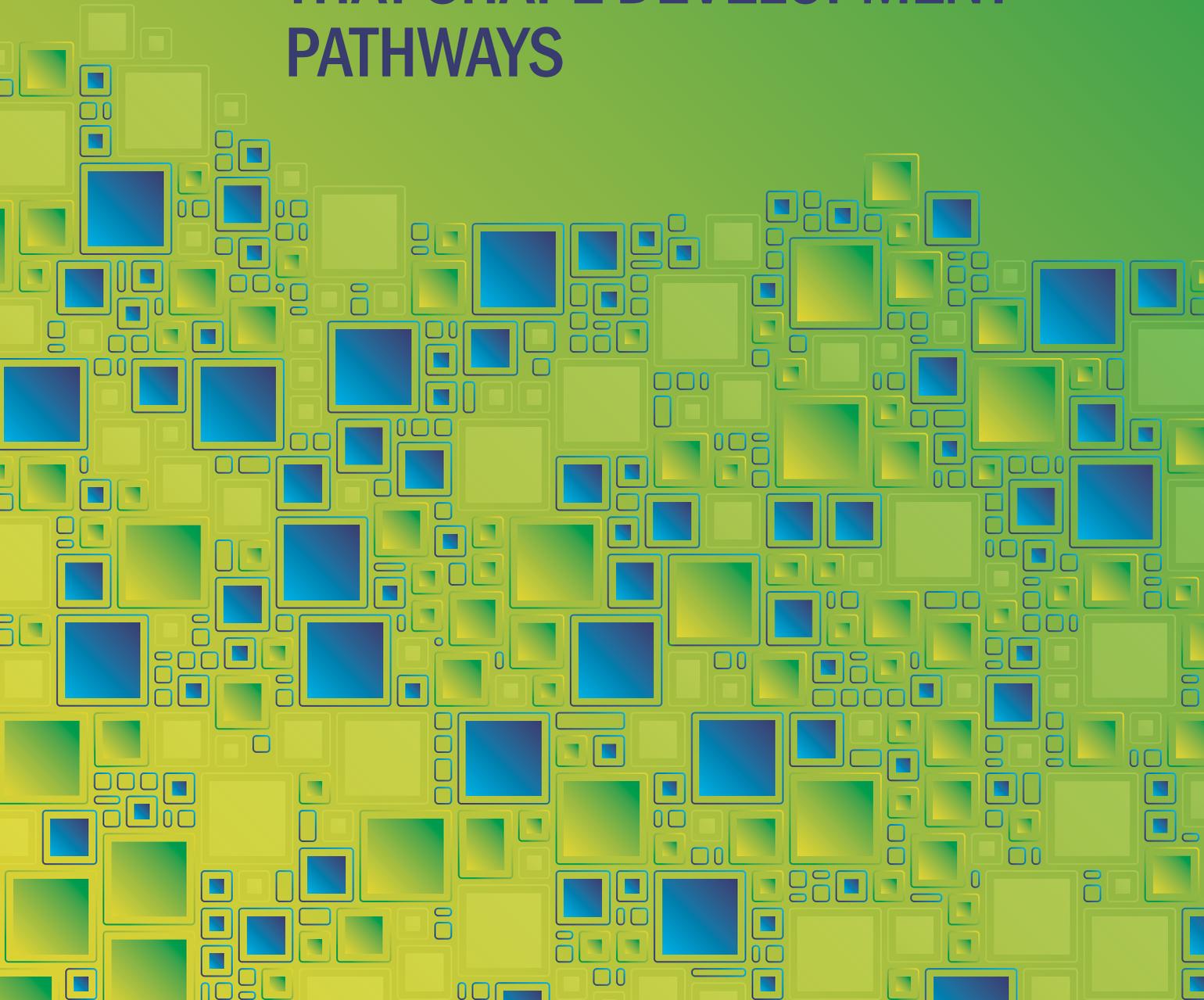
equitable and sustainable growth. Prioritization in the SCD Update has been informed by recent analytical work and reflects the changed contextual backdrop since 2015 (see Annex 1 for a discussion of the new research, produced for the needs of the SCD Update, and remaining knowledge gaps). The SCD Update, including prioritization, is also informed by internal team discussions and external consultations with key stakeholders.

FIGURE 1.1 SCD Organizational Framework



2

MEGATRENDS AND CROSS-CUTTING ISSUES THAT SHAPE DEVELOPMENT PATHWAYS



This section examines two cross-cutting issues—governance and demographics—and three mega-trends—the green transition, decarbonization and the COVID-19 crisis—that will shape Bulgaria’s development trajectory. These areas are discussed briefly in this section and are further analyzed from the perspective of their impact on growth and the four pathways proposed for strengthening development outcomes. Furthermore, a key contextual factor is Bulgaria’s membership in the EU, which has shaped all aspects of the economy and society, from the direction and evolution of trade flows to regulatory reform.

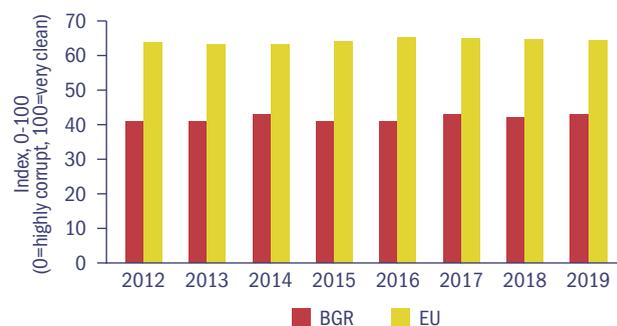
Governance and institutions

Governance challenges continue to reduce economic potential and to undermine progress on poverty reduction and shared prosperity. Despite some positive developments, Bulgaria has consistently underperformed almost all EU countries on governance indicators. The gap with the rest of the EU is most pronounced along key dimensions, such as the rule of law, control of corruption and government effectiveness. Transparency International’s Corruption Perception Index shows a significant and persistent gap with the EU average, with effective stagnation since 2012. Problems with the independence of the judicial system also linger: the European Commission’s (EC) Perceived Independence of the Judicial System puts the country in the third lowest place in 2019.

A recent Institutional Assessment of Bulgaria, carried out by the World Bank (WB), confirms the weaknesses of institutional and governance setting as compared to aspirational and most structural peers. Bulgaria is in the bottom third position in almost all institutional families compared to aspirational peers—the EU-15 countries—while the picture is more mixed for structural peers that are considered to be comparable countries (see note under Figure 2.2). Labor market institutions, governance of SOEs and legal institutions are three areas where Bulgaria is in the bottom third position compared to the structural comparators and also has a large distance to the frontier, showing that a sustained reform effort would be required to put the country on a convergence path.

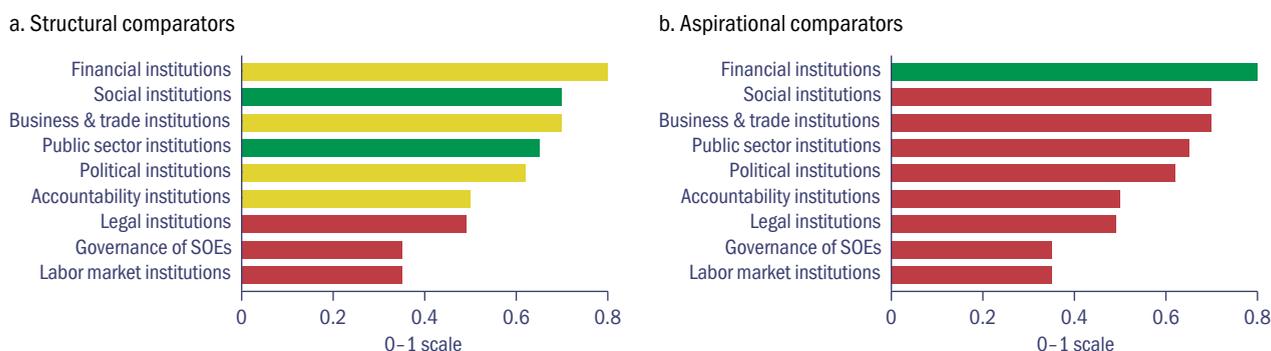
The combination of limited government effectiveness, relatively high perceptions of corruption and high turnover in the public sector also results in sub-optimal government spending, regulatory enforcement and quality of public services. While Bulgaria’s performance is moderate relative to comparator countries (Romania, Croatia, CEE countries, Baltic countries, Western Balkans countries), it is still weak compared with the EU-15⁶.

FIGURE 2.1 Corruption Perception Index



Source: Transparency International.

6. Further details on the methodology and findings of the Institutional Assessment can be found in Annex 2.

FIGURE 2.2 Institutional families, Bulgaria compared to structural and aspirational peers

Source: Institutional Assessment of Bulgaria, completed in April 2021.

Note: The institutional assessment uses an innovative approach that draws from 100 global indicators and compares the country with relevant peers. The methodology is the 'Closeness to Frontier'. For each indicator, a country's performance is rescaled on a 0 – 1 scale using linear transformation $(\text{worst} - y) / (\text{worst} - \text{frontier})$, where 1 represents the best performer and 0 the worst performer. Quantile distribution through traffic light coloring is then used to capture the areas where the largest institutional gaps exist, relative to the set of comparators. Two set of comparators were selected: 'structural comparators' and 'aspirational comparators.' Structural comparators include Romania, Croatia, CEE, Baltic and Western Balkan countries, which are considered comparable peers while aspirational countries (EU-15) are those Bulgaria should be converging to in the medium and long term. For further details on the scale of measurement and the methodology, see Annex 2.

Institutional weaknesses have direct repercussions on the business environment, undermining competitiveness. The Global Competitiveness Report 2018 shows that Bulgaria ranked 61 (of 140 countries) in the area of “business dynamism” that includes issues related to the cost of starting a new business, the insolvency regulatory framework and also how much innovation is generated from the private sector. While in some areas, such as the cost of starting a new business, Bulgaria ranks fairly well in the Global Competitiveness Index (31 overall), in several other dimensions – such as the time to start a business and the insolvency recovery rate – the country scores significantly below other EU and OECD countries. Business regulations and their implementation also vary significantly within Bulgaria – a subnational assessment of the business environment found substantial differences across Burgas, Pleven, Plovdiv, Ruse, Sofia and Varna – although no city outperformed the others on every dimension (WB, 2017).

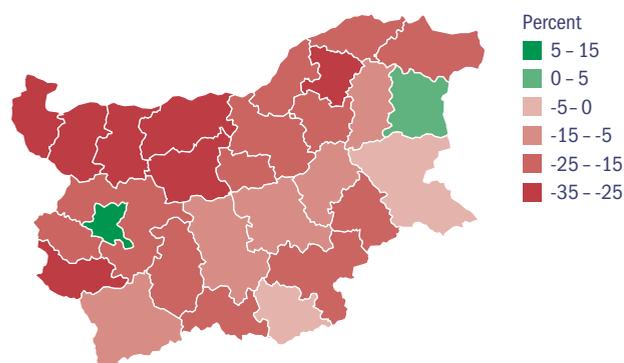
Population aging and demographic trends

Globally, Bulgaria's population is among the top-10 oldest⁷, a reflection of rapid outmigration of working-age populations as well as broader demographic trends such as declining birth rates and increasing life expectancy. In the last four decades, high outmigration and falling birth rates have contributed to the simultaneous shrinkage and aging of the population. The situation has worsened since 2015 and is projected to deteriorate: the population is projected to shrink by 28 percent by 2070, from 7 million

7. Using two metrics: population aged 65 and over (World Bank staff estimates based on age/sex distributions of United Nations Population Division's World Population Prospects: 2019 Revision) and the prospective old age dependency ratio produced by Sanderson and Scherbov, 2019.

in 2019 to 5 million in 2070⁸. These declines are particularly worrying because they are driven by the 25–49 age cohort, whose labor force participation is high and critical to counter the trend towards increasingly high dependency ratios. While the direct contribution of migration to population declines slowed in the late 2010s compared to the previous decade, more than 1 in 10 Bulgarians with tertiary education still lives abroad in an Organisation of Economic Co-operation and Development (OECD) country, potentially representing an important source of labor to fill domestic skills shortages.

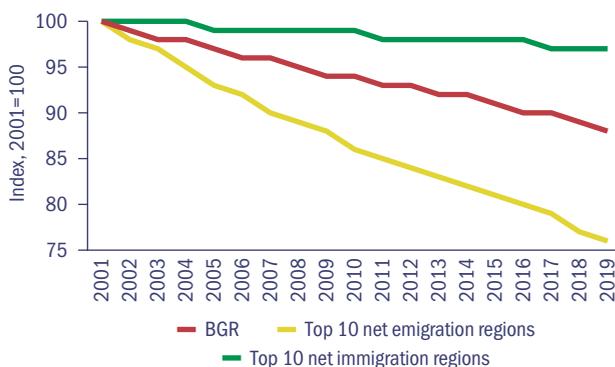
FIGURE 2.3 Geographical changes in population (2001–2019)



Source: Authors' elaboration based on Eurostat data.

Notes: The top ten net emigration NUTS 3 regions, or districts, between 2002 and 2019 are: Smolyan, Razgrad, Vidin, Vratsa, Plevan, Sliven, Yambol, Lovech, Silistra, and Pazardzhik. The top ten net immigration districts are: Sofia city, Varna, Burgas, Plovdiv, Kardzhali, Sofia, Pernik, Stara Zagora, Ruse, and Haskovo.

FIGURE 2.4 Population changes at national level and disaggregated by degree of migration



Source: Authors' elaboration based on Eurostat data.

These population demographic trends are expected to reinforce existing depopulation patterns in less economically dynamic regions and to shift social service needs and delivery. In addition to its implications for pension, health care, long-term care and education systems, the demographic decline continues to drive urban shrinkage beyond the largest metropolitan centers. This leads to the inability of certain areas to provide sufficient jobs, infrastructure investments and quality of life, creating a vicious cycle of progressive population decline, shrinking economic opportunities and reduced attractiveness for investors. Severe population declines have been seen in less economically dynamic locations, resulting in the depopulation of entire towns. Since the beginning of the century, only two districts (Sofia city and Varna) have seen population growth, while seven experienced population declines above 25 percent.

Green transition

In line with the European Green Deal (EGD), the 2020s are poised to be a decade of pandemic recovery combined with a concerted focus on the green transition — an area where Bulgaria has clearly lagged among EU countries. To date, progress has

8. Latvia, Lithuania and Romania are expected to see greater drops. EC, 2020a

been uneven across the spectrum of sustainability policy domains, with decarbonization, air pollution, waste, water management and natural protection governance highlighted as areas with limited progress (EPR, 2019).

Bulgaria ranks 36th in carbon intensity in the world⁹ and will face a challenge in reducing its high energy and carbon intensity, in line with its commitment to contribute to EU-27 ambition of reducing greenhouse gas (GHG) emissions by 55 percent of 1990 levels in 2030. As part of the EGD, the EU also announced a net zero target for 2050. While the country successfully decoupled growth from GHG emissions between 2015 and 2019, it has not yet ‘shifted the curve’ in terms of achieving emissions reduction at a sustained pace to meet its 2030 targets. GHG emissions have remained at 80 percent of their 1995 levels since 2009. Continuing at the average pace achieved between 1990 and 2018 would not reduce emissions enough to reach the 2030 target of a 55 percent reduction.

Digitalization

The digital transition has emerged as a high priority in reaction to the COVID-19 crisis. Bulgaria’s readiness for digital transition is low as it ranks last among the EU member states in the 2020 Digital Economy and Society Index (DESI). The country performs best on digital public services (ranking 23), particularly on delivering e-government services to businesses. Yet, the index also shows that the country lags most EU peers on the four other dimensions: digital connectivity, largely due to slow rural uptake of broadband; human capital due to limited basic digital skills; use of internet services, as almost one quarter of people have never used the internet; and integration of digital technology by businesses, as only 7 percent of small and medium enterprises (SMEs) sell online.

Digital skills are likely to be increasingly important going forward and have been placed as a priority in the National Resilience and Recovery Plan. The COVID-19 crisis has accelerated the process of digitalization with individuals working remotely and government and business services going online. Bulgaria lags behind its counterparts substantially in the digital competencies of the population. In 2019, of the population ages 16–74, only 30 percent of Bulgarians had basic or above basic overall digital skills (with no clear gender gap in the Women in Digital Scoreboard), compared with an EU-27 average of close to 60 percent. Equipping the population with digital skills will help Bulgaria progress towards increasing the skills and employability of all Bulgarians.

As the importance of digital skills rises, the ethnic digital divide is likely to widen. According to the Fundamental Rights Agency (FRA, 2016), over 40 percent of the Roma

9. Captured using CO₂ per unit of GDP. World Development Indicators, excluding micro-island states. Including micro-islands, Bulgaria has the 42nd highest CO₂ intensity.

cannot afford a private computer, smartphone or internet access. Without a concerted effort to give access to basic technologies and training for digital skills, the Roma are at risk of being left further behind in Bulgaria's development.

COVID-19 crisis

The pandemic-induced crisis has halted the pre-COVID growth trajectory in Bulgaria, but the impact has been lower than in comparator countries. Bulgaria was among the EU member states which saw a relatively moderate negative impact of the COVID crisis, with the economy shrinking by 4.2 percent in 2020. Yet, recovery to the pre-crisis level of real output is unlikely to occur before 2022 and output losses compared to pre-pandemic forecasts are likely to persist longer, as gross domestic product (GDP) in 2023 is projected to be 10 percent below the World Bank's pre-pandemic forecast.

The COVID-19 crisis has magnified existing inequalities and is likely to have contributed to additional people living at risk of poverty. Labor force effects have been felt unequally across workers: those on non-standard contracts, in the trade, hotel and tourism industries, in lower-paying work, women¹⁰ and self-employed have been more likely to experience work disruptions and income drops. Many of these workers had less coverage in the existing social support systems and received less generous public support during the COVID-19 crisis. As a result, existing labor market inequalities have widened and a greater proportion of poorer households reported an inability to make ends meet as compared with before the crisis, likely driven by heightened concerns surrounding food prices and reduced labor and remittance income (WB COVID-19 Pulse, 2020–2021). This has also fed into rising poverty rates: before the COVID-19 pandemic, in 2020 Bulgaria was projected to lift just under 87,000 people out of poverty. With the onset of the crisis, an additional 44,100 to 60,200 people are projected to fall into poverty¹¹. In addition, the pandemic has deepened the learning gap between poor and rich students, which has increased to over 2.5 school years and is above the average for the rest of ECA.

Firms have been significantly affected by the pandemic. In May 2020, 27 percent of Bulgarian businesses reporting having fallen into arrears or expecting to do so in the next 6 months, and had a 38 percent decline in monthly sales, compared to the previous year (Business Pulse Surveys 2020 conducted in 15 ECA countries). In addition, the share of firms that delayed payments for more than a week due to COVID-19 rose from 27 percent in

10. Women undertook a disproportionate share of care burdens but were also disproportionately represented among frontline workers. See Annex 4 and World Bank (2021) for further discussion.

11. Before the COVID-19 pandemic, the anchored AROP rate was estimated to fall from a forecasted 10.5 percent in 2019 to 9.7 percent in 2020. Now, based on projections of growth from the EC, the anchored AROP rate is estimated to rise from 10.4 percent in 2019 to 11.3 percent in 2020.

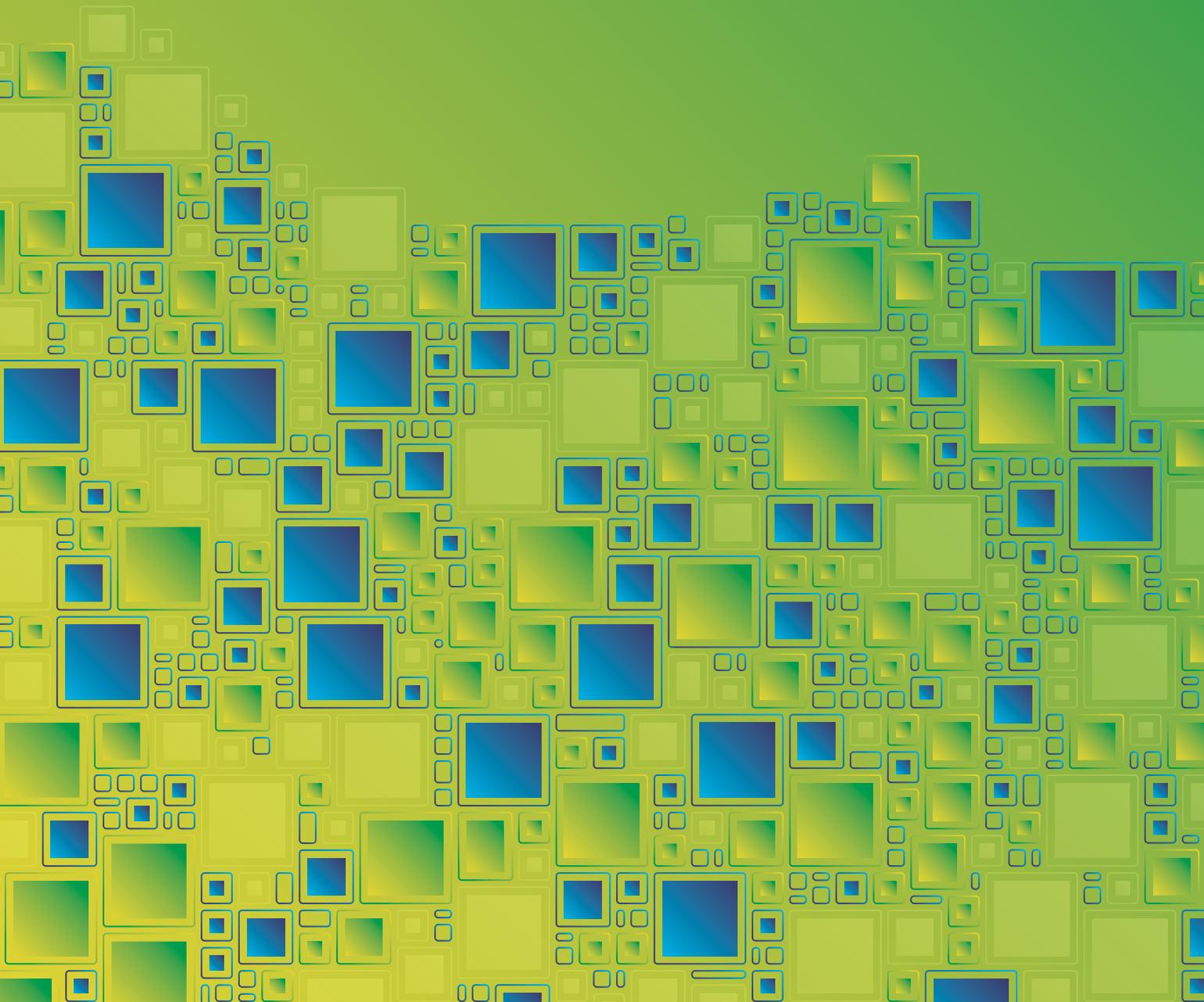
July to September 2020, to 40 percent in November to December 2020 (Enterprise Survey Follow-Up on COVID-19¹²).

The COVID-19 crisis is expected to worsen banks' balance sheets and to increase non-performing loans (NPLs). Although the banking sector remains well capitalized, NPL levels may pick up more steeply after the current moratorium on bank loan service expires in December 2021.

12. 772 firms were interviewed between January 2019 and March 2020 as part of the standard Enterprise Survey. The same firms were recontacted again in July–September 2020, and again in November–December 2020 for two rounds of follow-up surveys, which are referred to here.

3

RECENT DEVELOPMENTS

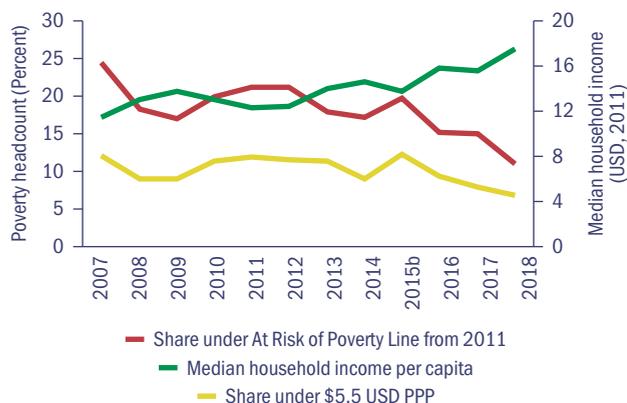


Trends in inclusion

Strong poverty reduction but some groups, in particular the Roma, continue to see dramatically lower outcomes.

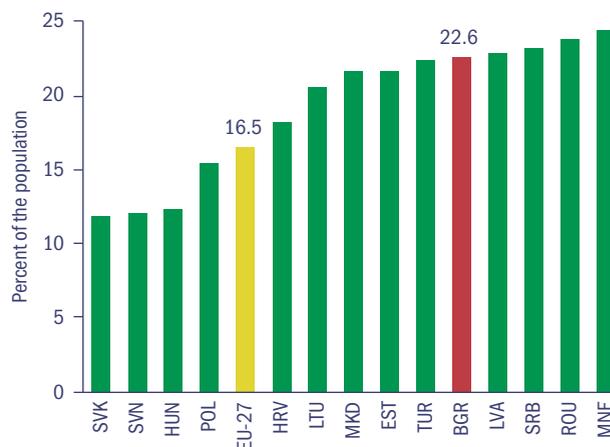
Pre pandemic economic growth translated into improvements in living standards for both the average and poorest 20 percent of households – and contributed to reductions in absolute poverty. The anchored at risk of poverty (AROP)—the proportion of individuals with income less than 60 percent of the national median equivalized disposable income (after social transfers), anchored using the 2011 threshold—fell by 44 percent between income year 2015 and income year 2018, from 19.7 percent to 11.1 percent.^{13,14} During this period, median household incomes rose by 27 percent while those in the bottom 20 percent of the income distribution registered a marked 50 percent rise. However, by EU standards the share of the population at risk of poverty continues to remain high at 22.6 percent in income year 2018 compared with 16.5 percent in the EU-27. Yet, using the internationally comparable US\$5.50 line, in income year 2018 Bulgaria reported poverty rates comparable to regional peers with similar levels of economic development.

FIGURE 3.1 Poverty headcount and household income growth, 2007 – 2018



Source: World Bank Calculations using the European Union Statistics on Income and Living Conditions (EU-SILC) survey years 2011 – 2018 covering income years 2010 – 2017. b signals a time series break.

FIGURE 3.2 At-risk-of-poverty rate in comparator countries, 2018



Source: Indicator ilc_li02, Eurostat. Accessed 15.04.21

Rising labor incomes were the decisive driver of the poverty decline and, to a lesser extent, income from pensions and social assistance. Growth in labor incomes, predominantly driven by wage growth and to a lesser extent by shifts in employment, accounted for nearly half (3 percentage points) of the 8.6 percentage point decline in absolute poverty.

13. Income year refers to the reference year for the collection of household income data. Survey year refers to the year in which the survey is fielded. Since income data is asked for the prior year, income year refers to the year prior to the survey year.

14. The scd only uses household microdata from survey year 2016 to 2019 (income year 2015 to 2018).

The growth in labor incomes was driven by the agriculture, mining, construction, and wholesale and retail trade sectors. Together these sectors accounted for 70 percent of those employed in poor and bottom 40 households. Increases in pension and social assistance income accounted for declines in the anchored AROP of 2.3 percentage points and 1.5 percentage points, respectively. See Annex 3 for greater depth on inclusion dynamics and profiling.

Demographic and spatial variations in living standards persist, although regions with initially high poverty rates have seen sharp improvements signaling convergence dynamics. Spatial disparities in living standards are evident, with the poorest NUTS-3 regions having AROP rates nearly 4 times that of the richest region—37 percent compared to 10 percent—in income year 2018 (WB estimates based on the EU-SILC). Despite this disparity, there is evidence of convergence dynamics over time with the five poorest NUTS-3 regions in income year 2011 reporting sharp anchored at risk of poverty declines, all in excess of 45 percent. From a regional lens to development patterns show that municipalities with higher rates of deprivation tend to have lower rates of employment, a working population with lower average levels of education, a higher concentration of economic activity in lower value-added and lower-wage sectors, among other factors¹⁵.

Reducing poverty and inequality hinges on improving labor market engagement among the poor, while ensuring that those who are structurally unable to work are adequately supported. In 2019, employment rates among adults living in poor households (24 percent) were more than half those in non-poor households (62 percent). Furthermore, employed individuals in poorer households tend to be concentrated in low-wage and informal work. A further 18 percent of the adults at risk of poverty were unemployed and 11 percent inactive, and work intensity varies substantially by ethnicity (see Annex 3), suggesting the need for complementary social assistance and active labor market programs (ALMPS) to support poorer and marginalized population segments.

Low levels of educational attainment, skills mismatches, demographic factors and a concentration in regions with more limited opportunities constrain the ability of the poor to engage in the labor market. Educational attainment is closely linked to the ability to find employment: individuals with high educational attainment have almost double the chance of finding a job within a year compared to those with low educational attainment (EC, 2020b). This is partly due to the supply of low-skilled labor outpacing demand by a factor of almost two, while skill shortages are reported in higher skilled segments (EC, 2020c). Poorer households also tend to be concentrated in areas with worse labor market opportunities: 40 percent of poorer households are concentrated in the Northwestern, Northern Central and Northeastern regions, the 3 regions with the highest unemployment rates and especially so for individuals with low levels of educational attainment¹⁶.

15. A comprehensive assessment of spatial variation of living conditions can be found at: https://dataviz.worldbank.org/views/BGRDashboard_v13_v2019_4/Main?:isGuestRedirectFromVizportal=y&embed=y#2

16. Eurostat, indicator lfst_r_lfu3rt (accessed March 2021).

The onset of the COVID-19 pandemic is likely to raise the persistently high poverty rates. The COVID-19 pandemic has had detrimental impacts on the livelihoods of Bulgarians, with 30 percent of households reporting a decline in income at the height of the crisis in June 2020. Though many of the effects were concentrated in the labor market, resulting in a greater proportion of households in the top income groups reporting income declines, households in the bottom 40 percent were less likely to have sufficient economic reserves to mitigate the effects of the crises. Labor market effects were disproportionately felt by those who are less likely to be covered by existing social insurance mechanisms and COVID-19 support policies, putting upward pressure on poverty rates.

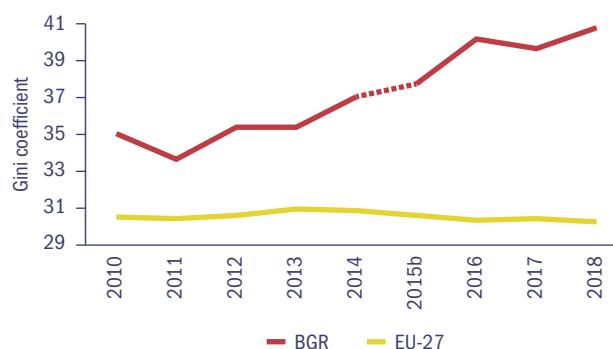
Inequality continues to rise, and inclusion is compromised

Income growth among poorer and socially vulnerable households has traditionally trailed average growth, however the gap has significantly narrowed in recent years. Between income years 2015 and 2018, annualized income growth of the bottom 40 percent averaged 10 percent compared with 11 percent median income growth (WB staff estimates using SILC data). This represents an improvement over income years 2011–2014, much of which was driven by labor incomes, which grew by 32 percent between income years 2015 and 2018 compared with 14 percent in the earlier period. While bottom 40 labor income growth was lower than that seen for median households in both periods, the gap between the two declined over time.

Despite strengthened growth among poorer households, inequality continues to be the highest in Europe and has widened over time. This is a reflection of persistent disparities in labor market outcomes combined with a fiscal system characterized by limited progressivity. The per adult equivalent Gini coefficient increased from 38 in income year 2015 to 41 in income year 2018¹⁷, as part of a larger trend increase observed over the past 10 years. Much of the increase in the Gini coefficient can be attributed to widening disparities in labor market income with poorer individuals tending not to work or to be concentrated in lower-wage work. By contrast, the tax ratio, share of adults employed, pension income and social income have only marginally helped slow the increase in the Gini coefficient (See Annex 3).

Ethnic minorities, and in particular the Roma, continue to see high at-risk-of-poverty and social

FIGURE 3.3 Per adult equivalent Gini coefficient, 2010–2018



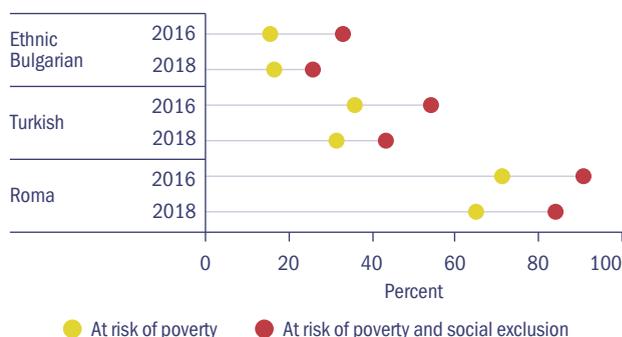
Source: World Bank Calculations using the European Union Statistics on Income and Living Conditions (EU-SILC) survey years 2011–2019 covering income years 2010–2018.

17. Eurostat indicator ilc_di12, last accessed on 29.10.21. The year quoted refers to the income year to which the income aggregate refers, rather than to the year in which the survey was collected.

exclusion rates despite improvements in recent years¹⁸.

The Roma comprise one of Bulgaria's largest ethnic minority groups, with an estimate population size of between 325,000 and 750,000, or between 4.4 and 8.8 percent of the population¹⁹, while the Turkish minority are estimated to account for 8.8 percent of the population, respectively. Poverty rates have been persistently higher than other ethnic groups in Bulgaria: in income year 2018, the AROP rate was 65 percent among the Roma and 32 percent among the Turkish minority population compared with an at-risk-of-poverty rate of 17 percent among ethnic Bulgarians. This represents an improvement over the AROP rate in income year 2014—at 67 percent for the Roma and 36 percent for the Turkish minority population—though the poverty rates remain persistently high.²⁰ The disparities in poverty partly start in the labor market: the Roma and ethnic Turkish population have lower rates of employment (25 percent and 56 percent respectively), and higher rates of unemployment (34 percent and 18 percent respectively) compared with the ethnic Bulgarian population (72 percent and 8 percent)²¹. High rates of poverty, unemployment, low human development indicators, poor living conditions, low quality infrastructure, and other services all point to strong social exclusion (see Annex 3 for analysis).

FIGURE 3.4 At risk of poverty rates by ethnicity



Source: Poverty and Social Inclusion Indicators, NSI, https://www.nsi.bg/sites/default/files/files/pressreleases/SILC2019_en_ARTRFBK.pdf

What has held back progress in poverty reduction and shared prosperity?

Growth path

Bulgaria's economic growth accelerated in 2015–2019 but convergence to average EU incomes remained slow. The average growth rate for 2015–2019 reached 3.6 percent—more than triple average growth in the preceding 5 years (1.1 percent)—before falling to -4.2 percent in 2020. Nevertheless, Bulgaria has remained at the bottom of the EU with average GDP per capita at 55 percent of the EU-27 average in Purchasing Power

18. Poverty and Social Inclusion Indicators, National Statistics Office (2015–2019), https://www.nsi.bg/sites/default/files/files/pressreleases/SILC2019_en_ARTRFBK.pdf

19. Estimates from the 2011 Population Census, 2019 EU-SILC (4.4 percent and 4.9 percent respectively) and the Council Of Europe (2010). Census and survey-based estimates are significantly lower than the Council of Europe estimates since ethnicity is self-reported and subject to underreporting.

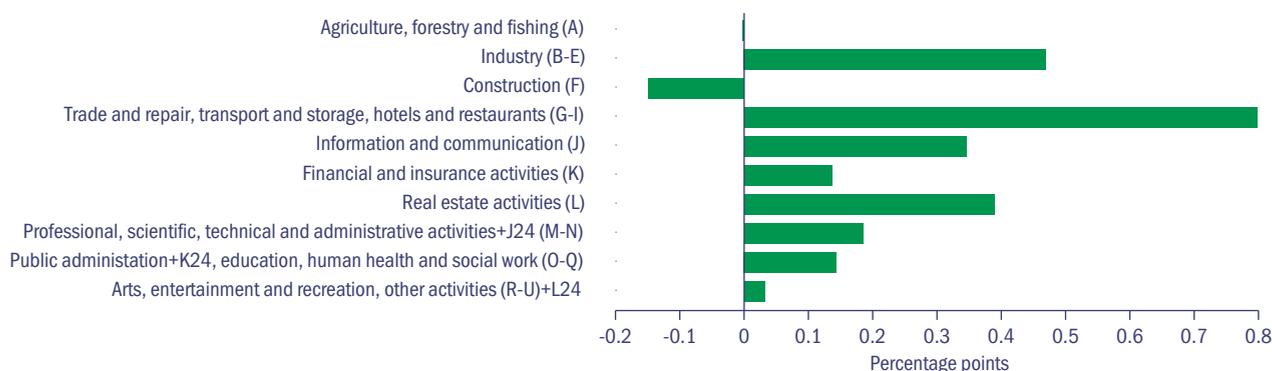
20. Poverty and Social Inclusion Indicators in 2019. (National Statistics Institute—NSI).

21. Bulgarian Longitudinal Inclusive Society Survey, 2014, World Bank, Republic of Bulgaria National Statistical Institute

Standards (PPS) terms in 2020²². Regional disparities have remained high and have, in fact, widened — the variance of district-level GDP per capita increased from 168 in 2007 to 268 in 2017. Moreover, the latest NUTS-2 and NUTS-3 statistics on GDP per capita in PPS shows that most of the country's districts cluster in the 20–40 percent range of the EU average, while the country's poorest districts — Silistra, Sliven, Vidin, Kardzhali and Haskovo have seen only a marginal increase in real incomes per capita for 10 years.

On the supply side, pre-COVID growth was primarily driven by the services sector. Within services, the faster growing segments included trade, transport and restaurants, boosted by higher tourist arrivals. Information technology and communications also saw rapid growth, as IT and business service outsourcing expanded rapidly on relatively low labor costs and wide proficiency in Western European languages in urban areas. In addition to services, some industrial branches — primarily manufacturing of auto parts, machinery and equipment and electrical appliances — also supported growth.

FIGURE 3.5 Contributions to the average annual growth of gross value added in constant prices, (2010 – 2019)



Source: National Statistical Institute, team's calculations

On the demand side, GDP growth was primarily driven by exports and private consumption. Bulgaria's export structure has undergone a slow but welcome transformation whereby consumer goods, raw materials and intermediate goods have increasingly been replaced by higher value-added investment goods such as machinery and equipment, electrical appliances and auto spare parts. Nevertheless, the country is highly exposed to prices of some raw materials and intermediary goods (particularly ferrous and non-ferrous metals and refined oil products), while its economic complexity remains low (EBRD, 2019).

FIGURE 3.6 Demand-side contributions to GDP growth



Source: National Statistical Institute, team's calculations

22. Purchasing power adjusted GDP per capita, volume index of real expenditure per capita in PPS EU-27 = 100. Eurostat indicator SDG_10_10. Last accessed on 29.10.2021.

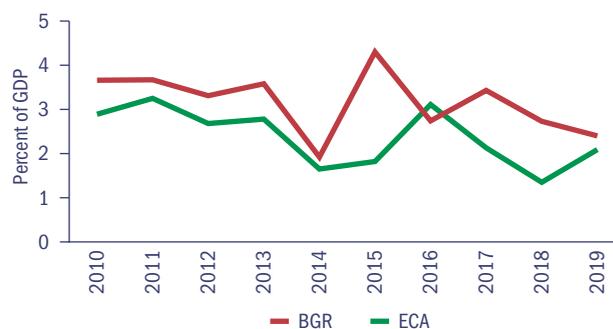
Bulgaria's exports have increased over the past decade, not only in value but also in quality as indicated by the Economic Complexity Index (ECI) ranking and score.

Bulgaria's export growth in the five years up to 2018 had been driven by services where the country expanded its global market share, as noted by the Atlas of Economic Complexity. Bulgaria ranks as the 41st most complex country in the Economic Complexity Index (ECI) ranking in 2018 and is slightly more complex than predicted by its income level, according to the Atlas of Economic Complexity (2018). Compared to a decade earlier, Bulgaria's economy has become more complex, improving by 5 positions in the ECI ranking. Bulgaria's improving complexity has been driven by diversifying its exports.

Yet, Bulgaria has ample room to further diversify its exports. According to the 2018 Atlas of Economic Complexity, since 2013, Bulgaria has added 56 new products accounting for US\$2.7 bn in value compared to 62 new products in Romania (US\$13.3bn) and 13 new products in Greece (US\$418mn). Although moving into the right direction, product space analysis indicates that Bulgaria has significant potential to diversify into more complex products and segments, particularly building on its existing capabilities and recent success. New product opportunities with high potential are identified in the Industrial Machinery and Electrical Machinery and Equipment segments, while feasible options include diversifying into products that require adding minimum new capabilities to existing ones such as metals, textile, chemicals, agriculture and minerals (e.g. wire products, glass fibers, medical furniture, insulating materials, whey, etc.). In the services sector, ICT has been one of the fastest growing segments and still holds significant potential for further growth together with the travel and transport sectors.²³

Recording an increase both in forward and backward linkages to GVCs, Bulgaria experienced a fairly balanced growth in GVC participation. This is one of the findings in a recent EC report (2020), titled "Foreign direct investment, global value chains and regional economic development in Europe", which covers the period between 2005 and 2015. The report also notes that the increase in Bulgaria's backward integration has been faster than its forward integration, indicating that Bulgaria is among the net 'receivers' from the rest of the EU, strongly influenced by the presence of EU-15 MNEs in the country. Furthermore, the report finds that FDI companies tend to buy intermediate inputs from the rest of Europe, highlighting the role of FDI in integration into regional value chains and product networks. These companies also tend to purchase intermediary products from other foreign companies co-located in the same country, especially for higher-tech intensive products and services, which is 15 percent in the case of Bulgaria compared to 20 percent

FIGURE 3.7 FDI inflows



Source: World Development Indicators database

23. Harvard CID Atlas of Economic Complexity

in Czechia and 18 percent in Romania. This indicates significant opportunities for further technology spillover and know-how transfer.

However, FDI inflows have seen a sharp decline after the GFC, reaching one of the lowest levels among peers. After reaching a peak of 31.3 percent of GDP in 2007, the year Bulgaria joined the EU, FDI inflows had plummeted, reaching 2.4 percent of GDP in 2019, driven mainly by increased risk aversion after the global financial crisis.

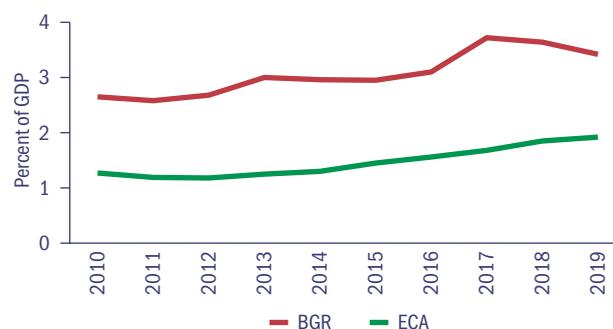
Personal remittances, on the other hand, have become an increasingly important source of funding for Bulgarian families with relatives overseas. In order for Bulgaria to move towards a higher value-added economy, know-how transfer through FDI inflows, particularly into high-efficiency manufacturing sectors, will be critical. Bulgaria needs to focus on pull factors to attract new investments, including FDI, such as ensuring a predictable regulatory environment, boosting innovation and R&D, upgrading skills and improving connectivity infrastructure including digitalization.

During 2016–18, the country ran twin surpluses. Owing to an expanding surplus on the external services balance and a shrinking deficit in trade in goods, Bulgaria has run current account surpluses in most years after 2012²⁴. In parallel, due to conservative planning of fiscal revenues and a generally restrictive fiscal stance, the budget has recorded surpluses between 2016 and 2018 which fed into a fiscal reserve account. The latter provided a much-needed cushion during the pandemic-induced crisis.

Final consumption has been supported by a booming labor market, rapid growth of wages and increasing budget revenues that allowed for higher fiscal spending during the pre-COVID phase.

The employment rate reached an all-time²⁵ high of 54.2 percent in 2019 before inching down to 52.7 percent in 2020. Similarly, the unemployment rate hit a record low of 4.2 percent in 2019 before picking up to 5.1 percent in 2020. It is noteworthy that favorable market conditions at home and in major emigration destinations for Bulgarian jobseekers helped to reduce long-term unemployment, with the number of long-term unemployed (those who are out of employment for 12 months or more) declining from 187,000 in 2015 to 81,000 in 2019 and 75,900 in 2020.

FIGURE 3.8 Personal Remittances, received



Source: World Development Indicators database

FIGURE 3.9 Employment (15+) and wage dynamics



Source: NSI

24. The only exceptions were in 2015, when the current account balance flattened to EUR -0.2 million, and then in 2020 when it turned negative to 0.7 percent of GDP.

25. The employment rate reached an all-time high since the NSI launched its Labor Market Survey in 2003.

Yet, some of the fastest growing industries that created most jobs were skill intensive, which can help to explain the dampened pass-through from the labor market boom to poverty and inequality. About 35 percent of the net new jobs created between 2014 and 2019 were in the IT sector, where salaries are the highest. At the other end of the scale, the lowest paying sector, tourism, also opened up a large number of jobs after 2014, with 10 percent of all jobs created. Sectors with below-average salaries such as transport, warehousing and posts (12 percent of new jobs), administrative and auxiliary services (10 percent) and trade (9 percent) were also among the leaders in job creation. Moreover, job creation was unequally distributed across the country and internal labor mobility stayed low, based on the high variance of employment and unemployment rates across districts. There were several districts in Northern Bulgaria (Vidin, Montana, Silistra, Shumen and Turgovishte), where unemployment remained in the double digits in 2019. Moreover, in two of these districts (Vidin and Montana), employment has fallen since 2013, suggesting that local labor markets remain depressed and have not benefited from the post-2009 upturn.

Gross salary growth accelerated from an average of 6 percent per annum in 2010–2014 to 10.6 percent in 2019. The increase was as a result of the tightening of the labor market, particularly for skilled labor, along with an increase in minimum wages. Noteworthy, the 2020 crisis brought about only a marginal slowdown of wage growth, to 9.4 percent in 2020, as the minimum wage increased by 9 percent, while layoffs, primarily among lower wage earners, raised average wages.

Labor market developments

Despite the positive labor market developments before the pandemic, not all population groups benefited equally from the overall improvement in labor market performance. The Bulgarian labor market has performed strongly in the years before the COVID-19 crisis, with labor force participation rates approaching EU-27 average after being well below EU levels for several years²⁶. Gender gaps in employment have narrowed to their lowest in a decade and 71 percent of women aged 20–64 were employed in 2019, the highest rate since measurement started and a noted 15 percentage points higher than that seen in 2005. A mixed picture however emerges on gender gaps in leadership, with progress muted on some dimensions (Annex 4). Gender pay gaps in unadjusted form are among the lowest in the EU but have risen slightly towards the EU average. Employment rates continue to be low for some groups who face barriers entering the labor market, most notably the Roma, people with disabilities, younger cohorts, older women²⁷ and those in

26. Labor force participation rate for the 20–64 cohort rose in Bulgaria (the EU-27) from 66.3 (69.6) percent in 2007 to 73.2 (73.4) percent in 2019, Eurostat

27. The national gender gap in employment rates has been traditionally one of the highest in the 60–64 age group, together with the 25–29 age group.

rural areas (IME, 2019)²⁸. Pockets of inactivity are also still prevalent among some segments of the population. In addition to ethnicity, other characteristics are particularly prevalent among NEETS (people not in employment, education or training) aged 15–34: 73 percent live in small towns and rural areas, 57 percent have at most secondary education and slightly more than half (55 percent) are women, many of which with children in the household (IME, 2019).

Demographic aging and migration present stark challenges to the size of the workforce and to the growth trajectory and will place an onus on strengthening workforce skills through the education system and lifelong learning. Despite the impressive 7 percentage point rise in employment rates between 2007 and 2019 noted in the paragraph above, the number of people aged 20 to 64 working has fallen from 3.18 million to 3.12 million over the same period. The combination of demographic aging, high inactivity rates for some population groups, relatively high out-migration rates among the working age population and labor shortages is expected to pose a substantial challenge to future growth.²⁹

Skills mismatches seem to be prevalent in the Bulgarian labor market. While a higher-skilled workforce may help alleviate labor market pressures, the Bulgarian labor market is currently experiencing a surplus of low skilled workers and shortages of high-skilled workers. Firms are repeatedly reporting skills shortages as one of their main constraints, particularly for high-skilled jobs³⁰. These findings are confirmed by significantly higher unemployment rates for people with low levels of education: 13.1 percent for those with at most lower-secondary education, compared to 1.9 percent for those with tertiary education³¹. The fact that in 2020 only 1.6 percent of people aged 25 to 64 reported participating in some form of education and training (EU average is 9.2 percent³²) further highlights the need for a bolder approach to address the relevance and quality of skills.

After registering historically high peaks, labor market conditions deteriorated following the COVID-19 outbreak with persistent impacts for youth and those in heavily affected sectors. Shortly after the first reported case in March 2020, Bulgaria introduced confinement measures for two months, which were then relaxed in May but reintroduced, though in a milder form, starting in October 2020. One in ten of those

28. According to a 2011 FRA Survey, the proportion of Roma aged 15 and over reporting being unemployed was 36 percent compared with 11 percent for non-Roma living nearby. Additionally, a lower proportion of the Roma aged 15 and over reported working full-time (13 percent compared with 37 percent), and a greater proportion reported working in ad-hoc jobs (7 percent compared with 2 percent). Even more worrisome is the NEET rate among Roma youths of 65 percent, captured as 16–24-year-old Roma neither in employment, education or training (FRA, EU MIDIS II, 2016).

29. European Semester 2020 Report on Bulgaria.

30. Bulgaria World Bank Enterprise Survey, 2019

31. Eurostat data.

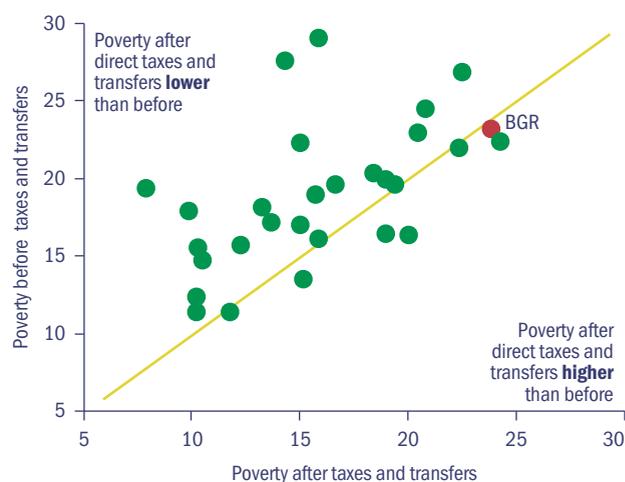
32. Eurostat indicator trng_lfse_02, last accessed on 10.29.21.

working before the crisis start in February 2020 indicated that they had stopped working in April 2020 (WB-UNICEF COVID-19 survey) and between 2019 Q4 and 2020 Q3, employment dropped by 0.5 percentage points and unemployment rose by 0.7 percentage points, with men and youth particularly affected (National Statistics Institute, NSI).

Social protection system and fiscal policy

Issues with targeting, coverage and generosity limit the role of the social security system as a redistributive mechanism, a fiscal stabilizer and as a tool to reduce poverty. Bulgaria is among a handful of EU countries where the fiscal system shows no impact on poverty (Figure 3.10). The social benefit system shows some gaps in coverage, targeting and adequacy, particularly for social assistance (non-contributory) programs. In 2018, close to 30 percent of the poorest 20 percent of households did not receive any form of social assistance benefits. Additionally, beneficiaries in the bottom income quintile received less than a third of the total amount of social assistance benefits disbursed, signaling issues with the overall progressivity of social assistance and the prioritization of social assistance in Bulgaria's social policy mix. There is also concern surrounding the declining contribution of benefits to supporting to the poor: in 2018 social benefits (except pensions) reduced the share of the population at risk of poverty by only 24 percent, compared to 30.8 percent in CEE and 32 percent in the EU-27³³ and, by 2019, this had declined to 20 percent.

FIGURE 3.10 AROP rate before and after accounting for fiscal policies, 2018



Source: World Bank staff estimates using EUROMOD.

Uneven delivery of public services and spatial disparities in economic opportunities

Uneven public service provision, compounded by negative demographic trends, has led to increasingly entrenched and worsening regional inequalities in Bulgaria. In general, public service provision tends to be better in the capital city Southwest Region and worse in the surrounding areas, particularly the Northwest Region. The continuing trend of depopulation of rural areas has resulted in an increase in the number of small municipalities, which threatens to undermine public service delivery in already underserved areas. This has contributed to persistent and worsening economic outcomes in underserved regions and to AROP rates in the poorest regions as high as 2.5 times that of the capital city Southwest region. Since

33. Eurostat tespm050, last accessed April 15, 2021. The analysis uses income years rather than survey years.

this trend is unlikely to be reversed, it requires careful management through reviewing alternative service delivery modalities in smaller municipalities, including potentially through the outsourcing of services to service delivery networks for clusters of such municipalities.

Access to healthcare is one of the areas in which regional disparities in service delivery continue to be most apparent. In poorer regions, access is limited by shortages of medical facilities, equipment and personnel, rapid aging, and high rates of migration among medical personnel. Access to medical care in less affluent regions of Bulgaria is often limited by a shortage of medical personnel which tend to be concentrated in more well-off regions. In the Kardzhali district, one of the poorest regions in Bulgaria, the population per general practitioner (GP) was 2985 in 2019 or almost twice the average for the country (1688). Worryingly, the shortage of GPs in underserved areas is likely to be intensified as more than 60 percent of GPs are above age 55 and approaching retirement (OECD, 2021) and the replacement rate is being compromised by high rates of outward migration among healthcare professionals.

Regional disparities are also evident in the quality of education, which has a direct bearing on the labor market and persistent regional inequality. Educational outcomes are significantly worse in rural areas compared to urban: the mean reading score of pupils in schools located in rural areas is 115 points lower than that in cities, the equivalent of 3 years of schooling (OECD, 2021). Furthermore, in the capital city Southwest Region, 41 percent of the population ages 25–64 had tertiary-level education compared with just 19 percent in the Northwest Region. Higher levels of educational attainment have been shown to increase the probability of finding a job within a year and increase the probability for transitioning from temporary to permanent work (EC, 2020), increasing the chances of earning higher wages and escaping poverty.

Wastewater connections and treatment vary substantially across regions and are among the lowest among CEE countries. While the majority of the population has access to water services, and access varies widely across regions and cities. The Southwest Region has the highest access to both wastewater connections and treatment (90 and 78 percent in 2019 respectively, NSI), while access in the worst-performing Northwestern Region was 60 and 50 percent, respectively. Access to connections is higher in urban areas, and Sofia has the highest access in the country.

Access to broadband internet varies widely across regions and is likely to be a source of widening inequality across regions as the digitalization process is accelerated. In 2020, the capital city region of Sofia in the Southwest Region reported 86 percent of households with broadband access, compared with only 66 percent of households in the worst-ranking Northwestern Region. The COVID-19 pandemic affected vulnerable populations and children disproportionately due to their inability to transition to online work or schooling from home, either due to the nature of their work or to their lack of access to digital infrastructure, devices and limited digital skills. This is most visible in rural areas, where only 10 percent of households had access to high-speed broadband by end 2019 compared to 42 percent in urban areas.

Use of digital technologies by disadvantaged groups, including those living in extreme poverty, minorities, the elderly and people with disability, is the lowest among EU member states.

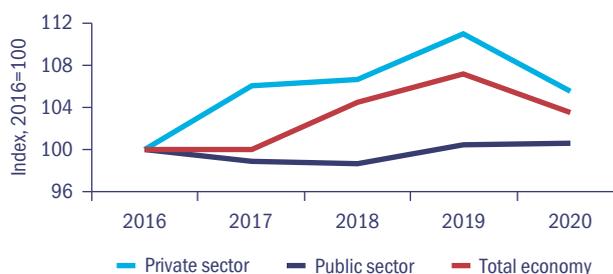
As Bulgaria advances in its progress on the European Green Deal, districts and regions that rely on carbon-intensive industries will disproportionately bear the costs of adjustment which could lead to the emergence of new lagging regions if not appropriately managed. This is particularly true of the Stara Zagora region, one of the regions most affected in terms of carbon intensity and employment. By some assessments, the suspension of coal-mining and the potential suspension of electricity exports could lead to a decrease in employment of 12 percent and an increase in the unemployment rate from 3 percent to 8 percent (EC, 2020). In the municipalities of Galabovo and Radnevo, the reduction in employment is projected to reach 44 and 77 percent respectively, as energy related activities provide more than 80 percent of their revenue (EC, 2020). To minimize the effects on these municipalities and regions, the transition process will have to be carefully managed with a focus on re-training and reintegration into the labor market.

Private sector development

Private sector credit outstrips regional peers, while employment generation has outpaced the rest of the economy. Although credit to the private sector (as percentage of GDP) still lags some regional peers (e.g Hungary, Slovakia), it accounted on average for 58 percent of GDP in 2010–2019³⁴, thus, is one of the highest among the CEE countries and the Western Balkan economies. For the private sector, employment rates have increased since 2016, while public sector employment has plateaued. At the same time, private sector employment took the main hit from the COVID-19-induced crisis in 2020, erasing several years of employment generation. Sectoral decomposition shows Trade and Manufacturing to be the main employers amounting for 44 percent of total employment. Public administration is the third largest sector, although it is relatively small compared to its EU peers. Agriculture accounts for a relatively high, albeit falling, share in employment.

The size of the shadow economy in Bulgaria declined in the past decade but remains significant.

FIGURE 3.11 Employment index



Source: National Statistical Institute, Index 2016=100

FIGURE 3.12 Employment shares by sector



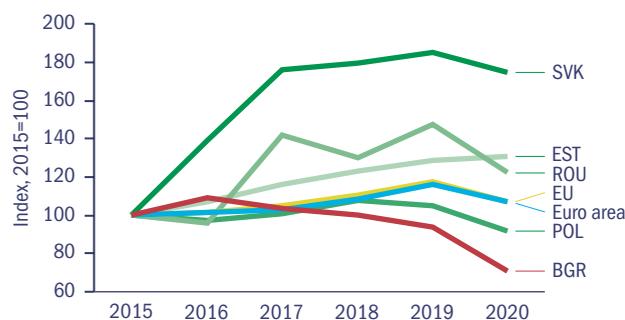
Source: National Statistical Institute, 2020 (in percent of total)

34. The size of the private sector is captured by domestic credit to the private sector as a percent of GDP, using indicator FS.AST.PRVT.GD.ZS from World Development indicators.

According to the national composite Formal Economy Index, the formal economy has increased its share markedly in the past decade, from 64.59 percent in 2010 to 80.80 percent in 2020³⁵. Institutional and governance weaknesses, combined with a significant regulatory burden are cited among the key factors behind the high share of the informal economy in Bulgaria. The slowdown of GDP growth and the convergence process to average EU income levels does not help either, as informality is shown to be negatively correlated with income per capita³⁶. According to the 2019 Enterprise Survey³⁷ results, 52.4 percent of firms surveyed reports competing against unregistered or informal firms, significantly above the ECA average of 33.2 percent and slightly above the global average of 50.3 percent. 34.2 percent of the firms perceives informality as a major business constraint vis-à-vis 22.4 percent in ECA.

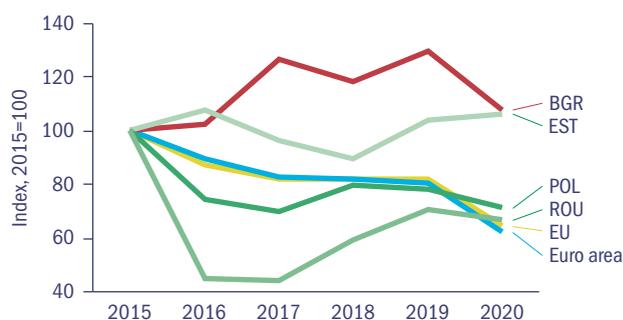
Business entry in Bulgaria has been characterized by restrained dynamism even before the COVID-19 crisis started. The number of new business registrations has been continuously lagging those of EU peers since 2016, while in 2020 they plunged to their lowest level since 2015 due to the COVID-19 crisis. On the flipside, business filings for bankruptcy had remained at elevated levels as compared to 2015 but had been declining since the start of 2019. In contrast to several EU peers such as Romania and Estonia, the COVID-19 crisis prompted a further decline of bankruptcy filings in 2020.

FIGURE 3.13 Business registrations



Source: Eurostat, Index 2015=100

FIGURE 3.14 Bankruptcy declarations



Source: Eurostat, Index 2015=100

35. For more information on the index, please check out www.ikonomikanasvetlo.bg

36. See, for instance, Tackling Vulnerability in the Informal Economy, Chapter 2, OECD/ILO 2019

37. <https://www.enterprisesurveys.org/en/data/exploreeconomies/2019/bulgaria>

4

OPPORTUNITIES FOR BULGARIA TO GROW FASTER



Robust economic growth is undoubtedly a prerequisite for meeting the twin goals of reducing poverty and achieving shared prosperity. Challenges identified in the first SCD—in the areas of business environment, skills and education, research and development (R&D), and transport infrastructure—have long stood in the way to achieving faster growth. According to the latest Global Competitiveness Index (2019), the areas where Bulgaria scores worst are quality of institutions, innovation capability and product markets. The statistically significant impact of institutions, infrastructure, innovation, goods markets efficiency and higher education (HE) on productivity is confirmed in a study by the International Monetary Fund (IMF) (Mitra and Pouvelle, 2012). Closing the gap with the EU average in those five dimensions would permanently boost productivity growth by 1 percentage point. 50.

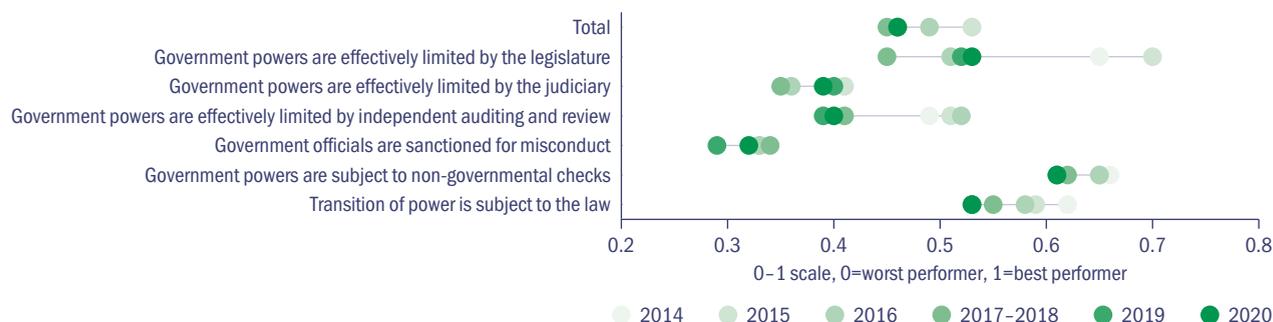
The evolving context—particularly with respect to the green and digital agendas, rapid technological change, steep demographic decline and the COVID-induced crisis—has brought new or sharpened existing constraints to growth. Among these, the analysis highlights the critical role of digital infrastructure and skills, R&D and innovation, and sustainable fiscal policy in supporting productivity growth and competitiveness in the post-crisis recovery period.

Regulatory environment

Quality and predictability of regulations and legislative base

Bulgaria has significantly reformed its regulatory framework in recent years. A new Law on Normative Acts in 2016 introduced a minimum consultation period of 30 calendar days with stakeholders and resulted in the establishment of a central public consultation portal. This, together with the introduction of obligatory Regulatory Impact Assessment (RIA) for all new laws and an oversight body for RIA quality control, have been steps in the right direction to improve the quality of the legislative process.

FIGURE 4.1 Constraints on government powers



Source: World Justice Project, Bulgaria's Institutional Assessment (see Annex 2 for details on data and methodology).

Yet, frequent changes in the legislative base remain a serious hindrance to a stable and predictive regulatory environment. A lack of regulatory stability contributes to uncertainty and limits compliance and enforcement. The practice of amending the same law more than once within a 6-month period remains in place: of 38 amendments to existing laws in the first half of 2019, 24 were made more than once to the same law and 24 were amended in the preceding 6-month period, too.³⁸ Another problematic practice — of using transitory and final provisions of new laws to amend dozens of existing laws — also continues to mar the legislative process since it avoids RIAs of proposed changes and sometimes serves as a channel to push through lobbyist amendments.

Bulgaria scores poorly compared to other countries in the region in most areas related to regulatory enforcement, according to the World Justice Project, which measures the extent to which regulations are fairly and effectively implemented and enforced. In 2020, Bulgaria scored below the regional average in all areas, with a larger gap in the sub-indicator that measured whether due process was respected in administrative proceedings — the country scored 0.33 versus a regional average of 0.67.

Measures that can improve the quality of the legislative process and the predictability of the regulatory environment include: (a) adopting modern approaches to regulation such as the one-in, one-out principle³⁹; (b) strengthening RIA practice; (c) improving the public consultation process and; (d) using good quality data to ensure transparent and evidence-based policy.

Governance

The structure of government experiences changes after every election. The Constitution (article 48) allows the Prime Minister to create, restructure and close ministries, government agencies, executive agencies and state commissions upon the approval of Parliament. Frequent changes in the structure of the government, combined with a high salary gap between the public and private sector, contribute to a high turnover and drain of expertise in the public sector (Zankina, 2018). As a result, the effectiveness of the executive is limited and lower than regional peers.

Low perceived independence and effectiveness of the judicial system presents challenges to the rule of law and to economic development more broadly. The judicial system is one of Bulgaria's least trusted institutions with widespread 'allegations of nepotism,

38. The Legal Barometer is compiled by the Centre for Legal Initiatives NGO; the latest issue can be accessed here: https://legalbarometer.bg/images/Legal_Barometer_broi_19.pdf

39. Every new piece of legislation creating new burdens should relieve people and businesses of an equivalent existing burden

corruption, and undue political and business influence'.⁴⁰ According to the EU Justice Scoreboard 2020, the justice system is not perceived by the general public as independent and over 60 percent of the Bulgarian have a negative opinion about it, putting Bulgaria in one of the bottom 20 percent countries in the EU.⁴¹

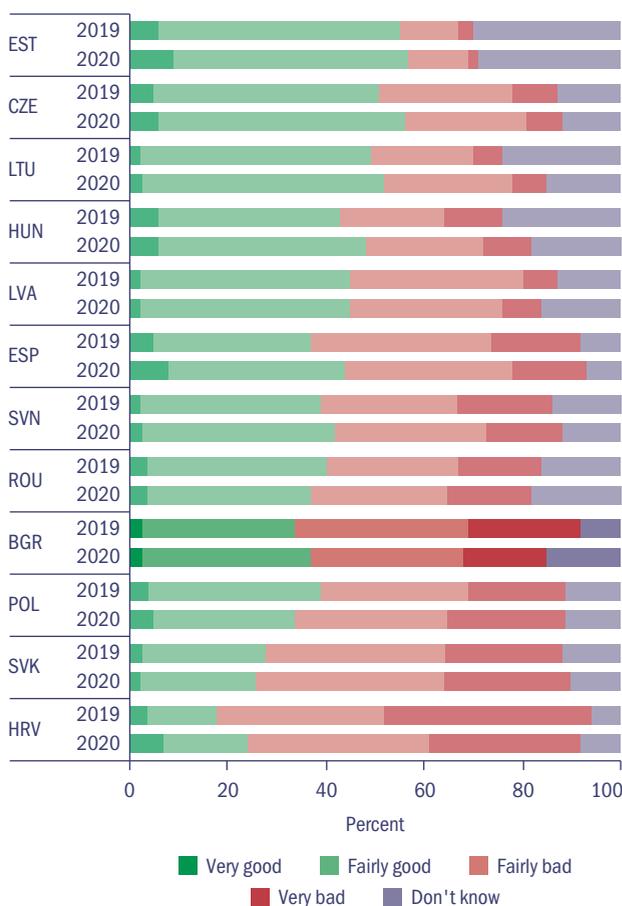
To improve governance in the executive and the judiciary, there are several measures that can be considered. First, the legislative process can be improved through expanding and improving the use of RIAs, including ex-post assessments, for evidence-based decision making. Second, the efficiency and accessibility of the judiciary can be strengthened through the introduction of an e-justice and a case management system to provide case tracking. Finally, an effective governance model can be built by introducing functional reviews either as a whole-of-government approach, or at the program/Ministry/agency level. Functional reviews could help identify managerial and organizational issues that affect performance and thus help reduce bureaucracy and redundant expenditures.

Administrative capacity and quality of public administration

The country's weak administrative capacity is seen to be one of the main obstacles towards the achievement of government policy objectives. While several EU member states have experienced an improvement in the impartiality of the civil service (notably Latvia, Poland, Romania and Slovenia), other countries such as Bulgaria have experienced a decrease in professionalism (Thijs et al., 2018).

The attraction and retention of talent is also challenging, particularly in those sectors and professions where the private sector is flourishing. While civil service legislation has been in effect since 1999 (through the Civil Service Act), there are still significant challenges related to public sector compensation, attraction and retention of high-skilled specialists (for example, IT, highly specialized managers), and also in performance monitoring, which remains formal in most public sector agencies.

FIGURE 4.2 Perceived judicial independence, Jan 2019 and Jan 2020 surveys



Source: Eurobarometer, captures perceived independence of courts and judges by the general public.

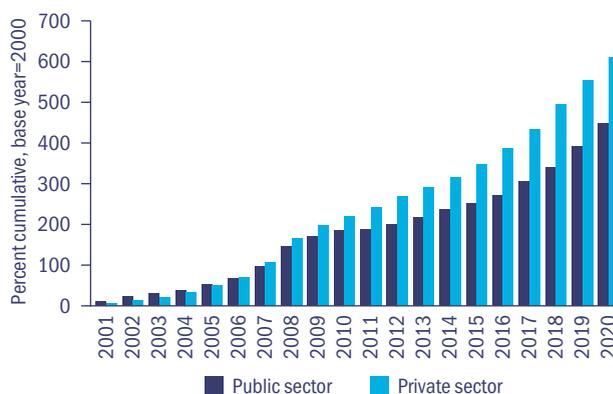
40. 2021 Index of Economic Freedom, compiled by the Heritage Foundation, accessed on March 23rd, 2021.

41. EU Justice Scoreboard, 2020 https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1316

Salaries in the private sector have increased significantly more than those in the public over the last two decades, reducing the ability of the public sector to attract needed skills⁴². Even if public sector salaries appear slightly higher due to the presence of undeclared payments in a number of private sector domains⁴³, pay in the private sector increased 611 percent in 2020 against 2001, while public sector compensation growth lagged behind at 448 percent (Figure 4.3).

A key measure to strengthen administrative capacity would be a review of the government compensation framework with the aim of establishing mechanisms (for example, performance-related pay) to attract and retain skilled staff. In addition, the government could consider broader reforms in recruitment such as specialist recruitment and higher pay for scarce skills, as well as designing incentives for public employees to serve in lagging regions or rural areas.

FIGURE 4.3 Public and private sector wage growth



Source: NSI, accessed April 2021

Digitalization of government services

Bulgaria's readiness for the digital transition remains low, reflected in its low rank among EU member states in the 2020 DESI. Bulgaria performs comparatively better on the digital public services dimension (23rd), particularly on delivering e-government services to businesses, and has improved significantly over the past few years. This is attributable to a couple of digital front-runners in government (such as National Revenue Agency), that moved quickly to offer modern digital solutions in the past 4–5 years, rather than a holistic advancement of the digitalization process. In fact, the number of e-government users has stagnated since the previous year, with 61 percent of internet users submitting forms online, close to the EU average of 67 percent. Bulgaria also ranks low in terms of pre-filled forms, online service completion and use of open data. The outdated legal and regulatory framework for digital government remains the major obstacle to its widespread use.

The NRRP foresees significant investments in digital government transformation, under the Fair Bulgaria pillar. Notable examples include a comprehensive digitalization effort for the justice sector, the integration of registries and spatial planning platforms, and the electronic ID system.

42. See European Federation of Public Service Unions, Pay trends in the public and private sector 2003–2017 <https://www.epsu.org/sites/default/files/article/files/Pay%20trends%20in%20the%20public%20and%20private%20sectors.pdf>

43. According to the latest issue of the “Formal Economy” Index compiled annually by the Bulgarian Industrial Capital Association, in 2019 11.6 percent of the employees were not social insured, which could be used as a proxy for the share of informal work.

A number of measures can be taken to significantly improve digital government service delivery. First, to implement modern data management principles, including the ‘once only’, ‘digital by default’ and ‘open by default’ principles, an overhaul of the legal and regulatory framework for digital government service delivery would be needed. Second, establishing a data governance model will enable the government to take advantage of big data while preserving the privacy of the citizens, in line with the General Data Protection Regulation. Third, priority should be placed on supporting digital connectivity of public institutions and on developing a data-centric unified government enterprise architecture and an interoperability framework to facilitate integration of systems across government. Finally, there is a need to plan ahead towards ‘proactive’ services, leveraged on innovative technologies, notably Artificial Intelligence (AI) and secured by technologies such as blockchain.

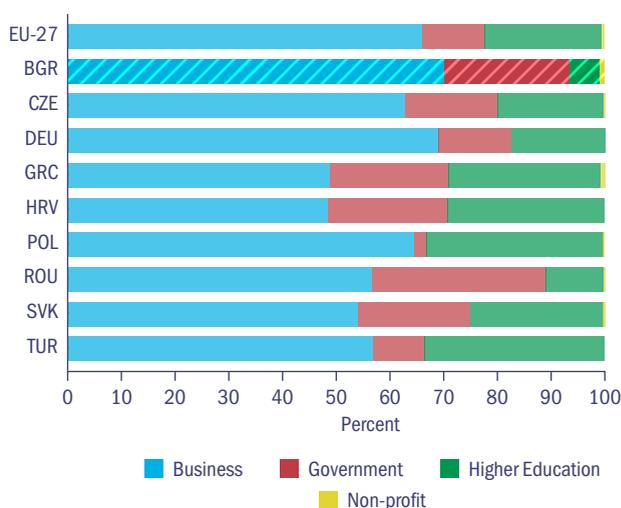
Innovation and R&D

Funding for R&D

Bulgaria would need to quadruple resources to R&D to meet its 2030 funding target for R&D. Gross expenditure on R&D (GERD) as a percentage of GDP has consistently been among the fifth lowest in the EU-27, even if it grew in 2018–2019 to 0.84 percent of GDP in 2019, the second highest percentage since 1995. This share would need to almost double to reach Bulgaria’s 2020 target and almost quadruple to reach its ambitious new 2030 target of 3 percent of GDP. Government budget appropriations on R&D (GBARD) increased in both absolute terms and as a percentage of total government expenditures from 2014 to 2017. However, despite these increases, Bulgaria still ranked last among its peers in GBARD per capita and spends less than 10 percent of the EU-28 average in 2017 (Figure 4.4).

Public research institutions account for a very small share of R&D funding nationally, which feeds into low resources allocated to basic research. In particular, higher education institutions (HEI) only accounted for 7 percent of GERD in 2019, the lowest rate among peers by far and less than a third of the EU average. The low contribution of Bulgaria’s public research institutions to R&D funding is compensated to some degree by government funding. The private sector is left to fill the gap: it accounts for 70 percent of GERD, above the EU average of 66 percent (Figure 4.5). Yet, applied research accounted

FIGURE 4.4 Gross R&D expenditure, 2019



Source: Eurostat, rd_e_gerdtot, accessed April 2021

for 62 percent of GERD in 2017, tied with Romania for the highest rate among peers⁴⁴. Given Bulgaria's per capita income level and scant resources for R&D, this focus on applied research over basic research appears appropriate.

Improving financial commitments is one of the main focus areas of the current National Strategy for the Development of Scientific Research, 2017–2030. Undoubtedly, ensuring multiannual commitments is needed to upgrade scientific performance in Bulgaria.

R&D activity and output

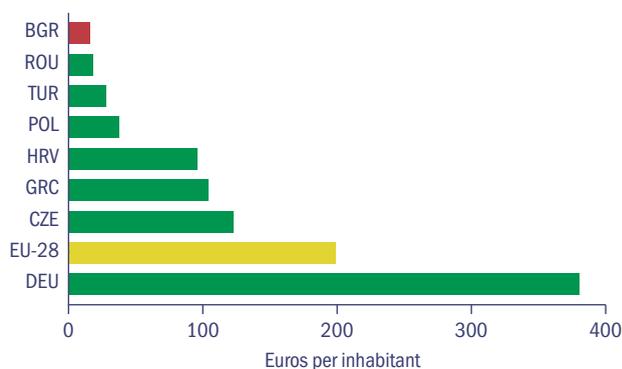
Bulgaria lags behind most of its peers in both quantity and quality of its research output. Bulgaria ranked last among its peers in the share of national publications among the most cited worldwide in 2019 (Scimago Institutions Rankings, 2020) and commercial outcomes (licenses and startups) from public research are extremely limited. Only a small number of Bulgaria's Public Research Organizations (PROs) conduct research that meets international standards (Scimago Institutions Rankings, 2020) and, beyond the Bulgarian Academy of Sciences and a few high-performing universities in Sofia, there are few national institutions that meaningfully contribute to the scientific literature.

Bulgaria's public research sector can be modernized by attracting and nurturing talent, both among the students and the teaching staff. Creating proper incentives for science-prone students to pursue careers in science and introducing life-long learning (LLL) practices and periodic performance evaluations among university staff could be some of the measures to strengthen human capital. Promoting quality research in universities and building links with businesses could also help enhance research capacities. Finally, increasing the role of performance-based funding would raise the quality of research output by incentivizing research excellence and knowledge transfer.

Governance of the research system

Bulgaria's Science, Technology and Innovation (STI) institutions are largely disconnected from one another and suffer from weak governance. As a result, STI support programs are fragmented, without links between them or appropriate governmental

FIGURE 4.5 R&D per capita 2017



Source: Eurostat (rd_e_gerdtot, demo_gind), accessed April 2021.

44. Even if some GERD data are available for 2019, disaggregated data on the type of R&D is only comprehensively available for 2017.

coordination. There are coordinating bodies in place, but many of these bodies do not meet regularly or work at full capacity. The new Bulgaria 2030 National Development Programme provides an overarching national vision for STI, which may improve some of the fragmentation in STI governance.

The governance of STI is divided between two primary ministries, necessitating strong coordination. The Ministry of Education and Science (MOES), which covers science and scientific research, and the Ministry of Economy (ME), responsible for technology development and innovation. The recently established State Agency for Research and Innovation was created to consolidate many of the instruments related to research and innovation under one umbrella, which may help address the observed coordination and fragmentation issues going forward.

Monitoring and evaluation (M&E) of the STI system should be strengthened (Soete et al, 2015; World Bank, 2013, 2020). At the strategic level, Bulgarian national strategies generally have extensive analytical sections and provide at least some detail on the implementation of the strategy, but lack plans for M&E of implementation. M&E frameworks tend to be pro forma, and monitoring processes are largely focused on whether beneficiaries are in compliance with administrative regulations, rather than assessing program performance. (Aridi et al, 2020).

Another key factor in the poor performance of the public research sector is the fragmentation of research capabilities across many small- or medium-sized institutions. This fragmentation results in high dispersion of competences; lack of concentration of resources and critical mass of research talent necessary for specialization and impact, and continuous exodus of research and technology talent. The latter is linked in addition to low salaries and a poor incentive structure for those pursuing research careers (Soete et al, 2015; World Bank, 2013, Aridi et al, 2020).

Governance of the research system can be improved by synchronizing the various STI strategic documents and support programs with the new Bulgaria 2030 programme. Consolidation of research capabilities may help concentrate resources and improve outputs in terms of quality and impact. In addition, M&E needs to be strengthened, including by regular impact evaluations on the STI portfolio.

Technological and digital adoption in SMEs and digital entrepreneurship

Firms are not yet taking full advantage of the opportunities offered by online commerce. According to DESI, only 10 percent of firms use social media to promote their business (against an EU average of 25 percent), 7 percent of SMEs sell online (against an EU average of 18 percent), 3 percent of SMEs make cross-border online sales (EU average of 11 percent), and 2 percent of their turnover comes from the online segment (EU average of 8 percent).

Alongside financial incentives, several regulatory and complementary investments can support the digital transformation of SMEs. The NRRP foresees significant investments in digital adoption, to assist SMEs to acquire digital tools and connectivity, including cybersecurity and across all key sectors, in the form of vouchers. Legal, regulatory and fiscal policy reforms can be used to incentivize digital adoption and the conduct of business online (for example, tax incentives for use of e-government services and the use of electronic transactions); outreach, training and certification of SME business owners; and expansion of the grants/voucher scheme to help SMEs procure commercial cloud-based online business support software-as-a-service (for example, HR, accounting, web presence and sales, tax filing).

Digital entrepreneurship is nascent. The country comes last in the EU Joint Research Center's (JRC) European Index of Digital Entrepreneurship Systems (EIDES),⁴⁵ with particularly low overall scores in relation to human capital, knowledge creation and finance, but close to average scores on the digital dimension of human capital.⁴⁶ The NRRP foresees support through the creation of digital innovation hubs and improving digital connectivity.

The NRRP also foresees assistance to SMEs to acquire digital tools, including cybersecurity, in the form of vouchers. In addition, legal, regulatory and fiscal policy reforms can be used to incentivize digital adoption and the conduct of business online (e.g. tax incentives for use of e-government services and the use of electronic transactions); outreach, training and certification of SME business owners; and expansion of the grants/voucher scheme to help SMEs procure online business support software-as-a-service (e.g. HR, accounting, web presence and sales, tax filing).

Digital entrepreneurship can be strengthened through the development of a green technology policy for R&D and entrepreneurship and specific knowledge transfer mechanisms to its strength in relation to female ICT specialists (e.g. entrepreneurship training, access to finance).

Upgrading skills

Skill development and activation is a source of concern. Bulgaria's skill system is among the lowest-performing in the EU-27 using the Skills Index of the European Center for the Development of Vocational Training (CEDEFOP). Skills development and activation

45. <https://ec.europa.eu/jrc/en/EIDES>

46. The high ranking on the digital dimension of human capital reflects good performance in the share of female ICT specialists and graduates, who account for 1.8 percent of total employment and 1.4 percent of total graduates in Bulgaria, well above the EU average of 1.4 and 0.7 percent respectively.

perform particularly poorly,⁴⁷ but skills matching is rated significantly higher (index of 70 out of 100, rank 8th).⁴⁸ The latter can be partly attributed to a heavier concentration of low and medium-low technology jobs that do not require specialized skills in employment. However, the increasing need for technically and professionally skilled workers will put pressure on skills matching in the medium term.

Persistent challenges have impeded the delivery of quality education and basic skills to all students and the COVID-19 pandemic is expected to have further widened educational inequalities.

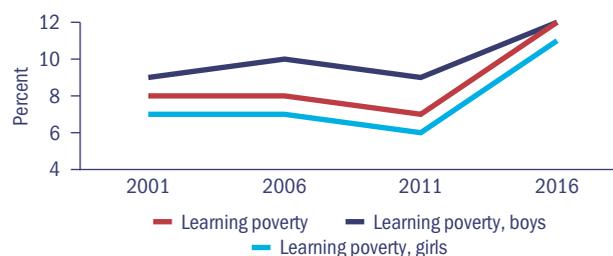
Learning poverty – captured by the share of 10-year old's unable to read and understand a short, age-appropriate text – increased from 7 percent in 2011 to 12 percent in 2016 (Figure 4.6), with similar findings for proficiency in math and science⁴⁹. Measures of the learning achievement of 15-year olds, captured through the Programme for International Student Assessment (PISA), deteriorated in reading, math and science between 2015 and 2018 (Figure 4.7).

Alongside the deterioration in average PISA scores, Bulgaria has a high share of underachieving students and a low and declining share of high achievers.

The share of students performing below the critical proficiency level 2 in PISA 2018 was 47 percent in reading, 44 percent in math, and 47 percent in science. At the same time, only 2 percent of students were high achievers in reading and sciences and 4 percent in mathematics at PISA-2018, shares that have been decreasing steadily since 2012.

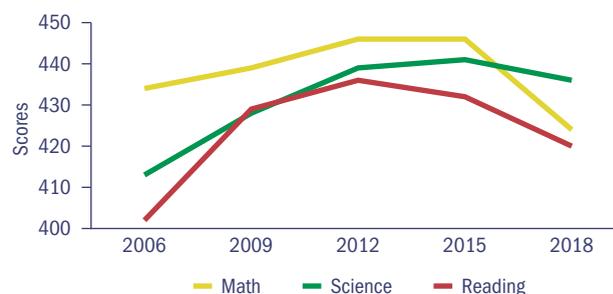
The relationship between performance and socioeconomic background remains strong. The most socio-economically advantaged students outperformed their disadvantaged peers in reading by close to 3 years of schooling in PISA-2018. In addition, Bulgaria

FIGURE 4.6 Percentage of children suffering risk of learning poverty



Source: World Bank and UNESCO Institute of Statistics (2019), lpv_edstats, accessed on 8.04.2021. Notes: Share of children at the end of primary age who are below minimum reading proficiency, adjusted by out of school children.

FIGURE 4.7 Bulgaria's PISA Test Scores, 2006 – 2018



Source: OECD/PISA 2018 database, accessed on 8.04.2021

47. Index of 38 and 28 out of 100 and ranked 28th and 30th respectively

48. European skills index | Cedefop (europa.eu). CEDEFOP's skills matching pillar is based on a selection of indicators, including long-term unemployment rate, share of underemployed part-timers, overqualification rate (tertiary education), share of low-waged workers and qualification mismatch indicator based on the OECD WISE database.

49. World Bank and UNESCO Institute of Statistics (2019). Similarly, the Progress in International Reading Literacy Study finds that 5 percent of fourth graders in 2016 were found to have not yet learned how to read in 2016, the same share as in 2001. In addition, 1 in 10 fourth graders was found not to have basic mathematical knowledge and skills, and 13 percent do not have a minimum proficiency level in science, with both shares increasing since 2015 (TIMSS-2019).

has the largest share of underachievers in reading concentrated in the bottom socio-economic quartile and is among the countries with the highest academic and social segregation in Europe.

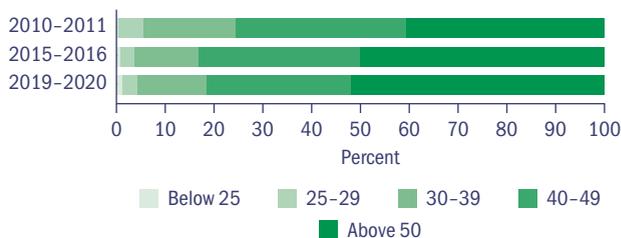
One explanation behind the poor performance is that public spending on education for all education levels remains persistently low. Government funding allocated to education accounted for 3.9 percent of GDP in 2019, significantly below the EU average of 4.7 percent⁵⁰. Among the CEE and Baltic countries, only Romania spends less (3.6 percent in 2019). At the same time, significant investment in the modernization of school infrastructure is needed (EC, 2019a).

Despite recent increases in teacher salaries, further investments are needed to boost the attractiveness and quality of teaching to produce sizeable gains in student performance. With more than half of the teachers being ages 50 and above, Bulgaria faces the need to renew a significant part of its teaching workforce over the next decade (Figure 4.8). Fragmented teacher policies result in weak supply of novice teachers, uncoordinated professional development and weak career development structure that lacks connection to learning outcomes.⁵¹

The provision of internet and digital resources for all schools is advancing, and the COVID-19 shift towards e-learning has demonstrated remarkable adaptation when needed. Yet, Bulgaria has a lower share of highly digitally equipped and connected schools at all ISCED levels than the EU average (EC, 2019b). Nevertheless, the school system demonstrated a remarkable ability to quickly offer remote learning in a digital environment and some 80 percent of students were included in digital learning during the pandemic (EC, 2019b, Ministry of Education and Science). Still a large number of students could not be covered due to lack of technical conditions, mobile devices and / or internet connectivity. Special efforts were made to ensure digital inclusion of students from vulnerable groups who do not speak Bulgarian, including Roma, and to facilitate acquisition of language and communication skills. The ministry also offered vulnerable students the opportunity to get additional classes in main disciplines out of school hours or during the summer break.

Digital skills formation among teachers has been supported by EU-funded initiatives and gained momentum on the prolonged periods of online remote learning after March 2020. Yet, a recent survey shows that every third teacher still demonstrates

FIGURE 4.8 Age structure of teaching workforce in Bulgaria



Source: Own calculations based on NSI data on teaching staff (ISCED level 1 – 3) by age, accessed on April 12, 2021.

50. Based on Eurostat's General Government Expenditure data, broken down by main socio-economic function, according to the Classification of the Functions of Government (COFOG)

51. World Bank, Bulgaria Teaching Workforce Policy Note and Recommendations, 2020

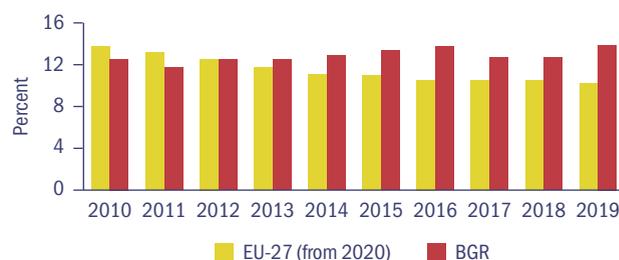
low self-efficacy in using ICT (Hristova et al. 2019). Moreover, over 10 percent of the pupils in the country were not covered by distance learning, as they did not have devices or internet that would allow them to be fully involved in the learning process.

The NRRP foresees significant efforts in digital transformation of pre-school, basic and higher education systems, LLL, and active labor market measures. In addition, the government could: (a) create virtual classrooms and integrate technology in the physical classrooms; (b) support further students from disadvantaged groups with access to digital devices and internet for education. Thus, an important priority is the full provision of access for all students to a virtual classroom in the conditions of a prolonged pandemic.

Bulgaria has put significant efforts in expanding access to pre-school education but important barriers to participation remain. The net enrolment rate of children ages 3–6 has steadily declined since 2014 (to 79 percent in the 2019/2020 school year), with significant regional and ethnic disparities (see Annex 3). To improve early childhood development (ECD), compulsory pre-school education will be further expanded to cover 4-year-olds from 2023. The burden of care-related costs and fees remains a serious barrier to ECD, especially for children from disadvantaged backgrounds. This can be resolved only with the removal of kindergarten fees for poor households (using an income criterion) and expanded social work with such families. Shrinking children population and disbalance between regions also requires improvement in supply planning. Early childhood education standards need to be aligned with contemporary pedagogy approaches.⁵² Finally, MOES needs to develop and implement an ECEC quality package to address the school readiness needs through professional development for ECEC specialists.

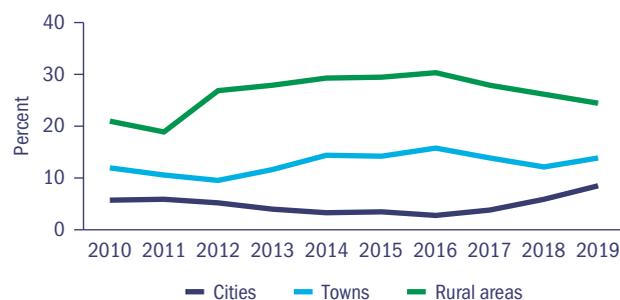
The share of early school leavers (ESL) has been increasing since 2010. The ESL rate in 2019 was 13.9 percent (14.5 percent for boys, 13.3 for girls), higher than national goals (11 percent) and the EU average (10 percent). Failure to complete secondary education is disproportionately high in rural areas, at a rate of 24.5 percent, while the share of ESL in urban areas has increased from 2.8 percent in 2016 to 8.5 percent in 2019, its highest level in a decade (Figure 4.10). A sharper increase in ESL is visible for boys. Risk factors

FIGURE 4.9 Early school leavers from education and training



Source: Eurostat (edat_lfse_30) accessed on 12.04.2021. Note: 18–24 year olds.

FIGURE 4.10 Early school leavers from education and training by urbanization



Source: Eurostat (edat_lfse_30) accessed on 12.04.2021. Note: 18–24 year olds.

52. World Bank, Assessment and Recommendations on the Learning Environments in Preschool, General Schools and Vocational Schools in Bulgaria, 2020

that contribute to dropping out include socio-economic hardship, low educational expectations, lack of parental support and/or interest in education, poor knowledge of the Bulgarian language, hidden costs, early marriage, cultural factors, and child labor. Early school leavers face significantly worse employment outcomes – those with secondary education are 8 times more likely to be employed than those who dropped out before completing primary education (Hristova et al. 2019).

Those who complete a vocational education face poorer employment prospects than their European peers. In 2019, 69 percent of Vocational Education and Training (VET) graduates in Bulgaria were employed 1–3 years after their graduation, compared to 77 percent EU average. It has not yet been investigated to what extent this is linked to (i) adequacy of VET programs and curricula; (ii) quality of VET provision; (iii) adequacy of the structure and labor market relevance of VET; (iv) existing skills mismatch; (v) intra-EU labor mobility.⁵³

The rapid expansion of HE programs alongside a decreasing number of students has led to growing concerns about the quality of education⁵⁴. Between 2013 and 2020 the number of students enrolled in HE in Bulgaria declined by 18 percent, with a drop as high as 40 percent in 16 professional fields⁵⁵. This drop partly reflects a redirection to HE abroad: nearly 1 in 10 (8.8 percent) upper secondary graduates completed tertiary education abroad in 2018 (EC 2020c). The drop in students may also reflect limited matching to jobs that require HE: only half of those who graduated in 2015–2019 occupied job positions requiring HE according to the Bulgarian University Rating System 2020. Matching is higher for fields such as medicine and education, and lower for declining fields such as economics, administration and management. The gender gap in HE enrollment persists and has fed into considerable disparities in tertiary education: 60 percent of graduates in 2017 were women, while 41 percent of women aged 30–34 hold tertiary degrees compared to 27 percent of men (EC 2020c).

Adult participation in learning activities remains at a low-level, suggesting a lack of progress in upskilling and reskilling the population. Only 2 percent of adults ages 25–64 (1.8 percent for men, 2.1 for women) participated in formal and/or non-formal learning in 2019, the same level as in 2013⁵⁶. Overall, Bulgaria lags on LLL and will not achieve its strategic goal of 5 percent adult participation in LLL by 2020.

Overall, Bulgaria needs to improve its skills governance system and outcomes by (a) raising the quality of education and training to reflect skills needs; (b) making further efforts for retention in and completion of school education; (c) reforming school curricula

53. World Bank, Vocational Education and Lifelong Learning in Bulgaria: Situation Analysis and Policy Direction Recommendations, 2021

54. World Bank, Higher Education in Bulgaria: Situation Analysis and Policy Direction Recommendations, 2021

55. National Statistical Institute and Bulgarian University Rating System

56. Eurostat, European Labor Force Survey

to ensure alignment with demand for skills (d) ensuring broad access to work-based learning. Further, (e) strengthening the professional development of teachers is required to promote deep learning, better skills formation and improved educational achievement. (f) Alleviating the burden of access-related costs and fees would be essential for improving access to early childhood and pre-school education, especially for disadvantaged children, while a (g) well-designed early warning system is needed to detect those at risk of dropping out. Finally, (h) strengthening the current financing system to towards robust performance-based funding in school education can help improve coverage, quality and access to education.

Fiscal policy for growth

Government expenditure management

Prudent fiscal policy has helped contain debt and deficit levels. With conservative planning of revenues and restrictive fiscal spending, the budget has recorded either small deficits or surpluses. Owing to the strong fiscal position entering into the pandemic, the general government deficit was capped at 4.0 percent of GDP in 2020 (against a surplus of 2.1 percent in 2019), while public debt grew moderately to 24.7 percent of GDP, against 20.0 percent a year ago.

Aging increases pressure on several public sectors, notably health, pension, and long-term care, which calls for prompt action to increase value for money in government spending. This, combined with the pandemic's adverse effects on budget accounts, calls for increasing efficiency and effectiveness in all public domains. This can be achieved with the help of instruments for a detailed review of public revenue, expenditure and institutions such as public expenditure and institutional reviews, PERS, spending reviews, impact evaluations, and program reviews. All these ultimately seek to improve the quality of public service delivery with scarce public resources. The pilot integration of spending reviews into the annual budgeting cycle in 2019 and the development of performance-based budgeting tools need to be strengthened and become an established practice going forward.

Public investment management

Public investment is around the average for CEE countries but has fluctuated substantially with the EU program period cycle since 2007, which illustrates its dependence on EU funds. The public procurement system has improved in recent years with a major milestone being the mandatory use of a centralized electronic platform for all government agencies and municipalities starting from April 1, 2020. Yet, even if Bulgaria already ranks

in the yellow zone of the EU in terms of overall performance in public procurement⁵⁷, key bottlenecks remain. Bulgaria ranks in the lowest place in the EU in terms of the share of procurement procedures negotiated with a company without a call for bids with this share almost doubling in 3 years — from 15 percent in 2016 to 29 percent in 2019. Cooperative procurement is another area of weakness, with just 1 percent of procurement procedures with more than one public buyer.⁵⁸

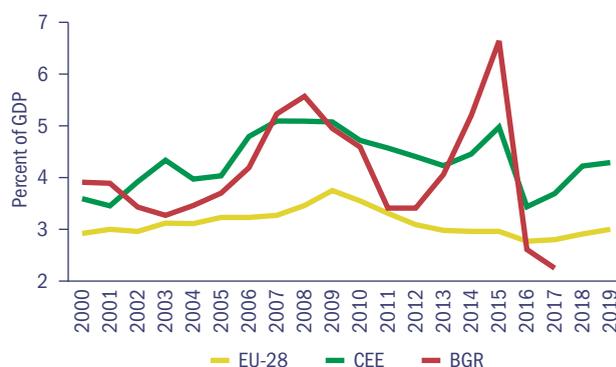
The government could further strengthen the management of investment projects by improving the pre-investment phase and implementing an information system to systematically track capital investments.

Enhancing the pre-investment phase would require the design of a standard methodology for project appraisal and evaluation. Separately, the Bulgarian government would benefit from further introduction of tools (such as green budget tagging) to align spending to the achievement of green objectives. Other instruments, such as new project selection criteria that operationalize the government's priorities and contribute to the Green Transition, could also speed up the implementation of the Government's plan towards a greener economy.

Growth-enhancing tax policy

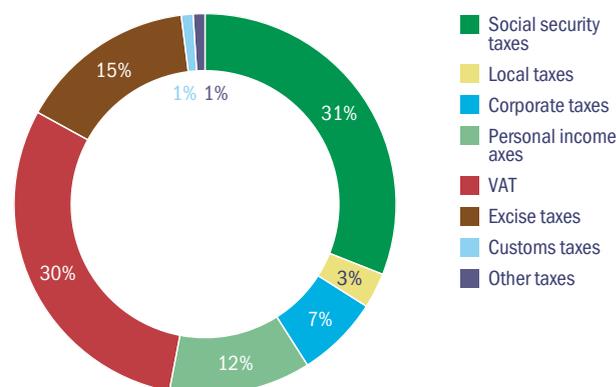
Bulgaria's tax burden remains one of the lowest in the EU with a tax-to-GDP ratio of 30 percent in 2019 — third lowest only to Ireland (23 percent) and Romania (27 percent) and almost 11 percentage points below the EU-27 average. Bulgaria's tax structure is relatively equally weighted between direct and indirect taxes. Value added tax (VAT) revenues generated 30 percent of tax revenues in the general government budget in 2020, while another 15 percent came from excise duties. The biggest share of taxes revenue comes from social security taxes, accounting for 31 percent of all direct tax revenue, followed by personal income taxes

FIGURE 4.11 Public investment in Bulgaria and EU



Source: Eurostat (SDG_08_11, accessed April 2021)

FIGURE 4.12 Bulgaria's budget backbone is indirect taxes



Source: Ministry of Finance.
Note: Percent of total, 2020

57. Source: EC, Single Market Scoreboard. Overall performance is the sum of scores for all 12 individual indicators. The 3 most important indicators are triple-weighted (Single bidder, No calls for bids and Publication rate). According to the EC, this is because they are linked with competition, transparency and market access — the core principles of good public procurement. EU MS are grouped in either of the color zones below, depending on their overall score: Green: above 3; Yellow: between 3 and -3; Red: below -3

58. According to the EC, excessively low rates suggest lost opportunities, as buying in bulk often leads to better prices and offers an opportunity to share knowledge.

(12 percent).

Yet, in response to COVID-19, the government introduced certain changes in tax policy. From mid-2020, the standard VAT rate of 20 percent was temporarily reduced to 9 percent for restaurant and catering services⁵⁹, baby food, diapers, books, certain tourist services and the use of sports facilities, which is expected to reduce VAT revenue by 0.2 percent of GDP in 2021. The measure is planned to remain in effect until end-2021 and could potentially prove politically difficult to withdraw once it expires. This measure, when considered together with costly expenditure support such as the pension increases in 2021 (expected to cost 1.2 percent of GDP), can be expected to worsen the structural balance and may call for new sources of sustainable financing.

Even if Bulgaria's tax system is generally in line with a growth-enhancing tax structure⁶⁰, it may benefit from further finetuning. Recurrent taxes on immovable property are found to be the least distortive tax instrument in their impact on long-run GDP per capita, followed by consumption taxes, other property taxes and environment-related taxes, in that order, according to a study by OECD (2010). Corporate taxes and personal income taxes are, in turn, the most distortive. Given that, the Bulgarian authorities may consider raising the share of property and carbon taxes at the expense of supporting businesses and individuals in the recovery period with reduced direct taxation, in a fiscally neutral manner and controlling for redistribution effects⁶¹. According to the latest OECD data, recurrent taxes on immovable property in Bulgaria account for just 0.9 percent of total tax and social security revenue or 0.3 percent of GDP in 2019⁶². Their low share in total tax revenue is due to below-market tax bases in many localities.

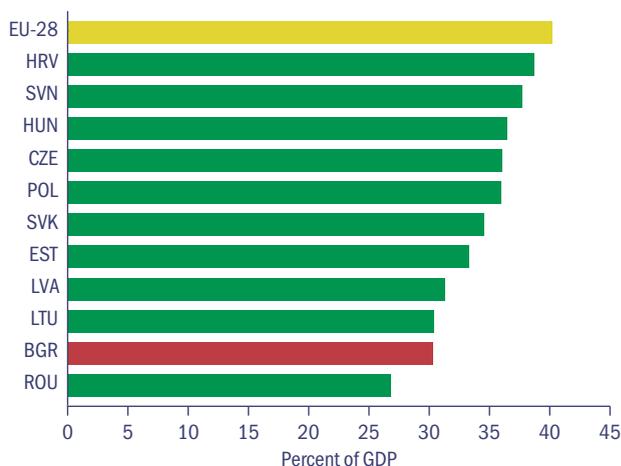
59. Spirits excluded.

60. Noteworthy, Bulgaria's flat direct tax of 10 percent for both personal incomes and corporate profits also complies with the recommendation for not lowering the corporate tax rate substantially below the top income tax rate as this would create perverse incentives for individuals to try and shelter their incomes within corporations.

61. According to some authors, there may be a short-run trade-off between pro-growth and pro-poor policies. For instance, in *Pro-Growth, Pro-Poor: Is There a Tradeoff?* (WB Policy Research Working Paper No.3378, 2004), the author J. Humberto Lopez shows that regardless of their impact on inequality, pro-growth policies lead to lower poverty levels in the long run. However, he also finds evidence indicating that some of these policies may lead to higher inequality and, under plausible assumptions for the distribution of income, to higher poverty levels in the short run. These findings would justify the adoption of a pro-growth policy package as the center of any poverty reduction strategy, together with pro-poor measures that complement such a package by offsetting potential short-run increases in poverty.

62. According to OECD.Stat, recurrent taxes on immovable property brought in BGN 338.3 mn of revenue in 2019, which is 0.9 percent of total tax revenue and 0.3 percent of GDP.

FIGURE 4.13 Tax burden in CEE countries



Source: Eurostat (gov_10a_taxag), accessed in April 2021

In the post-crisis period, it may be beneficial if companies face lower tax liabilities, while labor force participation is enhanced—more so in view of the negative demographic trends. Private investment can be encouraged via tax incentives for reinvesting profits and accelerated depreciation. In addition, since labor force participation remains below the EU-27 average, measures can be taken to reduce average labor taxes, with a focus on social security taxes which represent the bigger part of the burden. This can be done either directly through tax rate cuts or indirectly through the implementation of earned income tax credits or other ‘in-work benefits’. The latter could be beneficial not only for enhancing growth, but also for supporting equity.

Going forward, further decentralization of taxes and revenues could be also considered with the aim of reducing regional disparities. Revenue mobilization in Bulgaria remains highly centralized. The central government collects 66 percent of total tax revenues (including social security revenues) while the 265 municipalities account for just 3 percent of all tax revenues⁶³. Evidence from OECD countries shows that balanced tax and revenue decentralization is associated with lower regional disparities (Bartolini et al, 2016).

SOEs and their fiscal footprint

SOEs still play a significant role in the Bulgarian economy, but their overall performance is weaker compared to private companies in Bulgaria⁶⁴. SOEs account for 3.8 percent of employment and 6.04 percent of gross value added (GVA) based on 2019 data. The SOE portfolio is highly fragmented with heavy concentration in the energy and infrastructure sectors. The assets of the top three SOEs—Bulgaria Energy Holding, National Electricity Company and Bulgarian State Railways Company—account for 37 percent of total SOEs’ assets in 2019. As for other SOEs, there is no clear policy defining the rationale for continued government ownership and support with public funds.

SOEs receive substantial government support that is not reflected in their contribution to growth. Such support includes state subsidies, capital transfers and state guaranteed debt. They also benefit from direct assignment of public procurement, avoiding competitive procedures. State subsidies from the general government budget constantly increased between 2016 to 2019, reaching BGN 3.8 billion or 3.2 percent of GDP in 2019, while capital transfers more than doubled in the last 4 years, reaching BGN 370 million or 0.3 percent of GDP in 2019. The transfers were allocated to three SOEs only: National Railway Infrastructure Company, BDZ (Passenger Services) and Bulgarian Ports Infrastructure Company.

63. The rest goes for social security taxes.

64. IMF, 2019 indicates that only about 33 percent of Bulgarian SOEs perform above the private sector median

Yet SOEs debt guaranteed by the state decreased substantially over the past decade: from BGN 1.1 billion in 2008 to BGN 63 million in 2019, reducing pressure on the state budget.

To address SOE performance issues, Bulgaria has embarked on a reform of the SOE corporate governance framework, but its implementation is yet to demonstrate results. As a part of an action plan for ERM II accession, a Law on Public Enterprises was adopted in 2019 with the aim to address the main ownership and corporate governance vulnerabilities of SOEs. Yet, the implementation of the law is slow, due in part to the pandemic and limited capacity of the implementing parties, as well as the political crisis and lack of a regular government since early 2021.

Following the adoption of this new legislation, key reforms are further needed to reduce the fiscal burden and to unlock the growth potential of SOEs. Some of the pressing actions to be considered include accelerated implementation of the Law on Public Enterprises, centralization of the SOE oversight and transfer of the functions of SOEs principals from line ministries to the newly created Public Enterprises and Control Agency. Further rightsizing of the SOE portfolio, including by consolidation, optimization or privatization, and designing of proper incentives for SOEs management to improve financial performance are also called for.

Access to finance

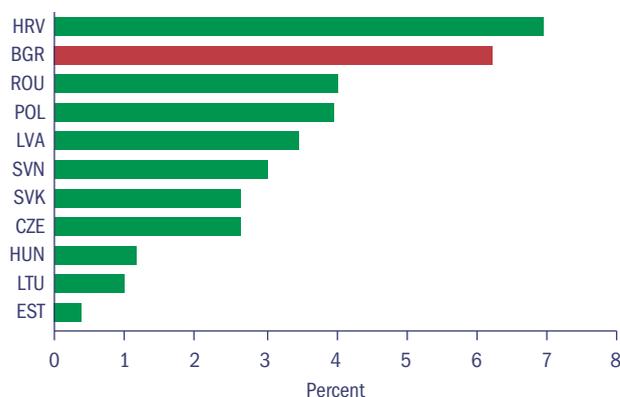
Financial sector policies to address weaknesses exposed by the bank failure of Corporate Commercial Bank (CCB) in 2014 have helped to strengthen the banking sector, and enabled Bulgaria's entry into the ERM II and the European Banking Union (the Single Supervisory Mechanism and the Single Resolution Mechanism) in July 2020. Important reforms were undertaken, including enhancing the supervision of banking and nonbanking sectors, identifying gaps in the insolvency framework, and strengthening the Anti-Money Laundering framework. As a result, the COVID-19 crisis found the Bulgarian banking sector with capitalization and liquidity well above the minimum prudential requirements, and solid profitability. Close cooperation between the European Central Bank (ECB) and the Bulgarian National Bank as of October 2020 is expected to further enhance the banking sector's regulatory environment.

However, the pandemic may cause a deterioration in banks' asset quality as loan moratoria expire and as economic activity remains slow. The high level of NPLs is a pre-existing vulnerability in Bulgaria and, despite a declining trend in recent years, they remain one of the highest in CEE countries at 7 percent of total loans as of end-2020 (declining from 17.4 percent in 2017)—above the 2.6 percent EU average.⁶⁵ At the end of

65. EBA data.

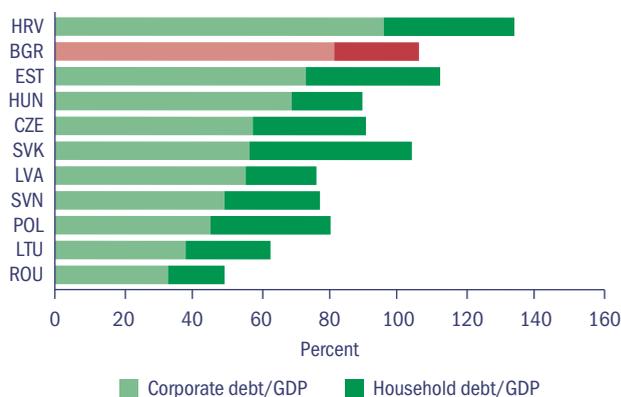
2020, banks in Bulgaria had approved payment deferrals on 15 percent of corporate loans and 7 percent of household loans. Moreover, NPLs are more concentrated among corporate loans (at 10 percent of corporate loans as of end-2020), compared to 6.9 percent of household NPLs. Corporate indebtedness was high at 80.8 percent of GDP as of Q1 2021, poten-

FIGURE 4.14 Share of NPLs in all Loans



Source: FSIs, Eurostat (accessed April 2021)

FIGURE 4.15 Share of Corporate and Household Debt in GDP



Source: FSIs, Eurostat (accessed April 2021)

tially increasing vulnerabilities for corporates. Small businesses are particularly at risk for their limited capacity to deal with the pandemic. Risks stemming from pro-cyclical and non-purpose loans to households should also be noted.

Deficiencies in the insolvency and legal framework have hindered the resolution of NPLs. Insolvency and debtor/creditor rights regimes have an impact on both the likelihood of a borrower defaulting as well as the tools that banks can use to maximize creditor recovery when a borrower does default. Data show that increased creditor recovery is positively associated with higher levels of credit to the private sector.⁶⁶ In Bulgaria, successful rehabilitations are rare, and most bankruptcy cases end up as piecemeal asset liquidation. Despite the introduction of new stabilization proceedings in 2016 through amendments to the Commerce Act, there have not been many successful proceedings since then. Procedures to initiate insolvency cases continue to be lengthy and there are no formal out-of-court workout mechanisms. An ineffective insolvency regime can hamper productivity growth by impeding firm exit, entry and growth.⁶⁷ Banks worried about their ability to recover loans may limit their lending to those borrowers that present the least risk, or they may impose extensive collateral requirements that small entrepreneurs cannot meet.

66. "How Insolvency and Creditor/Debtor Regimes Can Help Address Nonperforming Loans", World Bank Group 2021 available at <https://openknowledge.worldbank.org/handle/10986/35120>

67. World Bank Group Viewpoint "Debt Resolution and Business Exit: Insolvency Reform for Credit, Entrepreneurship, and Growth", 2014, available at <https://documents1.worldbank.org/curated/en/912041468178733220/pdf/907590VIEWPOIN003430DebtResolution.pdf>

To mitigate the impact of the crisis, policymakers implemented a package of measures to safeguard financial stability and ensure credit flows to the economy. A policy package in the amount of EUR 4.8 billion included, inter alia, capitalization of banking profits, cancellation of countercyclical capital buffer increases, and a reduction in banks' foreign exposures. In addition, loan repayments were postponed. Supported by these measures, banks have maintained strong balance sheets and ample liquidity⁶⁸. Yet, previously strong profitability has declined due to higher provisioning costs⁶⁹ and credit risk losses, moratoria on loans, lower interest income, and reduced new business (return on assets fell to 0.7 percent in 2020).

Supported by policy measures, banks have been able to maintain lending to the economy in 2020, however expected increases in NPLs will affect banks' appetite for new business. Access to finance has not been significantly affected during the pandemic, although credit growth slowed down to 5 percent (from about 8 percent annually as of end-2018 and end-2019). The growth of lending to businesses decelerated to 3 percent, and household lending expansion slowed to 7 percent at the end of 2020. According to the SME Finance Forum's 2018 data, the current finance gap for micro, small and medium-sized enterprises (MSMEs), is estimated at US\$ 6.5 billion or 13 percent of GDP.

Noteworthy, the pandemic has not impacted negatively access to finance for Bulgarian banks. Access has even improved, largely owing to the high and sustained growth of corporate and household deposits, as well as a government support scheme for preferential loans by commercial banks, mediated by the state-owned Bulgarian Development Bank.

In addition, the financial system faces challenges related to Bulgaria's transformation into a circular, resource-efficient, and greener economy. Bulgaria's economy and financial system could be exposed to substantial and material transition risks⁷⁰. In addition, Bulgaria's economy and financial system are highly vulnerable to the physical impacts of climate change, such as climate-induced hazards (please see Chapter 6 for details).

Given these challenges, key priorities to ensure access to finance include: (a)

68. The liquidity coverage ratio was at 279 percent at end-2020, compared to 171 percent for the EU average; banks also rely mostly on deposit-based funding, which has continued to increase in 2020 (10 percent growth in 2020).

69. To prepare for a rise in NPLs, once payment deferrals expire, banks have increasingly provisioned loans that were or still are under moratoria.

70. Transition risks are financial risks which can result from the process of adjustment towards a lower-carbon and more circular economy, prompted, for example by changes in climate and environmental policy, technology or market sentiment.

FIGURE 4.16 Domestic credit to the private sector



Source: World Development Indicators Database

encouraging the banking sector to recognize NPLs in a timely manner (along with adequate provisioning) and resolve them once recovery begins; (b) effective implementation of the corporate insolvency framework as well as the establishment of an early warning system to detect SME financial distress and prevent insolvency; (c) strengthening the credit reporting system by both modernizing the public credit registry and fostering an enabling environment for private credit bureaus; and (d) efforts should also be intensified to green the financial sector and incorporate climate-related risk in its exposure.

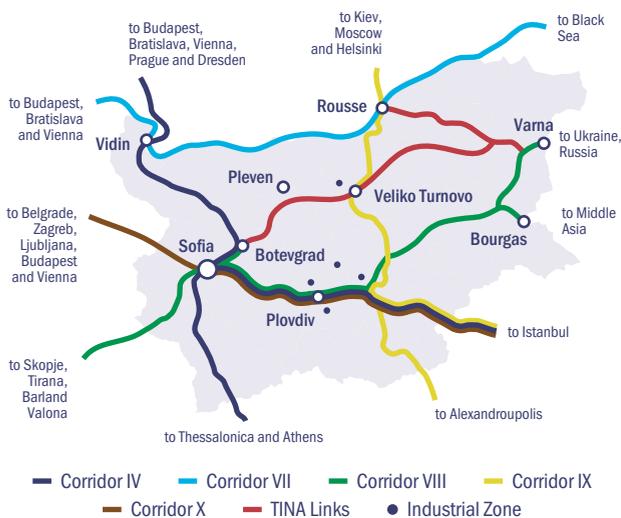
Infrastructure

Despite the significant efforts deployed by the government and substantial EU support to modernize and improve the efficiency of the transport sector through reforms and investments over the past two decades, Bulgaria lags European peers in almost all sector performance indicators.

Transport infrastructure

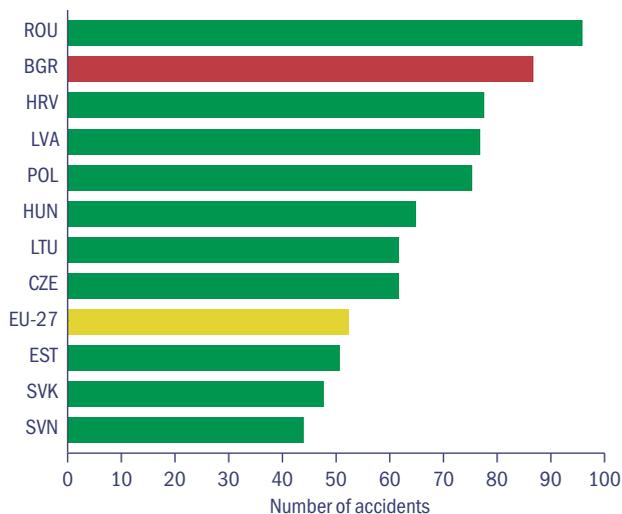
Spending on road maintenance grew faster than in peer countries between 2008 and 2018. However, growth in road investments grew fourfold thanks to EU funding for the construction of new roads, outpacing maintenance spending and resulting

FIGURE 4.17 Trans-European Transport Network Corridors Passing through Bulgaria



Source: Ministry of Transport, Information Technology and Communications

FIGURE 4.18 Road accident fatalities per 1 mn people in CEE, 2018



Source: Eurostat (tran_sf_roadse), (demo_gind)

in a funding gap. The implementation of an e-tolling system in 2020 opened up the possibility of reducing vignette fraud and achieving full cost recovery via toll fares. However, the toll was temporarily set to half the optimum level with expectations for its gradual increase over the next 5 years to the optimum.

The total motorway network has nearly doubled from 418 km in 2007 to 790 km in 2019, largely owing to EU support (85 percent co-financing). In coming years, the focus should be on completing highway connections in North Bulgaria with an eye on improving road safety, as the country features the second lowest road safety indicators in the EU⁷¹. The construction of Sofia-Gueshevo expressway (85 km), and the construction of the Europe motorway (Sofia-Kalotina), which are part of the route of the “core“ network corridor “Orient/East - Mediterranean“, are of equal importance. Efforts should also be directed towards improving road quality, with a focus on highest-class roads as well as improving connectivity to the Trans-European Network and important economic hubs.

Rail freight transport has been in decline for years. The decline of rail freight transport is mainly a result of demand factors, as commodity processing industries have declined, but also as a result of underinvestment on the supply side. Yet, the rail freight sector has proven to be a reliable mode of transport of goods since the onset of the COVID-19 crisis and an increase of rail freight was reported for 2020.

Port infrastructure has seen improvement over the last several years. Bulgaria’s main ports on the Black Sea and Danube are managed by the Bulgarian Ports Infrastructure Company (BPIC), with oversight from the Ministry of Transport, Information Technology and Communications. BPIC has undertaken numerous technological improvements, most notably with the expansion of the VTMIS⁷² system by implementing an advanced digital infrastructure, as well as innovative approaches in its construction and operations. Most of the terminals of the Burgas port and some of the Danube river terminals are currently operated by private companies under concession contracts, while a few others are in the process of being concessioned.

The Sofia Airport PPP transaction marks a significant milestone in the development of Bulgaria’s airport infrastructure. Under a 35-year concession agreement, the airport will benefit from cumulative investment of EUR 624 million in upgrades and expansion. The transaction is expected to not only alleviate the government’s obligations to support and invest in the airport, but also generate income that will allow the government’s resources to be focused on more pressing needs, especially under COVID-19 conditions. The

71. Bulgaria’s poor ranking in road fatalities in the EU is due to its poor road quality, combined with behavioural/cultural factors and limited sanctioning. Poor road quality in turn is the result of low share of highways and first-class roads, and a generally low share of roads in good condition (which has moved in a narrow band between 40 and 41 percent since 2012) due to limited investment in maintenance.

72. Vessel Traffic Management Information System

higher quality of service for air passengers and improved efficiency of cargo handling is also expected to lead to positive spillover effects for the entire economy⁷³.

The logistics sector has to substantially catch-up to fully realize its potential and thus enhance the economy's competitiveness. Most logistics services are currently integrated within the industry and there is no outsourcing to professional logistics providers, which misses the opportunity for economies of scale or better efficiency. The quality of Bulgaria's trade and transport-related infrastructure has underperformed, with the country scoring 3.03 on the 2018 Logistics Performance Index. For comparison, the EU average is 3.77, whereas regional EU peers such as Romania, Croatia and Greece scored 3.12, 3.10 and 3.20, respectively.

Overall, further efforts are needed to upgrade road quality, with a focus on the highest-class roads as well as on the connectivity and accessibility to the Trans-European Transport Network and important economic hubs. To this end, a gradual increase of e-tolling fees up to their optimal level will generate much-needed resources for road maintenance. In addition, the government has yet to implement standards for greening and increase the resilience of the infrastructure to extreme weather events. Also, without dismissing electric vehicles and their future, more attention is needed on the modal shift from road to rail, and strengthening of rail freight transport as opportunities for greening the transport sector.

The country also needs to invest further in rail network rehabilitation and intermodal trans-shipment platforms to enable better integration and complementarity with road and logistics infrastructure, and support the development of the logistics sector, including logistics service providers. Finally, PPPs such as concessions can be further exploited to attract investment in targeted infrastructure facilities.

Digital infrastructure

The country's readiness for the digital transition is low, which will prove a constraint to faster growth going forward. Uptake of broadband services is still low – only 59 percent of households have a fixed broadband internet subscription compared to the EU average of 77 percent⁷⁴. The situation in rural areas is particularly worrisome, with only 1 percent of households benefiting from very high-capacity network technology, well below the EU average of 24 percent. Affordability does not seem to be a significant barrier,

73. The government also continues to improve the quality of the air navigation system as a component of the air transport infrastructure. The process is based on the implementation of specific Air Traffic Management (ATM) functionalities, with emphasis on common EU projects that aim to modernize ATM in Europe (Single European Sky Air Traffic Management Research and Development – SESAR).

74. Eurostat indicator isoc_ci_it_h, last accessed on 29.10.21.

as Bulgaria ranks 10th in the EU's broadband price index, which points to supply issues, particularly in rural areas, limited awareness and skills, as important barriers for broadband take-up.

International digital connectivity is currently sufficient but could appear constrained for an accelerated digital transformation, as it relies on a limited number of terrestrial links to its immediate neighbors as well as a decade old single submarine cable to Georgia. Increasing the diversity of international links to its neighbors, including additional submarine cables towards the east, would be important for the resilience of Bulgaria's digital infrastructure.

Bulgaria can complement investments in digital infrastructure under the NRRP through appropriate legislative, regulatory and investment initiatives, most notably: (a) ensuring that the legal framework is aligned with the European Electronic Communications Code; (b) implementing standards for greening and increasing the resilience of the infrastructure; implementing the EU's Broadband Cost Reduction Directive (2014/61/EU) to promote the sharing of underground ducts and towers through the creation of a Single Information Point; (c) digitalizing energy and infrastructure; deployment of backbone infrastructure and last mile connectivity in underserved areas; and (d) encouraging private investment in the deployment of additional international links.

5

**STRENGTHENING
THE INCLUSIVENESS
OF BULGARIA'S GROWTH**



Faster growth is not sufficient to make growth more inclusive, but efforts to support more inclusive development have the potential to strengthen social cohesion and sustainability while feeding through to faster growth in the longer-term. Given demographic dynamics and the continued emigration of young cohorts, there is a pressing need to bolster access to economic opportunities and service delivery for all, and especially for those who have been left behind. The areas for strengthening the inclusiveness of the country's growth path that were identified in the first SCD—employment and mobility, social assistance and pensions, and health care—continue to require focus. In addition, this SCD contains strengthening social stability and trust as a fundamental element of inclusive growth—included under sustainable growth in the first SCD—and considers an additional binding constraint linked to rapid demographic change: municipal service delivery to close gaps in service delivery across regions.

Economic participation and mobility

Investing in stronger skills is a key priority for strengthening growth. A needed corollary is to enhance labor market programs and policies to support gainful participation for all groups, reskilling and upskilling and worker retention. While labor market performance was strong in the years before the COVID-19 crisis, the combination of aging, high inactivity rates for some groups, high outmigration, and labor shortages is expected to pose a substantial challenge to future growth (EC 2020d). Actions in this area have become more pertinent following the pandemic, as some issues may impede a smooth recovery. Strengthening the labor market foundation is therefore a critical element of both inclusive and faster growth.

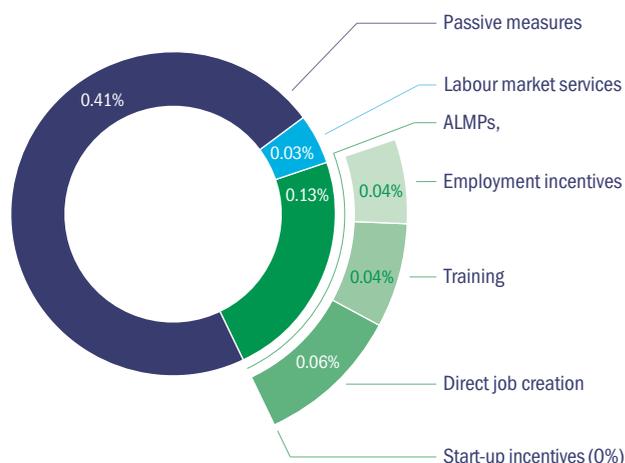
Adequacy and efficiency of financing

More resources focused on active measures are needed, alongside a longer-term vision to strengthen labor market support policies. Current spending on labor market policies is low (accounting for 0.6 percent of GDP in 2018, less than half that in EU-27 countries⁷⁵), with the bulk of the expenditure on passive measures such as unemployment benefits rather than on active measures that aim to strengthen gainful employment prospects or earnings capacity. Mixed progress has been seen on active policies: while spending on training has gone up since 2014, spending on job creation has gone down significantly, with limited spending on start-up incentives since 2016. Increased investment in ALMPs is necessary to encourage participation, innovation and dynamism, particularly in the context of the COVID-19 crisis (IME, 2019; OECD 2021; World Bank 2014).

75. Eurostat data, indicator lmp_expsumm, drawn on January 11, 2021.

To address challenges related to financing, the government could introduce actions to maximize the impacts of resources allocated to labor market programs. Increased investment in ALMPs is necessary and, in addition, the government could direct available public resources to programs with a track record of results by: a) strengthening monitoring data to also track participants' labor market outcomes in the post-program phase and improving reporting and consolidation of these data where this information is already collected; b) making quantitative evaluations a standard practice and ensuring that the results of these evaluations are considered in a systematic way for planning purposes; c) strengthening and further developing capacity of local service providers to assist hardest-to-place groups and then monitoring the quality and relevance of services they offer via result-based financing contracts.

FIGURE 5.1 Labor Market Expenditures by type as percentage of GDP, 2018



Source: Eurostat Imp_expme, drawn on January 11, 2021.

Notes: Passive measures include unemployment benefits, and ALMPs aim to strengthening gainful employment prospects or earnings capacity among beneficiaries, such as employment services, training, employment incentives and direct job creation.

Relevance and quality

While the importance of activating and upskilling the workforce is recognized by the government, overall participation in labor market programs remains limited. The Government has introduced a substantial number of programs and services⁷⁶ in recent years. Challenges however still remain regarding their sustained availability, efficacy, and ability to address the complex needs of segments of the inactive population. Furthermore, the design and scale of the programs are not always informed by monitoring and evaluation activities or by mechanisms that monitor evolving labor market needs, including at the local level (IME 2019; OECD 2021; World Bank 2014). As such, only 8 percent of job seekers and those wishing to work use activation or labor market services, the fourth lowest of reporting EU countries. Less than half of job seekers used employment services, instead opting to seek jobs through friends, family, and trade unions. The limited utilization of services provided by the employment agency together with the relatively low participation in ALMPs suggests that job seekers may not be aware of the availability of these services or may not find them useful.

Since the challenges to finding work faced by the Roma differ from the broader population, targeted strategies would be needed to support stronger labor market

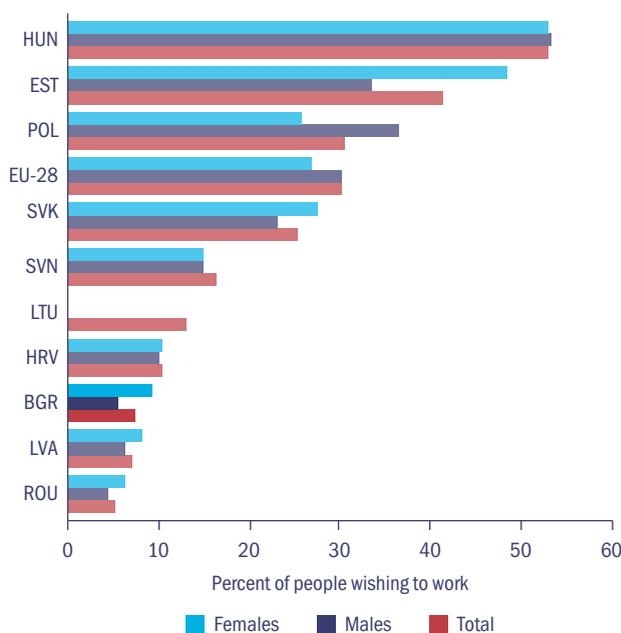
76. In 2020 the National Employment Agency (NEA) has elaborated 7 standardized "packages" of services for specialized support to the unemployed facing specific difficulties to access the labor market. Furthermore, the Ministry of Labor and Social Policy (MOLSP) has started the process of integration of services for improved outreach to the most vulnerable groups on the labor market who are also among the poorest.

outcomes. The Roma population face barriers to employment due to spatial segregation and discrimination, among others, and require tailored interventions to facilitate labor force engagement. To effectively reach marginalized Roma, it will be instrumental to strengthen targeted mediation programs, including the ‘youth mediators’, ‘Roma mediators’, ‘mobile labor office’ and ‘post-employment counselling and mentoring’.

Despite efforts to assess regional employers’ demand for specific skills, approaches for assessing local skills profiles in real time are missing. In 2018, the Employment Agency (EA) started a bi-annual survey among employers to assess their demand for labor, as well as their needs of specific skills at the district level, in the short term (i.e. next 12 months), as well as in the medium run (3 to 5 years). The feedback received is summarized by EA in a publicly released report and is used to determine the trainings in professional qualifications and key competences for unemployed people, offered by the EA. Yet, the country lacks a national structured skills intelligence system that can identify the skills profile of the local workforce in real time. This could include sub-group assessments based on data available with a higher frequency such as online vacancies, particularly where there are markers to signal lagging foundational skills that impede labor market participation (including functional illiteracy)⁷⁷. Moreover, a special focus would be needed to support Roma and individuals from other minority groups where skill deficiencies are more prevalent (World Bank, 2016).

Efforts to reduce inactivity should concentrate on expanding and integrating services for vulnerable groups. Actions to achieve this objective are: (a) introducing or strengthening the services provided to various users to include coaching to employers hiring vulnerable groups, mobility support for domestic migrants, individual workability assessments for specific work places and jobs, adaptation of working processes and work places for people with disabilities; (b) further enhancing the provision of integrated labor support services to the most vulnerable groups by using multisectoral packages of support, relying on multidisciplinary teams that participate in different stages of the assistance, including initial diagnostic, individual plans and ongoing monitoring/evaluation of each case, and increasingly dedicating specialized substructures and trained labor mediators to serve specific

FIGURE 5.2 Participation in activation labor market policies by sex, 2018



Source: Labor Market Policy Indicators, DG Employment, Social Affairs and Inclusions. Indicator Imp_ind_actsup, accessed on 03.09.2021. Notes: The indicator covers LMP interventions in categories 2 through 7.

77. The latest data are from the 2011 census, when 1.3 percent of the adult population identified themselves as illiterate. The most severe problem with illiteracy was seen among the Roma, of whom 14 percent of those aged 25 to 64 identified themselves as illiterate.

hard-to-place groups; (c) integrating and harmonizing NEA's information system with the systems of other government agencies providing complementary services; (d) outsourcing some services to specialized agencies, including nongovernmental organizations (NGOs), especially for hard-to-place groups; (e) in-depth analysis of adult skills that can guide programs of adult learning; and (f) a national labor market and skills intelligence system to inform ALMPS.

System level challenges

Although the minimum wage increased several times between 2010 and 2020, the country does not currently have a specific legislation or defined process for setting and updating minimum wage levels. The minimum wage increased by more than 8 percent per year between 2010 and 2020, exceeding productivity growth. By 2020, the minimum wage was close to 60 percent of the gross median wage. However, more than 50 percent of minimum wage workers still report difficulties in making ends meet. Furthermore, substantial wage differentials across all skills level, especially relative to EU countries, drive most of the migration flows that have led to one in five Bulgarians living abroad.⁷⁸ Effective use of data, of stable and clear criteria for adequacy, and effective involvement of social partners are considered essential for predictable and adequate minimum wage revisions that reflect socio-economic conditions (EC 2020c).

While significant progress and investment has been made in the last years, the overall labor market system could be further strengthened. To move towards service integration and address fragmentation, the NEA introduced a case management approach and the MOLSP launched integrated centers for employment and social assistance (CESAs). Moreover, the National Labor Market database was introduced in 2010, representing a significant improvement compared to the previous system due to its capacity to collect more data, be compatible with European Social Fund data and host information on both national and regional labor markets. However, human resource constraints still limit NEA's ability to smoothly implement the case management approach, the integration of information systems managed by government agencies that provide complementary services is still limited, and some challenges in processing and providing detailed information and services needed by jobseekers and firms limit the capacity of the current information system to fully meet its objectives (IME 2019; World Bank, 2014, 2018). Furthermore, outsourcing and subcontracting of specific services is still not a common practice in Bulgaria, even if the increasing presence of NGOs in the labor market space offers potential opportunities (IME 2019; World Bank, 2014, 2018).

The introduction of a formal minimum wage setting process based on evidence, analysis and structured consultations with relevant stakeholder would promote

78. Analysis based on the 2011 EU-SILC and on the OECD-DIOC database shows that a Bulgarian low skilled worker can expect wages between 2 (Portugal) and 8 (Belgium) times higher by migrating abroad. Wages in Great Britain for high-skilled Bulgarian can be 1.5 higher.

the legitimacy of the process and ensure that minimum wages are set to a level that maximizes both social and economic effects. Doing this would require actions related to institutional and legal arrangements, analysis, and data: (a) introducing a well-defined process to gather structured inputs from all relevant stakeholders according to a pre-defined schedule, and based on sufficient funding; (b) setting stable and clear criteria to institutionalize the process, which would entail establishing clear targets⁷⁹ and ensuring regularity and timeliness of minimum wage updates; and (c) developing a plan that identifies data needs, staff requirements, and analytical priorities to ensure that relevant data are accessible on time, that analysis focuses on the relevant labor, social and economic indicators and that appropriate methodologies are defined to generate the evidence needed to inform the process.

Given automation, digitalization, the green transition, and the disruptions resulting from the COVID-19 pandemic, labor market policies will increasingly need to focus on preparing the current labor force for new jobs, informed by mechanisms that monitor evolving labor market needs, including at the local level. Actions to achieve this objective include (a) continuing to protect jobs via the wage subsidy program in the short-term, while gradually increasing the focus on upskilling and retraining policies, based on mechanisms to monitor evolving labor market needs and considering the implications of the EGD; (b) strengthening the existing labor forecast mechanisms by providing information on local labor markets, and (c) further supporting Bulgarians returning from abroad, who seem to face labor market challenges⁸⁰ through introducing services to smoothen the reintegration of return migrants, such as employment intermediation, support to start businesses, streamlined bureaucratic processes, and to encourage collaborations with Bulgarians living abroad.

Female labor force engagement

While gender gaps in education are reversed at the tertiary level, many of the challenges and expectations that women face have not narrowed to the same degree. The higher levels of education acquired by women (39 percent of women ages 25–34 had tertiary degrees, compared to 27 percent of men) have left younger women better placed to participate in a range of jobs. Gender segregation in education does however continue to be seen, for example with women continuing to be less engaged in STEM fields than men⁸¹, feeding into occupational segregation. While female employment rates have risen faster than men's since 2010, feeding into historical highs in 2019 (70.7 percent for women ages

79. For example, thresholds under which the minimum wage should not fall – such as shares of national median or average wages.

80. WB analysis based on 2014 EU-LFS ad-hoc module on migration shows that returnees are more likely than non-migrants to face unemployment. Moreover, highly educated return migrants are more likely to see occupational downgrading than their non-migrant counterparts. However, when employed, returnees are also more likely to have higher earnings and to be self-employed than their non-migrant counterparts.

81. For example, 25 percent of graduates in engineering, manufacturing or construction are women, compared to 66 percent of graduates in business administration and law (EC 2020c).

20–64, compared to 79.3 percent among men) and a gender gap in employment below the EU-27 average, the unadjusted gender wage gap has widened slightly over time although the gender earnings gap continues to be one of the lowest in the EU-27.⁸² However, participation rates—and corresponding gender gaps—vary significantly by age and widen considerably in family-raising years. See Annex 4 for further analysis.

Disproportionate care burdens in tandem with issues surrounding the affordability and availability of childcare, and gender norms on care responsibilities, continue to hamper the participation and re-entry of Bulgarian women in the labor force. Bulgaria has one of the longest and most generous maternity leave policies in the EU and world, ranking third in the EU for the duration of leave at full pay (UNICEF, 2019) and allows for leave sharing with fathers and a separate paternity leave provision. The low uptake of leave available to fathers (only 11 percent take leave, (Eurofound 2019)), combined with gender norms that contribute to women shouldering more child-care responsibilities⁸³, feeds into women having more career interruptions, longer spells outside the workforce—resulting in steep labor market penalties, including gender pay gaps and fewer women in managerial positions (see Annex 4)⁸⁴ and to eventual gender gaps in pensions⁸⁵. The proportion of children under age 3 in kindergartens and early childhood education and care is well below the 33 percent target set by the Barcelona objective. This is partly a reflection of generous leave policies, and also reflects the paucity of childcare facilities, the high burden of public kindergarten fees for poor families, and gender norms regarding the provision of care^{86,87}

82. Gender pay gaps reflect differences between the average gross hourly earnings of male paid employees and female paid employees as a percentage of average gross hourly earnings of male paid employees. These are in unadjusted form, since they do not take into account individual characteristics, and as such does not capture overall gender inequalities. The unadjusted gender pay gap rose from the 7th lowest in the EU-27 in 2007 (12.1 percent) to the 15th (14.1 percent) in 2019.

83. Women are disproportionately more likely to be engaged in care responsibilities as compared with men—39 percent compared with 26 percent for men. European Institute for Gender Equality: Gender equality index 2020: Bulgaria.

84. Eurostat Labor Force Survey ad-hoc module: reconciliation between work and family life, 2018. Indicator, lfo_18parlved. 89 percent of women with children reported a career interruption due to childcare, compared with 1 percent of men with children. The duration of career interruptions also differed significantly: 61 percent of men reported an interruption of 6 months or less, compared to an interruption of over a year among 91 percent of women, with over half of them over two years.

85. The gender gap in pensions in Bulgaria is about 30 percent, slightly higher than the EU-27 average in 2014 (Lis and Bonthuis, 2019). Eliminating the gender gap in hourly wages alone is estimated to reduce the gender gap in pensions by more than 15 percentage points, while eliminating the gap between hours worked and employment is estimated to reduce the gap by a further approximately 7 percentage points.

86. In the Eurobarometer 87.4 (June 2017): Perception of Security, and Gender Equality, on the gender equality module, Bulgaria had the highest proportion of respondents reporting that the most important role of a woman is to take care of the home and family (87 percent totally agree) and that the most important role of a man was to earn money (81 percent Totally agree), a little less than double the EU average along both dimensions.

87. The availability and use of childcare facilities also varies considerably: in Sofia, nearly a quarter of children under 3 are in creches, compared to less than 10 percent in Sliven, Kardzhali, and Pazardzhik (ESPN 2018). Public nurseries and creches for children over 10 months are concentrated in urban areas, with limited options available in rural areas, and the prohibitive cost of private alternatives contributes to women opting not to (re-) enter the workforce. The cost for private childcare can exceed a half of the mother's salary, making it impractical for mothers to return or start to work primarily to pay for childcare (ESPN 2018).

A range of supportive policies are needed to support further gender-equality in the labor force. The legislative framework and national strategy to support gender equality has been significantly advanced since the last SCD⁸⁸, laying out obligations and an action plan to support gender equality and ensure that a gender perspective is mainstreamed into planning and implementation. Opportunities to further enhance gender equality include: (i) support to life-course transitions through an expansion of access to affordable, reliable and quality childhood care and an extension of on-site out of school care for primary school aged children; (ii) enhancing equal parenting and engagement on the domestic front through reviewing leave policies and addressing bottlenecks to uptake among fathers and encouraging a more equitable distribution of early childhood responsibilities; (iii) developing dedicated labor services to support growth among those who have taken career breaks, marginalized women, including Roma, self-employed women and entrepreneurs — such as coaching, training, mentoring and networking opportunities, among others; (iv) finally, enforcing non-discrimination legislation and raising awareness through pay transparency, or highlighting good practices in gender-sensitive hiring and remuneration guidelines can further reduce gender gaps in pay and promotion.

Social safety net

Coverage and adequacy of poverty-targeted benefits

The coverage of social assistance benefits in Bulgaria is modest, feeding into a persistently high poverty gap.⁸⁹ About six out of ten poor in Bulgaria are covered by at least one social assistance program, with family benefits as the predominant program. Spending on non-contributory benefits remains low and the impact of social protection on poverty and inequality is limited compared to comparator countries: in 2018 social benefits (except pensions) reduced poverty by only 24 percent, compared to 30.8 percent in CEE and 32 percent in the EU-27⁹⁰ and, by 2019, this had declined to 20 percent. The decline in coverage and adequacy in recent years challenges the capacity of social assistance to narrow the gap.

88. Bulgaria adopted the Law on Equality between Women and Men in 2016, and also adopted the National Strategy for Promoting the Equality of Women and Men 2016–2020. The strategy has been implemented through annual national plans for promoting gender equality, which cover five priority areas: (i) increasing women's labor force participation and economic independence; (ii) reducing the gender pay and income gap; (iii) promoting equality between women and men in decision-making processes; (iv) combatting gender based violence and protection and support for victims; (v) changing gender stereotypes in society in different spheres of life. A further legislative amendment was introduced to strengthen protection for victims of domestic violence, through the amendment of the 2009 Law for Protection against Domestic Violence to criminalize all forms of domestic violence.

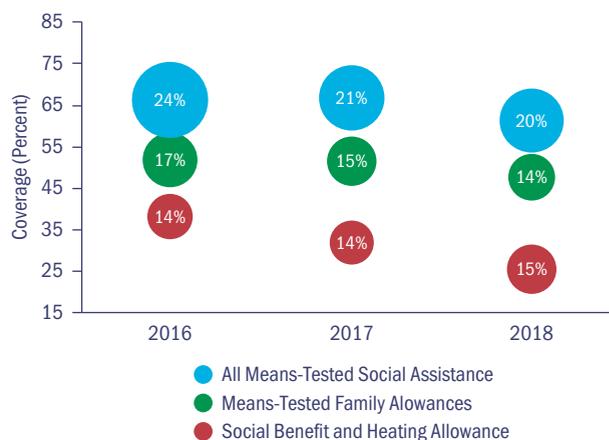
89. Eurostat — poverty gap in Bulgaria is 28 percent in 2019, compared to 25 percent EU-27 average. The Gini is 41 compared to the EU-27 average of 32.

90. Eurostat tespm050, last accessed April 15, 2021. The analysis uses income years rather than survey years.

Spending on means-tested social assistance programs is limited and systematic indexation has not been applied. Bulgaria spends less than one fourth of the average EU-27 expenditure as a percent of GDP on periodic means-tested cash benefits⁹¹. Furthermore, benefits levels are not adjusted through systematic indexation and key eligibility parameters, notably the GMI⁹², were kept unchanged in nominal terms for several years, limiting access to benefits. Despite 12 percent of Bulgarians experiencing a persistent risk of poverty⁹³, the coverage of the last resort income support program (monthly social benefit, MSB) dropped to less than 2 percent of the population (24,000 households) in 2019 and remained the same in 2020 despite COVID-19 impacts on earnings. The adequacy of benefits also declined: in 2018 means-tested benefits represented 20 percent of beneficiaries' disposable incomes, down from 24 percent in 2016. As a result of the combined decline in coverage and adequacy⁹⁴, in 2018 means-tested programs reduced the poverty gap by only 25 percent, and the Gini coefficient by only 1.3 percentage points after considering all other social protection transfers⁹⁵.

To improve the redistributive efficiency of social assistance, Bulgaria would need to address the coverage and adequacy challenges of its main poverty-targeted programs. Improving the coverage and adequacy of the MSB—one of the most cost-effective poverty targeted programs⁹⁶ and the most inclusive for a large range of poverty risks—requires an upward revision of the GMI and replacing the adhoc indexation with an automatic one. In addition, the coefficients used for the Differentiated Minimum Income (DMI) under the MSB should be reviewed to ensure that eligibility and benefit amounts are consistent with

FIGURE 5.3 Coverage and adequacy of poverty-targeted benefits for the poorest 20 percent



Source: WB estimates using EU-SILC 2017–2019 (income years reported).

91. Eurostat spr_exp_gdp, last accessed May 6, 2021.

92. The minimum income required to cover basic needs. It represents an 'anchor' to determine eligibility for some of the means-tested programs, and it is used to calculate the benefit amount a beneficiary is entitled to.

93. Eurostat, ilc_li51 indicator—persistent at-risk-of-poverty-rate defined as living below the 60 percent of the median disposable income for four consecutive years 2016–2019.

94. Adequacy is captured by the percent of disposable incomes covered by benefits.

95. While the 2019 changes in the access criteria and benefit value of the heating allowance led to an 18 percent increase in coverage compared to 2018, this could not offset the 2016–2018 trends in declining adequacy and generosity of social assistance support.

96. The MSB and the Heating Allowance are the most cost-effective poverty-targeted programs, with a benefit-cost ratio of 0.86. This compares to a benefit-cost ratio of 0.69 for the means-tested Child Allowance (CA), Bulgaria's largest means-tested program, which reaches almost a third of the population and thus has a lower poverty-targeting performance. For each \$1 transferred the poverty gap is reduced by \$0.86. Improving the efficiency of the CA would require a sharper differentiation between the eligibility thresholds used for the poorest and the near-poor beneficiaries, and would require more generous benefit levels for the lower-income tier to raise the share of funds reaching the poorest.

the poverty risk of various socio-demographic groups (in particular for elderly and children) and types of households.⁹⁷ Finally, some elements of the eligibility assessment (for example, ownership of assets) should be better regulated to allow for more transparency and to avoid the risk of discretionary/erroneous exclusion from the program.

Introducing earned income disregards or other in-work benefits could encourage self-sufficiency through work while continuing to support those unable to find jobs. Inactivity is relatively high in GMI-based programs, despite both the participation tax rate and the effective tax rate on increasing working hours being low compared to other EU countries.⁹⁸ Introducing temporary labor income disregards while increasing the GMI would avoid further disincentives to participate in the labor market or to increase work intensity. This should be accompanied by complementary active labor market interventions. In addition, the government should revise the MSB work requirements by making the number of days for community works consistent with the benefit amount, since the current structure may act as an impediment for beneficiaries to actively search and engage in more productivity activities.⁹⁹

Green: Affordability of clean energy sources for the poor

Energy poverty is estimated to affect a significant share of the poor in Bulgaria. Approximately 80 percent of the poorest 20 percent could not afford to keep their homes adequately warm or had arrears on utility bills in 2018.¹⁰⁰ The major program protecting the poor against energy poverty in Bulgaria is the heating allowance, provided only during the cold season (from November to March). However, more than 90 percent of heating allowance beneficiaries use solid fuel, which is cheaper than other energy sources, though with harmful impacts on the environment and health (ESPN 2020). Eligibility for the heating allowance is linked to the GMI but the DMI coefficients are 2–3 times more generous

97. The DMI is calculated by multiplying the GMI by an individually defined coefficient linked with age, health condition, and other family characteristics. Customized eligibility thresholds are calculated for each family, depending on the family characteristics relevant for the program. For example, an elderly person has different DMI coefficients for Social Pension, MSB, and HA. DMIs vary significantly: for example, they are set to 66 percent of GMI for adults living with others, 91 percent for children attending school, and 140 percent for a person aged 65 or more who lives alone (100 percent if living with others). While a child's probability of belonging to the poorest 10 percent of population is double that of the elderly, the DMIs imply more restrictive eligibility of families with children. Moreover, despite generous DMI coefficients for elderly living alone, the MSB covers a very low percentage of elderly living in poverty due to the more conservative DMI for adults under 65, affecting the eligibility of elderly living with others.

98. OECD.Stat database. Figures are for families with 2 adults and 2 children. An estimated 27 percent of working age beneficiaries (except those in education or retired) are inactive, compared to 10 percent in the general population.

99. Currently beneficiaries are required to perform low-skilled labor for 14 days per month, 4 hours per day, irrespective of the level of benefit.

100. EU-SILC. 52 percent of the poor could not afford to keep their homes adequately warm, and 47 percent had arrears on utility bills. Overall, 80 percent of the poor experienced at least one of these constraints.

compared to the MSB. As a consequence, the program covered about 8 percent of population and roughly one in four poor.

The heating allowance can be further strengthened to reduce energy poverty and support households to transition to cleaner fuels. In the context of the EGD and Just Transition, the government may consider not only improving the coverage and adequacy of the program (partially done in 2019), but also using it as a ‘smart safety net’ to incentivize the shift from solid fuels to cleaner fuels.

Integration of social assistance and public employment services

Bulgaria has started the process of integrating services for improved outreach to the poor and other vulnerable groups on the labor market. This process is implemented as a joint effort by the local Employment Bureaus and Social Assistance Directorates which apply a one-stop shop concept through the launch of CESAS. The CESAS implement various programs financed by EU funds, including family employment counseling for the long-term unemployed and social assistance beneficiaries, and comprehensive on-site services. The outreach and face-to-face approaches aim to increase the chance for job placement, reduce the share of long-term unemployed and discouraged persons, and encourage economic activity in small settlements in depressed regions.

There is scope to improve the coverage of the existing service integration initiatives and mainstream services based on evidence. The CESAS do not have nationwide coverage (only 71 percent of Employment Bureau Directorates provide these services) and their teams are small relative to caseloads. Furthermore, their financial sustainability and scale-up is uncertain due to dependence on EU funds. Finally, there is scope for a more systematic use of lessons learned from evaluations to mainstream these initiatives.

Social services

Social assistance services suffer from underfunding and insufficient coverage of needs. Social services in Bulgaria expanded over the last decade. However, not all municipalities provide social services, most of the new community-based and residential services are limited in scope and demand exceeds supply. Preventive services such as family counselling, or psychological support to avoid child abandonment and institutionalization are less frequent. Unmet demand (waiting lists) is a challenge especially for residential care for adults and elderly. At the same time institutions also report underutilization of their capacity, which implies gaps in planning and the spatial distribution of services. This reflects the requirement for of in-depth needs assessment and closer alignment of the service mix with the regional and local risk profiles. Strengthening quality assurance through full operationalization of the newly established Agency for Quality of Social Services is still

needed. Social assistance services, except for some cases mostly under the child protection strategy, lack effective operational coordination mechanisms among themselves as well as with social benefits and other public services such as education and health.

Opportunities to strengthen social services provision include: (a) addressing fragmentation, including of funding, through the rules and regulations accompanying the new Social Services Law (2019); (b) strengthening quality assurance through the Agency for Quality of Social Services; (c) development and adoption of the National Map of Social Services due by the end of 2021, as the vehicle for planning social services at the national level; (d) strengthening the provision of preventative services; (e) expansion of social services for adults and elderly where the Government acknowledges the challenge of meeting the increasingly complex needs of the target groups against the background of population aging and ensuing demand; and (f) introducing mechanisms for systematic monitoring and evaluation of the alternative care services. Of key importance is to promote an integrated approach to service provision, especially between the social and health systems, which is already regulated with the Social Services Law and embedded in regional strategies, building on the successfully tested innovative model of provision of early childhood development services.¹⁰¹

Pensions

Public pension system sustainability

The current pension system requires annual transfers from the state budget to fully pay all pension benefits each year. The latest actuarial report prepared by the National Social Security Institute (NSSI) (2019)¹⁰² shows that the current deficit in the pension system is about 3.3 percent of GDP, decreasing to 2.3 percent by 2035, and then will increase once again to reach 4.8 percent of GDP by 2070. Since the maximum permitted deficit under the EU's Growth and Stability Pact is limited to 3 percent of GDP, the pension system deficit uses up the entire permitted limit. This means that the public pension outlays will increasingly crowd out financing for other government initiatives and limit overall economic growth.

101. Integrated services provision was piloted under the Social Inclusion Project implemented by MLSP in 66 municipalities in the period 2010–2015. It promoted new early childhood development policies and new type of services (inter alia, for prevention of risks in early childhood, early intervention in case of disabilities, better coverage, and improvement of children's readiness for inclusion in the educational system). Project implementation continued after 2016 with funding from HRD OP 2014–2020. The next step would be the transition from project financing to sustainable state budget financing.

102. The NSSI's actuarial reports can be found (in Bulgarian) at: <https://www.nssi.bg/aboutbg/st/analyses/415-actuerreports>

The only long-term solution is to gradually either reduce benefits payable under the system or increase contributions. The 2016 reform in the public pay-as-you-go system increased pension contributions by 2 percentage points in 2017–2018 and introduced a gradual, annual increase of the retirement age (by 1, 2 or 3 months depending on the sex and specific year) and required increased length of service for both males and females. The retirement age is to be equalized for both sexes at 65 while the required years of service will reach 37 for females and 40 for males in 2037. However, this same legislation also gradually increased the accrual rate under the benefit calculation formula from 1.1 percent to 1.5 percent, but later amendments froze the rate at 1.2 percent. More recently, amendments to the Social Security Code once again increased the accrual rate, this time to 1.35 percent. In our view, this accrual rate will prove to be unsustainable, and it is inevitable that it will need to be decreased in the future. Current legislation does not provide for any such reductions, except for those who participate in universal pension funds (pillar 2). It would be best if any such reductions in future accrual rates and benefits were made automatically and gradually in order to control emerging pension system deficits.

Yet, measures to directly reduce individual benefits received, or to further raise the contribution rate, are unlikely against continued political pressure to further increase the accrual rate and pension benefits. Contribution rates for the five social insurance programs run by the NSSI are already 24.7–25.4 percent of wages for the mass category of workers, and strong resistance to further increases is likely.¹⁰³

The country can exploit opportunities to support the pension system deficit at manageable levels, as done by many other countries in the region. There is little chance that current benefit levels can be financed solely from payroll contributions, so some state budget financing will likely be a permanent source of revenue for the system. It is also inevitable that over time, new pensioners will need to receive smaller benefits as a share of their pre-retirement income than today's pensioners. These reductions need to take place in a systematic and gradual way, and citizens will need to assume greater responsibility for saving for their own retirement in the future, whether through the mandatory or voluntary pension pillars, or through personal savings.

Support to reduce elderly poverty

Pension benefit levels are the lowest among EU member countries and the fast-aging demographic trend is likely to keep the levels low. Pensions and old age savings

103. The range cited is a result of the contribution rate in one of the NSSI's funds, "Insurance against work accidents and professional illnesses" ranging between 0.4 percent and 1.1 percent depending on the administratively set risk of the occupation. On top of the cited contribution to the 5 funds of the NSSI, workers also pay a unified and mandatory 8 percent contribution for universal health insurance to the NHIF.

systems cover formal sector workers and provide some access for workers in the informal sector.¹⁰⁴ Benefit levels are the lowest among the EU member countries and the aggregate replacement ratio for pensions¹⁰⁵ decreased from 41 percent in 2018 to 34 percent in 2020 — the lowest in EU. Adequacy is also low when poverty risk is considered: 30 percent of contributory old-age pensions beneficiaries live under the relative poverty line and face a poverty risk 1.3 times higher than the national average in 2018.¹⁰⁶ As of July 2020, the minimum pension is 31 percent below the at-risk-of-poverty threshold, affecting around 800,000 pensioners (EC 2020f).

Old-age social insurance coverage in Bulgaria is low with the ratio of pension beneficiaries to contributors steadily deteriorating driven by a dwindling contributory base and an increasing number of beneficiaries. Future pension coverage is likely to be lower, which means heavier future reliance on social assistance, especially for those with low incomes and interrupted periods of participation in the labor market. Bulgaria has a means-tested social pension for people ages 70 and over whose annual income per family member was less than the GMI for the preceding 12 months.¹⁰⁷ The benefit value in 2020 is about 57 percent of the minimum pension, and the program covers about 4,200 beneficiaries.

There are multiple opportunities to reduce the share of the population at risk of poverty among elderly population segments. The instruments would need to be calibrated to maintain incentives to contribute to social insurance pensions while providing a safety net for those who fall through the gaps. Analysis using survey data suggests that just under 25,000 people over the age of 70 are not covered by social insurance pensions in Bulgaria — a low share of those aged 70 and above. However, among those who are not covered, more than half are at risk of poverty.¹⁰⁸ Bulgaria has a means-tested social pension for people ages 70 and above; however, the current design of the program (including eligibility criteria) restricts coverage and adequacy¹⁰⁹. While the social pension could be the right instrument to address the high levels of old-age poverty in Bulgaria, the program

104. The pension system consists of a defined benefit pillar and a defined contribution pillar; the contribution rate was raised to 19.8 percent in 2018 and has since remained stable albeit lower than 2007 levels (22 percent). The system covers employed and self-employed persons, including farmers. However, the pension formula considers the whole duration of service and the insurable income in each month. It thus strongly favors unbroken careers, to the disadvantage of many self-employed and those in irregular employment (EC, 2018a).

105. The aggregate replacement ratio (Eurostat, *ilc_pnp3* accessed on 2.11.21) is gross median pension income of older people aged 65–74 years relative to gross median individual earnings from work of the population aged 50–59, excluding other social benefits. The data for Ireland and Italy was not available at the time of preparing this report.

106. Bank staff calculations using EUSILC 2019

107. The monthly social benefit and the heating allowance are disregarded from the income-test.

108. World Bank staff calculations using EUSILC 2019.

109. The program covers 34 percent of the elderly who are over 70, not receiving a contributory pension and living in poverty. The benefit value in 2020 is about 65 percent of the minimum pension and covers about 4,200 beneficiaries.

currently fragments the social assistance benefits system and increases its administrative costs, as well as the costs for potential beneficiaries, especially those living in larger households who would have to apply for both the MSB and the social pension.

Opportunities to reduce poverty among the elderly population through the social assistance system include: (a) simplifying the processing of the social pension by introducing a streamlined income-test to promote better access, as well as improving the benefits provided to strengthen adequacy; (b) reviewing whether there is a need to further simplify the social pension through the automatic provision to those who do not receive contributory pensions; (c) consider consolidation of the multi-layered benefits system to ensure better coverage, through better aligning all GMT-based benefits; and (d) review the mandatory defined contribution pillar of the pension system (Pillar 2) from the perspective of implementation issues that reduce the inclusion of non-standard workers¹¹⁰, a growing force that will determine inclusion outcomes of the pension system in decades to come.

Health and long-term care

System strengthening

At the center of needed system-level reforms is the alignment of roles and responsibilities to support coherent decision-making structures. Although the National Health Insurance Fund (NHIF) is accountable for delivering the package of healthcare services guaranteed by the budget of the NHIF, to all insured individuals, the scope of the package is determined by the Minister of Healthcare. Furthermore, the NHIF is obligated to contract all providers that meet the basic standards set out by the Ministry of Health (MOH), with the implication that the NHIF does not have the authority to make selective contracting decisions based on efficiency and quality metrics or on population needs.¹¹¹ Finally, the NHIF lacks some critical legal instruments needed to become an ‘active’ purchaser, reducing its ability to fulfil its public financial management responsibilities and resulting in the government acting as the payer of last resort in the case of overruns.

Bulgaria needs an integrated healthcare information system capable of providing necessary information to the healthcare administration and health services consumers,

110. “Non-standard forms of employment” — also referred to as diverse forms of work — is an umbrella term for different employment arrangements that deviate from standard employment. They include temporary employment; part-time and on-call work; temporary agency work and other multiparty employment relationships; as well as disguised employment and dependent self-employment (ILO — <https://www.ilo.org/global/topics/non-standard-employment/lang-en/index.htm>).

111. An ambitious reform to introduce a National Health Map to enable selective contracting between the NHIF and health care providers in 2015–2016 was repealed by the Supreme Administrative Court in 2017. Dimova et al, 2015

and to advance e-health and telemedicine. Despite being a constant priority in all government programs (including in the recent National Strategy), the development of the e-health system has been significantly delayed. In 2020, as a result of COVID-19-related emergency needs, the long-awaited electronic prescription, electronic direction for medical-diagnostic activity (for tests for COVID-19) and electronic medical files/electronic health records were partially put into operation. Their introduction is the first step in the introduction of the National Health Information System. Citizens can now access their electronic medical files/electronic health records, which contain information on the prescribed and granted electronic prescriptions and electronic referrals. An Information System for Control of Medical Expertise has also been introduced, which maintains an electronic profile of all persons who have been or are subject to medical expertise. The system serves the entire process of certification and re-certification. Separately, a centralized National Health Information System was developed with the voluntary cooperation of several Bulgarian IT companies but this has never been embraced and put into operation by the government. Although e-health and telemedicine tools have remained underdeveloped and underutilized¹¹², the advances during the pandemic have provided a momentum that can be carried forward.

Opportunities to further embrace digital opportunities include: (a) continuing to develop the national information system with a platform that facilitates electronic data sharing and offers opportunity to enhance people-centered care and improve health system efficiency; and (b) advancing the use of electronic medical records and shared platforms to provide timely access to clinical information, and facilitate coordination of services and continuity of care.

Strengthening access to care through financial gaps and improving spending efficiency

A lack of functional social health insurance (SHI) and high levels of out-of-pocket spending reduce access to health care, usage of preventative services and early treatment, and feed into amenable mortality. Although legislation states that there should be universal health coverage, one in nine Bulgarians lacks health insurance coverage¹¹³ and coverage varies significantly across districts, from 84 percent in Varna to 97 percent in Kyustendil¹¹⁴. People without health insurance have access to emergency

112. The European Consumers Health Index assesses how well countries perform on of eHealth services and ranks Bulgaria as one of the countries with the least developed e-health system. Georgiev, 2020

113. Health insurance contributions are mandatory for all residents. The State pays the health insurance contributions for some population categories, among which are pensioners, unemployment benefit recipients, people under 18 years of age, students up to the age of 26 and PhD candidates – state funded education, people performing military service, people receiving social assistance benefits.

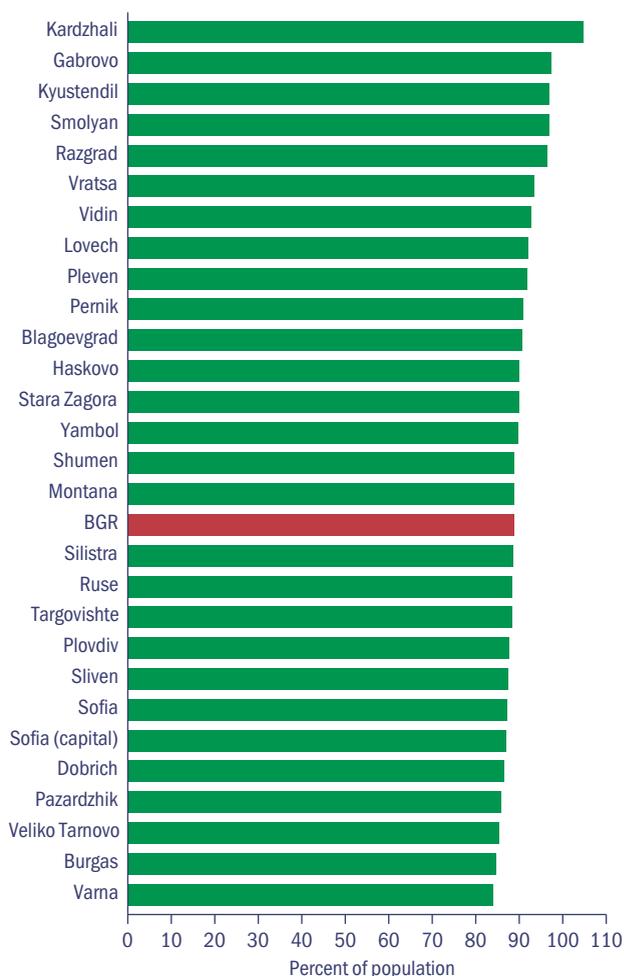
114. Data on healthcare coverage needs further examination due to: people being registered in Bulgaria, but living, working, and being insured in other EU countries; and those who pay SHI on business activities, e.g. income from rents, etc.

care, pregnancy coverage and treatment of several diseases¹¹⁵; however, they still need to pay out-of-pocket for other costs including for preventative care¹¹⁶. Despite relatively low reported unmet medical needs, the share of private expenditure in the sector is significant and could lead to unreported unmet medical needs and to inequitable health outcomes.

Total healthcare spending as a percentage of GDP is similar to the EU-27 average but is heavily reliant upon private contributions through out-of-pocket expenditures. Strengthening the financial stability of the healthcare system – which will require further public contributions to displace private – will need to be a key priority going forward. In 2018, Bulgaria spent around 7.4 percent of GDP on healthcare,¹¹⁷ compared to an average of 8.2 percent of GDP in the EU-27. However, the financing structure differs from other EU countries due to a heavier dependence on private contributions, resulting in Bulgaria having the third lowest share of financing from government mandatory schemes in the EU-27 and high rates of out-of-pocket expenditures. Spending is further skewed towards pharmaceuticals and medical goods and away from outpatient care: providers of ambulatory health care amount to just over 15 percent of total spending, compared to 26 percent in the EU-27¹¹⁸.

Opportunities for improving spending efficiency and addressing financing gaps, include: (a) addressing basic weaknesses in both the health insurance system (eligibility, benefits, purchasing) and the

FIGURE 5.4 SHI Coverage by district, 2019



Source: IME, Regional Profiles: Indicators of Development: <https://www.regionalprofiles.bg/en/>

115. These include HIV/AIDS, tuberculosis and psychiatric diseases.

116. OECD/European Observatory on Health Systems and Policies (EOHSP) (2019). Despite this access gap, only 2 percent of the population reported unmet needs for medical examinations in 2018 and 5 percent of lower-income households (EU-SILC, 2018).

117. Eurostat indicator hlth_sha11_hc, accessed on 11.04.2021.

118. Eurostat indicator hlth_sha11_hchp, accessed on 11.04.2021. Hospital financing accounted for 38.6 percent of current healthcare expenditure in 2018, just below the EU average of total healthcare spending, followed closely by retailers and other providers of medical goods with 36.7 percent, almost twice the EU average, adding up to a total of three-quarters of total spending in 2018. The share of government financing for the system varies significantly between healthcare providers: government financing for hospitals and ancillary services is the EU average, but the financing for residential long-term care facilities, ambulatory health care, and retailers and other providers of medical goods is considerably lower.

health delivery system; (b) improved risk pooling by enrolling the most vulnerable uninsured through reforms of the NHIF's eligibility and enrollment processes; (c) restructuring the benefit package and cost-sharing elements, particularly on pharmaceuticals, to improve coverage; (d) explicit protection from excessive out-of-pocket expenditure (OOPE) for the poor; (e) fixing loopholes in current provider-payment policies, such as extra-billing, informal payments, and referrals to uncovered private services by dual practitioners, would lessen OOPE; (f) aligning roles and responsibilities among agencies, to strengthen stability of rules and coherent decision-making structures; and (g) rebalancing healthcare expenditure through decreasing private expenditure in favor of government expenditure with a focus on primary health care and residential long-term care facilities.

Introducing hospital sector efficiency measures

The healthcare system remains hospital-centric, not well-targeted towards emerging needs, and requires a deep reform. The main sources of hospital funding are the Clinical Pathways. Their prices are set administratively (through negotiations between the NHIF, and the Bulgarian Medical Union) – some are overfunded, while others are underfunded (OECD/EOHSP 2019). As a result, most of the state-, district-, municipally-, and university-owned hospitals are operating at a loss and piling up debts, while keeping total hospital expenditure around EU levels.

The growing burden of noncommunicable diseases and need for stronger preventative care mean that Bulgaria would need to rebalance service delivery over time, through gradually shifting from inpatient care and transferring services and capacity toward other care levels. Limits of how much hospitals can deliver are hard to enforce, and hospitals have incentives to increase the volume of services. This is also an indirect result of the insufficient administratively set prices for some pathways, leading to an induced demand for hospital care, as well as cross-subsidies between clinical pathways. In addition to the need for a vertical optimization of providing healthcare services, there are also regional differences and inefficiencies, which could further limit the access to quality and timely healthcare services. There has been a rise in hospital beds since 2005, contributing to Bulgaria having the second highest density of hospital beds in the EU, which is counter to trends in the EU (OECD/EU 2020). The total number of beds in general hospitals¹¹⁹ in Bulgaria is 55 per 10,000 population in 2019, but it varies between 28 beds in Dobrich district and 92 beds in Pleven district¹²⁰.

Opportunities to reduce dependency on the hospital sector include: (a) strengthening primary health care coverage, quality and access; (b) developing the hospital and primary

119. The precise Bulgarian term is “multi-profile hospitals for active treatment”

120. World Bank team's calculation based on NSI data on the number of beds in multi-profile hospitals for active treatment and annual average population for 2019.

health care reforms implementation road map; (c) developing new hospital services purchasing model (incentivizing out-patient services, quality of care and efficiency in management); (d) providing financial incentives for promotion of coordinated out-patient care models; (e) developing a comprehensive data system to enhance hospital system management and efficiency; (f) increasing hospitals accountability; and (g) improving micro-level management of individual hospitals and quality of care.

Elderly care, including long term care (LTC)

Despite an increasing burden of chronic diseases and an aging population, development of long-term care is lagging, while acute care beds have continued to grow (Dimova, 2015). Total spending on long-term care is 0.3 percent of GDP in 2019 compared to an average of 1.7 percent in the EU¹²¹. A large share of the elderly are cared for informally, while the rest are either in inpatient care or in residential care centers (OECD/EOHSP 2019). In 2020, the demand for homes for adults outpaced supply (IME, 2021). Around two thirds of total financing for long-term care is provided by the government, however, it is not part of the package of healthcare services for those insured with NHI, rather through the budgets of the MOH, MOLSP, and municipalities, with the rest coming from out-of-pocket payments. In Bulgaria, children are expected to provide care to their aging parents, grandparents, and other relatives (Gerlinger 2018; Pitheckoff 2017). Due to this cultural value, Bulgaria has been quick to adopt a model of home and community-based services (HCBS) (Pitheckoff 2017). The number of HCBS rose from 21 in 2003 to 369 in 2008 (current status unknown), a development that enabled the elderly to remain in their own communities (World Bank 2010).

Potential measures to strengthen long-term care include: (a) increasing the scope of medical LTC services in the package of healthcare services for those insured with the NHI which can help alleviate financial constraints for households, in coordination with social-sector support services; (b) shifting away from institutional solutions to home-based LTC through the use of technologies such as telemedicine. In addition, home-based care, rehabilitation centers, day care, and outpatient care should be adjusted to support the elderly care and LTC; (c) increased and joint (health and social) financing to enhance care coordination at the local level; (d) implementing a needs assessment and care of patients at the local level through local strategies; (e) strengthened monitoring and evaluation of the quality of LTC services for evidence-based decisions at the local and national level; and (f) conducting an institutional assessment to identify the set of services, tools and incentives and monitoring needed to strengthen LTC provision.

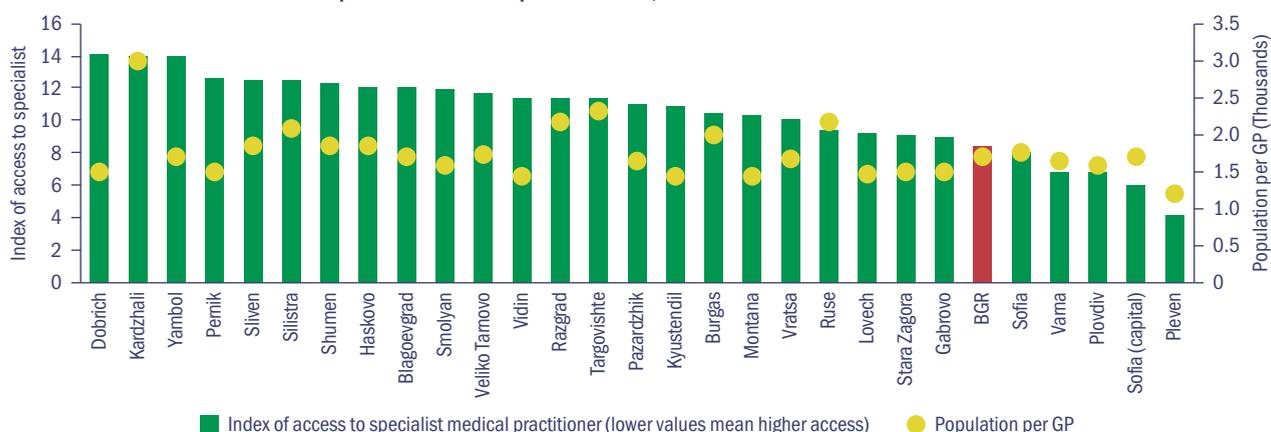
121. EC (2021b) – Table 1.

Strengthening primary care provision

Primary health care, at present, does not serve as the foundation of the health services provision. The system has two general drawbacks. First, GPs have a quarterly quota for referrals for medical specialist, diagnostic tests, and hospital care, which is either insufficient or overused (GPs reach the quotas before the end of the month), forcing patients either to wait for next month's referrals or to bypass the system at the cost of paying out of their pockets (OECD/EOHSP 2019). The first problem disproportionately affects employed people and households with lower income, while the second one leaves patients facing the entire bill for diagnostics and patient care. The problem is further exacerbated by medical specialists who work in ambulatory and hospital care simultaneously, having a financial incentive to refer the patient to hospitals (World Bank 2015). Regional disparities show further constraints and uneven access to healthcare services.

There is a critical need to shift toward more strategic service delivery models that promote primary health care and integration of care between and across health care and social sectors. Integration of care implies the delivery of care in appropriate settings and adequate coordination and continuity of care across settings. Primary care is to be considered as essential delivery platform with regulated and structured access to other providers (for example, specialists, hospitals, diagnostics).

FIGURE 5.5 Access to GP and specialist medical practitioners, 2019



Source: IME, Regional Profiles: Indicators of Development;

Note: Medical specialties include internal diseases, cardiologists, pediatricians, surgeons, orthopedic traumatologists, urologists, infectious disease specialists, obstetricians and gynecologists, ophthalmologists, neurologists, psychiatrists, radiologists, etc.

Opportunities to strengthen PHC include: (a) expansion of the role and responsibilities of health care professionals in PHC provision, including enhanced role of nurses; (b) capacity building and adequate resources for PHC; and (c) reform in PHC service delivery model to incentivize chronic care coordination, better care quality and access to services.

Inclusive and sustainable regional development

Regional and municipal service provision tailored to shifting population dynamics and needs

Bulgaria faces the dual challenge of declining populations in most medium and smaller sized cities and increased urbanization and growth pressures in a handful of larger cities. Shifts in population concentrations affect the provision of local services and regional development patterns. Around 74 percent of the population lives in urban areas and cities, the majority of these in cities were planned for ten times smaller populations than living there today¹²². Despite a declining population, most cities in Bulgaria are growing in built area coverage, with the majority of new development in the fringes of cities and in peri-urban areas (expanding into former agricultural areas), while lack of maintenance of buildings, and undeveloped brownfield sites in cities are well-documented.

Variations in the capacity of local government to provide services and implement projects and investments impact on the quality of service provision and leave the poor and most marginalized heavily affected. Various sectoral assessments point to a significant lack of local government capacity to plan, design and implement projects and initiatives. The brunt of such capacity constraints can be felt by the poor and the most marginalized who have higher likelihood of living in informal areas of the cities where both quality of housing and access to municipal services and infrastructures are constrained. For example, municipal waste management systems vary significantly across regions, both in terms of wastewater connections and solid waste management. Enhancing metropolitan planning and service delivery in larger cities, while shared services across localities could improve efficiency and access in smaller towns.

Opportunities to strengthen municipal service provision include: (a) a shift in planning and investment to differentiate between growing cities and those in decline, and right-sizing investments for shrinking cities. This should be supported by capacity building that is differentiated by city dynamics and paired with targeted investment funds for lagging municipalities and; (b) for each area of municipal service provision, ensuring that there's a national government department with the appropriate mandate to actively enable and support local governments. Different entry points could be considered to enhance the quality and access to individual municipal services. On solid waste management services, steps to enhance and equalize the efficiency of the service, include an in-depth analysis of municipalities that have more limited municipal solid waste services or that show higher than average cost for waste related activities, and designing interventions to improve efficiency.

122. Voluntary National Review – Sustainable Development Goals. Bulgaria 2020.

Access to affordable and safe housing

Availability of affordable, safe, and well-located (for job opportunities) housing units can play a critical role in raising living standards and in facilitating labor mobility within the country. However, housing affordability and a weak rental market pose a major hurdle for city dwellers. The cost of housing relative to prevailing income levels is very high, which makes it difficult for even relatively well-off households to purchase or rent any housing in cities.¹²³ This particularly affects young adults, limiting their inability to access better job opportunities available elsewhere. The number of informal and illegal settlements has been increasing, raising the share of the population in poor quality housing with inadequate infrastructure¹²⁴. No rental subsidy for the poor and marginalized is available to afford housing units that are close to potential job opportunities. Less than 5 percent of the country's housing stock is leased in the rental market, severely limiting housing options for the poor. The housing situation is particularly precarious for the Roma (World Bank, 2017, see Annex 3 for more details).

In addition, poor quality housing structures threaten safety, the quality of life and contribute to societal energy inefficiency. In the cities of Sofia and Plovdiv, a fifth of the population lives in pre-2000 multifamily housing and nearly 70 percent of this population was found at high seismic risk (World Bank, 2016). The majority of Bulgaria's housing stock comprises dated socialist-era multi-family buildings, many of which are made of prefabricated panels blocks that are not resilient to disaster risks. More than three-quarters of apartments are in buildings older than 30 years that suffer from decades of limited maintenance. Functioning homeowner associations are not highly prevalent to undertake necessary capital repairs, as financial incentives and support toward necessary skills to form and operate associations are weak.

Opportunity to enhance access to affordable and safe housing units: alongside adopting and implementing the Draft National Housing Strategy, opportunities include: (a) maintenance and retrofitting programs of multi-family apartment buildings given the significant seismic risk; (b) strengthening and facilitating homeowners associations as well as partnerships with the private sector; (c) in-situ upgrading programs to address the severest deficiencies in housing conditions faced by marginalized communities, including Roma populations, as well as introducing household targeted rental subsidy programs with which households can seek rental units close to economic opportunities; and finally (d) strengthening the housing data system — particularly at the local level — to feed into phased targeted interventions in cooperation with the private sector.

123. World Bank, 2017. The average housing price ranges from EUR 550–800/m² for the less desired homes in older buildings to EUR 800–1200/m² in new buildings in more desirable locations in Bulgaria's larger cities. Given the national average monthly household income of EUR 477,24 this means that a large majority of the population, i.e. people below the 60th income percentile, cannot afford to buy or even rent a house in urban housing market

124. National Report for Bulgaria on the Tenancy Law review, "TenLaw: Tenancy Law and Housing Policy in Multi-level Europe".

Social stability and trust

Lack of trust in the government and a growing sense of injustice put Bulgaria's social and political stability increasingly under strain. Perceptions of high levels of corruption combined with low underlying trust have fed into political instability in Bulgaria and have hollowed out the social contract, triggering frequent mass protests. In comparison to structural peers, trust in politicians and government is relatively advanced but in absolute terms and in comparison, to aspirational peers, trust is limited (see social institutions in Annex 2). Corruption has undermined public trust in government: 62 percent of citizens signaled they tended not to trust government in 2019, a lack of confidence that has remained broadly stable over time.¹²⁵ Judges are perceived to face interference and pressure from economic interests, government and politicians, undermining confidence in the judiciary (see Annex 2).^{126,127}

The independence of the media from political and economic influence remains a challenge and reduces both accountability and public debate around policy. Concentration of media ownership, weak independence of public media, and a dependence on government money for advertising and information campaigns make the media vulnerable to influence. A focus on short-term coverage, that reports on decisions rather than provides substantive analysis, has reduced the ability of the media to enable public deliberation, inform policies and hold public officials accountable.¹²⁸

Citizens' concerns regarding inequities have been deepening and social polarization is increasing. Bulgaria stands out as the EU member state with the highest perception of social exclusion (Eurofound 2016), the majority (84 percent) identify a lack of social rights as a serious problem (EC 2021) and 42 percent do not feel that they have equal opportunities to improve their personal life situation (EC 2018b). Political connections and knowing the right people are perceived as critical to advance in life (97 percent), while

125. Eurobarometer, indicator on public opinion capturing trust in national institutions. "I would like to ask you a question about how much trust you have in certain media and institutions. For each of the following media and institutions, please tell me if you tend to trust it or tend not to trust it: the Bulgarian government." Latest indicator from November 2019.

126. Bulgarians are concerned that the judiciary is not able to effectively fulfill its role. With a score of 44 (out of 100) Bulgarian courts have long had one of the lowest levels of trust of the population of all EU-27 countries and 76 percent of Bulgarians identify interference and pressure from government and politicians as the reason for lack of independence of their judicial system (Flash Eurobarometer 483).

127. Furthermore, perceptions of corruption interfering with political processes are on the rise. In 2020 Bulgaria is one of the three EU countries with the highest score in Transparency International's Corruption Perception Index Bulgaria, Hungary and Romania all score 44 on Transparency International Corruption Perceptions Index 2020. EU average score is 66.

128. Bulgaria ranks 111 in Reporters Without Borders Press Freedom Ranking 2020, far behind its European peers, and a deteriorating in its ranking at 100 since 2015. The second lowest ranking EU member state is Hungary in position 89.

fewer believe that education (84 percent) or hard work (88 percent) is a key component for doing so. Social polarization is on the rise, in particular with respect to minority groups¹²⁹.

Bulgaria's civil society sector is an important catalyst for social reforms but struggles to gain trust from the government and the general public. Even though Bulgaria is the lowest scoring EU member state in citizen engagement (Eurofound 2018), civil society organizations (CSOs) have played a critical role in the formulation and public discussion of social policies in Bulgaria.¹³⁰ The legitimacy of CSOs is increasingly questioned from government officials as well as Bulgarian citizens (OSI 2018). The space for the work of CSOs specialized in the protection of minority groups (LGBTI, Roma and Turkish Bulgarians) has furthermore been curtailed in recent years (Bertelsmann Transformation Index, 2020).

Social networks are, however, a source of stability and resilience, particularly for marginalized communities. While interpersonal trust in Bulgaria is among the lowest in the EU, World Bank research in Northwest Bulgaria found strong and valued social fabric in communities in lagging regions, reducing mobility in favor of retention of networks. This was particularly pronounced among the Roma. Support from these social networks and informal community efforts have been a key source of resilience, especially during the COVID-19 pandemic, for the most marginalized communities.

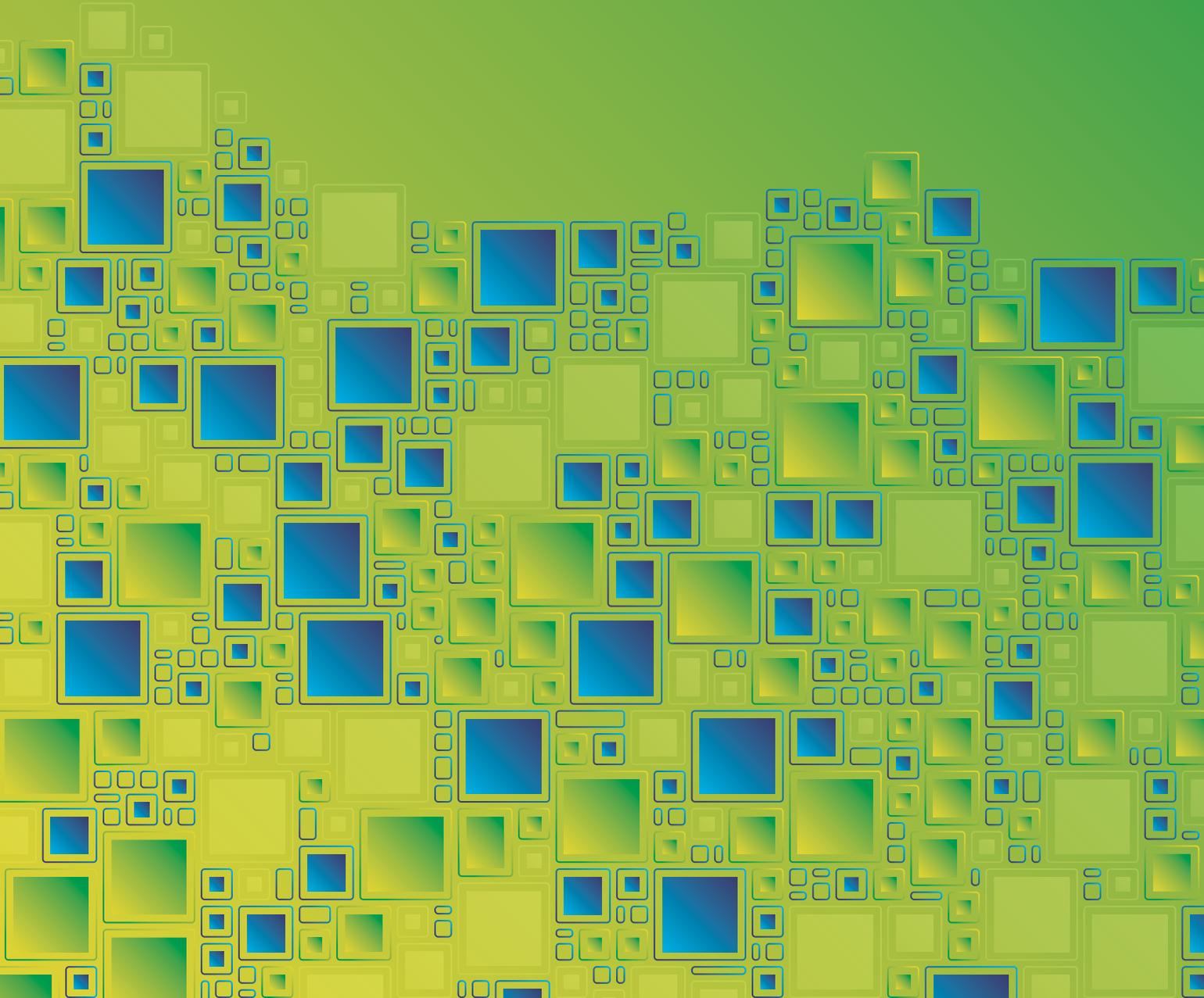
Opportunities to improve social and political stability in Bulgaria include further investment in accountability, trust, and social cohesion. Priority actions would include (a) increasing transparency and accountability of government bodies and service providers, leveraging the existing open data portal and e-government platforms; (b) expanding opportunities for social dialogue, citizen engagement; developing a social consensus on the government reform agenda and reform initiatives and ensuring that vulnerable population groups are adequately represented and consulted in the social dialogue processes; and (c) investing in social cohesion and the closure of basic infrastructure and services gaps by supporting local governments and partners to develop inclusive and effective service provision.

129. Commissioner for Human Rights of the Council of Europe, 2019. The share who stated that were opposed to equal rights for LGBT people increased from 18 to 25 percent between 2012 and 2018 (Bogdanov et al. 2019) and half (51 percent) noted they had heard public statements expressing disapproval, hatred or aggression towards ethnic, religious or sexual minority (Open Society Institute Sofia (OSI) 2018)

130. CSOs were key drivers behind the 'Persons with Disabilities Act', the 'Act on 'Social Services' or the design of policies to tackle the informal economy. European Commission (2020d)

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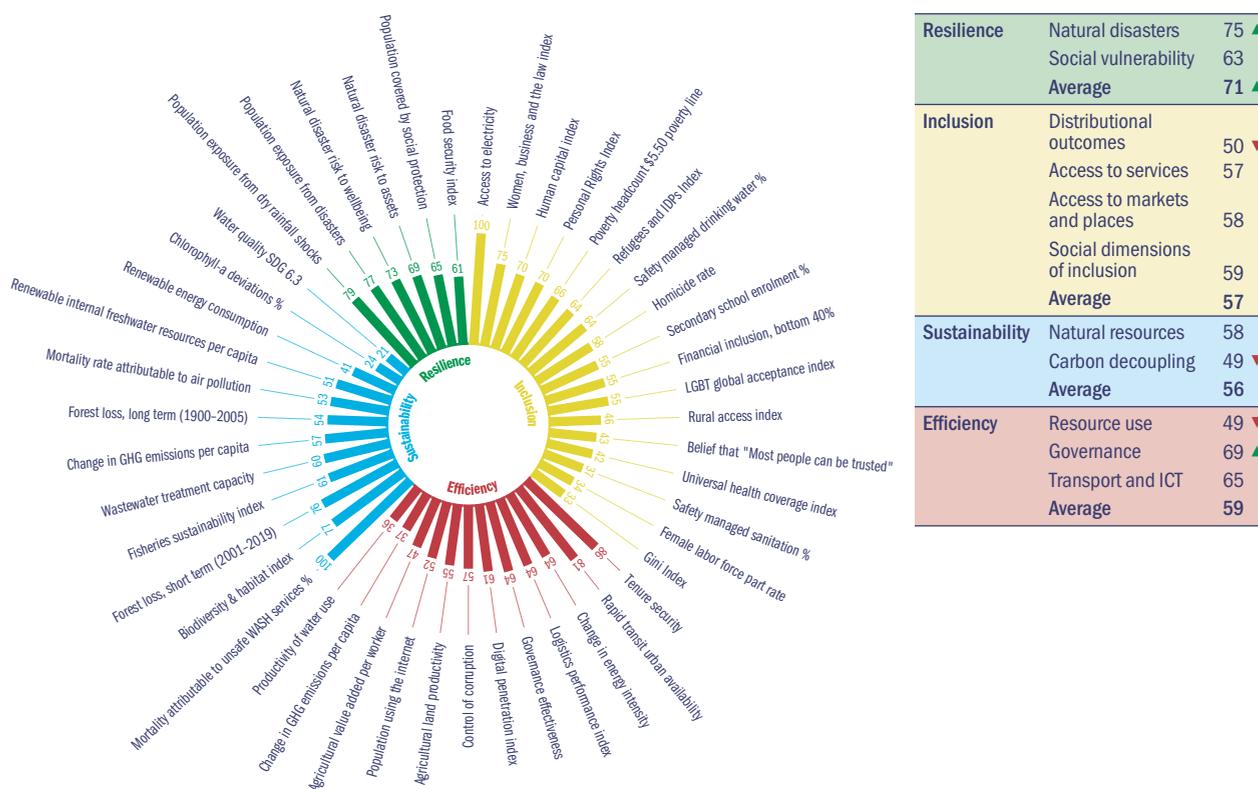
GREENING BULGARIA'S GROWTH MODEL



Government strategy and policies to achieve the goals set by the EGD

Bulgaria faces substantial sustainability challenges. Its economy remains highly energy and carbon intensive, natural resource degradation proceeds largely unabated and pollution presents substantial economic and social impacts: Bulgaria ranks highest in the EU-27 for air pollution (PM_{2.5}) related deaths by total population¹³¹. The country has yet to define conservation objectives for the critical habitats in NATURA 2000 designated sites, as per Art 4 of the habitat's directive, to reduce biodiversity loss. Progress on ensuring compliance with urban waste-water collection and treatment targets, as well as waste management objectives, has been scant. According to the World Bank's RISE ranking which ranks

FIGURE 6.1 Resilience, Inclusion, Sustainability and Efficiency (RISE) framework



131. Expressed as “years of life lost” (YLL) attributable to PM_{2.5}, NO₂ and O₃ exposure. Air quality in Europe EEA: 2020

country based on their performance along Resilience, Inclusion, Sustainability, Efficiency dimensions Framework, sustainability is the area where Bulgaria scores the lowest, below the global average.¹³²

Even before EU accession, Bulgaria's sustainability policy was driven by the framework set by Europe and this continues to be a driving force for the national transition. The 2019 EGD¹³³ raises the level of policy ambition. In Bulgaria as elsewhere, achieving the EGD's objectives means triggering an economic and societal transformation which require both policy makers and citizens to fully own the agenda. So far the impact of the EU policy framework on Bulgaria's actual climate and environmental policy direction has been filtered by national considerations of costs and tradeoffs for the country's competitiveness and growth prospects. The co-benefits and opportunities brought by investments in clean air, improved landscapes, biodiversity or clean agricultural production tend to receive less attention. Meanwhile the costs of inaction are widespread and increasingly known by the population: according to the latest Eurobarometer surveys, Bulgarian citizens consistently score higher than the EU average for perceptions of the relevance of environmental outcomes.

Delayed action will likely turn into a drag on the economy itself. In addition to being inconsistent with the general direction set by the EGD, Bulgaria's overall trajectory of largely stagnant GHG emissions will not only increase pressure to reduce emissions in non-emission trading systems (ETS) sectors but also lead to a range of stranded assets across sectors, which investors will shy away from. The combination of top-down policy direction stemming from the EU EGD framework and bottom-up demands from citizens' continued attention to environmental concerns will place substantial pressures on national authorities to more convincingly place sustainability at the center of economic decision-making. Effective and impactful use of the Recovery and Resilience Facility (RRF) and the new programming period of cohesion funding will certainly be crucial to meet this challenge. The country will however need to overcome their institutional constraints limiting the implementation of existing policy frameworks, and pay due attention to the political economy aspects and inclusion implications of the green transition, particularly their social and spatial impacts.

132. RISE scores indicate Bulgaria's percentile ranking against countries in the world (n=167). Scores range from 0 - 100, with higher scores indicating better performance relative to other countries. Aggregate score averages all indicators across the 4 pillars using equal weights. Bulgaria performs below global average in Sustainability pillar, above global average in the other three pillars.

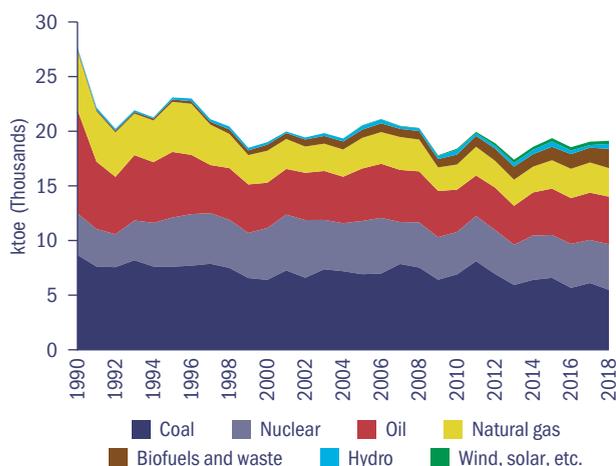
133. The EGD main target is to turn Europe into the first climate-neutral continent by 2050 whilst responding to a host of other environmental challenges, such as bio-diversity loss, pollution driven natural assets degradation; waste etc, and at the same time aiming to stimulate the economy and improve citizens' quality of life.

Decarbonizing Bulgaria's economy

Bulgaria has ample margins to reduce the carbon intensity of its economy. With fossil fuels dominating its primary energy supply (29 percent coal, 23 percent oil, 14 percent natural gas), and the highest energy intensity among EU member states (at 414 kg of oil equivalent [kgoe] per EUR 1,000, about 3.5 times higher than the EU average of 118 kgoe/EUR 1,000), Bulgaria is the most carbon-intensive economy in Europe, with a GHG emission intensity (0.88 kg of CO₂ per EUR 1,000 of GDP in 2018) over three times as high as the EU average (0.26) (Eurostat).

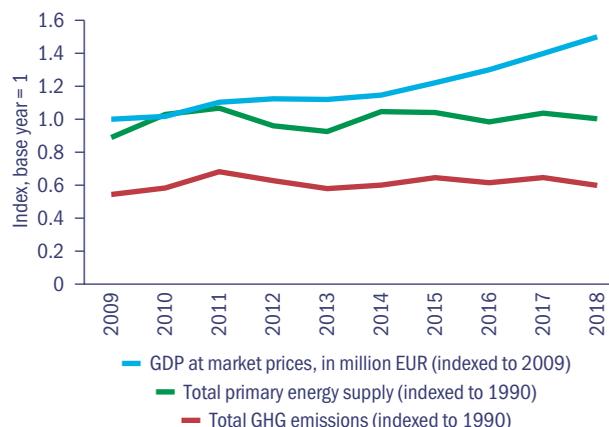
Recent decarbonization progress has however been patchy. After recording a steep fall—similar to other post-communist economies—overall GHG emissions have stabilized at around 60 percent of their 1990 levels since 2009, driven by three factors: the continued presence of carbon-intensive sectors in the country's economic structure, limited progress in achieving energy efficiencies and in encouraging renewable energy penetration, and the rising carbon intensity of the transport sector.

FIGURE 6.2 Primary energy supply by source



Source: IEA

FIGURE 6.3 Energy supply compared to GDP and GHG emissions since 2009



Source: IEA; Eurostat.

EU climate neutrality targets will require a raised level of domestic ambition. Bulgaria's National Energy and Climate Plan (NECP) 2021–2030 contains targets in line with EU minimum requirements¹³⁴ which will likely need to be revised upwards. Sectors covered by the EU-ETS—power and heat generation, energy-intensive industry, and commercial aviation—will likely face continuing higher carbon prices. Additional pressures will emerge for non-EU-ETS sectors, for which current requirements call for stable emissions

134. The NECP's key objectives included i) reducing primary energy consumption by 27.9 percent and final energy consumption by 31.7 percent (2007 baseline); and (ii) increase the share of renewable energy from 20.5 percent (2018) to 27.1 percent.

compared to 2005 that Bulgaria is currently not on track to meet¹³⁵. Bulgaria's power, gas, and district heating (DH) suppliers will face price pressures as the EU moves toward more stringent targets and more expensive GHG mitigation measures. To achieve this higher level of ambitions, Bulgaria will be able to access substantial amount of funding made available through the RRF and Cohesion Programming Period, particularly to promote energy efficiency (including under the 'Renovation Wave for Europe').

Bulgaria is currently implementing the final stages of energy market liberalization, and it recently amended its Energy Act. As of early 2021, only the residential sector still has access to regulated prices, after non-residential consumers fully transitioned to the competitive retail market in October 2020. Plans are to fully phase out regulated electricity prices by the end of 2025. Participation by residential consumers in the competitive market has been near-zero so far; while full liberalization will increase consumer choice it could also increase price volatility and fraud, from which consumers will need to be protected (see discussion in Chapter 5 on social assistance support to support the energy poor). The energy act amendment will in parallel boost support for renewable energy penetration. Bulgaria's 2020 obligations under the previous energy and climate commitments were unfulfilled, despite huge potential for energy efficiency and emissions reduction. The challenges involved in attaining the new targets is substantial and will require a high degree of technical and institutional capacities, in addition to more sophisticated financing arrangements. Until a few years ago, Bulgaria offered very generous and unsustainably high feed-in tariffs for renewable energy. These then had to be slashed and renegotiated, thus limiting further RE penetration. Similarly, residential energy efficiency programs offered 100 percent subsidies for renovation of multifamily apartment buildings which similarly could not be sustained despite the very high demand. On both fronts, the lack of careful policy design and ancillary regulatory reforms (including market mechanisms) led to a stalling of progress.

Further renewable energy growth will be challenging and require careful planning. The share of energy from renewable sources in gross final energy consumption has doubled over the last 10 years, with wind and solar standing at 1.8 GW of installed capacity as of 2020. To achieve its NECP targets, Bulgaria envisions adding 2.65 GW of additional renewable power generation capacity (2.2 GW of solar, 250 MW of wind, and 230 MW of biomass). Integrating such large quantities of variable renewable power will require grid flexibility, strong regional integration as well as other complementary investments, including modernization of hydropower plants to allow for pumped storage. Additional renewable energy penetration would also contribute to new electricity supply that could serve and help decarbonize the transport and heating sectors through progressive electrification,

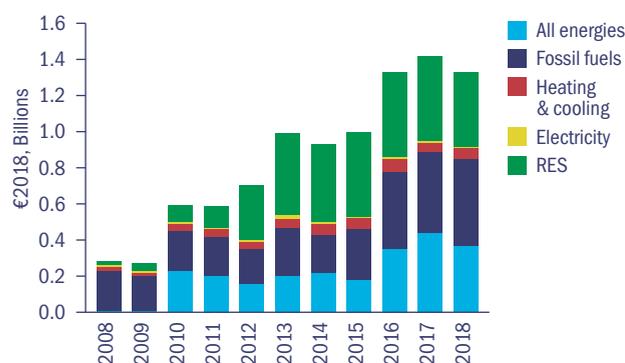
135. Bulgaria is currently not on track to meet GHG 2030 targets under the Effort Sharing Regulation. Under the original 40 percent EU-27 target, Bulgaria's 2030 target for GHG emissions not covered by the EU Emissions Trading System (non-ETS) is -0 percent compared to 2005, as set in the Effort Sharing Regulation (ESR) and was projected to have a gap of 8.1 percentage points to the 2030 ESR target under the measures outlined in the draft 2021-2030 NECP.

in turn leading to additional storage opportunities and grid flexibility. Furthermore, Bulgaria's transmission system operator Electricity System Operator (ESO) has outlined an ambitious strategy to increase the installed capacity for renewable energy from 1.8 GW to 4.3 GW by 2024. Accordingly, it is projected that in the period 2020–2024, wind farms of 700 MW, solar parks of 1.6 GW and 219 MW in biomass capacity will be installed in Bulgaria in line with the outlined scope of energy sector projects. ESO received requests from 22 investors since the beginning of 2021 for connecting renewable energy plants under development to the grid. Their combined capacity is 1.97 GW.

There is a need to reduce the prevailing implicit or explicit fossil fuel subsidies.

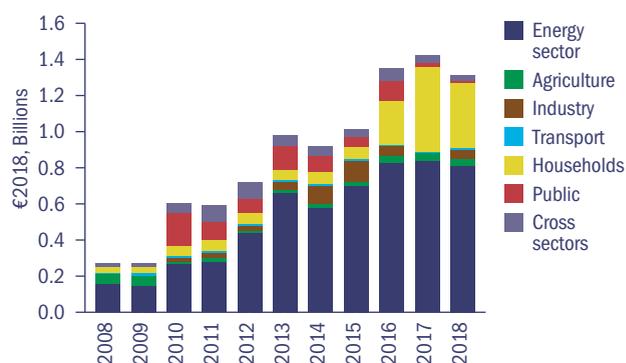
Bulgaria—like other countries in Europe—is falling short in its efforts to decarbonize due to policies that continue to incentivize fossil fuel usage, most notably subsidies that include fiscal support, public finance and investment through SOEs (ODI and CAN, 2017). Energy tax relief policies—in the form of exemptions or reductions—can also be found across member states (EEA 2016). For example, the energy use of households is subsidized or exempted from excise and value-added taxes in several member states, and there are partial energy and carbon tax exemptions for agriculture, industrial sectors and public transport in many others. These fossil-fuel subsidies are problematic since they disadvantage clean energy and hamper the transition to low-carbon structures, through skewed price signals. By preventing the equalization of marginal abatement costs across sectors, exemptions increase the economy-wide cost of decarbonization. According to the methodology used by the European Commission (EC, 2020), which focuses on direct transfers, income/price support measures, and tax expenditures, fossil fuel subsidies in Bulgaria have more than doubled during 2008–2018, despite the EU-27 commitment to phase out fuel subsidies. The largest share of subsidies goes to the energy sector (61 percent of the 2018 total) followed by subsidies to households (27 percent). The sustainability of subsidy phase out measures requires a clear understanding of the stakeholders affected—both along sectoral value chains and among population's deciles—in order to design policy packages capable of addressing their ensuing impacts, particularly on the most vulnerable, and make the reform more broadly accepted.

FIGURE 6.4 Energy subsidies by category



Source: EC, DG for Energy.

FIGURE 6.5 Energy subsidies by sector



Source: EC, DG for Energy.

There is no clear roadmap for sustainable heating, and district heating's reliance on fossil fuels casts further doubts on its long-term outlook given the climate policy landscape. District Heating (DH) currently serves 18 percent of Bulgaria's population, reaches most urban centers, and represents about 20 percent of final energy consumption for heating (the third-largest source behind firewood and electricity). Decarbonizing DH will be an uphill task, as heat plants rely almost exclusively on natural gas and coal. The share of renewables utilization for DH remains very small, at less than 1 percent. Further, many DH utilities have difficulties escaping the vicious cycle of institutional, technical, and financial decline, as heat tariff increases combined with poor service quality resulted in a large-scale flight by consumers to electric heating or individual boilers, which in turn diminished the economies of scale of DH systems. If DH is now subject to decarbonization requirements, its financial viability will be further tested. A sustainable heating strategy will require working hand in hand with municipalities to identify opportunities to decarbonize DH networks with aggressive energy and operational efficiency improvements to ensure the long-term financial performance and service delivery, or develop plans for those that are not able to do so. The large-scale investments in sustainable biomass use, which are currently envisioned, can address co-generation for heating purposes and waste-to-heat.

The transition will require substantial investments, with commercial financing to be complemented by public resources where markets are not yet viable (for example, energy efficiency). The NECP estimates investment of EUR 42.7 billion over 10 years (about 7.6 percent of GDP annually) to meet its targets. Frameworks for private investment in renewable power generation and combined heat and power are in place and generally working well, and the country has already transitioned away from more expensive feed-in tariffs to more market-based feed-in premiums. But public financing will still be needed where commercial investment frameworks are less mature, including distributed renewables for power and heat and energy efficiency in buildings.

Properly structured and competitively tendered PPPs can be critical to fill the financing gap towards resilient and decarbonized infrastructure while at the same time maintaining fiscal sustainability. Private sector capital mobilization is instrumental in supporting further structural reforms to improve the environment for investment and business and by promoting a mix of public and private sector financing options, including PPPs. Building on the momentum gained through recent PPP transactions, further improvement of the PPP regulatory framework and reforms to strengthen the business environment can leverage significant private sector participation in the development of key infrastructure to meet decarbonization targets and spur the green transition.

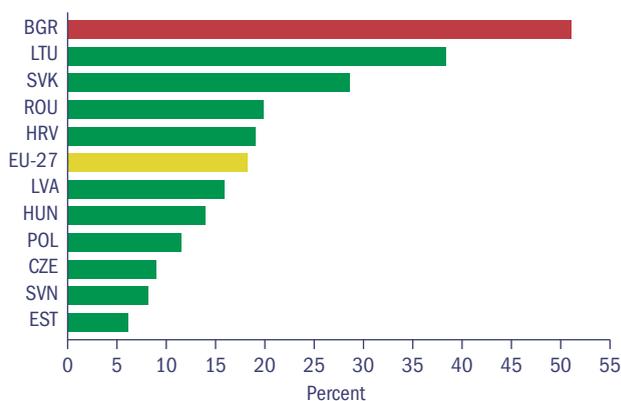
One of the key barriers for Bulgaria's green transition is the low level of digitalization of the energy system, notably the power transmission and distribution networks, which need to be modernized to improve efficiency and accommodate the incorporation into the grid of a larger share of decentralized renewable energy (for example, rooftop solar power). The NRRP envisages significant investments for the digital transformation and

development of the information systems and real-time systems of the Electricity System Operator (ESO). In addition to the digital transformation of the ESO, priorities include (a) encouraging the power transmission and distribution companies to commercialize excess capacity on fiberoptic networks (for example, optical guard wire, OPGW) and facilitating infrastructure sharing (towers, poles, ducts, rights of way) as part of the Single Information Point; (b) supporting the joint connectivity and power transmission interconnections with neighboring countries, including through submarine power cables; and (c) collaborating with the transport ministry to develop a joint strategy for e-mobility, including promoting the deployment of connected charging stations across main transport corridors and in urban/rural areas as part of the electricity grid.

Although Bulgaria has achieved its stated energy efficiency targets, there is ample scope for further progress, as residential energy efficiency programs have yielded patchy results. By 2019, Bulgaria had achieved 88 percent of the energy intensity target (reduction by 41 percent compared to 2005) and 86 percent of the absolute energy savings target. As the most energy intensive economy however, the potential for energy savings is much higher, as evidenced by the fact that household expenditure on energy is among the highest in the EU-27, despite Bulgaria having the lowest electricity prices. The government has implemented several energy efficiency programs in residential buildings, but, despite years of successive initiatives, about two-thirds of the multifamily apartment building stocks remain to be renovated. The most recent National Energy Efficiency Program (NEEP, with a budget of EUR 1 billion for 2015–2016) and the Regions in Growth program focus on multifamily apartment buildings and provided a 100 percent subsidy to more than 2,000 buildings. With demand outpacing available financing, the program will need to be more sustainably financed and scaled up. In line with the 2050 Bulgarian Long-Term Strategy for Renovation of the Building Stock, a second phase of the NEEP for multi-apartment buildings will need to gradually phase in commercial financing, while moving toward better targeting of subsidies to households in need. In parallel, a separate, equivalent national program targeting single-family buildings (SFBS) will need to be set up to promote energy efficiency and fuel switching in SFBS, which are critical to reduce air pollution. Lastly, large untapped efficiency potentials exist in non-residential sectors—including public buildings, industry, transport, water supply, and public lighting—and the government should develop programs and financing schemes to scale up investments in these areas.

Despite recent improvements, energy poverty in Bulgaria remains severe. A third of the population is in debt toward utilities and over half of low-income households are unable to keep their homes adequately warm. Low-income levels and energy inefficiency in the

FIGURE 6.6 Energy Poverty: Share of low-income households unable to keep home adequately warm (2019)

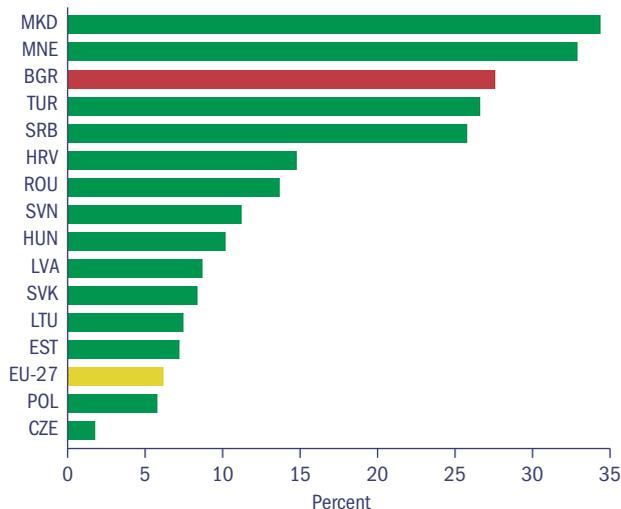


Source: Eurostat, accessed May 17, 2021

Note: Low-income households defined using AROP, as households below 60 percent of median equalized income.

housing stock result in many energy-poor Bulgarians, despite relatively low nominal energy prices and price controls in place for electricity and gas. Household expenditure on energy, at just under 10 percent, is among the highest in Europe. Several measures are in place to protect low-income households from high energy costs, but coverage remains insufficient. Heating aid is provided to vulnerable households to cover their heating expenditures during winter (November 1 - March 31), but 78 percent of poor households report not receiving heating allowances. A social tariff for electricity has been under discussion for several years but is still awaiting implementation. Poor households are also less likely to benefit from improved building energy efficiency because many cannot afford the necessary upfront costs or the ability to get a bank loan. As Bulgarians are pressured to switch from low-cost solid fuels (e.g., firewood, coal) to cleaner fuels for heating, the impact on poorer households could be exacerbated without mechanisms in place to support both investment costs in heat source replacement and thermo-modernization and heating costs.

FIGURE 6.7 Energy Poverty: Share of all households in arrears on utility bills (2019)



Source: Eurostat, accessed May 17, 2021

Progress with decarbonization will require attention to the political economy aspects of carbon pricing and liberalization reforms, starting with the identification and mitigation of impacts on the poor and vulnerable. The government will have to carefully consider the potential displacement of jobs, most notably in coal mining, thermal power plants, and related sectors, through the strategic use of EU funds and gradual phase-out of fossil fuel subsidies and redeployment of associated fiscal savings. Social assistance programs that aim to reduce energy poverty will need sufficient coverage and effectiveness to mitigate the impacts of higher EU-ETS prices on power, gas, and DH, as well as price impacts of policies to replace biomass with clean heating and cooking fuels. The EU's Modernization and Just Transition Funds can help facilitate the economic transition of regions and communities heavily dependent on mining or energy-intensive industry. In parallel, however, the government should plan for a gradual phase-out of fossil fuel subsidies at national and sub-national level and utilize the associated fiscal savings to support those affected by the energy transition. In 2013, total post-tax subsidies to coal, petroleum and gas amounted to USD 18.22 billion, the highest in the EU relative to the size of the economy (Coady, 2015).

Reducing the carbon intensity of the transport sector. In 2019 transport was the second highest source of GHG emissions in Bulgaria with a 16 percent share, after energy (40 percent) and ahead industry and product use (12 percent). While emissions from energy have tended to decrease over 2005 - 2009 the country has not yet been able to curb the growth of transport sector emissions. The road sector, and particularly long-distance transport, is

of particular concern given the aging trucking fleet, the lack of multimodal transport, and the underperforming logistic services. In 2017 Bulgaria adopted an Integrated Transport Strategy for 2030 which contains measures aimed at increasing the share of public electric transport, promoting the use of electric and hybrid vehicles, creating low-emission zones in large cities, introducing intelligent transport systems, and incentivizing modal shift. The RRF and the next programming period of Cohesion Policy provide excellent opportunities to support investments, but the country will also require institutional and fiscal reforms to incentivize modal shifts away from private/road transport and promote private investments in e-mobility infrastructure.

Turning Bulgarian cities into decarbonization drivers. Bulgaria can leverage urban regeneration and compact city development to reap significant decarbonization opportunities and spill over benefits such as improved quality of life and the preservation of cultural heritage. Various elements of urban form, including density, land use and the configuration of street networks can affect the carbon intensity of urban growth. To counter ongoing suburbanization and sprawling process in Bulgaria's growing cities, policy can consider: (a) improvements to spatial planning system and practices to limit future urban built area expansion; (b) better management, use and repurpose existing buildings in inner city areas (that is, bring existing vacant buildings into use); and (c) preparation and release of brownfields properties (often in government ownership) for desirable development.

Opportunities to decarbonize the economy include the following:

- Leveraging the compliance requirements attached to the EU financing framework (NRRP, Cohesion Policy, Modernization and Just Transition Funds) to enact bold decarbonization reforms across the economy and particularly in the energy, transport, industrial, and residential sectors, in line with the EGD and relevant acquis.
- Reducing implicit or explicit fossil fuel subsidies to support decarbonization through appropriate price signals, better reflecting the economic externalities of fossil fuels consumption, and unlocking fiscal savings to target energy poverty and ensuring fairness in the transition toward decarbonization.
- Expanding standards and financial mechanisms to increase the still low share of renewable energy for electricity generation, particularly through decentralized options, but also for energy efficiency and sustainable heating, by continuing to leverage public funding to complement the performance of enabling frameworks for private sector investments.
- Enhancing the financial sustainability of the energy sector, by reducing losses in energy and heat generation, transmission and distribution, including through the development of plans for sustainability of—or transition away from—existing and often flagging district heating systems.

- Pursuing Renovation Wave objectives through revamping of the Efficiency Program (NEEP) based on the introduction of commercial financing and allowing for continuing the renovation of multifamily apartment buildings on a more financially sustainable way, while setting up a parallel program targeting single-family buildings (SFBS).
- Ensuring implementation of the options to green the transport sector contemplated in the 2030 Integrated Transport Strategy (electrification of public and private fleets; low-emission zoning; and smart transport systems) but also through a decisive promotion of modal shifts encouraging rail for both freight and passengers.
- Inserting decarbonization objectives within urban development management policy, and investing heavily in regeneration and compact city growth through improved spatial planning practices, brownfields redevelopment and bringing vacant buildings into use.
- Enabling digital transformation of the electricity transmission network, including digital interconnection with neighboring countries.

Reducing waste and pollution by shifting to a circular, resource efficient economy

Air pollution

A large proportion of Bulgaria's population is exposed to air pollution levels exceeding EU standards, especially in winters in urban areas. According to the European Environment Agency (EEA), 65 percent of Bulgarians were exposed to PM₁₀ levels exceeding EU standards. Excessive PM pollution above Clean Air for Europe (CAFE) air quality limits increases the annual mortality of the adult population aged over 30 years by about 4 percent. In 2018, the EEA estimated that 13,920 premature deaths in Bulgaria were attributable to PM_{2.5} and NO₂ pollutants. A total of 28 Bulgarian cities typically exceed EU norms for air quality, and annual deaths from related respiratory illness are estimated to be around 107,000. In addition to its health and life expectancy impacts, air pollution has considerable economic impacts through its health system effects and reduced productivity and workdays lost across sectors. The majority (59 percent) of Bulgarians are very worried about poor ambient air quality as an environmental issue (2020)¹³⁶. The pandemic has further enhanced the attention to air quality standards among the population.

136. Clean Air Fund (2020). Air Pollution and COVID-19 Survey Results. Available at: <https://www.cleanairfund.org/wp-content/uploads/2020/08/Clean-Air-Fund-YouGov-Survey-Data-June-2020.pdf>

Most air pollution derives from residential heating systems relying on solid fuels.

About 420,000 households (54 percent of the population) use thermally inefficient solid fuel appliances (SEFAs—stoves and boilers) for household heating. As these account for at least 85 percent of local PM_{10} emissions, their replacement with more efficient models will be key. While residential heating is the major source of particulate matter pollution, road transport leads to increasing NO_x levels which typically surpass limit values in dense urban areas, with such exceedances particularly persisting in the city of Plovdiv. Although SO_2 tends to be heavily present in areas close to lignite-fired thermal power stations, the long-range reach of particulate matter poses a national level challenge.

The European Court of Justice (ECJ) found Bulgaria guilty of systematic failure to comply with EU Air Quality standards,

due to exceedances of limit values for particulate matter (PM_{10}) concentrations in non-compliant agglomerations. Despite the government's sustained efforts to reach compliance, resulting in slight decrease of PM_{10} emissions in some cities (as per monitoring data from 2019), implementation progress has remained slow. This triggered a second ECJ case against Bulgaria in the end of 2020 for failure to comply with the previous judgement, which could lead to imposing significant financial penalty. The implementation of Bulgaria's National Air Quality Improvement Program (NAQIP) (2018 - 2024) and the National Air Pollution Control Program (NAPCP) (2020 - 2030) aim to meet the requirements of the EU Air Quality (AQ) legislation, but further efforts would be needed to implement and fund AQ measures, particularly following the expected closer alignment of air quality standards with the WHO guidelines as part of the zero-pollution goal set by EGD.

Insufficient capacities for planning and implementation, including at local level, pose a key constraint to air quality management.

A coherent regulatory and investment framework integrating air quality and its ancillary health co-benefit as a result of decarbonization progress requires stepping up leadership and technical capacities. The limited ability of municipalities to prepare local funding applications and implement comprehensive measures could constrain the delivery of NAQIP and the goal to achieve full PM_{10} compliance with CAPE limit values by 2024. Limited capacities will also lead to suboptimal utilization of the available EU funding. With an estimated capital expenditure needed for replacing all traditional solid fuel heating appliances in the 28 municipalities in the range of BGN 0.79 to 1.68 billion (EUR 0.40 to 0.85 billion), Bulgaria needs an overall funding and implementation strategy and support by the national level that (a) aims to maximize the air quality impact of the funds; and (b) generates significant decarbonization co-benefits.

Water pollution

The significant environmental damage of untreated wastewater and agricultural runoffs threaten both ecosystems and human health. Insufficient water pollution controls, particularly from diffuse sources remains, allow fertilizers and pesticides to contaminate surface and groundwater bodies.

Pollution from closed uranium mines is of mounting concern. Further efforts and financing are required to ensure recultivation and restoration of the mining sites, as well as monitoring of already recultivated sites. The next generation of River Basin Management Plans will lead to a new program of measures (including measures in existing plans that have not been fulfilled) to redress the quality of water bodies. Yet, their implementation will also require substantial financial resources.

Marine pollution poses a serious threat to coastal activities and settlements. Over the past two decades, the Black Sea has become one of Europe's most polluted seas. Land-based pollution accounts for more than 70 percent of all marine pollution due to untreated nutrients causing eutrophication with substantial negative effects on blue economy sectors, such as fisheries, aquaculture, and recreational tourism. To combat eutrophication, Bulgaria needs to step up the implementation of Directive 91/676/EEC addressing water pollution caused by nitrates from agricultural sources, which provides for the prevention and reduction of surface water pollution from agricultural sources. Marine litter originating primarily from solid waste pollution poses a growing threat to marine and coastal biodiversity. It is a major source of public concern, causing serious economic damage to coastal communities, tourism operators, and the shipping and fishing sectors. To respond to the growing challenge of Black Sea marine litter, the National Action Plan for Marine Litter and the national Marine Strategy require substantial efforts toward their actual implementation.

Waste management

While meeting the EU waste management requirements and municipal waste generation rates below the EU average, Bulgaria still struggles in managing its waste.¹³⁷ National level efforts to create the necessary legislative and programming framework have not led to substantially reducing landfilling rates — 260 kg/year, or 64 percent as compared to 116 kg/year or 24 percent for the EU average (in 2018)¹³⁸. Although recycling of municipal waste (including composting) has slightly increased, at 32 percent (2018) it remains considerably lower than the EU average of 47 percent (Eurostat) and far from the 2035 target of 65 percent. As with other national level strategies and plans, the implementation of the National Waste Management Plan (2014–2020) lags, as evidenced by non-compliant dumpsites in need of closure, EU targets on recycling and landfilling which remain hard to attain, a challenging long-term financial sustainability of the sector, and lack of basic reforms — despite having adopted the legal basis for calculating waste collection fees fairly, Bulgaria has not yet applied the polluter-pays principle as regards waste management.

137. According to the Commission's 'Early Warning Report' (2018), Bulgaria is considered at risk of non-compliance with the 2020 municipal waste recycling target of 50 percent. The municipal waste recycling target has been reached at 32 percent in 2018 and remains considerably lower than the EU average of 47 percent and the target of 65 percent by 2035. Landfilled amounts have even increased since 2010 (69 percent) and is at 70 percent in 2016, as compared to 24 percent of EU average.

138. <http://eea.government.bg/bg/soer/2018/waste/obrazuvani-i-tretirani-bitovi-otpadatsi>

Different entry points could be considered to enhance the quality of solid waste management services. An in-depth analysis of municipalities showing limits to their solid waste services or higher-than-average costs for waste-related activities would allow for tailoring interventions to improve efficiencies. Setting uniform and transparent costs and revenue structures, based on solid reporting system would help guide municipalities' financial assessments of waste management activities and investments. And a thorough review of separate waste collection system and the role of PROs would identify pathways to increase recycling rates, including through behaviour change initiatives. As for other network services, the encouragement of metropolitan/intermunicipal cooperation arrangements would improve both planning and implementation by exploiting the synergies derived from joint strategic planning, integrated spatial planning and common service delivery systems.

Despite a positive track record on plastics recycling, the road to a more resource efficient and circular economy still lies very much ahead. Examining the 10 indicators in the circular economy monitoring framework, the circular (secondary) use of material in Bulgaria was 2.5 percent in 2018¹³⁹ — significantly lower than the EU-28 average of 12.2 percent, and actually decreasing in 2019 to 2.4 percent, according to Eurostat.¹⁴⁰ Resource productivity (how efficiently the economy uses material resources to produce wealth) in Bulgaria was EUR 0.39/kg in 2018 (2019 estimate EUR 0.42/kg) compared to the EU average of EUR 2.30/kg (2018) and remains among the lowest in the EU together with Estonia and Romania (EPR 2019). The combination of poor resource efficiency and lack of circularity in Bulgaria could lead to increased pressures on natural habitats, impacts on public health, and potential financial liabilities. A deeper understanding of the state of circularity in the economy would allow to delineate the constraints and barriers to resource efficiency gains and devise a package of circularity oriented policies and measures, where Bulgaria could build on some of its own positive experiences in the area of plastics and waste packaging recycling.

Main opportunities to reduce waste and pollution include the following:

- Speed up the renovation of the building stock with focus on old multi-family apartment buildings and single-family homes, to not only capture energy savings and GHG reduction potential, but also reduce the main driver of air pollution. The funds made available under the EU RRF and Cohesion Funding to support the Renovation Wave initiative present a once in a generation opportunity to spur investments with clear jobs and growth potential opportunities, including in peripheral labor markets.
- Strengthen the implementation of air quality regulations by focusing on public capacities particularly at the local level, with a focus on ensuring monitoring and enforcement.

139. https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=env_ac_cur&lang=en

140. https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=env_ac_cur&lang=en

Central—local government coordination, in addition to strong citizen engagement campaigns will be key to surmount institutional and political economy constraints to achieving compliance.

- Reduce the amount of landfilled waste and encourage the growth of the recycling sector, leveraging the positive track record in plastic recycling. Bulgaria's high rates of untreated landfilled waste are replete with job creation opportunities, as is the potential for local industries to turn toward more circular business models and industrial processes.
- Redress the country's poor record in water quality through a swift implementation of the Programs of Measures stemming from the new River basin management plans to address untreated wastewater and agricultural runoff.
- Allocate adequate financial and human resources to the rapid implementation of the National Action Plan for Marine Litter to capture the economic potential of the Black Sea's marine and coastal assets, particularly for local communities.

Leveraging natural assets and adapting to climate change

Bulgaria's rich natural capital is under threat. Bulgaria ranks among the countries with the greatest biological diversity in Europe, with 38.6 percent of the land covered by forests and with 26 percent of the total species described for Europe met in its territory and representing more than 2 percent of the species in the world. However, main threats to biodiversity in Bulgaria remain the loss of habitats resulting from urban and infrastructure development, unsustainable agriculture, and unsustainable exploitation of economically viable species. Bulgaria has designated Protected Areas under the EC NATURA 2000 directives with ensuing national legislation, but its effects are limited by poor enforcement of conservation and environmental regulations, ineffective management of protected areas, and insufficient financing (or inefficient spending of available financing). As of December 2020, NATURA 2000 management plans are incomplete and conservation objectives for critical habitats are left undefined, which led to an EC warning of a new infringement procedure.

Bulgaria can only leverage the significant economic value of its blue economic assets if it protects them sufficiently. A large part of the Bulgarian coastal economy continues to rely on traditional sectors, such as beach tourism, fisheries, maritime transport, and mineral extraction. Marine-based sectors combined generated roughly EUR 995 million in GVA in 2018, which is roughly 2 percent of the national GVA of all economic sectors and accounts for 3.4 percent of all jobs, placing Bulgaria above EU averages and above Italy

and France. Given Bulgaria's relatively smaller coastal and maritime space, these results illustrate the strategic importance of its maritime economy.

Bulgaria's blue economy potential is, however, constrained by the fragmented policy and management framework covering coastal and marine natural resources. A lack of consistency in sector regulations covering different markets results in unsustainable exploitation of marine natural resources and unabated marine pollution. A more holistic policy framework would enable the interaction and synergetic development of blue economy sectors and unlock EU funds through 2027.

Improving productivity of agriculture in Bulgaria requires rethinking structure and policy. The declines in the contribution of the primary sector to GDP (at 3.2 percent average 2018–2020, WDI 2021) and employment (at 6.6 percent average 2018–2019, WDI 2021) are clear signs of the sector undergoing a process of structural transformation. However, this process can be accelerated if agricultural policy supports the structural changes needed for sector performance. Although there are improvements in the average size of landholdings in the country, depopulation of rural areas, low labor productivity and high average age of agricultural producers limit the growth potential of the sector. Value added in the sector is limited, further stifling growth by limiting the integration of agriculture with the rest of the economy both up and downstream. Improvement in the value added per worker will require changes in the composition of agricultural production — diversifying away from commodities and towards higher value agriculture options — as well as critical investment in human capital and knowledge delivery in rural areas. Improvement in capital accumulation and innovation are also critical for accelerating the process of transformation from primary agriculture to an integrated agri-food sector, stimulating economic activities in rural areas and contributing towards job creation.

A transition to a more sustainable agriculture needs a concerted effort, shift in priorities and better targeting of interventions. Considering that a high proportion of the Bulgarian territory is part of the NATURA 2000 network (over 34 percent), nearly 20 percent of which is agricultural land (which is double the EU average) and over 50 percent is forest, sustainable intensification of production is the only option for improving sector performance. Mainstreaming biodiversity into productive landscapes, including promoting its agro-biodiversity, is something Bulgaria can achieve. Diversification of the production base from predominantly cereal and industrial crop production to high value crops (for example, fruits and vegetables), adoption of sustainable management practices, including increasing area under organic farming (currently at 2.7 percent of farmland), are steps in the right direction. Current concentration of production has led to depletion in soils and pollution of water bodies with soil nutrients (excessive application of nitrates and phosphates). Although close to a third of direct payments (the largest portfolio of support for agriculture) have been spent on greening, the actual environmental impact of this support measure is difficult to discern. The current target for physical area under agri-environmental and climate measures in Bulgaria (at 3 percent) is one of the lowest in the EU

and significantly below the EU average of 18 percent. Targeting support to practices that address soil quality, efficient water use, diversity, will be important for a successful green transition of agriculture.

The effective greening and climate proofing of Bulgaria's agriculture requires knowledge. The adaptive capacity of producers is determined by their knowledge in effectively mitigating adverse conditions. However, the incentives provided for knowledge development and transfer are not utilized. At the macro level, a small fraction of resources from the Rural Development Program is allocated (and absorbed) for knowledge. Bulgaria does not have an operational group created under the European Innovation Platform (EIP) to address concrete and practical solutions to fostering knowledge and innovation in the sector. The knowledge and innovation system is fragmented and without coordination between the different entities, which limits the effectiveness of knowledge transfer. At the micro level, only 9 percent of farm managers have received some training (Eurostat). Agricultural risk-management (for example, use of agricultural insurance) is not widespread, increasing the vulnerability of producers to shocks. For sustainable, green and resilient agriculture to be mainstreamed in the country, significant attention needs to be given to knowledge generation and transfer, with clear guidance provided on the application of greening approaches and adaptation strategies, as well as climate mitigation approaches (considering that close to 50 percent of renewable energy in Bulgaria is derived from agriculture and forestry).

Bulgaria's water sector faces continuing and considerable challenges, starting from a financing gap which exceeds financial capacities. Capital investments in the sector are below the level needed to maintain the existing infrastructure. EU grants are the main source of funding and they are predominantly focused on constructing and rehabilitating water and sewage networks, as well as wastewater treatment plants to align with EU water legislation.

Although overall Bulgaria is not considered a water-stressed country, availability is unevenly distributed. The Water Exploitation Index of the European Environmental Agency shows that since 1990, the country has faced no stresses on aquatic ecosystems, due to relatively significant freshwater resources, both in absolute terms as well as on per capita basis (MOEW and EEA 2016). However, some regions record persistent seasonal water shortages limiting abstraction and posing significant constraints in delivering safe drinking water to domestic users and also for agricultural and industrial development.

The performance of water and sanitation services faces access and sustainability challenges. In 2018, 61 percent (531 million m³) of the total water supplied (873 million m³) were lost in both real and apparent losses, the latter due to illegal and under-metered connections. In practice, for every liter of water that is pumped into the distribution system, often more than half is 'lost' before it reaches the customer. At the same time, around 100,000 Bulgarians have faced water rationing for the last 10 years. 2019 data of the NSI show that

although 99.4 percent of the population is connected to centralized water supply, only 76.4 percent is currently connected to a wastewater network and 64.6 percent have access to a wastewater treatment plant, leading to substantial amounts of untreated discharges, which contributes to the degradation of both inland waters and the marine ecosystem. Bulgaria is among the EU countries with the lowest share of collected and treated wastewater particularly for settlements of less than 2,000 inhabitants – and more specifically where the poor and vulnerable live, including marginalized Roma communities. By the end of 2018, Bulgaria recorded 171 out of 267 agglomerations where the Urban Waste Water Directive, UWWDD, needed to be implemented in non-compliance with the directive regarding sewerage networks. Nearly all non-compliant agglomerations (165) are below 10,000 inhabitants¹⁴¹. The cost of collecting systems and wastewater treatment plants to achieve compliance of these agglomerations is estimated to amount to approximately EUR 3,000 million.

The traditional policy neglect of the irrigation sector has recently been reversed on several domains. The Irrigation Systems Company – the public agency which maintains and operates the state hydro-meliorative/irrigation system – has recently been modernized. Key strategy documents such as the hydro-melioration strategy, the comprehensive baseline assessment of hydro-melioration/irrigation system, and the Proposals for Programming and Prioritization Framework for funding have also been finalized. However, the reform of the sector has just started and only partly. Only 8 percent of existing irrigation infrastructure and facilities are currently in use: the rest lie in dilapidated conditions or in ruin, resulting in high water losses and prices. In addition to financing, some of which is expected from National Recovery and Resilience Plan (NRRP), redressing the state of the sector will require renewed technical capacities and political leadership.

Opportunities to leverage natural assets and adapt to climate change:

- Finalize the suite of NATURA 2000 management plans and allocate adequate resources to their implementation, particularly around enforcement, to leverage their potential to spur the tourism sector and benefit from the ecosystem services they provide, and avoid reputational and monetary costs of infringement procedures.
- Enhance policy coherence and reduce regulatory fragmentation to grow the country's blue economy, by setting up whole of government mechanisms for central-local and local-local government coordination hinging upon a unified vision and strategy for the development of the sector.
- Combine the introduction of a stronger sustainability dimension in the agricultural sector with the diversification of the production base away from cereal and industrial

141. EU funds are primarily directed to agglomerations with population above 10,000 people, with the exception of a small number of settlements, which are planned to be financed via a project under the National Plan for Reconstruction and Sustainability.

crop production towards high value crops and raising the share of farmland under organic farming, while assessing the costs and benefits of revamping investments in irrigation infrastructure by considering the payoffs through economic opportunities for rural communities.

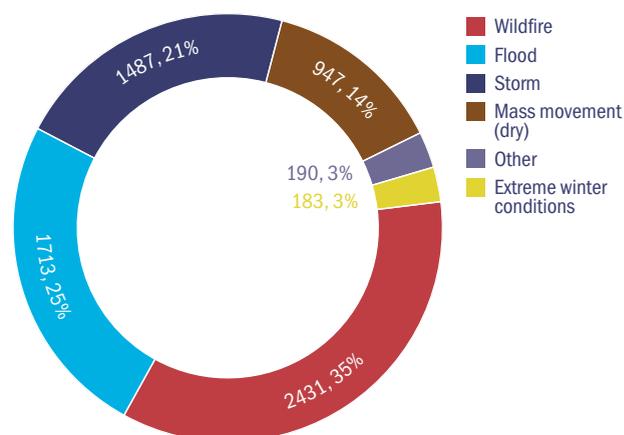
- Develop an investment program to ensure water security (in terms of both quantity and quality) by taking a strong spatial and social equity dimensions aimed at redressing persistent water shortages for domestic users in marginal communities and peripheral areas.
- Pursue multiple options to fill the financing gap of the water supply and sanitation sector and extend access, including by reconsidering cost recovery rates, reducing non-revenue water by leveraging EU funding to catalyze private investments in the sector.

Resilience to natural hazards and climate shocks

Bulgaria is highly exposed to natural hazards. Between 2000 and 2020, estimated damages from disasters amounted to USD 2.23 billion¹⁴². Wildfires, floods and storms were the most frequent disasters¹⁴³, while floods, storms and landslides were the costliest. Wildfires, floods, landslides, storms, and extreme heat also pose significant threats, with climate change likely to substantially increase the occurrence and severity of weather-related disasters in Bulgaria. Bulgaria also faces potentially catastrophic earthquake risks, with for example over 20 percent of Sofia's and Plovdiv's residents living in high-risk multifamily buildings.¹⁴⁴

While disaster risk governance continues to be reformed, specific priorities and gaps need to be addressed to strengthen disaster and climate resilience. Bulgaria's legal and strategic frameworks adequately cover the different phases of prevention, preparedness, response and recovery. At the heart of the system is the Disaster Protection Act (DPA), which comprehensively outlines key elements, responsibilities,

FIGURE 6.8 Number of disaster events for 2000 – 2020



Source: Ministry of Interior 2021, Collection of Historical Damage and Loss Data – Technical Annex, prepared by the World Bank under the RAS Accelerating Resilience to Disaster Risks.

142. Original data is in 2019 BGN currency. Exchange rate used for conversion is US\$1 = BGN 1.636 as of October 30, 2020. The data includes information only on large natural and technogenic disasters, not smaller incidents.

143. Loss data on wildfires is not readily available.

144. <https://openknowledge.worldbank.org/handle/10986/34439>

and arrangements for Disaster Risk Management (DRM). The National Disaster Risk Reduction Strategy (NDRRS) 2018–2030, adopted in April 2018 by the Council of Ministers, provides the overarching vision and principles, expected outcomes and strategic goals, and priority areas measures. Operational goals for DRM are outlined in the National Disaster Risk Reduction Programme (NDRRP) 2021–2025, approved in November 2020. However, a more science-based understanding of natural and climate hazards is needed, together with a grasp of the potentially compounding and/or cascading interplay of multiple hazards to inform decisions about investments and priorities. Supported by the World Bank, the government is developing a multi-hazard risk country profile, improving its data collection systems and enhancing modelling capacity to increase foresight.

The strategic shift to an ex-ante approach to DRM needs tangible investments to be operationalized.

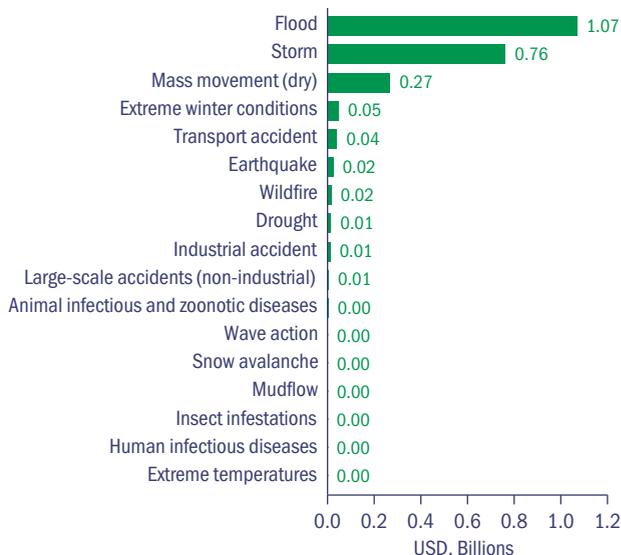
Under the EU multi-annual financial framework 2021–2027, significant funding for resilience and DRM will be available through the European Regional Development Fund (ERDF) and Cohesion Funds. With support from the World Bank, the planned National Disaster Risk Management Plan can facilitate mobilization of financing for DRM from the EU, combining it with domestic and other external sources to deliver a holistic DRM program. To fully leverage this opportunity, the country would benefit from improved understanding of the current allocations and use of financing for DRM, strengthened coordination/oversight for different national and EU-supported sources of financing, and increased capacity, especially at the local administrative levels, for utilizing ex-ante and ex-post sources of financing.

Enhancing disaster preparedness for rapid response and recovery is a quick win.

While led by the Ministry of Interior, operational and institutional coordination and particularly data sharing for warning and response can be improved. For more effective multi-hazard early warning systems (MHEWS), monitoring networks need to be expanded, impact-based forecasting initiated, and information communication and warning dissemination made more robust. The readiness of critical elements of emergency response, planning for recovery with integration of ‘building back better’ principles, and public awareness can be strengthened even with limited investments, and could build on various training efforts led by the Ministry of Interior.

A strategic approach to financial DRM is needed to reduce the potential fiscal risk from disaster shocks. A comprehensive disaster risk financing assessment should inform

FIGURE 6.9 Disaster-inflicted losses (2000 – 2020)



Source: Ministry of Interior 2021, Collection of Historical Damage and Loss Data – Technical Annex, prepared by the World Bank under the RAS Accelerating Resilience to Disaster Risks.

Note: Exchange rate of US\$1 = BGN 1.636 as of October 30, 2020. The data include information on fires but not on car accidents, incidents, and pollution. Disaster-inflicted losses do not include COVID-19-related losses.

the development of a sustainable disaster risk financing strategy, which may lead to adjustment and/or introduction of new instruments at both the sovereign level and to support the financial resilience of households and businesses, for example through a strengthened natural hazard insurance market.

Opportunities to strengthen resilience to natural assets and climate shocks are as follows:

- Develop a strong evidence basis allowing for accurate decision making, by finalizing the multi-hazard risk country profile and detailed priority risk assessments to identify urgent and critical investments to reduce risk across the range of shocks potentially affecting the country.
- Strengthen disaster preparedness starting within improving information around risks and response capacities currently available to policy makers and DRM actors and stakeholders, by investing in modern, consolidated, and multi-hazard early warning systems.
- Revamp the existing policy framework and enforcement mechanisms to adequately account for the level of catastrophic seismic risk facing the country, for both public and private buildings and infrastructure.
- Turn the short-term need to meet the EC's Enabling Conditions to access EU resources with the drafting of investment plans into priority resilience actions such as improving critical response infrastructure, starting with no-regrets investments (civil protection, schools and hospitals).
- Enhance the country's capacity to quickly respond to catastrophic events by developing a risk financing strategy grounded on multiple access options including through (i) sovereign tools such as catastrophic risk bonds; and (ii) household and business risk financing means such as insurance instruments.

7

PRIORITIZATION FOR FAST, INCLUSIVE, AND SUSTAINABLE GROWTH



The priority areas remain largely the same as those identified in 2015, with a renewed focus on institutions as the underpinning of all three components of growth. As mentioned earlier, progress in addressing the priorities identified in the earlier SCD has been seen in some areas but has not been sufficient to overcome the identified bottlenecks. More specifically, the biggest progress has been shown under the original SCD's priority areas of macroeconomic stability, where two of the four priorities identified — on strengthening confidence in the banking sector and the effectiveness of banking supervision, and on strengthening the fiscal position in the medium term have been fulfilled. The former was achieved as an explicit commitment of the Bulgarian National Bank (БНБ) while the latter was supported by the cyclical upturn of the economy and a restrictive fiscal policy stance. The other two priorities in this area — on improving the management of fiscal spending and on strengthening SOEs' financial performance — remain valid and yet to be addressed, even if the government has taken steps to improve SOE governance (as another pre-ERM II engagement) by adopting a new law on SOEs and establishing an SOE agency in charge of overseeing the sector. In several other priority areas, pinpointed in 2015 — Regulation and Innovation, Social Safety Nets, Health and Long-term Care, Pensions — progress was scored on just one priority (out of 3, 4 or 5 priorities) in each area. In particular, the government established a better regulation unit and this started functioning, though the RIA practice may benefit from further expansion and enhancement. Moreover, in early 2021 a new state agency on research and innovation started functioning (as recommended in the SCD 2015), but it is too early to assess its performance. With regard to Social Safety Nets, the government has established a growing number of joint local offices of the Employment Agency and the Social Assistance Agency but their effectiveness in successful case management is yet to be assessed. Home-based care was supported with increased monthly benefits for parents of children with disabilities and an expanded social programme for social assistants of people with disabilities. In the area of pensions, social security contributions were indeed raised, by cumulative 2pp over 2017 - 2018. Yet, in the original priority areas of Skills, Infrastructure, Mobility and Economic Participation, Social Stability and Environment, no progress has been seen on the then-identified priorities. Overall, out of a total of 37 priorities, those where clear progress is seen and can be considered fulfilled, is limited to seven.

As a consequence, many of the priority areas and factors considered critical to the development agenda in 2015 remain equally valid. However, additional areas have emerged reflecting developments since the last SCD and the evolving context. Prioritization was conducted through identifying the areas that are critical enablers to advance the three dimensions of growth, with the additional criteria of prioritizing those that strengthen inclusion and demonstrate cross-cutting complementarity.

The approach taken to prioritization was as follows. First, members of the wider team put forward a long list of proposed reform actions, based on their up-to-date knowledge and insight into each sector and priority area. These reform actions were additionally prioritized by the time horizon needed for their completion — short (up to 2 years), medium (2 - 5

years) and long term (5+ years). Second, based on that long list, the core team seeded out 11 top priorities, which in their view would be critical to overcome the country's development challenges. Noteworthy, this list of 11 priorities was framed in a cross-cutting manner, with the aim of capturing interlinkages and synergies between different priority areas. Thus, the SCD Update takes a more focused approach to prioritization, moving away from the broad priority areas leading to 36 priorities in the original SCD, to a narrower, more action-oriented 11-point list, articulated diachronically and in a cross-cutting, interlinked fashion.

The main changes in terms of priorities in this update are as follows:

- *Measures to promote sustainability have been drawn out as key priorities* supporting a distinct pathway for progress. Although the previous SCD partly addressed environmental sustainability, this update raises the relevance of its role, based on stronger analytical bases and highlighting relevant interventions, and in alignment with the greater prominence of this area in national and international commitments. The raised policy ambition linked to the EGD will require renewed focus to turn the detailed strategies and legislation into focused action and outcomes. Since policies to support environmental sustainability cover multiple domains, including fiscal policy, social protection and municipal service provision, opportunities to strengthen the green transition are also identified in a cross-cutting manner.
- *Boosting productivity is drawn out as a critical pathway for strengthening growth, alongside raising skills and employability.* This reflects a reorganization of priority areas for reform, and the greater and transformative prominence placed on digitalization and innovation.
- *Greater prominence is placed on digitalization* which has the potential to both change the nature of work and business, and to fundamentally shift service delivery across all sectors.

A total of eleven priority areas were selected. Addressing the priorities identified (Table 7.1) will contribute to overcoming the main development constraints by boosting productivity, skills and employability; making public spending more efficient and adequate for improved service delivery; strengthening the environmental sustainability of the economic model; and overcoming institutional weaknesses and improving the legal framework for good governance. The priority areas identified earlier (World Bank 2015) are still relevant today but have been regrouped as well as extended with respect to sustainability. Further to the transformational priority areas articulated in Table 1, Annex 5 breaks down all opportunities identified in the report by the time-horizon for the reform — highlighting the transformational in bold.

TABLE 7.1 Summary of reform priorities

1. Overcoming institutional weaknesses for good governance		
<p>Strengthening regulatory quality and accountability mechanisms</p> <p><i>Medium to long term:</i> increasing the transparency, accountability, and predictability of the regulatory environment and of government, including through expanded use of regulatory impact assessments.</p>	<p>Increasing the efficiency and effectiveness of public institutions</p> <p><i>Short term:</i> improving the recruitment and compensation framework for public sector employees as well as the management of public investment;</p> <p><i>Medium to long term:</i> modernizing public administration and embracing digital government services; introducing monitoring and evaluation systems; linking financing and performance systematically.</p>	
2. Boosting productivity, skills, and employability for all		
<p>Addressing productivity bottlenecks</p> <p><i>Short term:</i> strengthening the regulatory business environment; ensuring access to finance;</p> <p><i>Medium to long term:</i> enhancing R&D and innovation activity and supporting the adoption of technological advances in small and medium-sized enterprises; advancing infrastructure connectivity (incl. digital) and logistics capacity; strengthening fiscal policy and management of state-owned enterprises for growth</p>	<p>Strengthening skills</p> <p><i>Short term:</i> extending early childhood development; stemming early school leaving;</p> <p><i>Medium-long term:</i> strengthening professional development of teachers; aligning curricula to demand for skills</p>	<p>Enhancing employability and mobility</p> <p><i>Medium to long term:</i> strengthening re- and up-skilling programs with a focus on digital skills; developing specialized and integrated labor support services for vulnerable groups; support for internal migrants and returnees.</p>
3. Strengthening the effectiveness, efficiency, and adequacy of public spending for improved service delivery		
<p>Furthering redistribution through fiscal policy</p> <p><i>Short term:</i> raising the adequacy and coverage of poverty targeted social assistance programs, including automatic indexation of benefits;</p> <p><i>Medium to long term:</i> structuring benefits to encourage a transition to work</p>	<p>Managing demographic change and supporting healthy lives</p> <p><i>Short term:</i> increasing the efficiency of healthcare spending; adequate safety nets to support the elderly poor;</p> <p><i>Medium to long term:</i> strengthening primary and preventive care; extending long-term care systems that allow for active and healthy aging, sustainable pension systems</p>	<p>Promoting inclusive and sustainable regional development</p> <p><i>Short term:</i> strengthening housing policy and capacity for municipal service delivery;</p> <p><i>Medium to long term:</i> calibrating urban planning for adjusting to population dynamics.</p>
4. Enhancing the sustainability of the growth model		
<p>Shifting the decarbonization trajectory</p> <p><i>Medium to long term:</i> reduce carbon intensity by enabling private sector investment and low carbon urban development, whilst ensuring fairness and equity in the energy transition</p>	<p>Reducing waste and pollution</p> <p><i>Short term:</i> enhance institutional coordination and enforcement capacities, particularly at the local level, to allow the regulatory framework to deliver its expected outcomes</p>	<p>Leveraging natural assets and adapting to climate change</p> <p><i>Medium to long term:</i> enhance the framework for natural capital protection to leverage the ecosystem services provided by biodiversity and marine and coastal assets and strengthen preparedness to address climate and natural disaster risks</p>

Overcoming institutional weaknesses for good governance

Institutional weaknesses have implied that the country's strong legislative foundation and articulation of national plans have not translated into implementation commensurate with ambitions. These bottlenecks depress productivity and reduce the efficacy of public service delivery. Furthermore, institutional weaknesses undermine public confidence in the state, threatening social cohesion and political stability.

Sustained reforms that can have a catalytic impact include the following:

Strengthening regulatory quality and accountability mechanisms: frequent changes in legislation and enforcement weaknesses introduce uncertainty and limit transparency. This can be addressed via the adoption of modern approaches to regulation, such as the one-in, one-out principle, strengthening the RIA practice, and improving the public consultation process. Increasing transparency and accountability of government bodies and service providers could be advanced through leveraging the existing open data portal and e-government platforms, as well as through the utilization of proactive citizen engagement tools.

Increasing the efficiency and effectiveness of public institutions. As weaknesses in the recruitment, promotion and compensation framework of public sector workers prevent the administration from attracting and retaining talent, especially for high-skilled positions, efforts in this direction should be prioritized for the short run. Steps to strengthen public investment management (including by improving the pre-investment phase and implementing an information system to systematically track capital investments) would be key to obtaining high value for the substantial EU funds expected under the Recovery and Resilience Facility and the Multiannual Financial Framework (2021–2027). Similarly, monitoring and evaluation of government programs to proactively assess program performance could be used to both improve program design and to propagate those programs with the greatest impact, as discussed in the report with respect to ALMPs and programs to support science, innovation and training. Propagation and sophistication of digital government services would help modernize the administration and improve its efficiency and effectiveness. The introduction and regular use of modern instruments for detailed review of public revenue, expenditure and institutions as well as strengthening performance-based budgeting would help raise efficiency and effectiveness of public spending and improve value for money of government programs.

Boosting productivity, skills, and employability for all

Addressing productivity bottlenecks through the following:

Strengthening the business environment through regulatory, administrative and judicial reform. Bulgaria needs to speed up the introduction of e-government in all public domains and work to overcome institutional gaps by building a modern public administration which

nurtures talent and expertise and restoring trust in institutions by increasing transparency and accountability. Reforming the judiciary with the aim of ensuring its independence will be also key to strengthening the rule of law and guaranteeing protection of property rights. A paced digitalization towards e-justice, as well as the introduction of a case management system can help increase transparency and trust.

Ensuring access to finance, including through reforms of the insolvency framework and managing nonperforming loans. Even though Bulgaria's financial sector remains solid and well-capitalized, the pandemic is expected to cause a deterioration in banks' asset quality as loan moratoria expire. The effective implementation of the corporate insolvency framework as well as establishment of an early warning system that signals debt distress early on would be critical reforms for firm restructuring and recovery. Authorities should encourage the banking sector to recognize non-performing loans in a timely manner and resolve them once recovery begins.

Advancing the innovation eco-system, including through strengthened governance structures. Limited resources dedicated to R&D combined with governance challenges hold back the innovation frontier, while SMEs need further handholding and support to embrace technological change. Spending on R&D would need to quadruple to meet the country's 2030 funding target but — for this level of funding to be effective — the governance structure of the sector would need to evolve, to ensure coordination of the many instruments related to research and innovation and to put in place an overarching national vision for STI. The slow pace of technological and digital adoption in SMEs could be hastened with financial support complemented by needed investments in capacity building. Public R&D capacity also needs to be strengthened, which can be achieved with the allocation of multiannual financial commitments, consolidation of research capabilities and modernization of the public research sector by attracting and nurturing talent.

Enhancing connectivity, including a last-mile lens. Infrastructure and connectivity remain vital for strengthening productivity, economic activity and reduction of regional disparities. Despite significant investment in infrastructure and services over the past two decades, bolstered by EU funds, further efforts are needed to upgrade road quality, with a focus on the highest-class roads, connectivity to the Trans-European Transport Network and key economic hubs. The country also needs to invest further in the rehabilitation of the rail network and intermodal trans-shipment platforms to enable better integration with the road and logistics infrastructure, as well as support the development of the logistics sector. In the area of digital infrastructure, there is a need to accelerate the deployment of broadband access by building backbone infrastructure and last mile connectivity in underserved areas.

Strengthening fiscal policy and SOE management for growth: Fiscal policy, albeit prudent and adhering to low deficit and public debt levels, can be further optimized to support faster economic growth. SOEs' fiscal costs can be reduced by accelerated implementation of the Law on Public Enterprises, centralized SOE oversight, and rightsizing of the SOE portfolio.

In the area of tax policy, the government may consider further fine-tuning toward raising the share of property and carbon taxes at the expense of supporting businesses and individuals with reduced direct taxation. Going forward, further decentralization of tax revenue could be also considered with the aim of curbing regional disparities.

Priority areas for reform to strengthen skills and employability for all include the following:

Strengthening skills. The country needs to increase access to early childhood and pre-school education by alleviating costs, especially for children from disadvantaged backgrounds, with positive repercussions for equity, learning outcomes and female labor force participation. Furthermore, an effective and well-designed early warning system is needed to detect children and students at risk of dropping out, together with targeted measures to support re-integration and retention of returning dropouts. Despite recent increases of teacher salaries, increased investments are needed to boost the attractiveness and quality of teaching. Finally, the school curricula can be reformed to further align to the demand for specific skills, while university programs need to raise their quality and align better to market needs in order to be more competitive in the EU market for higher education, and produce skilled labor.

Enhancing employability and mobility: Labor market policies increasingly need to focus on preparing existing workers for new jobs, informed by labor market information systems that monitor local labor market needs and translate this info re- and up-skilling programs. In addition, the system needs to strengthen inclusion through developing specialized and integrated labor support services that address the challenges of the most vulnerable groups, for example, through using multisectoral packages of support, trained labor mediators, and NGOs to support hard-to-place groups.

Strengthening the effectiveness, efficiency, and adequacy of public spending for improved service delivery

Furthering redistribution through fiscal policy: Bulgaria is among a handful of EU countries in which the fiscal system shows no clear impact on poverty. To improve the redistributive efficiency of social assistance, the government needs to address the coverage and adequacy challenges of the main poverty-targeted programs and shift from ad-hoc revisions of the GMI to an automatic approach. This would need to be combined with the introduction of earned income disregards or other in-work benefits to encourage transitions back to work for those who are able to work and a more comprehensive review of the extent of redistribution in the fiscal system to further reduce poverty and inequality.

Managing demographic change and supporting healthy lives: Aging increases pressure on several public sectors, notably health, pensions, and LTC, which calls for prompt action to increase value for money in government spending. The health sector would need to

raise the efficiency of resource use by shifting away from a hospital-centric service delivery structure toward a model of preventative and outpatient care and by addressing high out-of-pocket expenditures and the needs of the one-in-nine Bulgarians estimated to be without health insurance. To increase the financial sustainability of the pension system, contributions would need to be increased or private pension savings incentivized, or else there would need to be a gradual reduction in benefits payable. In addition, revisions to the social pension to strengthen the safety net for those who fall through the gaps would need to be considered, while maintaining incentives for contributory pensions. Demand for long-term care outstrips supply, with implications on female labor force participation and wellbeing of vulnerable groups. Finally, policies in support of internal migrants as well as returnees would help ease the pressure on public systems, while also easing the transition for households.

Promoting inclusive and sustainable regional development: Shifts in population concentrations affect the provision of local services and regional development patterns, while variations in the capacity of local government affect the quality of service provision and leave the most marginalized heavily affected. Addressing these challenges will require a strategic shift in government planning and investment that differentiates between growing areas and those in decline, with focused capacity building and investment flowing to lagging regions and municipalities, as well as marginalized groups such as the Roma, to support high quality key public services across the country.

Enhancing the sustainability of the growth model

Shifting the decarbonization trajectory: Despite ample margins to reduce carbon intensity, progress will remain patchy in the absence of a holistic policy package. The impact of EU funds will be curtailed without enabling reforms in the energy, industrial and residential sectors, including through standards and financial mechanisms supporting decentralized renewable energy, energy efficiency, sustainable heating, and fleet electrification. Increasing the share of renewable energy (still low both in relative and absolute terms) for electricity and heat generation requires concomitant investments in grid digitization and the reduction of losses in energy and heat generation, transmission and distribution, as well as a renewed vision for the sustainability of, or transition from, existing district heating systems. The renewal of Bulgaria's building stock can spur urban regeneration programs based on improved spatial planning practices encouraging more compact cities development.

Reducing waste and pollution: Bulgaria can redress its poor performance on waste and pollution management by leapfrogging in areas such as resource efficiency and circularity. The country's legal and regulatory framework for air quality management fails to achieve expected results due to institutional coordination and public capacities weaknesses, particularly at the local level. Speeding up the renovation of the building stock will not only capture energy savings but also reduce the main driver of air pollution. The country's

positive track record in plastic recycling positions it well to encourage the growth of the recycling sector and reduce landfilling rates which remain among the highest in Europe. Similarly, pollution of marine and inland water resources will go via a focus on implementation of existing frameworks, such as the Programs of Measures stemming from the new river basin management plans to address untreated wastewater and agricultural runoff; and the National Action Plan for Marine Litter to stimulate the potential of the Black Sea's blue economy.

Leveraging natural assets and adapting to climate change:

- (i) *leveraging natural assets* Bulgaria boasts outstanding natural assets — some of them unrivalled in Europe, such as its biodiversity. Yet, the country's normative framework for preserving and leveraging its natural resource endowments — such as around Natura 2000 objectives — is plagued by institutional deficiencies particularly around enforcement. The development of the country's vast blue economy potential lacks a coherent policy framework and a whole-of-government approach. Despite its ample water resources, Bulgaria remains characterized by spatial inequalities in terms of quality and quantity, periodically leaving users in some regions under severe water shortages. Securing adequate investments in water security, including in the sanitation sector, will require pursuing multiple financing options, and also leveraging loss reductions. Similarly, the agricultural sector potential can be revamped through a focus on greening interventions coupled with investments in irrigation infrastructure based on the medium term pay-offs and economic opportunities for rural communities.
- (ii) *strengthening resilience to natural hazards and climate shocks:* High exposure to natural hazards and, increasingly, climate shocks will inevitably take a toll on the country's growth prospects. Bulgaria faces potentially catastrophic earthquake risks and increasing climate variability resulting in more severe and frequent series of flooding and drought events. An adequate diagnosis of risk drivers can pave the way to the critical investments needed to strengthen disaster preparedness, including modern, consolidated multi-hazard early warning systems. The swift implementation of the policy framework stemming from the EU Enabling Conditions will require attention to enforcement to account for the level of catastrophic seismic risk facing both public and private buildings and infrastructure. Investing in priority resilience should start with critical response infrastructure such as civil protection, schools, and health facilities, which would result in no-regrets investments with significant ancillary benefits. Last, the country's financial capacity to quickly respond to catastrophic events can be strengthened by developing sovereign, household, and business risk financing and insurance instruments.

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ANNEXES



ANNEX 1

Comparison with SCD-1: priorities and knowledge gaps

Comparison with SCD-1

TABLE A1.1 Reform priorities comparison with SCD-1

SCD 1 Pathways	SCD 1 Priority Areas	SCD 2 Pathways	SCD 2 Priority Areas
Strengthening the legal and institutional framework for good governance	<ul style="list-style-type: none"> • Regulation and innovation • Social Safety Nets • Infrastructure (Transport) • Macroeconomic stability • Social stability • Environment 	Same as SCD-1	<ul style="list-style-type: none"> • Strengthening regulatory quality and accountability mechanisms; • Increasing the efficiency and effectiveness of public institutions
Boosting skills and employability for all Bulgarians	<ul style="list-style-type: none"> • Mobility and economic participation • Skills 	Same as SCD-1	<ul style="list-style-type: none"> • Mobility and economic participation • Upgrading skills • Addressing productivity bottlenecks
Making public expenditure more effective	<ul style="list-style-type: none"> • Health and long-term care • Pensions 	Strengthening the effectiveness, efficiency and adequacy of public spending for improved service delivery	<ul style="list-style-type: none"> • Managing demographic change and supporting healthy lives • Furthering redistribution through fiscal policy • Promoting inclusive and sustainable regional development
		Enhancing the sustainability of the growth model	<ul style="list-style-type: none"> • Shifting the decarbonization trajectory • Reducing waste and pollution • Leveraging natural assets and adapting to climate change

Missing analytical work conducted for the needs of the SCD Update and remaining knowledge gaps

One of the gaps identified by the team was the lack of recent in-depth institutional analysis that follows a recognized methodological approach, applied to other countries and proven to render robust results. Given the cross-cutting nature of the institutional challenge, the team has commissioned an institutional assessment to the Governance GP and has integrated its main findings into the SCD update.

For the needs of the public finance sustainability analysis, the team assigned a background note on the SOE sector, with a focus on its fiscal impacts and governance as key issues pertaining to the SOEs. The note has informed the Fiscal Policy for Growth section and can be found in its full version as a separate document, accompanying the SCD Update.

Also, given the cross-cutting nature of negative demographic trends and the decisive contribution of negative net migration to this dynamic, the team produced a dedicated study on recent migration trends. The note included, among others, regional breakdowns of emigrants, stocks and flows by destination countries, migration drivers and profiles of migrants. This study has fed into several sections of the SCD Update given the nature of the demographic challenges as a horizontal constraint to growth. The study will also accompany the SCD Update as a background note.

Separately, a country gender assessment was another piece of core analytics that had not been carried out for Bulgaria prior to the SCD Update. For this purpose, the team produced a gender dashboard, which fed into the main body of the SCD Update and can be found in full in Annex 4. However, some knowledge gaps remain with respect to gender disparities and outcomes and would require further assessment, most clearly in the areas of agency and gender-based violence.

For the poverty and shared prosperity analysis, the team used the latest EU-SILC data to help develop profiles of the groups of individuals who are likely to be disproportionately impacted by the crisis as identified in the COVID-19 pulse household surveys in order to guide appropriate policy responses. The team also attempted to analyze the intersection between migration and poverty and examine how the socio-economic characteristics of migrants and the trajectory of remittances can affect poverty dynamics.

The RISE (Resilience, Sustainability, Inclusion and Efficiency) framework was be used for benchmarking, in particular to highlight sustainability issues. The RISE framework focuses on how a country's growth can be affected by interaction across forms of capital, with a primary focus on the links between natural capital and physical, human, and intangible capital. Specifically, resilience captures a country's vulnerability to shocks such as natural disasters, which implies a link between physical and natural capital. Inclusivity is measured based on access to markets, services, and spaces, so much of the pillar focuses on the link between human and intangible capital. Sustainability ensures that growth today does not come at the expense of future growth, thus the pillar focuses on the direct link between natural capital and production. Efficiency speaks to managing resources for growth, so the pillar focuses on the link between natural, human, and physical capital.

Given the knowledge gap on Bulgaria's agriculture and its recent dynamics, the Sustainable Development team has developed a background note on agriculture and rural development for inclusive and sustainable growth in Bulgaria. This has fed primarily to the Sustainable Growth chapter of the SCD Update and will accompany the main SCD report as a background note.

Another important area of analytics that was initially deemed needed for the SCD Update was an up-to-date analysis of total factor productivity dynamics, using the tools for such estimates developed by the WB's MTI practice. Yet, given the just-starting

work on a Country Economic Memorandum (CEM), the team decided that this would better fit as background work for the CEM and will be undertaken as a part of this analytical product, to be completed in FY 2022.

In addition, a strong land registry and cadaster is a prerequisite to support other engines of growth, such as tourism, infrastructure and urbanization; yet, in Bulgaria **the strength of the registry and cadaster and effectiveness of land reforms remain as knowledge gaps for the Bank**. Moreover, in the area of land administration Bulgaria is an outlier, in the sense that it maintains land registry and cadaster functions under different government entities and the cost of this approach on efficiency and reforms would be useful to assess under future analytical work.

Another knowledge gap identified in the course of the analytical work on the SCD Update, was a **long-term study on the impact of EU accession on industrial specialization**, if any — i.e. has specialization happened towards low-labor intensity sectors or maybe towards high-skill intensity sectors? Such a study could seek to link those effects, at least in part, with the trends in labor demand, labor participation, poverty and inequality.

The distributional implications of energy transition, particularly in regions dependent on coal mining and coal-based power generation, as well as the capacity of these industries' workers to adapt, also requires further analytical work, that is already underway but remains missing knowledge for the SCD Update. More specifically, a WB team is working with the Bulgarian government on the so-called Just Transition Plans for several districts, while a green distributional analysis is planned for next fiscal year. Yet, neither of these would be finalized in time for their findings to be reflected in the SCD Update.

Finally, while the SCD Update considers informal work with respect to health insurance and pension contributions, **the broader issue of informality in Bulgaria has not been studied recently** by the WB and remains a knowledge gap. Informality has its implications for the broader question of social insurance coverage gaps, but also for other issues such as formal training and adult learning, productivity, tax policy incentives, fiscal system design and redistribution, to name a few.

ANNEX 2

Bulgaria Institutional Assessment

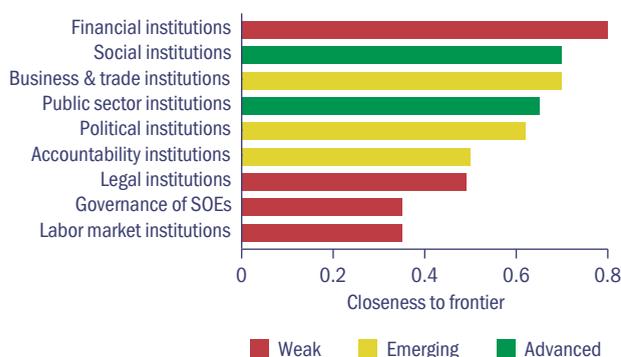
The institutional assessment for Bulgaria is based on an innovative approach that uses data from over one hundred global indicators and compares the country with relevant peers. The methodology we used for the analysis is the “Closeness to Frontier” (CTF). For each indicator, a country’s performance is rescaled on a 0–1 scale using the linear transformation $(\text{worst}-y)/(\text{worst}-\text{frontier})$, where 1 represents the best performer and 0—the worst performer. The higher the score, the closer a country is to the best performer and the lower the score, the closer a country is to the worst performer, and more distant to the frontier. The best and worst performers are identified using available data for the last five years.

Using the CTF methodology, the best and worst performance are identified for each indicator, considering the full sample of countries for which data is available. In other words, the x axis includes all countries we have in the database, not only those selected as relevant or aspiration comparators.

Quantile distribution through traffic light coloring is then used to capture the areas where the largest institutional gaps exist, relative to the set of country comparators. Relative institutional weaknesses and strengths are defined based on the quantile in which each country indicator belongs. In this regard, it is important to note that the “closeness to frontier” (length of the x axis) and the quantile analysis (color of the bar) capture two related but different performance dimensions.

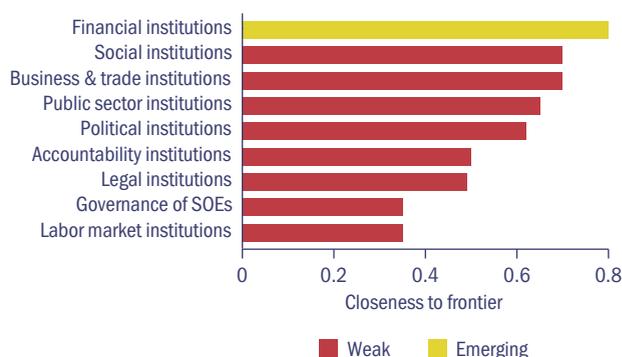
Two set of comparators were selected for the institutional assessment: “structural comparators” and “aspirational comparators”. Structural comparators, which includes Romania, Croatia, CEE countries, Baltic countries and Western Balkans, are considered comparable peers while aspiration countries (in this case EU 15) are those Bulgaria should be converging to in the medium and long term.

With respect to aspirational countries, Bulgaria scores in the bottom 33 percent in almost all institutional families, while when compared with comparator countries, the picture is more mixed. Labor market institutions, governance of SOEs and legal institutions are three areas where Bulgaria scores in the bottom 33 percent compared to the structural comparators but also where the distance to frontier is larger, showing that a sustained reform effort will be required to put the country on a convergence path.

FIGURE A2.1 Institutional families, Bulgaria vs comparator countries

Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

Note: Bulgaria, Croatia, CEE, Western Balkans. Closeness to frontier is calculated as (worst - y) / (worst - frontier). 1 identifies the best performer and 0 the worst performer. Weak = bottom 33 percent; Emerging 33–66 percent; Advanced top 33 percent.

FIGURE A2.2 Institutional families, Bulgaria vs aspirational countries

Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

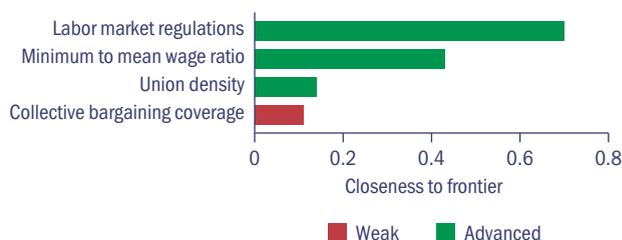
Note: Bulgaria, EU-15. Closeness to frontier is calculated as (worst - y) / (worst - frontier). 1 identifies the best performer and 0 the worst performer. Weak = bottom 33 percent; Emerging 33–66 percent; Advanced top 33 percent.

Labor market institutions

Labor market institutions describe the laws and regulations and organizations that shape the labor market and the relationships between workers and employers, including employment protection of permanent and temporary workers, employees covered by collective agreements, organization of workers in unions and legislative mandate on minimum wages.

This institutional family is comprised of four indicators available for Bulgaria: collective bargaining coverage rate; trade union density; ratio of minimum to mean wages; and labor market regulations.

Bulgaria performs very poorly when compared to peers as well as aspirational countries when it comes to collective bargaining coverage, while it performs well in the area of labor market regulation. Less than 11 percent of workers in Bulgaria are covered by collective bargaining agreement, with limited progress in the last decade compared with other comparator countries. Some (Kirov 2005) attribute this weakness in institutions for collective bargaining to a decline in trade union membership, particularly since the 2000s, during a period of high unemployment and privatizations.

FIGURE A2.3 Labour Market Institutions, Bulgaria vs comparator countries

Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

Note: Closeness to frontier is calculated as (worst - y) / (worst - frontier). 1 identifies the best performer and 0 the worst performer. Weak = bottom 25 percent; Emerging 25–50 percent; Advanced top 50 percent.

In labor market institutions, collective bargaining and union density are the two dimensions where Bulgaria has a larger gap compared to the best practice as measures by the closeness to frontier.

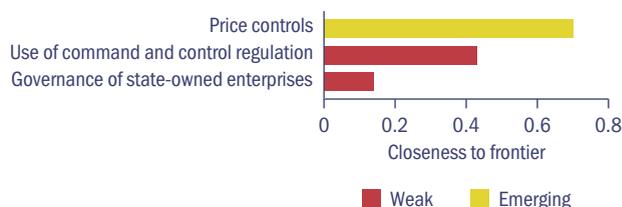
Governance of SOEs

Governance of SOEs is one of the institutional dimensions where Bulgaria scores significantly lower with respect to comparator countries. Bulgaria scores in the bottom 25 percent on “Governance of SOEs” and “Use of command and control regulation”.

The indicator “Governance of SOEs” considers the degree of political interference in SOEs and the degree of insulation from market discipline while “use of command and control regulation” considers the degree of autonomy of SOEs for taking market-related decisions and whether SOEs (for utilities) are required to provide clear and transparent information to customers on tariffs and consumption.

Bulgaria’s performance is in line with other comparator countries for “Price Controls”, which considers whether prices are regulated and whether there are laws and regulations that limit competition.

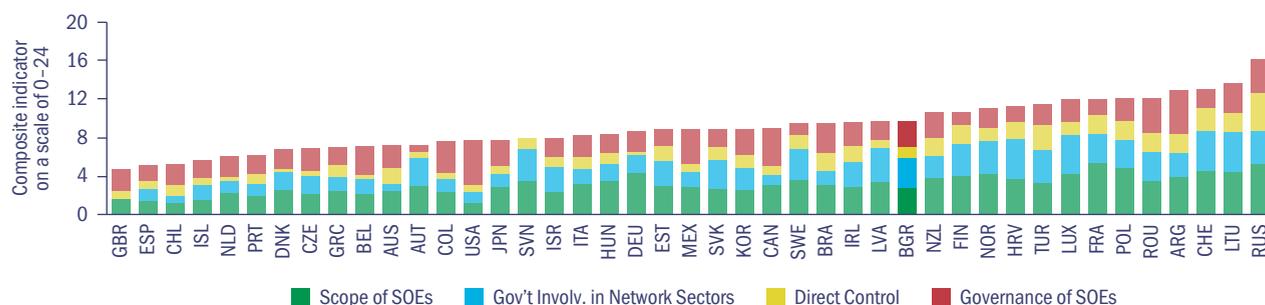
FIGURE A2.4 Governance of SOEs, Bulgaria vs comparator countries



Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

Note: Closeness to frontier is calculated as $(\text{worst} - y) / (\text{worst} - \text{frontier})$. 1 identifies the best performer and 0 the worst performer. Weak = bottom 25 percent; Emerging 25–50 percent; Advanced top 50 percent.

FIGURE A2.5 SOE public ownership



Source: OECD, Product Market Regulation (PMR) Indicators, 2018

Note: The composite indicator is equal to the sum of scores on each of the 4 sub-indicators. The latter are scored on a 0–6 scale where a lower score means a more competition-friendly environment; 0 equals the best international practice.

In 2018, the Bulgarian government approved an Action Plan for joining the Exchange Rate Mechanism (ERM-II) and the European Banking Union, which included actions to modernize the framework for management of state-owned enterprises in line with good international practices. The plan included both legislative amendments and a new law on SOEs that would focus on the modernization of the framework for management of SOEs, in line with the OECD Guidelines on Corporate Governance of State-Owned Enterprises.

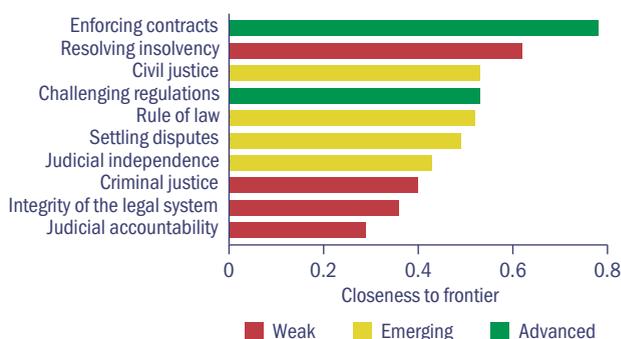
In 2019, Bulgarian adopted a new Law on Public Enterprises, which addressed foundational issues identified as a part of the 2018 ERM-II action plan such as stronger ownership coordination and monitoring, the independence and selection process for boards of directors, and improved disclosure of information, among others.

Legal institutions

Legal institutions encompass a large number of dimensions from public and private legal institutions and include property rights, enforcement of legislation, as well as the effectiveness and independence of the judicial system, and impartial enforcement of laws by courts and other actors.

Bulgaria’s performance when it comes to legal institutions is below other comparable peers. Bulgaria is in the bottom 25 percent in almost all dimensions with respect to the aspirational countries. When compared to comparator countries in areas such as judicial accountability, integrity of the legal system and criminal justice, Bulgaria scores in the bottom 25 percent.

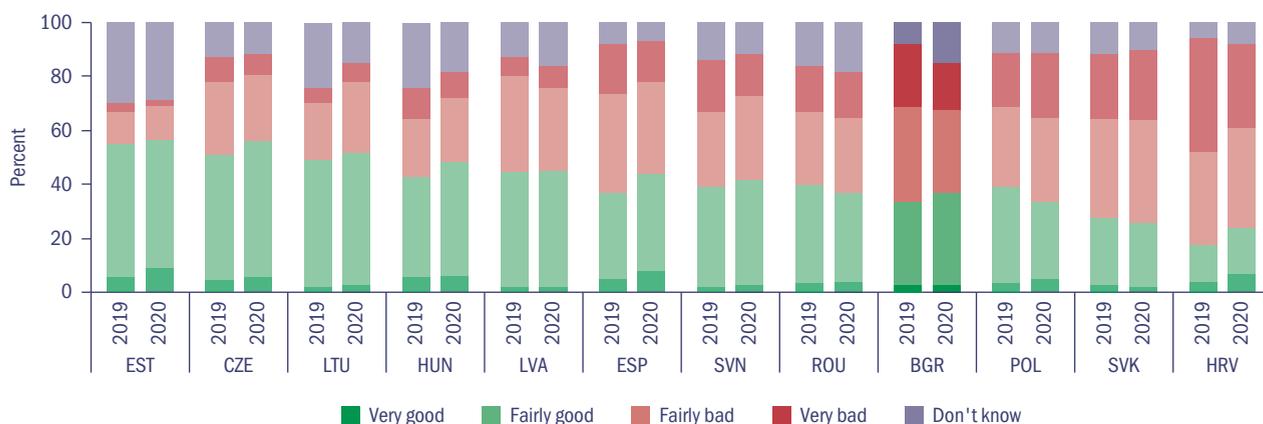
FIGURE A2.6 Legal Institutions, Bulgaria vs comparator countries



Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

Note: Bulgaria, Croatia, CEE, Western Balkans. Closeness to frontier is calculated as (worst - y) / (worst - frontier). 1 identifies the best performer and 0 the worst performer. Weak = bottom 25 percent; Emerging 25-50 percent; Advanced top 50 percent.

FIGURE A2.7 Independence of the justice sector



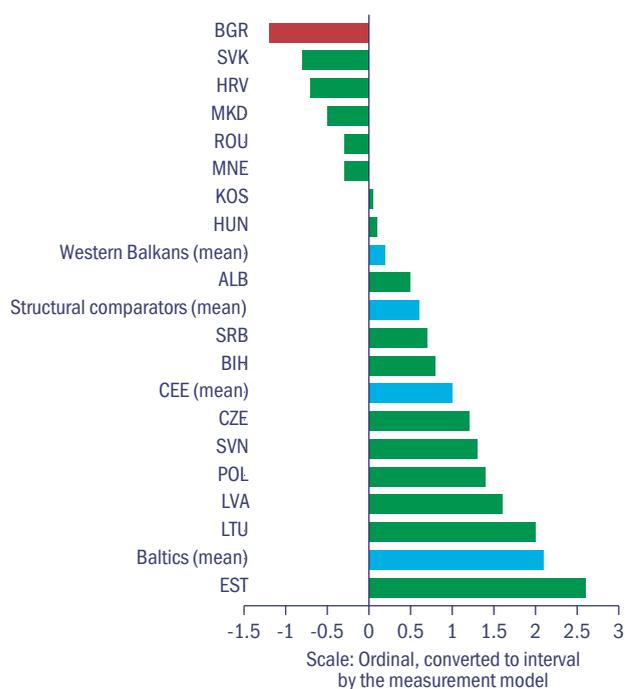
Source: Eurobarometer, 2020

Bulgaria seems to be affected by a generally low level of trust in the justice system compared with other EU member states, with almost 60 percent of Bulgarians perceiving courts and judges as not independent.

Low trust in the judiciary is consistent with data from the Variety of Democracy database, which measures how the judiciary sector manages cases when judges are found responsible for serious misconduct and where Bulgaria scores -1.2. While most relevant peers have either improved or upheld their scores in this area, Bulgaria has experienced a slow decline over the last two decades, moving from -0.3 in the early 2000 to -1.2 in 2018.

FIGURE A2.8 Judicial Accountability

a. 2018



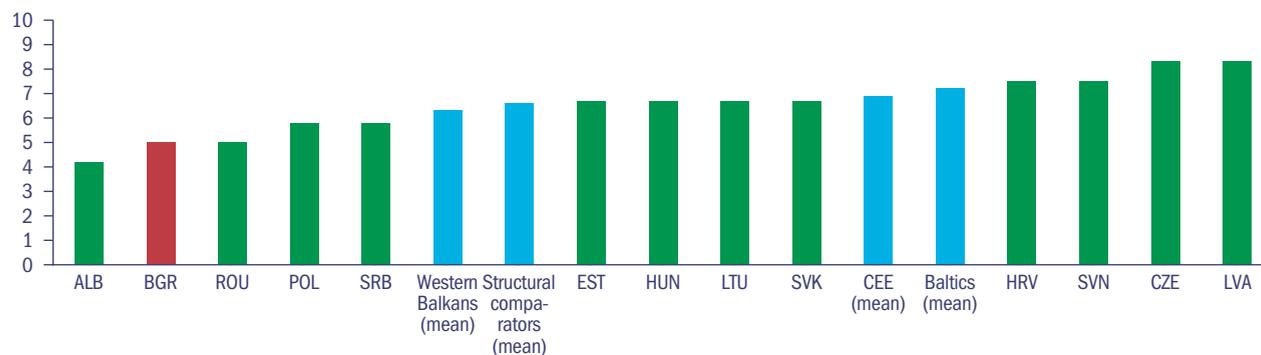
b. 2000-2018



● BGR ● Structural comparators (mean)

Source: Variety of Democracy database, 2018

FIGURE A2.9 Integrity of the legal system



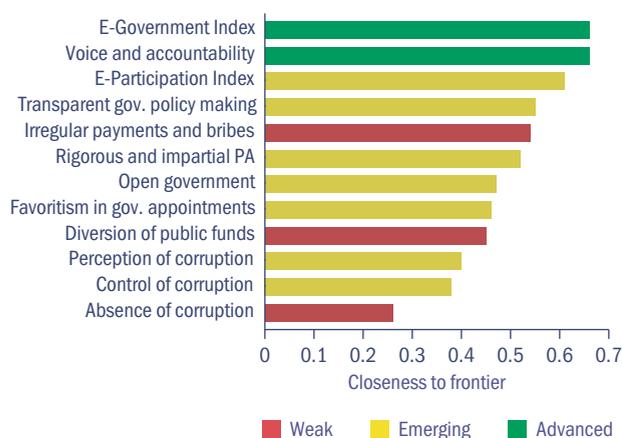
Source: Economic Freedom (Fraser Institute). 0 - 10 (Highest Integrity of the legal system score)

The dimension “Challenging regulations” has a lower closeness-to-frontier score than other dimensions, but it is market as “Advanced” because in this dimension Bulgaria is in the top 50 percent in the group of comparator countries.

Accountability institutions

Accountability institutions capture whether the existing institutional setting is effective in holding public actors accountable, promoting integrity across the public administration and curbing corruption. They cover E-Government and Open Data initiatives, citizens’ access to information, government efforts as well as citizens’ active participation in the fight against corruption.

FIGURE A2.10 Accountability Institutions, Bulgaria vs comparator countries



Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

Note: Bulgaria, Croatia, CEE, Western Balkans. Closeness to frontier is calculated as (worst - y) / (worst - frontier). 1 identifies the best performer and 0 the worst performer. Weak = bottom 25 percent; Emerging 25–50 percent; Advanced top 50 percent.

FIGURE A2.11 e-Participation Index



Source: 2020 UN E-government Knowledgebase

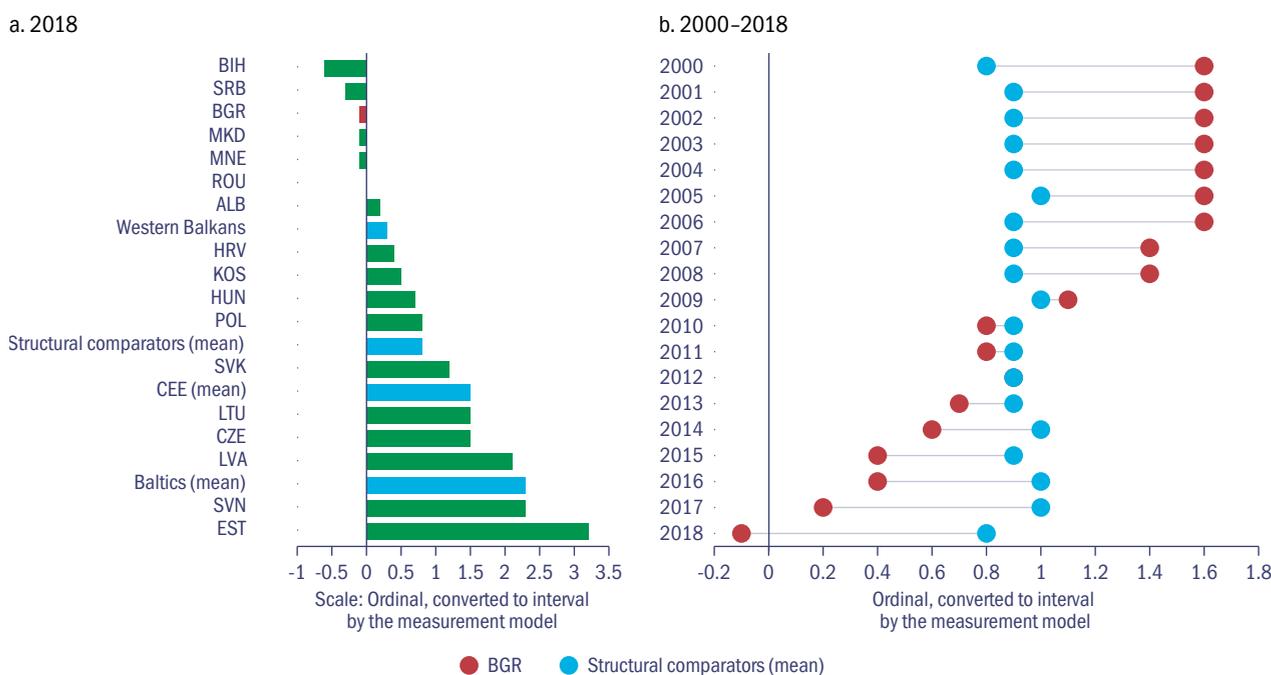
Note: 0–1 scale, where 0 stands for the worst performer, and 1 – for the best.

Bulgaria has made significant progress in the areas of e-Government Index and e-Participation compared to the comparator countries and also against the international best practices (measured by the closeness to frontier). In particular, Bulgaria has improved its ranking in this area from 35 to 23 globally according to the 2020 UN E-government Knowledgebase.

Against the progress made in e-Government Index and e-Participation, Bulgaria is in the bottom 25 percent in key dimensions related to corruption and integrity, absence of corruption, irregular payments and rigorous and impartial public administration. Time trends on these institutional indicators show some deterioration in dimensions such as open government, rigorous and impartial public administration, voice and accountability. According to the Variety of Democracy database, Bulgaria has experienced a steady

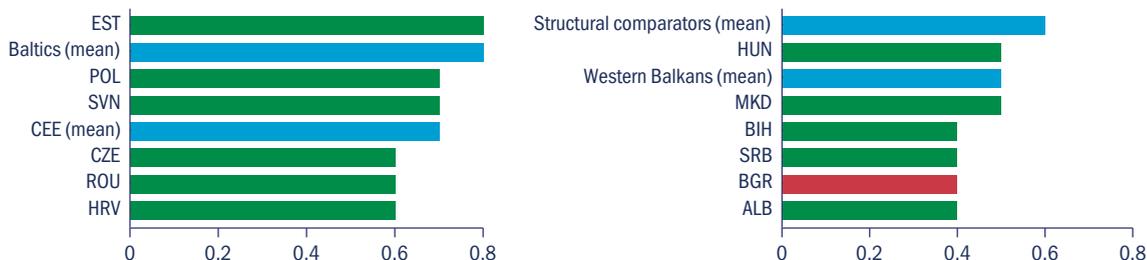
decline in the “rigorous and impartial public administration” that measures the extent to which public officials generally abide by the law and public administration is characterized by arbitrariness and biases (i.e., nepotism, cronyism, or discrimination). In this area, after improvements experienced in the mid-nineties, the country has experienced a deterioration (from 2.98 in 1998 to 2.38 in 2020) and its diverging from EU-15 countries. This is consistent with previous findings from Zankina (2018)¹⁴⁵ that found that Bulgaria performs poorly in civil service rankings among EU-28 countries and ranks at the bottom for professionalism and impartiality, in the context of a high (and increasing) level of politicization.”

FIGURE A2.12 Rigorous and impartial public administration



Source: Variety of Democracy database, 2018

FIGURE A2.13 Absence of corruption, 2019



Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

Note: 0-1 scale, where 0 stands for high corruption, and 1 – for absence of corruption.

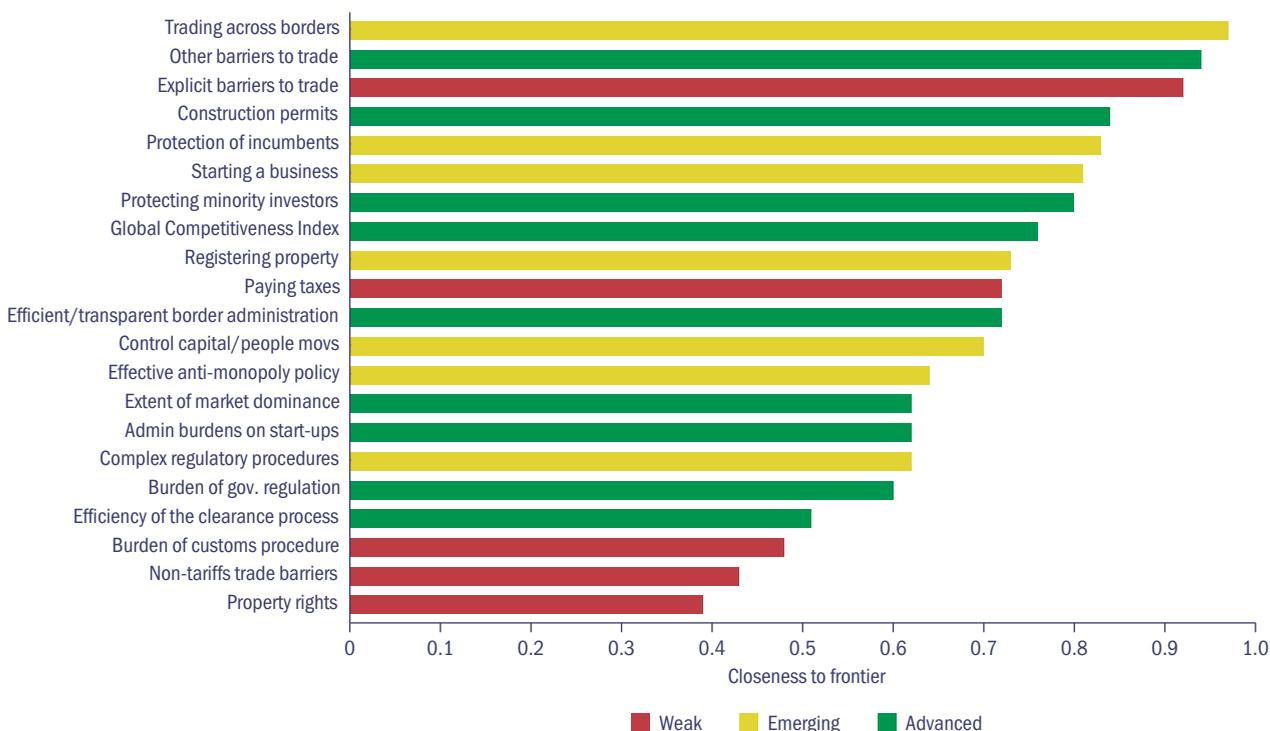
145. See Zankina, Emilia. (2018). Public administration characteristics and performance in EU-28: Bulgaria. 10.2767/969353.

Business environment and trade institutions

Business environment and trade institutions refer to those legal institutions that govern the market, such as the legal system, enforcement of property rights, trade and firm regulations, regulatory governance, credit market, business and labor market regulations, etc.

Bulgaria's performance in business environment and trade institutions is mixed, with good results in trading across borders or starting a business but mediocre results in non-tariffs trade barriers, burden of customs procedures, protection of property rights where the country scores at the bottom 25 percent of comparable countries. The data seems to point at multiple institutional challenges that are resulting in a mixed performance in this area, related to the performance of public administration in general and, in particular, those dimensions related to trade and the interface between firms and public authorities.

FIGURE A2.14 Business environment and trade institutions, Bulgaria vs comparators



Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

Note: Bulgaria, Croatia, CEE, Western Balkans. Closeness to frontier is calculated as (worst - y) / (worst - frontier). 1 identifies the best performer and 0 the worst performer. Weak = bottom 25 percent; Emerging 25-50 percent; Advanced top 50 percent.

Political institutions

Political institutions relate to the political regime and mechanisms that regulate relationships between different parts of government (electoral rules, political parties and rules that delineate functions of a government), including institutions that facilitate participation of vulnerable groups (such as ethnic representation, gender quotas, etc.).

In general, Bulgaria score between 25 - 50 percent of the comparator countries, except for gender quotas and “Order and security” where the country is in the bottom 25 percent of the distribution. There are no gender quotas in Bulgaria, and indeed the share of female representatives in the lower (or unicameral) chamber of the legislature was 24 percent in 2018.

In addition, while Bulgaria doesn’t have large gaps in political institutions when compared with comparator countries, it is important to notice that there has been a deterioration on several dimensions: constraints on government powers, equality of political power by gender, equality of political power by socio-economic status, equality of political power by social groups and respect of fundamental rights.

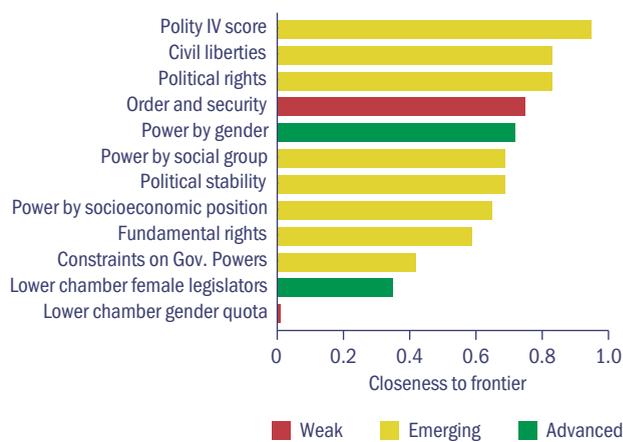
In particular, constraints on government powers (government powers are effectively limited by the legislature and the judiciary, among others) have experienced a decline between 2014 and 2020. According to data from the World Justice Project (WJP) Rule of Law Index, Bulgaria has experienced a decline in each of the seven sub-dimensions, ranking 23 out of 24 countries in Europe and 91/128 globally.

Social institutions

Social institutions refer to concepts such as social norms, beliefs, trust and civic cooperation, and coincide largely with informal institutions. This institutional family considers the following dimensions: public trust in politicians, government control and repression of CSOs (civil society index), civil society participation and whether there are wide and independent public deliberations (in the media, in associations or neighborhoods, or in the streets) when important policy changes are being considered (engaged society).

Bulgaria’s results in this area are in the top 50 percent of comparator countries but still lower than aspiration countries (EU15) particularly in the area of public trust

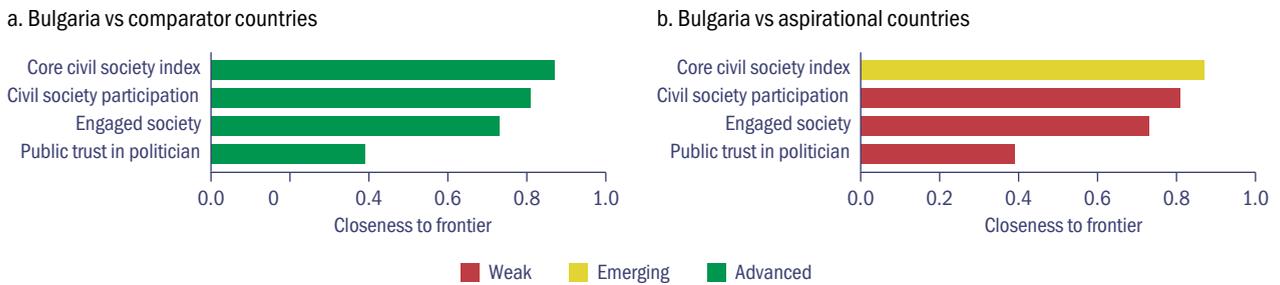
FIGURE A2.15 Political Institutions, Bulgaria vs comparator countries



Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

in politicians. Data from the Variety of Democracy database shows that Bulgaria ranks similar to peers in terms of its civil society participation index that measures whether major CSOs are routinely consulted by policymakers.

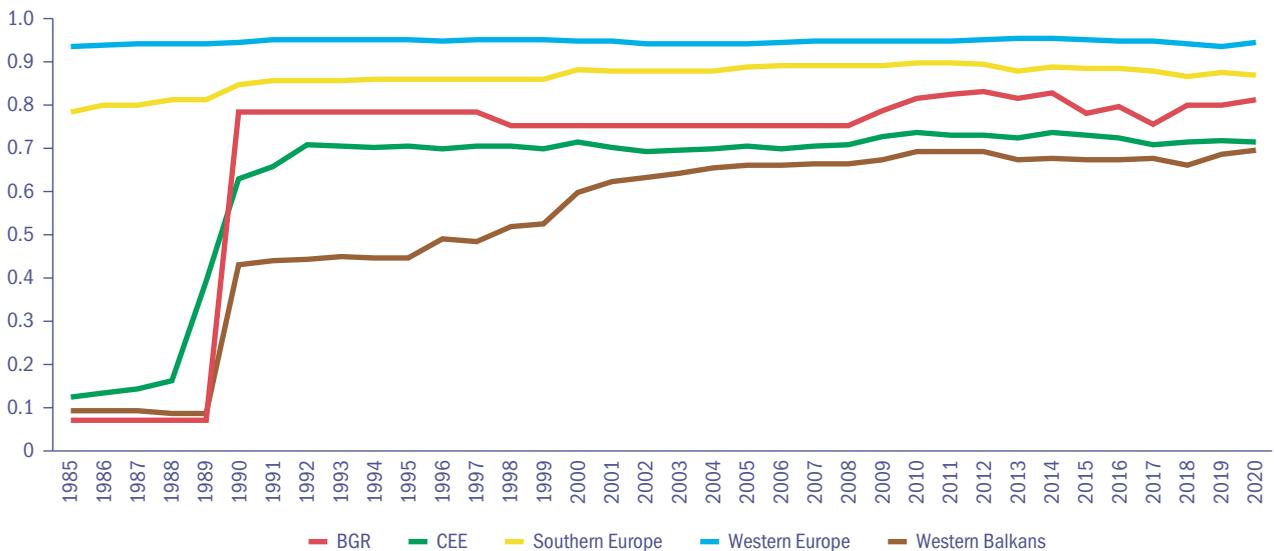
FIGURE A2.16 Social institutions



Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

Note: Closeness to frontier is calculated as (worst - y) / (worst - frontier). 1 identifies the best performer and 0 the worst performer. Weak = bottom 25 percent; Emerging 25 - 50 percent; Advanced top 50 percent.

FIGURE A2.17 Civil Society Participation



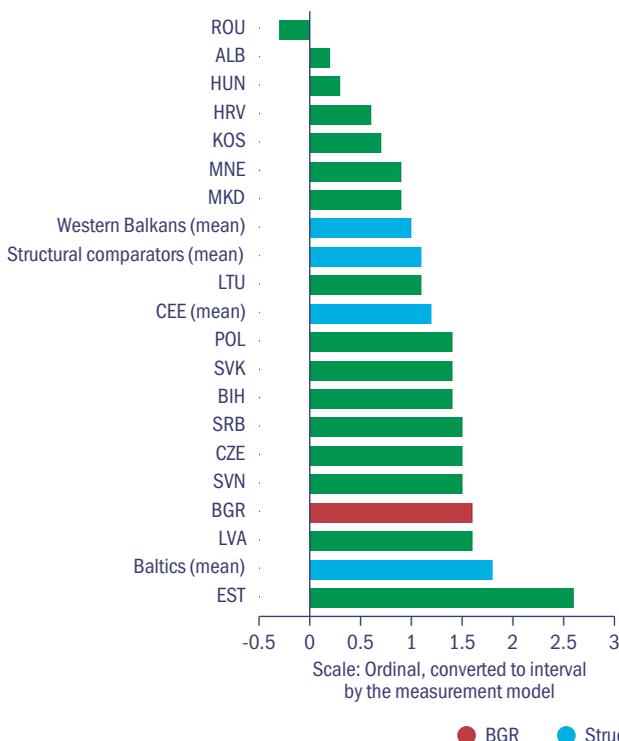
Source: Variety of Democracy database, 2020

Note: 0-1 scale, where 0 stands for no civil society participation, and 1 - for perfect civil society participation.

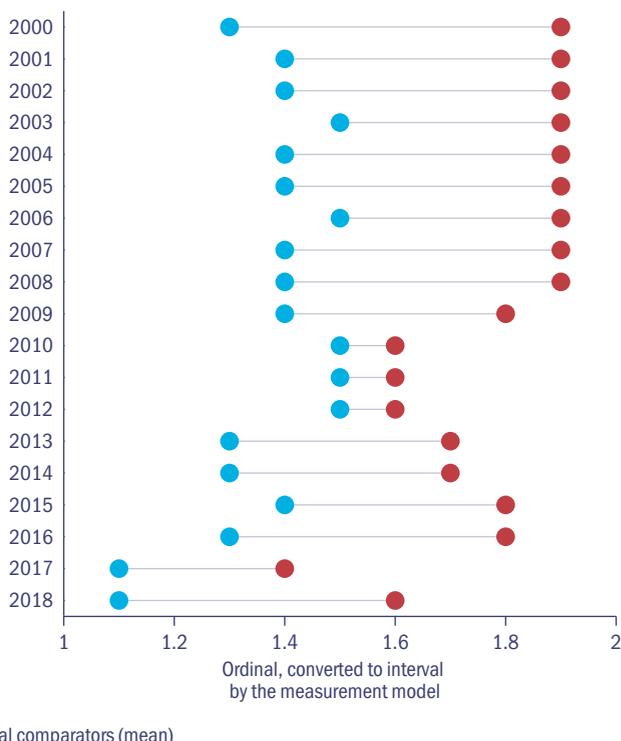
Bulgaria’s performance as “engaged society” (the degree to which, when important policy changes are being considered, public deliberations are wide and independent) is mixed. While results are similar to Southern European countries, according to the data from the Variety of Democracy database, Bulgaria’s score in 2020 (1.6) is the same as it was in 2010, suggesting that limited progress has been achieved in the last decade and that public deliberations are still not frequent and suggest that non-elite actors are controlled by the elites.

FIGURE A2.18 Engaged Society

a. 2018



b. 2000-2018



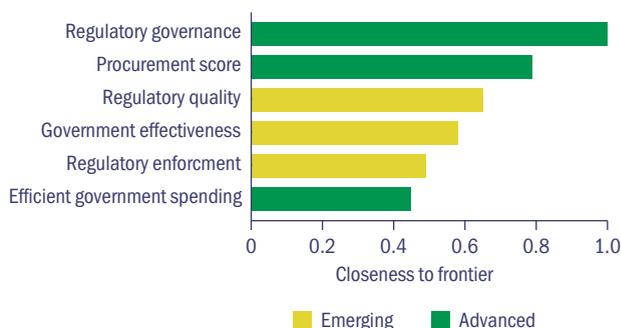
Source: Variety of Democracy database, 2020

Public sector institutions

Public sector institutions are those that deal with the design, implementation and enforcement of regulations that determine the effectiveness of the state and the quality of public service delivery. Government effectiveness can be compromised by limited coordination among agencies, weak role of regulatory agencies, competing legislation, lack of monitoring activities or poor internal management capacity. These institutions are becoming more and more relevant in a context where an increasing number of crosscutting issues demand “whole-of-government” approaches and coherent responses.

Public sector institutions in Bulgaria appeared to be about average when compared with other

FIGURE A2.19 Public Sector Institutions, Bulgaria vs comparator countries



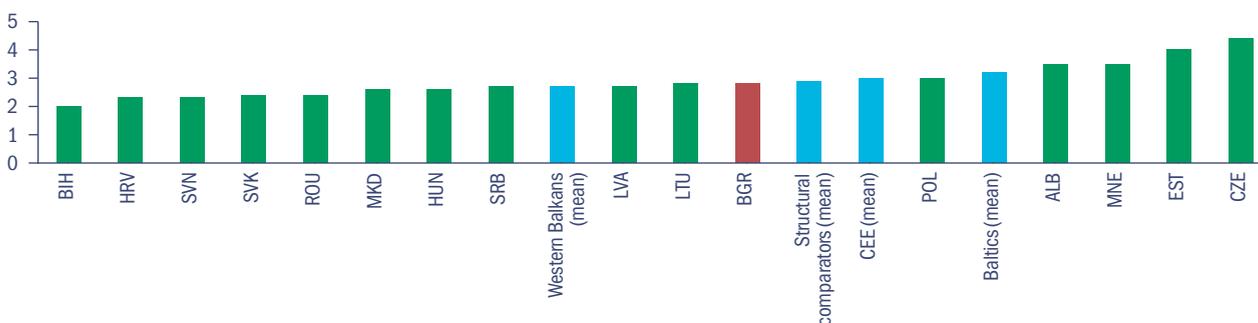
Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

Note: Closeness to frontier is calculated as (worst - y) / (worst - frontier). 1 identifies the best performer and 0 the worst performer. Weak = bottom 25 percent; Emerging 25-50 percent; Advanced top 50 percent.

relevant peers but they do not perform well against aspirational countries (EU-15).

In areas such as legal and regulatory environment for public procurement and regulatory governance, Bulgaria is in the top 50 percent with respect to comparator countries. This suggests that the country has successfully adopted EU regulations and directives, which is why the distance to frontier is very small and the country is doing comparatively well against both set of comparators.

FIGURE A2.20 Efficiency of Government Spending (2018)



Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

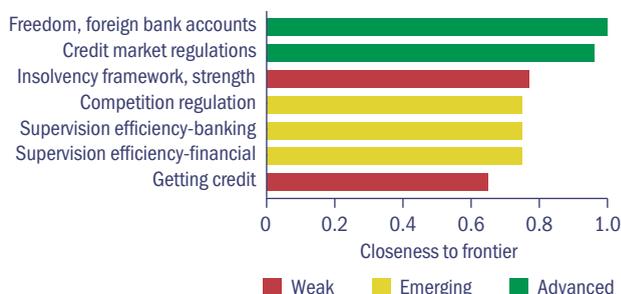
Note: 0–7 scale, where 0 stands for extremely inefficient, and 7 – for extremely efficient.

When it comes to the efficiency of government spending, Bulgaria scores better than comparable countries but it ranks at the bottom 25 percent when compared to EU-15. According to the latest data from the Global Competitiveness Index (GCI), Bulgaria’s quality of spending ranks 2.8 (out of 7), below the average of all structural comparators (3), as well as most relevant peer in the region.

Financial institutions

In the cluster “Financial Institutions”, we observe that Bulgaria’s performance compares more favorably with respect to aspirational countries than to comparator countries. The largest institutional gaps are observed in the strength of the institutional framework for insolvency and in “Getting Credit”, which considers the legal rights of borrowers and lenders, the features that facilitate lending within the applicable collateral and bankruptcy laws and the coverage, scope and accessibility of credit information. Credit market regulations have been improving in recent years, while the perceived efficiency of the banking supervisory authority and the perceived efficiency of the financial market supervisory authority have been deteriorating.

FIGURE A2.21 Financial Institutions, Bulgaria vs comparator countries



Source: Institutional Assessment for Bulgaria, carried out by a World Bank team in April-May 2021; details on the indicators used in the assessment as well as their sources can be found in the table at the end of Annex 2.

Note: Bulgaria, Croatia, CEE, Western Balkans. Closeness to frontier is calculated as (worst - y) / (worst - frontier). 1 identifies the best performer and 0 the worst performer. Weak = bottom 25 percent; Emerging 25–50 percent; Advanced top 50 percent.

Indicators

Service Delivery

Indicator	Source	Availability
Price controls	OECD – Product Market Regulation	2003, 2008, 2013, 2018
Use of command-and-control regulation	OECD – Product Market Regulation	2003, 2008, 2013, 2018
Governance of SOEs	OECD – Product Market Regulation	2008, 2013, 2018
Public services	Fragile States Index	2006 – 2020
Getting electricity	Doing Business	2010 – 2020
Quality of electricity supply	Global Competitiveness Index (GCI)	2007 – 2017
Internet access in schools	Global Competitiveness Index (GCI)	2007 – 2017
Exposure to unsafe drinking water	Global Competitiveness Index (GCI)	2017 – 2019
Reliability of water supply	Global Competitiveness Index (GCI)	2017 – 2019
Quality of roads	Global Competitiveness Index (GCI)	2017 – 2019
Quality of primary education	Global Competitiveness Index (GCI)	2007 – 2017
Quality of primary and secondary education (urban areas)	Institutional Profiles Database	2012, 2016
Quality of primary and secondary education (rural areas)	Institutional Profiles Database	2012, 2016
Quality of higher education/university	Institutional Profiles Database	2012, 2016
Quality of basic healthcare	Institutional Profiles Database	2012, 2016
Quality of public transport	Institutional Profiles Database	2012, 2016
Equal treatment in public school access	Institutional Profiles Database	2012, 2016
Equal treatment in public healthcare access	Institutional Profiles Database	2012, 2016
Equal treatment in administrative procedures	Institutional Profiles Database	2012, 2016
Equal treatment in public employment access	Institutional Profiles Database	2012, 2016
Territorial coverage of public schools	Institutional Profiles Database	2012, 2016
Territorial coverage of basic healthcare services	Institutional Profiles Database	2012, 2016
Territorial coverage of drinking water and sanitation networks	Institutional Profiles Database	2012, 2016
Territorial coverage of transport infrastructure	Institutional Profiles Database	2012, 2016
Territorial coverage of maintenance and solid waste disposal	Institutional Profiles Database	2012, 2016
Territorial coverage of electricity grid	Institutional Profiles Database	2012, 2016
Reliability of police services	Global Competitiveness Index (GCI)	2017 – 2019

Business and Trade Environment

Indicator	Source	Availability
Capital controls	Human Freedom Index (HFI)	2000 – 2017
Administrative burdens on start-ups	OECD – Product Market Regulation	2003, 2008, 2013, 2018
Complex regulatory procedures	OECD – Product Market Regulation	2003, 2008, 2013, 2018
Burden of customs procedure	Global Competitiveness Index (GCI)	2007 – 2017
Property rights	Global Competitiveness Index (GCI)	2017 – 2019
Other barriers to trade	OECD – Product Market Regulation	2003, 2008, 2013
Non-tariffs trade	Global Competitiveness Index (GCI)	2017 – 2019
Protecting of incumbents	OECD – Product Market Regulation	2003, 2008, 2013
Efficiency of the clearance procedure	Global Competitiveness Index (GCI)	2016 – 2018
Burden of government regulation	Global Competitiveness Index (GCI)	2007 – 2017
Foreign ownership/ investments restrictions	Human Freedom Index (HFI)	2000 – 2017
Extent of market dominance	Global Competitiveness Index (GCI)	2017 – 2019
Efficient/transparent border administration	Global Competitiveness Index (GCI)	2014 – 2016
Effective anti – monopoly policy	Global Competitiveness Index (GCI)	2007 – 2017
Global competitiveness index	Global Competitiveness Index (GCI)	2018
Construction permits	Doing Business	2006 – 2020
Protecting minority investors	Doing Business	2006 – 2020
Registering property	Doing Business	2005 – 2020
Starting a business	Doing Business	2004 – 2020
Paying taxes	Doing Business	2006 – 2020
Explicit barriers to trade	OECD – Product Market Regulation	2003, 2008, 2013
Control capital/ people movements	Human Freedom Index (HFI)	2000 – 2017
Trade freedom	Heritage Index of Economic Freedom	2000 – 2019
Business freedom	Heritage Index of Economic Freedom	2000 – 2019
Trade openness	Global Competitiveness Index (GCI)	2017 – 2019
Service trade openness	Global Competitiveness Index (GCI)	2018
Trading across borders	Doing Business	2006 – 2020
Administrative burden	Index of Public Integrity (iPI)	2015, 2017, 2019
Barriers in services sectors	OECD – Product Market Regulation	2003, 2008, 2013, 2018

Public Sector

Indicator	Source	Availability
Regulatory enforcement	World Justice Project	2012 - 2019
Regulatory governance	Worldwide Governance Indicator	
Procurement score (Public procurement)	Benchmarking Public Procurement	2017
Efficient government spending	Global Competitiveness Index (GCI)	2018
Centre of government, influence	OECD – Governance at a Glance	2016
Government effectiveness	Worldwide Governance Indicators	2002 - 2018
Regulatory quality	Worldwide Governance Indicators	2002 - 2018
Democracy status 2010, 2012, 2014, 2016, 2018, 2020	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Steering capability	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Welfare regime	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Private property	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Economic performance	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Sustainability	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Resource efficiency	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Consensus-Building	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
International cooperation	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Stateness	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Political participation	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Rule of law	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Stability of democratic institutions	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Political and social integration	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Level of socioeconomic development	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Organization of the market competition	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Monetary and fiscal policy	Bertelsmann Transformation Index	2010, 2012, 2014, 2016, 2018, 2020
Economic decline	Fragile States Index	2006 - 2020
Uneven economic development	Fragile States Index	2006 - 2020
Demographic pressures	Fragile States Index	2006 - 2020
Refugees and internally displaced persons (IDPs)	Fragile States Index	2006 - 2020
Human flight and brain drain	Fragile States Index	2006 - 2020
E-citizenship	Index of Public Integrity (iPI)	2015, 2017, 2019
Goods market efficiency	Global Competitiveness Index (GCI)	2007 - 2017
Market size	Global Competitiveness Index (GCI)	2007 - 2017
Market capitalization	Global Competitiveness Index (GCI)	2017 - 2019

Accountability and Corruption

Indicator	Source	Availability
Open data barometer	Open Data Barometer	2016
Open government	World Justice Project	2012 - 2013, 2014, 2015, 2016, 2017 - 2018, 2019
Rigorous and impartial public administration	V-Dem	2010 - 2018
Absence of corruption	World Justice Project	2012, 2014, 2015, 2016, 2017, 2019
Perception of corruption	V-Dem	2012 - 2018
Favoritism in government appointments	Global Competitiveness Index (GCI)	2018
Diversion of public funds	Global Competitiveness Index (GCI)	
Irregular payments and bribes	Global Competitiveness Index (GCI)	2010 - 2017
E-Government index	UN e-Government Knowledgebase	2008, 2010, 2012, 2014, 2016, 2018
E-participation index	UN e-Government Knowledgebase	2008, 2010, 2012, 2014, 2016, 2018
Transparent government policy making	Global Competitiveness Index (GCI)	2007 - 2017
Control of corruption	Worldwide Governance Indicators	2002 - 2018
Voice and accountability	Worldwide Governance Indicators	2002 - 2018
State legitimacy	Fragile States Index	2006 - 2020
Judicial independence	Index of Public Integrity (iPI)	2015, 2017, 2019
Budget transparency	Index of Public Integrity (iPI)	2015, 2017, 2019
Political oversight institutions operation in compliance with the formal rules in force	Institutional Profiles Database	2012 - 2016
Percent of firms identifying corruption as a major constraint	Enterprise Survey 2019	2019
Percent of firms identifying the courts system as a major constraint	Enterprise Survey 2019	2019
Percent of firms experiencing at least one bribe payment request	Enterprise Survey 2019	2019
Percent of firms expected to give gifts to secure government contract	Enterprise Survey 2019	2019
Percent of firms expected to give gifts to get a construction permit	Enterprise Survey 2019	2019
Value of gift expected to secure a government contract	Enterprise Survey 2019	2019
Civil justice is free of corruption	World Justice Project	2012 - 2013, 2014, 2015, 2016, 2017 - 2018, 2019
Criminal justice system is free of corruption	World Justice Project	2012 - 2013, 2014, 2015, 2016, 2017 - 2018, 2019

Legal Institutions

Indicator	Source	Availability
Criminal justice	World Justice Project	2012 - 2013, 2014, 2015, 2016, 2017 - 2018, 2019
Civil justice	World Justice Project	2012 - 2013, 2014, 2015, 2016, 2017 - 2018, 2019
Resolving insolvency	Doing Business	2004 - 2020
Integrity of the legal system	Economic Freedom (Fraser Institute)	2017
Challenging regulations	Global Competitiveness Index (GCI)	2018
Settling disputes	Global Competitiveness Index (GCI)	2018
Judicial accountability	V-Dem	
Enforcing contracts	Doing Business	2018, 2019, 2020
Rule of law	V-Dem	2018
Human rights and rule of law	Fragile States Index	2006 - 2020

ANNEX 3

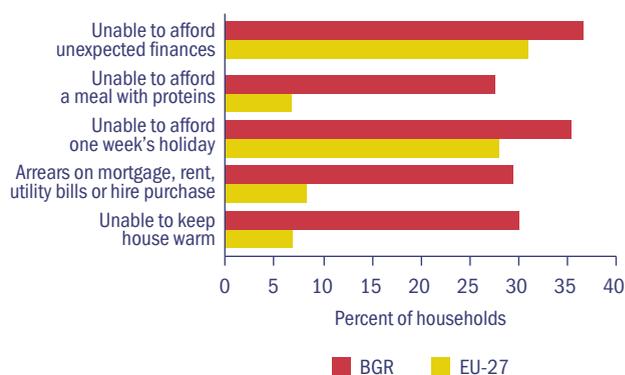
Poverty annexes with profile

Despite gains in the reduction of absolute poverty, Bulgaria has consistently recorded one of the highest rates of relative poverty in the EU. In 2018, the at-risk-of-poverty rate—the proportion of individuals with income less than 60 percent of the national median equivalized disposable income (after social transfers)—was 22.6 percent, the 3rd highest in the EU, surpassed by only by Latvia (22.9 percent) and Romania (23.8 percent).ⁱⁱ When considering the at-risk-of-poverty or social exclusion rate—the proportion of individuals who are at-risk-of-poverty, severely materially deprived¹⁴⁶ and people living in households with very low work intensity¹⁴⁷, Bulgaria has the highest rate at 32.8 percent in 2018.

In addition to high rates of monetary poverty, though declining, Bulgaria has consistently reported high measures of non-monetary poverty. Along all measures of economic strain, Bulgaria consistently ranks higher than the EU-27 average most notably in the share of households unable to keep the house warm, consistent with Bulgaria reporting one of the highest levels of energy poverty in the EU-27, the share of households unable to afford a meal with protein and the share of households in mortgage, rent, utility or hire purchase arrears. The proportion of individuals reporting economic strain is most pronounced among households in the lowest income quintile, with reports as much as 11 times higher as compared with households in the richest income quintile.

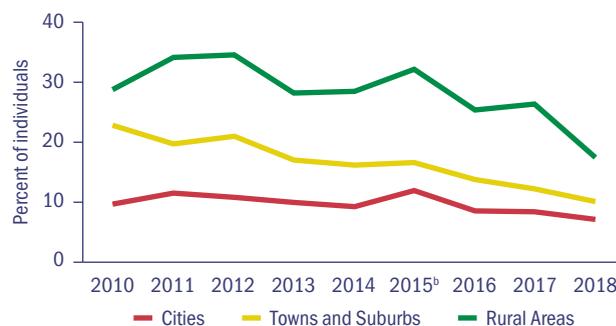
Tackling persistently high poverty and boosting shared prosperity can be accomplished through

FIGURE A3.1 Measures of economic strain in Bulgaria and the EU-27, 2018



Source: Indicators ilc_mdcs01, ilc_mdcs02

FIGURE A3.2 Poverty as measured by the anchored AROP poverty line by degree of urbanization in Bulgaria, 2018



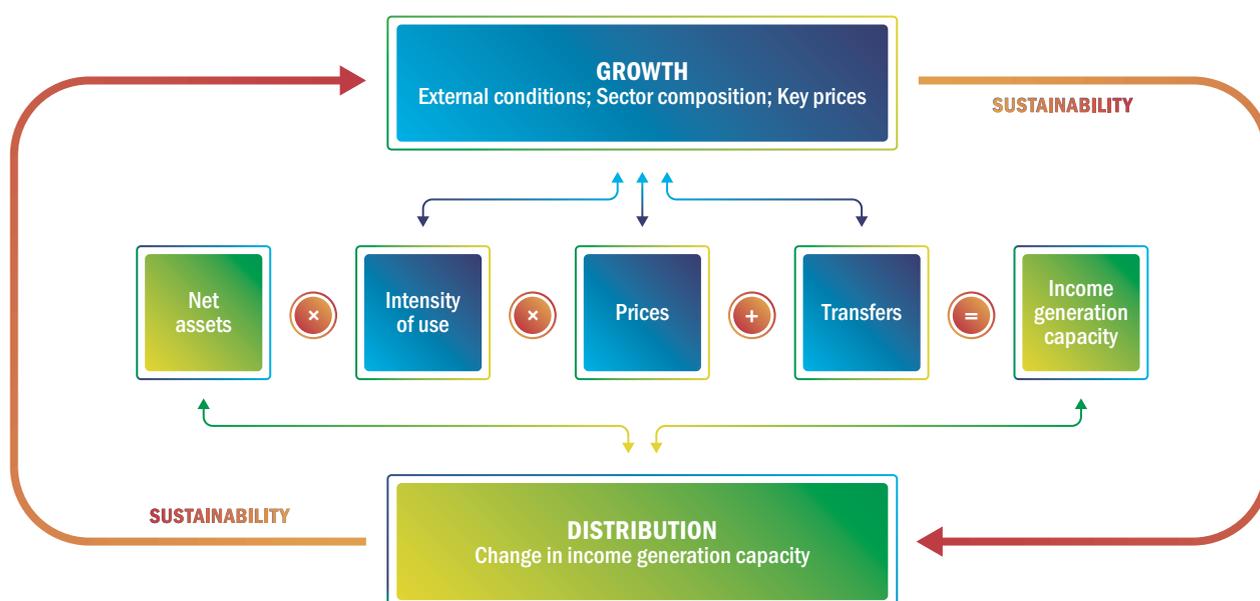
Source: World Bank Calculations using the EU-SILC survey years 2011–2019 covering income years 2010–2018. b signals a break in the time series.

146. Severely materially deprived persons have living conditions severely constrained by a lack of resources, they experience at least 4 out of 9 following deprivations items: cannot afford i) to pay rent or utility bills, ii) keep home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) a week holiday away from home, vi) a car, vii) a washing machine, viii) a colour tv, or ix) a telephone.

147. People living in households with very low work intensity are those aged 0–59 living in households where the adults (aged 18–59) work 20 percent or less of their total work potential during the past year.

improving access to better and more productive jobs among the poor, however, the asset profile of the poor remains a limiting factor. Taking the asset-based approach¹⁴⁸, at the micro level, the capacity of households to generate income and escape poverty is determined by their stock of household assets (e.g. human and financial capital); the intensity of their use (e.g. hours worked, the capital/labor ratio) and the return on assets (e.g. wages). These three factors in addition to net transfers determine the income-generating capacity of the households. The characteristics of the assets of the poor suggest challenges along all three dimensions compounded by a social benefit system that is characterized by issues with targeting, coverage and adequacy, serving to further limit the income-generating capacity of households.

FIGURE A3.3 Asset-Based Framework for Determination of Growth and Income Distribution



Demographic characteristics

The high proportion of children and elderly among the poor limits the possibility for improved income generating capacity from an age standpoint. In 2018, a third of the poor were elderly (65+) and 17 percent were children (0-14). The proportion of old age dependents among the poor, and the associated decline in income generating capacity, is likely to increase further due to rapid populating aging and high rates of outward migration among the working age population.

The age distribution of the poor results in high age dependency ratios, limiting the ability of the working age population to participate in the labor force and

148. Shared Prosperity: Paving the Way in Europe and Central Asia (Bussolo and Lopez-Calva, 2014)

exacerbating already high levels of financial strain among the working age poor. In 2019, the age dependency ratio—the ratio of members 0–14 and 65 and over to members 15–64—was 55.7. Among the poor, the age dependency ratio was 98.3 compared with 46.4 among the non-poor, reflecting the high proportion of elderly and children that comprise the poor. The high economic dependency ration reflects the high economic burden faced by the working age poor, which is likely to be further exacerbated by rapid population aging and high rates of outward migration among the working age population.

Minimum pensions that are nearly a third of the AROP threshold have contributed to elevated AROP rates among the elderly. In relative terms, the median equivalized income of elderly people aged 65 or older was two-thirds (67 percent) that of the median equivalized disposable income of persons aged between 0 and 64, placing it among the lowest in the EU-27.¹⁴⁹ As a consequence, the AROP rate among the elderly was 38.3 percent, almost twice as high as the AROP rate among the working age population (18–64) at 17.1 percent, and 1.3 times that of the child population (0–17) at 28.3 percent in 2019¹⁵⁰. The high share of the elderly population at risk of poverty is partly linked to the level of the minimum pension, which is 31 percent below the relative at-risk-of-poverty threshold, affecting around 800,000 pensioners as of July 2020 (EC 2020f). This situation is likely to reflect factors beyond the level of pensions, including pension coverage, household composition and the work status of household members, including the age of retirement¹⁵¹.

Women reported higher AROP rates than men, driven almost entirely by higher poverty rates among elderly women. In 2018, the AROP rate among women was 24.3 percent compared with 20.9 percent for men. The AROP rate is highest among elderly women at 39.5 percent compared with 27.2 percent for elderly men. When considering single-person elderly female households, the AROP rate increases to 61 percent compared with 46 percent for single-person elderly male households. By contrast, the AROP rate by sex among the working age population and children was near parity.

Indicators of non-monetary poverty are particularly high among populations that face high barriers to entry in the labor force such as the Roma. According to the 2019 national SILC, the majority (84 percent) of Roma live in households considered to be at-risk of poverty and social exclusion¹⁵², compared to 26 percent among ethnic Bulgarians and 43 percent among the Turkish population. About 63 percent of Roma suffer from severe

149. Eurostat indicator tespno20, last accessed 11.05.21. Using the 2019 EU-SILC survey, covering the 2018 income year, Bulgaria's indicator was among the third lowest in the EU-27.

150. Eurostat indicator ilc_li02, last accessed 11.05.21. The reported indicator uses the 2020 EU-SILC survey, covering the 2019 income year.

151. Among employed persons aged 65 and above, 6.7 percent were AROP. Eurostat indicator ilc_iw01, last accessed 11.05.21.

152. This means those who are at risk of poverty (after social transfers), or severely materially deprived, or living in a household with very low work intensity.

material deprivation¹⁵³ and close to 67 percent of Roma declared arrears (in mortgage, rent, or utility bills), compared to only 25 percent among ethnic Bulgarians. Two thirds (66 percent) of Roma households signaled they could not afford unexpected required expenses with own resources, and 68 percent cannot afford to have a meal with meat, chicken, or fish every second day.¹⁵⁴ The 2011 Roma Regional Survey data¹⁵⁵ suggest that despite the close geographical proximity between the marginalized Roma and the non-Roma in Bulgaria (generally around 300 meters), there are striking differences in the quality of housing and the surrounding infrastructure. Compared with their non-Roma neighbors, marginalized Roma have much lower access to piped water inside their dwellings (56 percent compared with 90 percent) as well as lower levels of connection to public sewage or wastewater tanks (52 percent compared with 73 percent).

Human capital and financial assets

The low levels of human capital accumulation among the poor both limits their ability to find jobs and limits the remuneration for their work, rendering them unable to escape poverty. Education is strongly linked to the ability to find a job—in 2019 the employment rate among adults 15–64 with tertiary education was 88.5 percent compared with 38.4 percent for adults with primary education. The comparable figures for unemployment rates were 1.9 percent and 13.1 percent, respectively.¹⁵⁶ Education is also strongly associated with wages with those with primary education tending to be concentrated in low wage occupations with close to 50 percent of workers with primary education working in elementary occupations compared with less than 1 percent of those with tertiary education.¹⁵⁷ The low levels of educational attainment among the working age poor with 59 percent having primary education and only 5 percent having tertiary education can partly explain the low reports of employment (39.0 percent) and the tendency to be employed in low-wage primary occupations (38.5 percent).

Gaps in education access by ethnicity show that limited access to education takes root in the earliest years of children's lives and fails to narrow in the years that

153. These indicators show the subjective assessment and personal attitudes of the persons and households, related to the possibility of meeting individual needs. Severely materially deprived persons have living conditions severely constrained by a lack of resources, and they experience at least four out of following nine deprivations items: cannot afford (i) to pay rent or utility bills; (ii) keep home adequately warm; (iii) face unexpected expenses; (iv) eat meat, fish, or a protein equivalent every second day; (v) a week holiday away from home; (vi) a car; (vii) a washing machine; (viii) a color tv; or (ix) a telephone.

154. The respective shares among the Turkish population are 45.3 and 25.5 percent.

155. UNDP-World Bank-EC (2011). On housing and access to basic services, no more recent data is available.

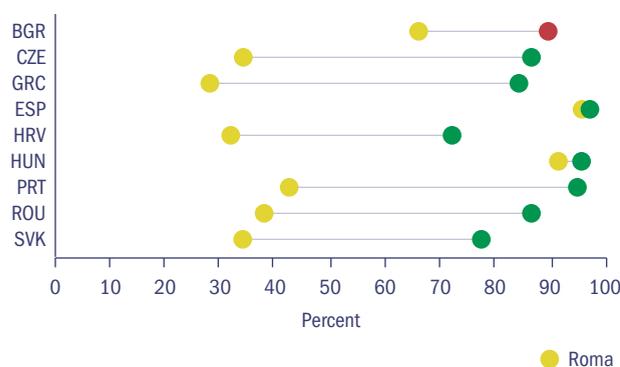
156. Eurostat indicators [lfsa_urgaed], [lfsa_ergaed]

157. Eurostat indicator [lfsa_egised]

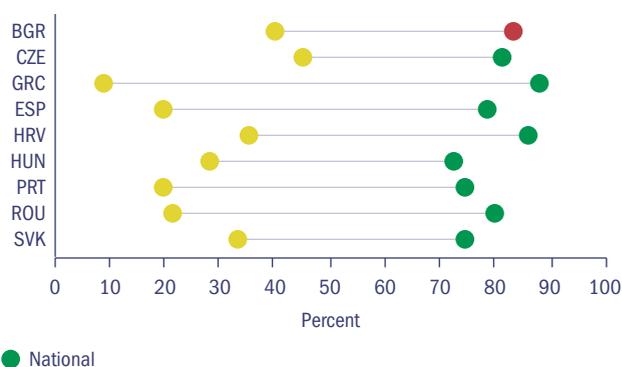
follow. Results of the available Roma surveys¹⁵⁸ for Bulgaria, available at the national level, show that children from disadvantaged backgrounds who start behind stay behind—they rarely are able to make up the lost ground. Despite relatively high preschool enrollment by regional standards, geographic disparities in early childhood education and care (ECEC) persist, with 66 percent of Roma children attending preschool, with no marked gender gap (69 and 64 percent of girls and boys, respectively).¹⁵⁹ Completion rates in compulsory education among Roma are generally low and there are considerable gender gaps, but the gaps in educational attainment are even wider among older cohorts, with few Roma completing upper-secondary education. Compulsory education completion rates in Bulgaria among Roma ages 18–21 are only 56 percent, compared to 96 percent among non-Roma neighbors. Completion rates for Roma girls are well below rates for boys, due to high rates of early-school dropout.

FIGURE A3.4 Net enrollment rates, selected EU countries, 2016

a. Pre-primary (ISCED 0), compulsory education (ISCED 1 and 2)



b. Upper secondary (ISCED 3)



Sources: FRA estimates based on 2016 EU-MIDIS II Regional Roma Survey.

Note: Net enrollment rates are calculated as the share of children attending education level that corresponds to their age out of the total number of children of that age. National estimates based on Eurostat.

The poor have fewer financial assets to withstand shocks. In 2019, over 80 percent of poor households reported that they would be unable to withstand an unexpected financial expense compared with less than a third of non-poor households. The vulnerability

158. In 2011, a Regional Roma Survey was conducted in the 12 countries of Central and Eastern Europe by the United Nations Development Programme (UNDP) with technical assistance by the World Bank, sponsored by DG NEAR. The countries included in the 2011 UNDP-World Bank-EC Regional Roma Survey were Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Hungary, the former Yugoslav Republic of Macedonia, Moldova, Montenegro, Romania, Serbia, and the Slovak Republic. The survey examines income, living conditions, and key human development outcomes within the Roma households and neighboring non-Roma, along with questions on the experiences of discrimination and exclusion that are unique to Roma. The survey included four modules with questions on household and individual status on employment, education, health, living conditions, early childhood development and care, along with questions on attitudes and experiences of discrimination. A similar survey was implemented by the EU Agency of Fundamental Rights in EU member states in Spring of 2016. These surveys are representative at the national level, and urban/rural, but not at lower levels of disaggregation.

159. FRA estimates based on 2017 EU-MIDIS II Regional Roma Survey.

of these households to shocks limits their ability to accrue assets and may also compromise future earnings potentials if households sell assets to mitigate the effects of shocks.

Labor market integration

The poor tend to be concentrated in geographic areas with few economic opportunities which further limits their ability to find employment. Comparing the poverty rate at the municipality level with labor market tightness — the ratio of registered vacancies per registered unemployed — shows that in general the poor are concentrated in areas with a low proportion of registered vacancies per registered person unemployed. The lack of local economic opportunities combined with low levels of labor mobility serves as a further barrier to increasing income and escaping poverty.

FIGURE A3.5 AROP rate, 2011

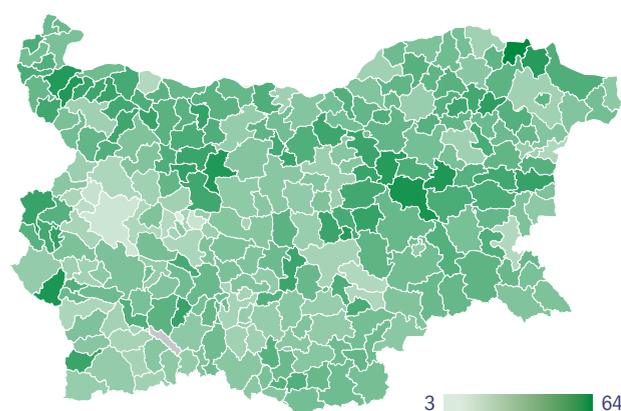
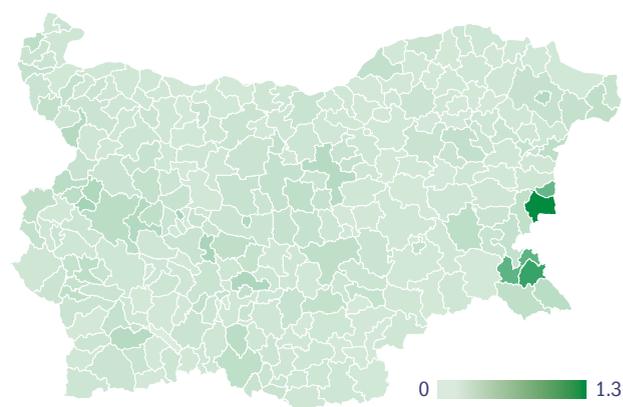


FIGURE A3.6 Registered Vacancies per Registered Unemployed person



When the poor do engage in the labor market, they tend to do so less intensely. In 2019, over a third of the poor lived in households that could be classed as having low work intensity, meaning, on average, members of working age (18–59) worked less than 20 percent of their total potential during the previous 12 months. The comparable figure for non-poor households was only 2 percent.¹⁶⁰ About 28 percent of Roma aged 18–69 lived in households with very low work intensity,¹⁶¹ compared to only 5.9 percent among ethnic Bulgarians and 14 percent among the Turkish population.

160. Households composed only of children, of students aged less than 25 and/or people aged 60 or more are completely excluded from the indicator calculation.

161. Low work intensity of the household refers to the ratio between, on the one hand, the number of months that all working age (18–59) household members have been working during the income reference year, and on the other hand, the total number of months that could theoretically have been worked by the same 10 household members. For those who declare that they work part time, number of months is converted to full time based on hours worked.

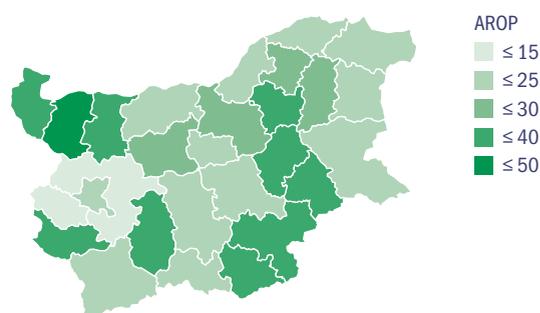
Regional variation in living standards

Poverty continues to be significantly higher in rural areas than in cities, towns and suburbs. But the rural-urban gap narrowed in 2018. In 2018, the anchored AROP poverty rate in rural areas was 1.7 times that of towns and suburbs and 2.5 times that of cities. This is reflective of a larger trend whereby poverty in rural areas has persistently exceeded that of towns and suburbs and cities. The disparity in poverty rates by degree of urbanization largely reflects inequalities in access to opportunities across regions reflected in worse labor market outcomes. In 2017, activity rates among individuals aged 15 – 64 was 65 percent in rural areas compared with 74 percent in urban areas. Similarly, unemployment rates were 9.5 percent in rural areas compared with 3.9 percent in urban areas and employment rates were 59.0 percent in rural areas compared with 72 percent in urban areas.

Disaggregation at lower geographic levels reveals substantial variation in the poverty rate within Bulgaria. Using the anchored AROP poverty line in 2017, 9 regions recorded poverty rates in excess of 20 percent – Vidin, Vratsa, Lovech, Veliko Tarnovo, Shumen, Sliven, Haskovo, Pazardzhik, and Kardzhali, and one region, Montana, recorded poverty rates in excess of 35 percent. By contrast the Sofia and Pernik regions recorded the lowest poverty rates of approximately 5 percent and 9 percent, respectively. The disparity in poverty rates by NUTS 3 level is largely driven by disparities in the labor market. In 2018, Bulgaria reported a modest regional disparity in employment rates at the NUTS 3 level of 8.1 percent compared with the EU-27 average of 14.7. The regional disparity in unemployment rates at the NUTS 3 level was starker with Bulgaria reporting a regional disparity of 90.5 percent compared with the EU-27 average of 75.0 percent, reflecting high dispersions in unemployment rates at the NUTS 3 level. Additionally, Roma tend to be concentrated in municipalities that present higher poverty gaps and higher poverty severity.

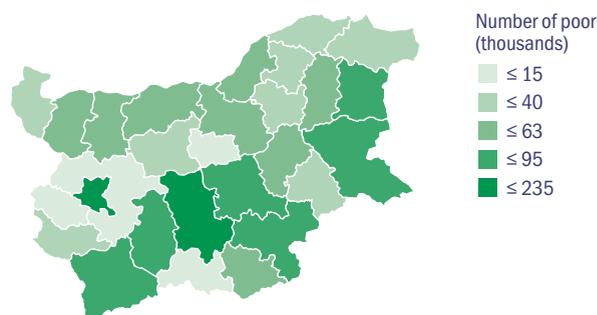
Large variations in poverty across regions are mirrored in large variations in inequality across regions. Despite this, the majority of the inequality present within Bulgaria can be attributed to inequalities within rather than across regions. In 2017, eight NUTS 3 regions had per adult equivalent Gini coefficients in excess of 0.40 – Vidin, Montana, Lovech, Gabrovo, Silven, Sofia City, Haskovo, and Pazardzhik. Of the level of inequality present in Bulgaria in 2017, 88 percent of it can be attributed to inequality within regions.

FIGURE A3.7 At-risk-of-poverty rate by NUTS 3 regions, 2018



Source: World Bank Calculations using the EU-SILC survey years 2011 – 2018 covering income years 2010 – 2017. To be updated with 2019 data and 2011 revised ICP.

FIGURE A3.8 Number of poor (thousands) by NUTS 3 regions, 2018



Source: World Bank Calculations using the EU-SILC survey years 2011 – 2018 covering income years 2010 – 2017. To be updated with 2019 data and 2011 revised ICP.

ANNEX 4

Gender dashboard

Women generally have worse labor market outcomes as compared with men, but there has been progress made over time. In 2020, the female labor force participation rate (20–64) was 72.4 up from 69.6 percent in 2015, though lower than the male labor force participation rate (20–64) of 82.2 percent.¹⁶² Though women continue to have lower rates of employment (68.9 percent) compared with men (77.8 percent), this represented a marked increase from 63.8 percent in 2015.¹⁶³ The female unemployment rate showed similar progress some progress along these dimensions decreasing from 8.3 percent in 2015 to 4.7 percent in 2020, lower than the 5.4 percent recorded by men in 2020.¹⁶⁴ In 2019, women made on average 14.1 percent less than men, marking an improvement from 15.5 percent in 2015.¹⁶⁵

Some of the unfavorable labor market outcomes could potentially be explained by the high barriers to entry faced by women due to disproportionate engagement in housework and care responsibilities. In Bulgaria, women are disproportionately more likely to be engaged in care responsibilities as compared with men (39 percent compared with 26 percent for men)¹⁶⁶. Additionally, women disproportionately report being engaged in housework and cooking (73 percent vs 13 percent). Both these factors could serve as barriers to labor market entry.

The high barriers to re-entry for women with children despite generous maternity leave policies could also help explain the persistence in unfavorable labor market outcomes. Bulgaria has one of the most generous maternity leave policies in the EU and OECD, ranking 3rd for the duration of leave at full pay^{167,168}. Despite allowing for the sharing of maternity leave and a separate paternity leave provision, the rate of parental leave uptake by Bulgarian fathers is only 11 percent¹⁶⁹. The discrepancy in the uptake of parental leave coupled with women shouldering more of the child-care responsibilities contributes to a higher incidence of career interruptions and longer spells outside the workforce for women, potentially resulting in steep labor market penalties. In 2018, of women with

162. Eurostat indicator [lfsa_argaed]

163. Eurostat indicator [lfsa_argaed]

164. Eurostat indicator [lfsa_argaed]

165. Eurostat indicator [earn_gr_gpgr2]

166. European Institute for Gender Equality (EIGE)

167. OECD Family Database, https://www.oecd.org/els/soc/PF2_1_Parental_leave_systems.pdf

168. OECD Family Database, https://www.oecd.org/els/soc/PF2_1_Parental_leave_systems.pdf

169. “Parental and paternity leave-Uptake by fathers”, Eurofund (2019) <https://www.eurofound.europa.eu/publications/customised-report/2019/parental-and-paternity-leave-uptake-by-fathers>

children, 89 percent of them reported a career interruption due to childcare compared with only 1 percent of men with children¹⁷⁰. Additionally, 61 percent of men reported a career interruption of 6 months or less, whereas 91 percent of women reported a career interruption of over a year, with over half of them over two years¹⁷¹.

Within the labor market, occupational segregation continues to persist with women continuing to be the underrepresented in high-tech STEM fields despite higher levels of tertiary education. Since 2015, the proportion of women aged 30–34 with tertiary education has remained unchanged from 2015 to 2020 at 40 percent.¹⁷² Despite higher levels of tertiary-educated women (40 percent) than men (27 percent), women remain underrepresented among scientists and engineers in high technology fields, accounting for 27.4 percent of jobs in 2020 down from 29.8 percent in 2015.¹⁷³

Women continue to be underrepresented in ICT jobs but have comparable digital skill competencies compared with men. Over the period 2015 to 2020, the proportion of women in ICT jobs has fallen slightly from 30 percent to 28 percent.¹⁷⁴ This stems from women being underrepresented among ICT graduates, comprising only 34 percent in 2020 down from 39 percent in 2015.¹⁷⁵ In 2020, comparable proportions of women (30 percent) and men (28 percent) reported basic or above basic digital skill competencies.

Representation of women at prominent levels in society has generally improved over time. In 2020, 27 percent of seats in national parliament were held by women up from 20 percent in 2015 (European Institute for Gender Equality). Though improved, the figure remains below the EU-27 average of 32 percent in 2020 (European Institute for Gender Equality). The proportion of women in ministerial positions has increased from 35 percent in 2015 to 39 percent in 2020, climbing above the EU-27 average of 32 percent (World Bank). Outside of the political arena, the share of women in managerial positions has increased from 37 percent in 2015 to 43 percent in 2020, surpassing the EU-27 average of 34 percent (Eurostat). However, the share of women on the boards of the largest listed companies has fallen from 19 percent in 2015 to 13 percent in 2020, less than half the EU-27 average of 30 percent (European Institute for Gender Equality).

While progress has been made on the legislative front to combat domestic violence, the true incidence of violence against women and children is likely to be masked by under-reporting. In 2019 Bulgaria amended its criminal code to criminalize all forms of

170. Eurostat indicator [lfs0_18stlened]

171. Eurostat indicator [lfs0_18parlved]

172. Eurostat indicator [edat_lfse_03]

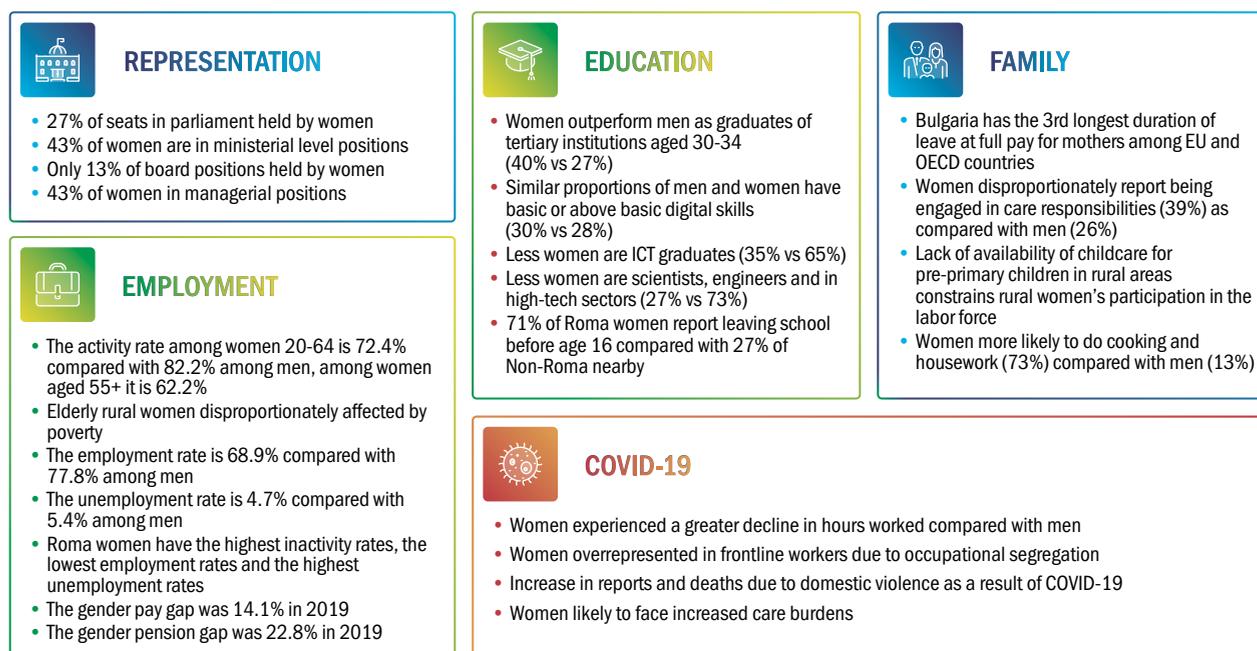
173. Eurostat indicator [hrst_st_nsecsex2]

174. Eurostat indicator [isoc_sks_itsps]

175. Eurostat indicator [educ_uoe_grad02]

domestic violence (European Institute for Gender Equality). Prior to that, there was no law criminalizing domestic violence in Bulgaria (Bulgarian Gender Research Foundation 2012). While Bulgaria has one of the lowest rates of reporting of violence against women and children in the EU, there is concern about under-reporting that may imply that 70–80 percent of cases are unreported, up to 90 percent among Roma women (Center for Study of Democracy, 2015). The impact of COVID-19 and its associated confinement measures has led to an increase in cases of domestic violence as at May compared with the corresponding period in the previous year with 8 women having lost their life at the hands of partners or family members (Center for the Study of Democracy, 2020). Additionally, hotlines for reporting violence and seeking assistance received a noticeably large uptick in the number of calls (Center for the Study of Democracy, 2020).

The COVID-19 pandemic represented a deviation from the progress in women’s labor market outcomes with women reporting a greater decline in hours worked. Reports of absences from work were three times as higher for women compared with four times as higher for men at height of COVID-19 in Q2 of 2020 compared with the corresponding period of 2019.¹⁷⁶ This is likely due to the over-representation of women in essential fields with women comprising 80 percent of workers in the human health and social activities and education fields.¹⁷⁷ Women reporting a greater decline in hours worked (13.5 percent versus 10.2 percent) during the height of the crisis in Q2 of 2020.¹⁷⁸ This can be partly attributed to the women shouldering the increased care responsibilities brought on by COVID-19.



176. Eurostat indicator [lfsi_abs_q]

177. Eurostat indicator [lfs_egan2]

178. Eurostat indicator [lfsi_ahw_q]

ANNEX 5

Prioritization table

Priority Area	Completion of Short-Term Actions (1 – 2 years)	Completion of Medium-Term Actions (3 – 5 years)	Completion of Longer-Term Actions (5+ years)
FASTER GROWTH			
Regulatory environment	<p>Strengthen RIA, including by expanding the usage of ex-post RIAs and improving the public consultation process</p> <p>Improve compensation framework, incl. performance pay, to attract/retain talent</p> <p>Establish a data governance model that enables the government to take advantage of big data while preserving the privacy of the citizens, in line with GDPR</p>	<p>Adopt modern regulatory approaches such as the “one-in, one-out” principle and functional reviews</p> <p>Support digital connectivity of public institutions and on developing a data-centric architecture and an interoperability framework</p> <p>Accelerate the transition to a hybrid cloud system, to leverage private investment in green datacenters and implement a “cloud first” policy,</p>	<p>Introduce of an e-justice and a case management system in the judiciary</p> <p>Implement modern data management principles, including “once only”, “digital by default” and “open by default”</p> <p>Plan ahead towards “proactive” services, leveraged on innovative technologies (AI, blockchain)</p>
Innovation and R&D	<p>Synchronize the various STI strategic documents and support programs with the new Bulgaria 2030 programme</p> <p>Strengthen M&E of STI investment (e.g. regular impact evaluations on the STI portfolio)</p>	<p>Invest in support of SME’s digital transformation (grants, tax incentives for use of e-services; outreach, training and certification of SME business owners, etc.)</p> <p>Prioritize the development of a green technology policy for R&D and entrepreneurship</p> <p>Concentrate public R&D capacities so that quality and quantity of research outputs is increased</p> <p>Improve governance and strategic orientation of public research institutions</p>	<p>Increase national funding for STI with clear and defined targets</p>
Upgrading skills	<p>Support disadvantaged students with access to digital devices, internet</p> <p>Strengthen the early warning system for detection of potential drop-outs; support reintegration of returning dropouts</p> <p>Alleviate the burden of care-related costs for early childhood and pre-school education for disadvantaged children.</p>	<p>Create virtual classrooms and integrate technology in the physical classrooms</p> <p>Reform and align school curricula to demand for skills</p> <p>Strengthen the professional development of teachers for better skills formation and deep learning</p>	<p>Strengthen the financing system towards a performance-based funding mechanism and measuring the impact of all investments</p>
Fiscal policy for growth	<p>Integrate spending reviews in annual budget cycle</p> <p>Revisit direct tax system from the perspective of supporting recovery by incentivizing investment and labour market participation, through tax cuts or other incentives</p>	<p>Use of modern instruments for a detailed review of public revenue, expenditure and institutions (PEIR, PER, SRs, PRs, IEs).</p> <p>Strengthen performance-based budgeting.</p> <p>Enhance growth-friendliness of tax system by raising the share of property and carbon taxes at the expense of lower direct taxation.</p> <p>Enhance Public Investment Management (PIM) by introducing a PIM system, strengthening the pre-investment phase, and introducing standard guidelines for appraisal and selection of projects</p>	<p>Decentralize further taxes and revenues to help reduce regional disparities.</p> <p>Introduce green budget tagging, e.g. by adoption of the EU Taxonomy for Sustainable Finance and new project appraisal guidelines that include green-economy criteria.</p> <p>Take gradual steps to stabilize financially pension system, including by incentivizing citizens to assume greater responsibility for saving for retirement, whether through the mandatory or voluntary pension system, or through personal savings</p>

Priority Area	Completion of Short-Term Actions (1 – 2 years)	Completion of Medium-Term Actions (3 – 5 years)	Completion of Longer-Term Actions (5+ years)
Access to finance	<p>Address elevated NPL levels by encouraging banks to recognize them in a timely manner and with adequate provisioning, and resolve them once recovery begins</p> <p>Prepare for a potential increase in bankruptcies by adopting reforms in the insolvency framework and introducing an early warning system to signal corporate distress</p>	<p>Strengthen the credit reporting system by modernizing the public credit registry and fostering an enabling environment for private credit bureaus</p> <p>Address weaknesses in the insurance sector with regards to the adequacy of provisions, the appropriateness of the valuation of non-listed assets, and the effectiveness of governance</p>	Intensify efforts to green the financial sector and incorporate climate-related risk in the exposure of the banking sector
Infrastructure and connectivity	<p>Align the legal framework for electronic communications with the new European Electronic Communications Code</p> <p>Implement the EU's Broadband Cost Reduction Directive (2014/61/EU) to promote the sharing of underground ducts, towers alongside energy and transport infrastructure and digitalize these sectors</p>	<p>Increase the diversity and resilience of international internet links to neighbors, including additional submarine cables</p> <p>Improve further road quality, with a focus on highest-class roads as well as improving connectivity and accessibility to the Trans-European Transport Network and important economic hubs</p> <p>Gradual increase of e-tolling fees up to optimal level to generate resources for road maintenance</p> <p>Accelerate the deployment of broadband internet access, provision of backbone digital infrastructure and last mile connectivity in rural and underserved areas</p> <p>Implement standards for greening and increasing the resilience of the digital infrastructure</p>	
INCLUSIVE GROWTH			
Employment and mobility	<p>Strengthen and integrate M&E into active labor market programs to inform decisions on development, closing and consolidation</p> <p>Provide incentives to employers to encourage workforce training.</p> <p>Strengthen the existing labor forecast mechanisms to provide labor market intelligence to different users.</p>	<p>Digital: Strengthen upskilling and re-skilling program to better reflect current and future skills demand, with a focus on digital skills.</p> <p>Design labor market intelligence and skills anticipation system and align ALMP to it.</p> <p>Develop specialized and integrated labor support services for the most vulnerable groups.</p> <p>Revamp existing labor market information system, leveraging technology solutions.</p> <p>Formalize process for setting and updating the minimum wage.</p>	<p><i>Institutional:</i> Integrate the NEA's information system with other government agencies providing complementary services</p> <p>Outsource some services to specialized agencies, including NGOs, especially for hard-to-place groups.</p> <p>Strengthen and further develop capacity of local service providers to assist hardest-to-place groups.</p> <p>Monitor the quality and relevance of services they offer via result-based financing contracts.</p>
Social assistance	<p>Strengthening adequacy and coverage of poverty targeted social assistance programs.</p> <p>Automatic indexation of the GMI.</p> <p><i>Elderly:</i> Review current design of social pension from the perspective of ease of access and eligibility criteria.</p>	<p>Introducing in-work benefits to encourage transitions from welfare to work for those who can work.</p> <p><i>Green:</i> Shifting the heating allowance to promote transition to clean fuels.</p> <p><i>Aging:</i> Review and consolidate multi-layered benefits system for better coverage and adequate benefits among elderly poor.</p>	<p><i>Institutional:</i> Improving integrated service delivery through increasing the coverage and scope of Centers for Employment and Social Assistance.</p>

Priority Area	Completion of Short-Term Actions (1 – 2 years)	Completion of Medium-Term Actions (3 – 5 years)	Completion of Longer-Term Actions (5+ years)
Health care	Strengthening the efficiency of spending on healthcare.	<i>Digital:</i> Accelerating the digitization process of the healthcare sector. Reducing out of pocket payments for the population. LTC development system including cash benefits, family support and care coordination	<i>Institutional:</i> Strengthen institutional and governance structures Strengthening primary and preventative care and rebalancing away from hospital care. Increasing public spending on healthcare.
Inclusive and sustainable municipal services and housing	<i>Institutional:</i> Develop a national urban policy that supports inclusion, puts forward a differentiated approach in city planning and investment Implement multi-family building upgrade programs, with a focus on poor/marginalized	Support municipal governments to right-size and green urban infrastructure, with a lagging region focus for strengthening service delivery. Design and introducing household-targeted rental subsidy program for the poor and marginalized.	Targeted and appropriately designed regional and municipality investments with a focus on raising service delivery and growth prospects in lagging regions and municipalities
Social sustainability	Increase accountability of government bodies and service providers, further leveraging open data portal and e-government platforms Expanding opportunities for social dialogue, citizen engagement and developing a social consensus on the government reform agenda, ensuring vulnerable populations are fully represented	Investing in social cohesion and the closure of basic infrastructure and services gaps by supporting local governments and partners to develop inclusive and effective service provision reflecting community needs and preferences.	
SUSTAINABLE DEVELOPMENT			
Decarbonizing the economy	Develop investment programs and financing mechanisms leveraging EU funds, prioritizing (i) energy efficiency investments in the building sector, particularly residential housing , (ii) right-sizing urban infrastructure to reduce urban sprawl (iii) renewable energy scale-up and (iv) transport fleet electrification; Develop long-term planning for sustainable heating, including a district heating roadmap. Design new Regional Development programs to address spatial impacts of the energy transition.	Promote investments in decentralized clean energy through regulatory and fiscal incentives targeting households and SMEs. Finalize energy market liberalization keeping inclusion aspects in mind. Scale-up renewable energy penetration through (i) grid strengthening (ii) distributed renewables, and (iii) closer coupling of heat and power generation. Initiate a pipeline of investments to manage the socio-economic impacts of the energy transition in coal and carbon-intensive regions.	Invest in soft and hard infrastructure for regional integration of energy markets. Enable digital transformation of energy infrastructure and service delivery. Support impacted regions to developed foundational investments and capacities to ensure fairness in the energy transition.
Reducing waste and pollution by shifting to a circular, resource efficient economy	Strengthen implementation of air quality regulations by focusing on enhancing public sector capacities, particularly at local level; Swiftly implement the Programs of Measures stemming from the Riven Basin Management Plans Allocate adequate resources to the rapid implementation of the National Plan for Marine Litter and the Marine Strategy of Bulgaria. Eliminate institutional bottlenecks in solid waste collection, transportation, and recycling by municipal governments. Develop an action plan for reducing food loss and waste.	Set up a regulatory and incentive framework to encourage higher rates of recycling Implement the pilot programs for municipal waste and recycling in selected cities. Establish an Operational Group under the European Innovation Platform encouraging innovation in circular economy policy Implement a National Strategy and Action Plan on Circular Economy	Bring the amount of landfilled waste below EU averages and eliminate pollution of water bodies Improve the efficiency of food production and distribution

Priority Area	Completion of Short-Term Actions (1 – 2 years)	Completion of Medium-Term Actions (3 – 5 years)	Completion of Longer-Term Actions (5+ years)
Leveraging natural assets and adapting to climate change	<p>Finalize the suite of Natura 2000 management plans/instruments and allocate resources to their implementation</p> <p>Develop new investment programs to ensure water security (quantity and quality) for domestic users and avoid water shortages</p> <p>Grasp the economic opportunities arising from greening agriculture, including by mainstreaming biodiversity protection in production approaches</p>	<p>Develop a coherent policy framework to address constraints to the development of the country's blue economy</p> <p>Assess the costs and benefits of revamping investments in irrigation infrastructure</p> <p>Increase targets for agri-environmental measures</p>	<p>Pursue multiple options (blending finance) to fill the financing gap in the WSS with a focus on loss reduction and extended access to safe drinking water and sanitation</p>
Resilience to natural hazards and climate shocks	<p>Finalize the multi-hazard risk country profile and detailed priority risk assessments to help identify urgent and critical investments needs</p> <p>Ensure enabling conditions are met to facilitate access to EU resources</p> <p>Consider whether the current policy framework and enforcement mechanisms adequately account for the level of catastrophic seismic risk</p>	<p>Strengthen disaster preparedness through improved risk and DRM investment information systems and modern, consolidated, and multi-hazard early warning system</p> <p>Enhance the country's financial capacity to quickly respond to catastrophic events by developing a risk financing strategy that aims to expand and/or develop sovereign, household and business risk financing and insurance instruments.</p>	<p>Invest in priority resilience needs such as improving critical response infrastructure, starting with no-regrets investments (civil protection, schools and hospitals)</p>

ANNEX 6

Evolution of topics and priority areas from the original SCD to the SCD Update

Pillar	Original SCD Topic Areas	SCD Update Topic Areas
Faster Growth	<ul style="list-style-type: none"> Regulation and innovation Skills Infrastructure (Transport) 	<ul style="list-style-type: none"> Regulatory environment Upgrading skills Infrastructure (Transport and Digital) Innovation and R&D Fiscal policy for growth Access to finance
Inclusive Growth	<ul style="list-style-type: none"> Mobility and economic participation Health and long-term care Social safety nets Pensions 	<ul style="list-style-type: none"> Mobility and economic participation Health and long-term care Social safety nets (incl. pensions) Social stability and trust
Sustainable Growth	<ul style="list-style-type: none"> Macroeconomic stability Social stability Environment 	<ul style="list-style-type: none"> Decarbonisation Reducing the environmental footprint of growth Leveraging natural assets and adapting to climate change Resilience

SCD 1 Pathways	SCD 1 Priority Areas	SCD 2 Pathways	SCD 2 Priority Areas
Strengthening the legal and institutional framework for good governance	<ul style="list-style-type: none"> Regulation and innovation Social safety nets Infrastructure (Transport) Macroeconomic stability Social stability Environment 	Strengthening the legal and institutional framework for good governance	<ul style="list-style-type: none"> Strengthening regulatory quality and accountability mechanisms Increasing the efficiency and effectiveness of public institutions
Boosting skills and employability for all Bulgarians	<ul style="list-style-type: none"> Mobility and economic participation Skills 	Boosting productivity, skills and employability for all	<ul style="list-style-type: none"> Mobility and economic participation Upgrading skills Addressing productivity bottlenecks
Making public expenditure more effective	<ul style="list-style-type: none"> Health and long-term care Pensions 	Strengthening the effectiveness, efficiency and adequacy of public spending for improved service delivery	<ul style="list-style-type: none"> Managing demographic change and supporting healthy lives Furthering redistribution through fiscal policy Promoting inclusive and sustainable regional development
		Enhancing the sustainability of the growth model	<ul style="list-style-type: none"> Shifting the decarbonization trajectory Reducing waste and pollution Leveraging natural assets and adapting to climate change

