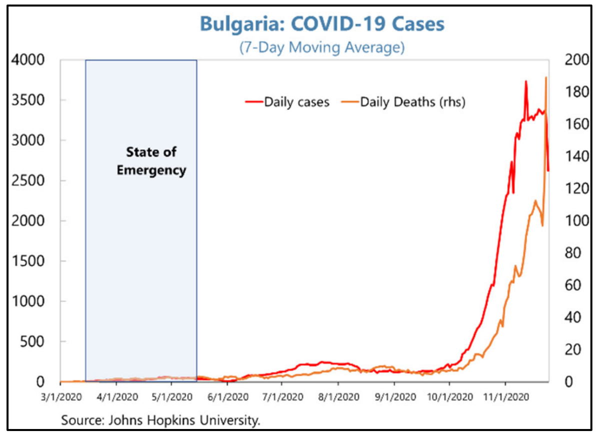
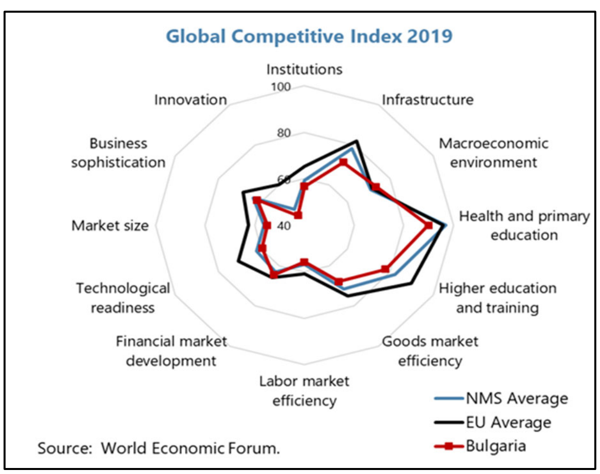
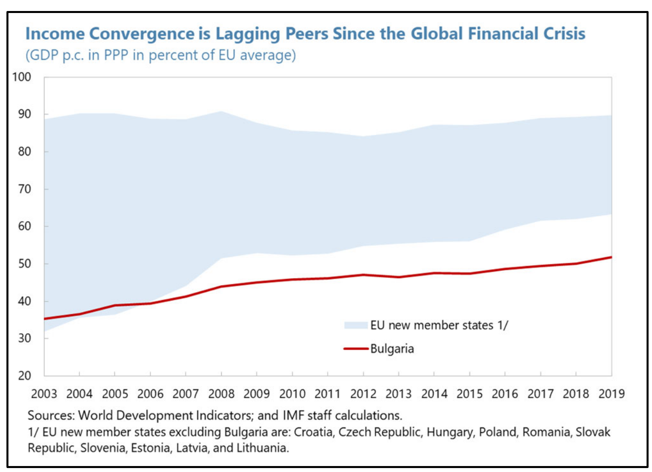
CONTEXT

1. **The COVID-19 pandemic has put a pause on Bulgaria's robust economic performance.** Prior to the pandemic, Bulgaria's per-capita GDP growth averaged 4.3 percent per year since 2015, accompanied by prudent macro policies under the currency board arrangement. This enabled Bulgaria to secure substantial policy space before the pandemic hit. Lockdowns in the spring of 2020 successfully contained the initial spread of the virus but also caused a sharp economic contraction. Activity rebounded when the lockdowns were eased, supported by policy measures. However, cases of new infections and deaths started rising sharply again in the fall, triggering tighter containment measures that have slowed the pace of recovery.



2. **The near-term priority is to manage the pandemic's impact, while the key post-crisis challenge will be to achieve fast and inclusive per capita income convergence to EU partner levels.** The still large uncertainty on the pandemic's course, despite encouraging news on vaccines, requires a flexible adaptation of policies to changing circumstances. Should economic and health conditions deteriorate more than expected, Bulgaria has the fiscal space to augment policy support. When the recovery takes hold, the policy focus should shift to facilitating the reallocation of resources toward the post-pandemic economy and addressing long-standing structural challenges to promote a strong and inclusive income growth. This will call for broad-based reforms in the areas of labor market, education, healthcare, and governance, where Bulgaria still has significant gaps compared to other EU countries (CR/19/83 and CR/19/84).





3. Amid the pandemic, Bulgaria joined the European Exchange Rate Mechanism (ERM II) and the banking union in July 2020. This simultaneous entry followed two years of preparation, during which Bulgaria fulfilled several commitments including reforms to financial sector supervision, the insolvency framework, and SOE governance (Annex I). Joining ERM II (*per se*) entails no change in macroeconomic policies as Bulgaria will maintain its currency board arrangement until the adoption of the euro (after at least two years in ERM II); but joining the banking union is expected to strengthen financial supervision. The European Central Bank (ECB) now supervises five significant institutions (banks) directly. Joining ERM II and the banking union have bolstered market confidence and credit ratings (Annex II).

RECENT DEVELOPMENTS

4. The COVID-19 pandemic has caused a sharp contraction under lockdowns and collapsing demand. Real GDP grew by 3.7 percent in 2019, supported by buoyant private consumption reflecting strong employment and wage growth. In response to the global pandemic, the government implemented strong containment measures including travel restrictions and the closure of non-essential businesses from March to mid-May 2020. As a result, GDP contracted sharply in Q2:2020 (-10.1 percent q/q and -8.6 percent y/y), with contact intensive sectors hit particularly hard. As the lockdowns were loosened and support policies implemented, growth rebounded in Q3:2020 (4.3 percent q/q) but GDP remains well below the pre-pandemic level. Headline CPI inflation has sharply decelerated to 0.6 percent (y/y) in October 2020, down from the pre-pandemic rate of 3.1 percent in February, reflecting a widening output gap and declines in international oil prices.

5. Strong policy support helped cushion the impact on the labor market. The unemployment rate rose to 5.9 percent in Q2:2020 before declining to 4.8 percent in Q3:2020, helped by fiscal support to demand and the introduction of a job retention scheme. The growth of average monthly wage slowed to 6.1 percent (y/y) in Q2:2020 before bouncing back to 9.9 percent in Q3:2020, fueled by a large increase in select public sector wages.

6. The current account surplus has narrowed during the crisis. In the first three quarters of 2020, the current account posted a surplus of 1.1 percent of projected GDP (down from 3.4 percent of GDP in the same period last year). A sharp decrease in foreign tourist arrivals led to a marked contraction in the net services surplus, more than offsetting the improvement in the trade balance due to a sharper drop in imports than in exports. Net income balances also fell, as lower remittances from workers abroad and secondary income to private sector more than offset a decline in dividend payments and distributed profits to non-residents. While highly uncertain given the lack of full year data for 2020, Bulgaria's external position in 2020 is preliminarily assessed as stronger than the level warranted by fundamentals and desirable policy settings (Annex III).

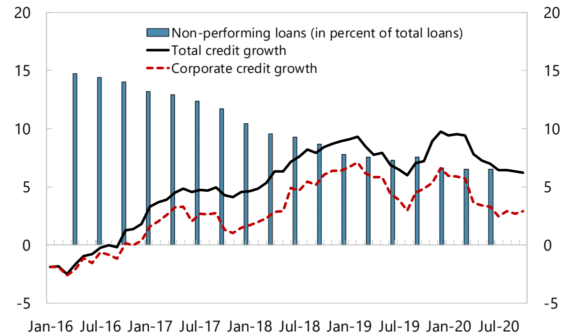
7. The fiscal balance moved into deeper deficit in 2020. After running surpluses during 2016–18, the 2019 fiscal balance recorded a deficit of 1.0 percent of GDP due to one-off advance payment for a purchase of fighter jets (to be delivered in 2023–24) amounting to 1.8 percent of

GDP. In 2020, the fiscal deficit is projected to widen to 3.5 percent of GDP on account of the fiscal support package (2.4 percent of GDP) and the economic contraction. To fund the deficit, the government issued €2.5 billion Eurobonds in September.

8. **Banks have been facing growing headwinds.** The sharp economic contraction has led to a slowdown of credit growth and interrupted the pre-crisis trend of the declining NPL ratio. Growth of credit to the private sector has decelerated to 6.2 percent in October 2020 from 9.7 percent at end-2019, led by slowing credit growth for non-financial corporates. Putting a halt to declines in recent years, the NPL ratio remained unchanged at 6.5 percent at end-Q2:2020, despite a 6-month private debt moratorium introduced in April 2020. Profitability has declined reflecting rising impairment costs, but banks remain generally well-capitalized and liquid thanks to their strong balance sheets before the crisis.

Credit Growth and NPL Ratio

(Percent)



Sources: National authorities and IMF staff calculations.

OUTLOOK AND RISKS

9. **The sharp contraction in 2020 is projected to be followed by a partial recovery in 2021.** Staff estimates real GDP to have contracted by 4.6 percent in 2020. Under an assumption that adverse effects of the COVID-19 start fading gradually as therapies improve and the vaccine coverage expands over the course of 2021, real GDP is projected to recover by 3.6 percent, led by private consumption and supported by an expansionary fiscal policy stance. Inflation is projected to remain subdued in 2021 after decelerating to 1.3 percent in 2020.

10. **Over the medium term, growth will decelerate to its potential.** Strong growth momentum is projected for the next couple of years as consumption and private investment rebound strongly, offsetting the gradual withdrawal of fiscal stimulus. Public investment will be supported by a pickup of EU funded projects, including grants under the Next Generation EU (NGEU) funds.

Bulgaria: EU Recovery Fund Grants

(percent of GDP)

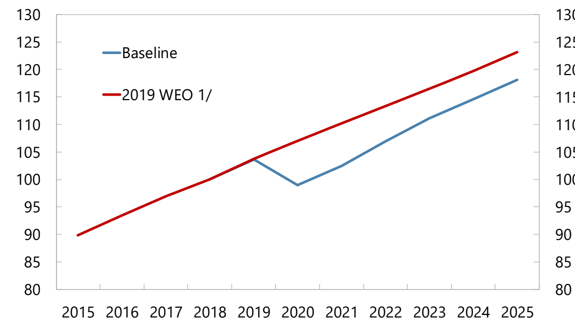
	2021	2022	2023	2024	2025
Projected disbursement	0.7	0.9	1.1	1.6	2.8
Projected spending	0.6	0.7	0.9	1.3	2.2
Investment spending	0.4	0.5	0.5	0.9	1.7
Current spending	0.2	0.2	0.4	0.4	0.6
Projected funding replacement	0.1	0.2	0.2	0.3	0.6

Source: IMF staff projections.

Note: The disbursements and spending are included in the staff's revenue and expenditure projections.

However, reflecting long-standing structural constraints including labor shortages, real GDP growth is projected to decelerate to its potential of 2¾ percent by the end of the projection horizon. The level of GDP in 2025 is to remain below the pre-pandemic trend by about 4 percent of the projected 2025 GDP. The current account surplus is projected to gradually decline to 0.3 percent of GDP by 2025, due to continuing strength of private-sector consumption and rising medium-term imports driven by EU grants.

Bulgaria: Real GDP
(Index, 2018=100)



Sources: WEO and IMF staff calculations.
1/ Extrapolated data for 2025.

11. Risks to the outlook are broadly balanced. The uncertainty around the course of the pandemic remains large. If the recent resurgence of COVID-19 were to deepen and prolong social distancing or the progress on vaccine coverage and improvement in therapies be significantly delayed, the projected economic recovery in 2021 could be delayed (Annex IV). Upside risks in the near term include more rapid progress in controlling COVID-19 globally. Over the medium term, there are upside risks associated with the EU funds, which could boost growth more than expected, if used swiftly for public investment projects combined with supporting structural reforms.

Authorities' Views

12. The authorities broadly concur with the outlook. They agree that near-term growth will be supported by reduced uncertainty, a counter-cyclical fiscal stimulus, and a recovery in employment and disposable income. They nonetheless expect potential growth to be lower than staff projections, partly on account of a lower contribution of capital over the medium term. The authorities agree with the staff assessment on Bulgaria's external position.

POLICY DISCUSSIONS

The authorities have provided comprehensive support to mitigate the impact of the crisis. Continued policy support and flexibility are warranted in the near term. Over time, policies should progressively shift toward facilitating reallocation and addressing structural challenges to support inclusive and transformative growth.

A. Fiscal Policy Response to the COVID-19 Crisis

13. Fiscal policy has provided welcome counter-cyclical support to the economy. The third-revised budget for 2020 targeted a deficit of 4.4 percent of GDP, largely driven by crisis responses. The 2021 budget and

Bulgaria: Summary of Government Finances
(percent of GDP)

				Medium-Term Budget Framework			
	2018	Est. 2019	Before Covid-19 2020	2020	2021	2022	2023
Revenues	34.5	35.1	35.1	34.6	36.0	35.6	36.1
Tax revenues	20.8	20.7	20.6	20.2	20.3	20.9	21.0
Other revenues	4.8	5.3	5.4	4.9	5.3	4.5	4.4
Social contributions	7.0	7.1	7.0	7.1	7.2	7.4	7.6
Grants	1.9	2.1	2.1	2.3	3.2	2.8	3.2
Expenditure	34.4	36.0	35.1	39.0	40.0	37.6	38.0
o/w: Wages	5.3	5.6	5.8	6.2	6.8	6.5	6.1
o/w: Use of goods and services	4.0	3.8	3.9	4.6	4.4	4.0	4.0
o/w: Subsidies	2.8	3.2	3.0	3.2	3.6	3.1	3.1
o/w: Capital expenditure	4.8	6.3	5.2	5.8	4.9	4.6	5.3
Fiscal balance	0.1	-1.0	0.0	-4.4	-3.9	-2.0	-1.8

Source: Ministry of Finance.
Note: For 2019, the fiscal balance includes the purchase of jet-fighters (1.8 percent of GDP), to be delivered in 2023-24.
Data for 2020-23 refer to the authorities' budget and Medium-Term Budget Framework (based on the Consolidated Fiscal Program).

Medium-Term Budget Framework (MTBF) target a deficit of 3.9 percent of GDP in 2021, followed by an appreciable decline in deficits in subsequent years. It is welcome that a comparable level of fiscal support is provided in 2020 and 2021, in light of a still sizable economic slack projected in 2021. A gradual withdrawal of fiscal stimulus subsequently, in tandem with economic recovery, is broadly appropriate.

14. Policy measures have covered key areas impacted by the pandemic (Box 1). They sought to strengthen medical services, support workers and firms, and prevent inefficient destruction of jobs and businesses that could bring about long-term scarring effects on the post-pandemic growth. The measures were initially intended for a short duration but, with the pandemic continuing, have been expanded and extended in stages through 2020 and into 2021. Discretionary fiscal support is budgeted to amount to 2½ percent of GDP in both 2020 and 2021 (text table).

- The 2020 measures included a job retention scheme, income support for individuals including transfers to vulnerable groups, loan guarantees, and tax deferrals and grants for firms. Wages for public sector employees in the frontline against the pandemic were increased by 30 percent since August. The authorities financed the measures partly through the reallocation of existing resources (including EU funds).

- The 2021 budget increases health spending further, puts a higher weight on supporting individuals, and sets aside 5 percent of the budget as buffers against downside risks. Besides extending several measures introduced in 2020, it envisages an increase in pension payments and social benefits (such as minimum unemployment benefits), as well as 10-15 percent wage increases for the broad public sector.

COVID-Related Fiscal Measures

(in percent) 1/

	2020	2021	2020	2021
	Distribution		Share of GDP	
Household support	22	47	0.5	1.2
Corporate support	7	9	0.2	0.2
Job retention scheme	26	10	0.6	0.2
Health	18	32	0.4	0.8
Capital increase of BDB 2/	25	-	0.6	-
Co-financing of EU programs	3	2	0.1	0.1
Total	**100**	**100**	**2.4**	**2.5**

Source: 2021 budget and IMF Staff calculation.

1/ Financed by the national budget

2/ The Bulgarian Development Bank (BDB) is a state owned bank. The capital increase is to finance the issuance of guarantees to commercial banks for the extension of corporate loans (71 percent) and for providing interest-free loans to employees on unpaid leave (29 percent).

Box 1. Summary of Fiscal Policy Responses to the Pandemic

Health spending	
1) Wage increases	Ministries of health, interior, defense, labor and social policies, and 28 administrations managing the pandemic
2) Bonus payments	To medical and social services employees
3) Subsidies to hospitals and diagnostic centers	
4) Purchase of drugs, medical equipment, and personal protective equipment	
Support to employment	
1) Job retention scheme	State covers 60 percent of the wages and employer social contribution in affected sectors (80 percent for the tourism sector) Eligibility and sectoral conditions relaxed in July. Extended at least to March 2021 Fiscal cost: 0.9 percent of 2020 GDP
2) Hiring subsidy	6-month subsidy equal to the minimum wage to companies that hire an unemployed person Fiscal cost: 0.1 percent of 2020 GDP
Support to individuals	
1) Support to vulnerable groups	* 1,200 artists receive the minimum wage for three months * Means-tested one-off transfer to families whose parents are on unpaid leave or unemployed but ineligible to unemployment benefits * Means-tested monthly transfer to parents on unpaid leave to look after a quarantined child (during state of emergency) * Monthly bonus to all pensioners during August 2020 - March 2021 * Food support to vulnerable people including one-time financial transfer for food support for pensioners whose pension is at or below the poverty line
2) Interest-free loan guarantees	Guarantees to the 12 commercial banks providing to wage-earners and self-employed a loan up to BGN 4,500 with no collateral, a grace period of 6 to 24 months, and a repayment period up to 5 years. Eligibility criteria relaxed in July Deadline for application: end-2020; Amount: 0.2 percent of 2020 GDP
3) Increase in social transfers	* Ad hoc 20 percent increase in minimum and maximum pensions in January 2021; Fiscal cost: 0.5 percent of 2020 GDP * 33 percent permanent increase in the minimum unemployment benefit from October 2020; Fiscal cost in 2021: 0.01 percent of 2020 GDP * 3-month increase in the duration of unemployment benefit in 2020Q4 for unemployed not eligible to full unemployment benefit
Support to firms	
1) Deferment of the payment of corporate taxes until June 30, 2020 (Amount: 0.5 percent of 2020 GDP)	
2) VAT rate cut	Temporary cut (until end 2021) from 20 percent to 9 percent for restaurants, food delivery, baby food, books, wine and beer, bus transport, tourism agencies and tour operators, ski resorts, gyms and sports facilities Revenue forgone: 0.3 percent of GDP spread over 2020 and 2021
3) Grants to Firms	* Support projects of micro, small, and medium sized enterprises * Up to BGN 150,000 for large companies that experienced a drop in turnover of at least 20 percent
4) Loan Guarantees	* To commercial banks extending corporate loans for working capital, refinancing liabilities, etc. (total guarantees up to BGN 3.6 mn of loans) * To commercial banks extending corporate loans to SMEs that retain employment for working capital, investment, including restructuring (total guarantees up to BGN 3.6 mn of loans) * 80 percent guarantee to loans with reduced collaterals to firms affected by the crisis (total guarantees up to BGN 2 bn worth of loans); Deadline for application: mid-June 2021
5) Support to the tourism sector	* Subsidies for tour operators, bus carriers, and travel agencies (Fiscal cost: 0.05 percent of 2020 * Voucher for domestic tourism granted to people involved in the fight against COVID-19 (Fiscal cost: 0.01 percent of 2020 GDP)

Source: Bulgarian authorities and IMF Staff.

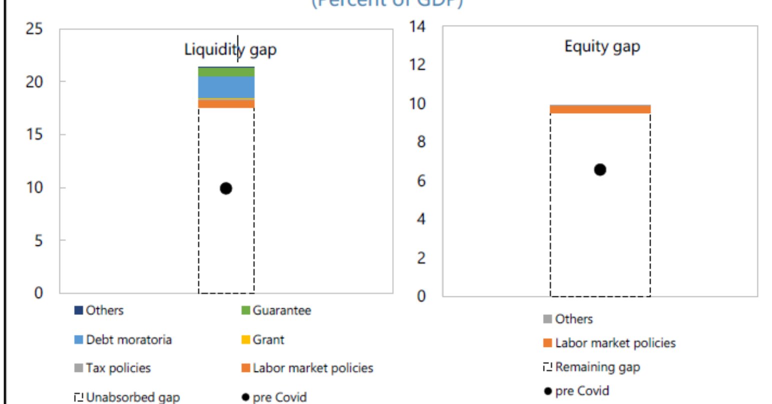
15. Support measures helped cushion the crisis impact, but their implementation and design can be further improved. Job retention schemes, hiring subsidy, and liquidity support to firms helped contain the rise in unemployment and boost the economic rebound since summer. Continuing policy support is helping limit the economic fallout from the resurgence in infections. However, with the COVID-19 crisis continuing, the delivery of support measures can be further improved.

- **The initially slow implementation has picked up.** In addition to administrative bottlenecks, other contributing factors to the slow initial delivery were stringent and unfamiliar eligibility criteria that resulted from having created new (temporary) support mechanisms instead of augmenting the existing social protection system. The authorities have since extended support measures and accelerated delivery, including by relaxing eligibility criteria and addressing administrative bottlenecks (Box 2). They also introduced several measures that built on the existing social protection system.

- **Efforts to improve the implementation of measures should continue.** There is scope to further relax some eligibility criteria or simplify them to facilitate applications, streamline the administrative review, and improve access by small firms and non-standard wage earners (including those in the informal sector). More social protection spending could be delivered by adjusting the existing social protection system (Section D).

- **Greater policy support could be provided to lessen pressures on corporate liquidity and solvency.** Staff analysis suggests that support to the corporate sector, announced till October 2020, can fill about 1/3 of the increase in liquidity shortfalls and about 1/8 of the increase in equity shortfalls in 2020.[1] Greater support could be considered to limit likely increases in bankruptcies in view of the expiration of bank-loan moratorium.

Liquidity Gap and Equity Gap
(Percent of GDP)



Sources: Orbis. IMF staff calculations.
Note: Panel 1 plots the magnitude of liquidity gaps pre- and post-COVID, and the gaps covered by each of the policy measures, as share of GDP. Panel 2 plots the magnitude of equity gaps pre- and post-COVID, as well as the gaps covered by policy measures. Overall the equity gap is the overall amount of negative equity. A specific measure's contribution is the total funds received by firms through P&L under the policy scheme, as share of GDP.

- **The public sector wage increases should be accompanied by a functional review to improve public employment management.** Public employees who are on the frontline of anti-pandemic healthcare and social services need to be compensated for their hardship, preferably by temporary means such as bonuses. Instead, their wages were increased by 30 percent in August

[1] October 2020 Regional Economic Outlook, Chapter 3.

2020, followed by 10–15 percent wage increases for a large share of other public sector employees in the 2021 budget. While large wage increases may well be warranted for various reasons, including to narrow the negative public-wage premium (CR/19/83) and to retain qualified staff who otherwise would leave for the private sector or western Europe, they should be preceded by a comprehensive review of public sector employment and wages. Such a review would further improve public employment management and enhance fiscal management (paragraph 19), while also guarding against the risk of unduly hampering other priority spending in key areas (e.g. social spending).

Box 2. Addressing Implementation Issues: The Case of the Job Retention Scheme and Interest-Free Loans

For the job retention scheme and the interest-free loan program for individuals on unpaid leave from work, the initial implementation was slow.

Bulgaria's wage subsidy program (the "60/40 scheme") was introduced in March, but only about 18½ percent of the allocated budget had been used by end-June. This reflected lack of familiarity with the new mechanism, sectoral exclusion, and stringent eligibility criteria. When the scheme was extended in July, eligibility criteria were relaxed, and the sectoral coverage was extended to include the tourism sector (with a higher subsidy rate). The average monthly disbursement more than doubled in July–September compared to the March–June period. The program benefitted about 237 thousand workers (9 percent of employees in Bulgaria) as of October 2020.

While the interest-free loan program was announced in mid-April 2020, its operationalization was slow because an agreement had to be reached between each participating commercial bank and the state-owned Bulgarian Development Bank. Strict eligibility criteria could also have contributed to a high rejection rate and a low disbursement rate after operationalization. The authorities relaxed some of the eligibility criteria in July 2020 but the delivery did not improve much as of November 2020.

	Applications (in thousands)	Rejection rate (in percent)	Disbursed (in percent of announced budget)	Number of patner commercial banks	
19-May	7	21	5	6	
30-May	13	28	11	7	
29-Jun	18	33	22	10	Initial conditions
5-Jul	20	33	24	12	
13-Jul	21	34	25	12	
29-Sep	31	35	40	12	New conditions
27-Oct	33	34	44	12	
17-Nov	35	34	47	12	

Sources: Bulgarian Development Bank and IMF Staff calculations.

B. Navigating Through Uncertainty and Supporting Recovery

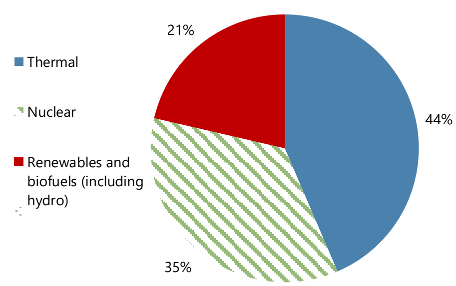
16. Fiscal support should be scaled up in the event of a worse-than-expected downturn. Health spending and the support for individuals and firms should then be augmented swiftly, preferably using temporary and well-targeted measures. The buffers in the 2021 budget

(paragraph 14) provide the first line of defense, but Bulgaria has the fiscal space to enhance support measures even further.

17. As the pandemic wanes and recovery takes hold, policy focus should shift from preserving activities to facilitating inclusive and transformative growth. Policies could incentivize reallocation and structural transformation toward the post-pandemic economy. The job retention scheme should become more targeted to support viable jobs and be gradually withdrawn. Active labor market policies (ALMPs) could be strengthened including to remedy digital skill gaps and skill mismatches (Section D). Support to firms and other policies should increasingly aim at meeting liquidity and equity needs of viable firms, while discouraging access to support by firms on a structural path to closure.

18. The NGEU funds provide a unique opportunity to invest in the recovery and transformation. Bulgaria is eligible for large transfers from the NGEU funds, which aim at supporting the economic recovery from the pandemic and assisting transformation toward a greener, more digitalized, and resilient economy (Box 3). The authorities are developing investment plans with emphasis on green transition and digitalization. Because the NGEU grants need to be used quickly and are large, it is crucial to develop a focused investment plan early and follow through with strong and transparent implementation.[2] The NGEU funds could help Bulgaria's green transition from its high reliance on coal-fired thermal power plants for electricity generation. Targeted investments should also be complemented with a careful review of carbon pricing—possibly through the introduction of a carbon tax—to achieve the 2030 and 2050 climate targets.[3]

Power Generation
(percent of total capacity)



Source: National Statistical Institue.

[2] Annex V presents some evidence of "crowding-in" effect that the public investment in selected areas is associated with higher private sector investment.

[3] EUR papers "EU Climate Mitigation Policy," International Monetary Fund, Departmental Paper Series No. 2020/13, and "Sectoral Policies for Climate Change Mitigation in the EU," International Monetary Fund, Departmental Series No. 2020/14."

Box 3. NGEU Funds Recovery and Sustainability Plan

Bulgaria is expected to receive about 13 percent of the projected 2020 GDP in grants under the NGEU funds during 2021–26. The bulk of the funds is made available under Recovery and Resilience Facility (RRF). The RRF is designed to finance investment and structural reforms, with certain shares required to be dedicated to green and digital transitions as well as measures aimed at enhancing the resilience of national economies.

Next Generation EU

Facilities and priorities	Description
Recovery and Resilience Facility (RRF)	The RRF will be used to mitigate the economic and social impact of the coronavirus pandemic and make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions.
Rural/Agriculture Development Fund	The Rural Development Fund will be used to support rural areas in making the structural changes necessary in line with the European Green Deal.
Just Transition Fund	The Just Transition Fund will provide support to EU regions most affected by the transition to a low carbon economy.
REACT-EU	REACT-EU is an initiative that continues and extends the crisis response and crisis repair measures. It will contribute to a green, digital and resilient recovery of the economy.

Source: Next Generation EU

The authorities are currently preparing a Recovery and Sustainability Plan (RSP), which is required for EU member states to receive the RRF funds and intended to guide investment spending. Bulgaria's draft RSP outlines policy objectives and needed investment in four areas.

Recovery and Sustainability Plan

Scope and Structure of Plan for Recovery and Resilience	Description	BGR billion	Allocation (%)
Green Bulgaria	Green Bulgaria will focus on reducing the energy intensity of the economy and promoting the green transition, and increasing the competitiveness of the agriculture sector.	4.5	37
Innovative Bulgaria	Innovative Bulgaria will aim to increase the quality and scope of education and training, provide support for research and development, and support the industrial sector.	2.4	20
Connected Bulgaria	Connected Bulgaria will aim to build a modern and secure digital infrastructure, reduce the carbon footprint of the transport sector, and increase the competitiveness and sustainable development of regions.	2.7	22
Fair Bulgaria	Fair Bulgaria will focus on achieving inclusive and more sustainable growth, expanding the scope of social services, and strengthening the health system.	2.6	21

Source: Government of Bulgaria.

19. Once recovery becomes entrenched, the fiscal framework should be steered closer to the medium-term objective. The MTBF envisages a fiscal deficit of 1.8 percent of GDP in 2023 that exceeds the medium-term objective of a structural deficit of 1 percent of GDP. Returning to the medium-term objective would put the fiscal framework in a strong position to meet unforeseen adversities, as has been displayed during this crisis. At the same time, more public spending could strengthen the growth potential and social resilience by improving the quality of education, reducing long-term unemployment, and reducing inequality and poverty (Section D). These budgetary needs call for enhancing fiscal management further, with emphasis on building revenues.

20. Improving domestic revenue mobilization would help. More effective revenue collection would both increase resources and improve the efficiency and transparency of the public sector. The sizable VAT compliance gap should be reduced. A diagnostic based on the IMF's Tax Administration Diagnostic Assessment Tool could help assess the administrative capability of the revenue authorities and identify key areas for improvement. The authorities could also explore other options, including raising the ceiling on contributory income, which would follow up on the pension benefit increase in the 2021 budget.

21. There is scope to improve the efficiency and quality of public investment further. Bulgaria's level of public investment has been comparable to peers, but its infrastructure quality is perceived to be lower. In view of the large size of transfers under the next EU-funds cycle and NGEU, it is important that public investment management be strengthened. Past IMF technical assistance found the largest scope for improvement in the areas of project appraisal, multi-year budgeting, and procurement. The nation-wide application of the e-procurement system is welcome in this regard.

Key PIMA TA Recommendations

Planning Sustainable Levels of Investment
- Develop standard guidelines for project appraisal
- Establish a Public Investment Management Unit in the Deputy Prime Minister's Office

Allocating Investment
- Improve the quality of the capital expenditure forecasts in the MTBF
- Systematically record and update detailed cost information at the project level
- Develop a project pipeline and selection criteria for all major projects

Implementing Investment
- Address loopholes in the procurement appeals process and adopt E-procurement system
- Develop and systemize ex-post reviews for project monitoring and follow up

Legal and regulatory framework
- Strengthen the legal basis for Public Investment Management

IT Systems and Support
- Expand the coverage of the Unified Management Information System to major infrastructure Ministries, Departments and Agencies

Authorities' Views

22. The authorities acknowledge that the take-up of the policy measures aimed at addressing the COVID-19 pandemic was initially slow. They concur that stringent eligibility criteria, lack of familiarity by potential beneficiaries and administrators with the new support mechanisms, and delays in obtaining approval for the reallocation of EU Funds led to an initial low delivery of support. In order to minimize the impact of the emergency policy response on the existing social protection system, they introduced new mechanisms, which often had complex and stringent eligibility criteria that limited access. However, the implementation of various support measures is reviewed regularly and, when needed, the design of the measures has been modified to speed up the delivery while ensuring an appropriate burden sharing of the needed adjustment.

23. The authorities noted that the crisis prompted a fiscal loosening but reaffirmed their medium-term commitment to fiscal prudence. The job retention scheme was highly effective in cushioning employment, but the modalities of its phasing-out have yet to be decided, as it is the case with most other crisis responses whose future adaptation will depend on the pandemic's course. The wage increases for the public sector would narrow the wage gap between public and private sectors. Higher wage increases for front-line and healthcare workers aimed to compensate for their hardship and to motivate and retain healthcare workers who are in critical shortage. The authorities noted that no further wage increases for the public sector are planned for 2022–23. For the medium-term fiscal stance, the authorities noted that the need to strengthen the healthcare system, provide social support, and preserve employment contributed to a projected 2023 deficit that exceeds the medium-term objective (a structural deficit of 1 percent of GDP). Nonetheless, the authorities remained committed to achieving the structural deficit target eventually, by increasing the efficiency of fiscal policy as well as undertaking necessary revenue and expenditure measures after the pandemic. The authorities intend to utilize the NGEU funds fully by 2026. They expressed commitment to continue strengthening investment planning and fiscal transparency, to improve the efficiency and effectiveness of public investment management, and to improve the traditionally low absorption of EU funds in the early years of the program period. The authorities assess themselves to be on track to achieving the EU's 2030 climate target but do not have an active plan to adopt a carbon tax, on which they are waiting for the EU guideline.

C. Maintaining Financial Stability and Supporting Recovery

24. Financial sector policies have helped maintain financial stability and supported banks' capacity to extend credit. At the onset of the crisis, the Bulgaria National Bank (BNB) took several measures to strengthen banks' already strong balance sheets and help credit keep flowing. One such measure—a reduction of commercial banks' exposures to foreign counterparts with lower credit quality—has increased the domestically-held liquidity of the banking system.[4] Going forward, bank supervisors should stand ready to continue using macro-prudential tools to allow banks room to manage the possible deterioration of the loan quality without unduly constraining

Summary of Financial Sector Policy Responses to the Pandemic
1) Capitalization of the banking system's 2019 profit (amount: BGN 1.6 bn)
2) Reduction of commercial banks' foreign exposures, through risk-based concentration limits on their exposures to individual foreign counterparts
3) Cancellation of the planned increase in the countercyclical capital buffers to 1.5 percent (remain at 0.5 percent)
4) Loan moratorium: Allows change in the payment schedule of the principal and/or interests. Deferral limited to 6 months. Application window closed at end-September 2020; take-up rate amounted 15 percent of the stock of loans; the moratorium approved in September will expire at end-March 2021.
Sources: Bulgarian National Bank and IMF staff calculations.

[4] This led to an increase in net inflows of other investment (Annex III). Staff has assessed that the measure is a capital flow management measure as well as a macroprudential measure (CFM/MPM). An assessment of its appropriateness under the *Institutional View (IV) on the Liberalization and Management of Capital Flows* and the Fund's framework for macroprudential policy is still pending.

credit flows. To this effect, supervisors could require banks again to retain profits for 2020, reduce the existing counter-cyclical capital buffers, or allow banks to temporarily operate below the required capital buffers. Banks should be allowed to rebuild capital position gradually as the recovery gets entrenched.

25. Addressing high NPLs will likely be a key challenge in the financial sector when the recovery takes hold. As Bulgaria joined the banking union, bank supervision is now aligned with the ECB. Nevertheless, NPLs, which remained higher than the EU average before the crisis despite their declining trend for several years, are expected to rise as loan moratoria started expiring and economic activity remains sluggish in the near term. While banks have increased impairment charges already, supervisors should continue ensuring that banks recognize problem loans in a timely manner and encourage banks to proactively resolve NPLs once the recovery takes hold. Effective implementation of the new corporate insolvency framework as part of the post-ERM II commitment could facilitate the NPL resolution.

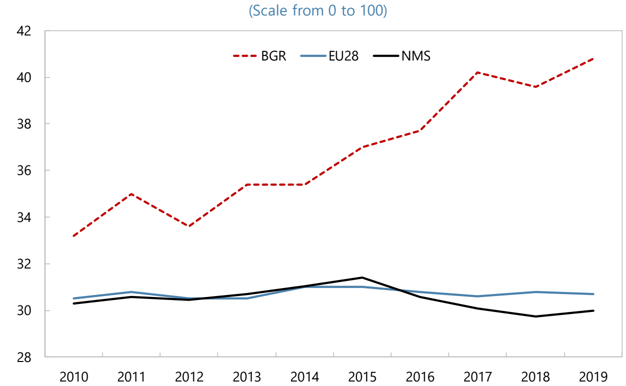
Authorities' Views

26. The authorities reiterated their supervisory focus on strengthening banks' capital and liquidity positions. They noted that banks' strong capital position would enable them to absorb further deterioration in asset quality while bolstering their capacity to extend credit. To this aim, the BNB considers requiring banks to retain their 2020 profits too. Should a severe downturn lead to pressure on banks' capital position and push them temporarily below the required capital buffers, banks will be required to provide plans for gradual rebuilding of these buffers in accordance with the supervisory legal framework. Bank supervisors acknowledged that NPLs are likely to increase further and concurred with the need to ensure their timely recognition and adequate provisioning. In their pursuit to strengthen banks' balance sheets and prevent the build-up of financial risks in the system, supervisors also saw the need to require all commercial banks to reduce concentration of exposures to foreign counterparts with lower credit quality, in a macroprudential measure applied to the entire banking system.

D. Promoting Inclusive Growth

27. The high and rising inequality of the pre-crisis decade would not be reversed by the announced anti-crisis policies. Although absolute poverty has declined dramatically, inequality rose during the 2010's and was the highest in the EU in 2019. This increase in inequality was partly due to a declining fiscal redistribution (Box 4). Announced policies will only partially mitigate the impact of the pandemic on inequality and poverty. Support to vulnerable groups is available through one-off

Gini Coefficient of Equivalised Disposable Income
(Scale from 0 to 100)



Source: EU-SILC survey and IMF staff calculation.

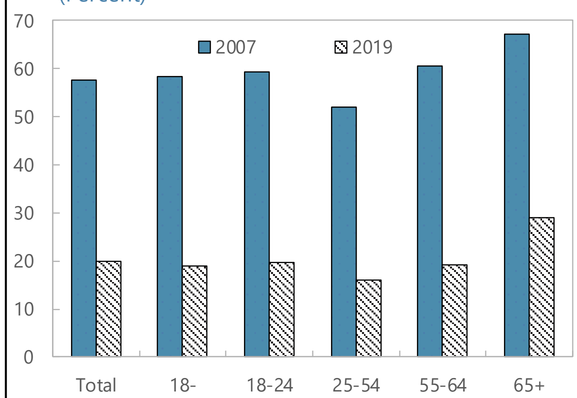
transfers, while income support (through the job retention scheme) is accessible in practice only to stable wage earners or the self-employed with an established history of social security contributions. While the adjustments to the minimum unemployment benefits and to pensions provide welcome support during and after the crisis, a broader reform of social protection system would be needed to stop, or reverse, the decline in fiscal redistribution.

Box 4. Inequality, Poverty, and Social Protection in Bulgaria [1/]

The share of the Bulgarian population facing severe material deprivation has dropped markedly in recent years. Despite this achievement, poverty in Bulgaria remains high by European standards, particularly for the elderly.

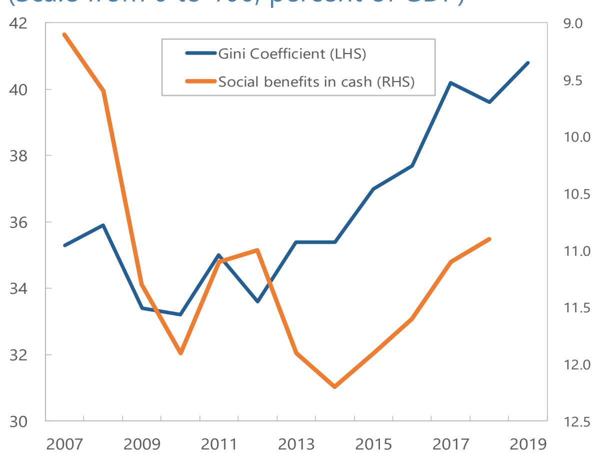
Income inequality is rising and has become the highest in the EU in large part due to a difference in fiscal response to the rising market income inequality in the 2010s. In the EU27, fiscal redistribution offset most of the increase in market income inequality. In contrast, in Bulgaria, the increase in market income inequality was compounded by a decline in fiscal redistribution. Notably, the decline in social benefits since 2014 coincided with an increase in income inequality. Moreover, the efficiency of social benefits spending on inequality has declined.

Bulgaria: Severe Material Deprivation Rate (Percent)



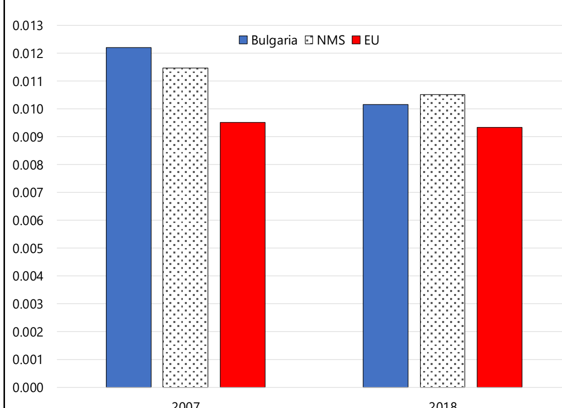
Source: Eurostat

Gini coefficient of equivalized disposable income and social benefits in cash (Scale from 0 to 100, percent of GDP)



Source: Eurostat.

Reduction in the Gini Coefficient Achieved with 1 Percent of GDP of Social Benefits (Scale: 0 to 1)

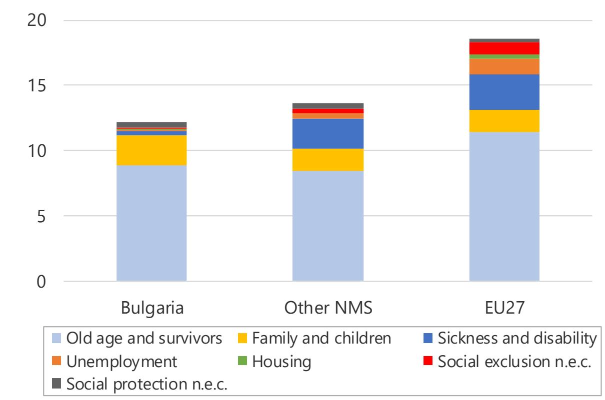


Sources: Euromod, Eurostat, and IMF Staff calculations.

1/ Based on Inequality, Poverty, and Social Protection in Bulgaria by Jean-Jacques Hallaert, IMF Working paper 20/147.

28. Higher and more efficient social protection spending would help reduce inequality and poverty. The authorities could review the level, targeting, and composition of social protection spending, as well as the share of social spending in public expenditure. They could also increase the redistributive role of taxation, for example by raising the cap on social contributions, without necessarily revisiting the social contract around a low flat income tax.

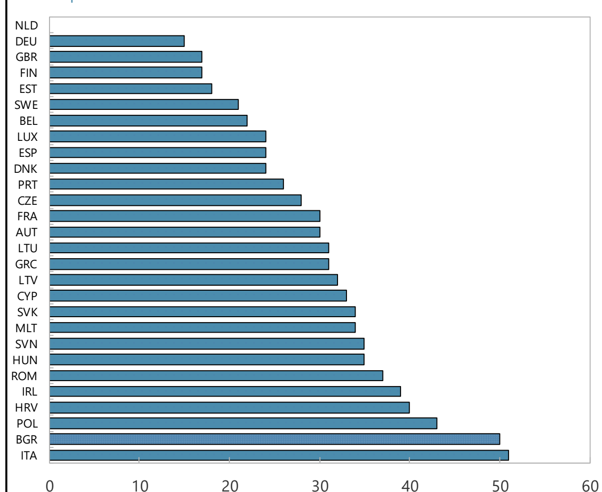
Social Protection Spending
(2018, in percent of GDP)



Source: Eurostat.

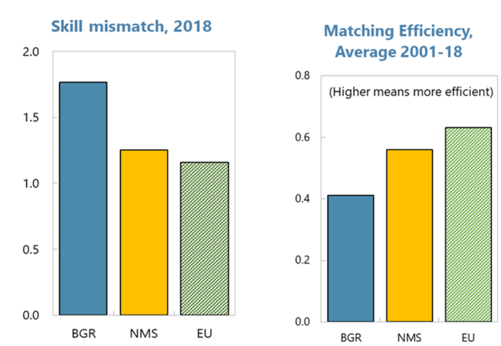
29. Strengthening ALMPs will foster the recovery and more inclusive income convergence to Bulgaria's richer EU partners. Tackling long-standing structural labor market issues will help prepare workers to the post-pandemic economy. In addition, the Bulgarian economy suffers from long-standing labor shortage due to demographic trends, which can be partly alleviated by lowering long-term unemployment (LTU). Policy measures could include increasing the spending on ALMPs and redirecting the spending away from direct job creation toward training programs, start-up incentives, and private sector employment programs (Box 5). Bulgaria can also reduce skill mismatches and improve labor matching efficiency by well-designed training programs and better public employment services, coupled with education reform.

Digital Skills Gaps, European Union 1/
In percent



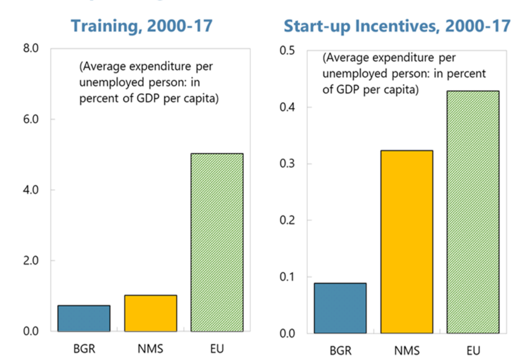
1/ Digital skill gaps are calculated by the difference between the level of ICT skills needed to do the job and percent of individuals who have at least basic or above basic overall digital skills.
Sources: Cedefop's European Skills and Jobs Survey, 2014; Eurostat; and staff calculation.

Labor Market Characteristics



Sources: Eurostat and IMF staff calculations.

Spending on Active Labor Market Policies



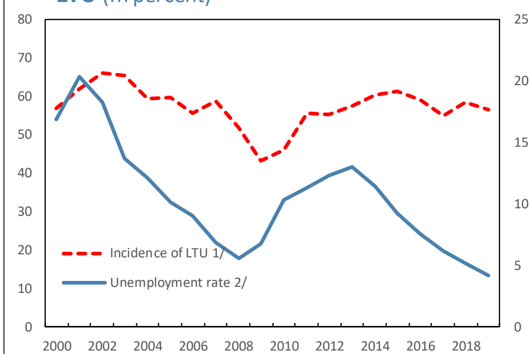
Sources: Eurostat and IMF staff calculations.

30. Better education will help build human capital and improve economic opportunities for both individuals and society. Weak education outcomes by international comparison (reflected in PISA scores and digital skills knowledge) have prompted education reforms. Teachers' wages are being increased to double their 2017 levels by 2021 and some reforms (e.g. to address early school leavers) have begun to yield results. However, Bulgaria's spending on education remains low among new EU member states[5] for higher education and can be increased to support further reforms. In addition, policies should have measurable output-based targets, helping re-calibrate policies. Further collaboration with businesses, including in designing university curricula, could promote better match for labor market needs.

Box 5. Tackling Long-term Unemployment in Bulgaria [1/]

Despite the strong labor market before the pandemic, the incidence of LTU in Bulgaria remained high. The incidence of LTU could be reduced by putting more resources into effective ALMPs, addressing skill mismatches, and promoting labor market matching efficiency, all of which also improve the overall efficiency of the labor market and reallocation.

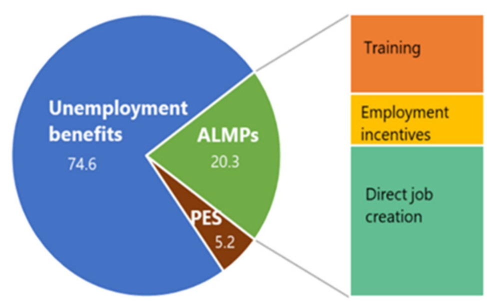
Unemployment rate and Incidence of LTU (In percent)



1/ In percent of unemployment
2/ In percent of active population (15-74 years of age)
Source: Eurostat

- Bulgaria's *spending on overall ALMPs* is among the lowest in the EU, and a large share of spending goes to direct job creation. Among different types of ALMPs, training and start-up incentives are found to be effective in reducing long-term unemployment, while direct job creation is less effective.

Bulgaria: Labor Market Policy



Sources: Eurostat and IMF staff calculation.

- Bulgaria's *skill mismatches* are higher than NMS and EU averages. Even before the pandemic, one of the most important demanded skills was digital knowledge. Policies to develop digital competences and skills would help improve skill match for Bulgaria and support the transition to the post-pandemic economy.

- Bulgaria's *labor market matching efficiency* has declined over time and has been low compared to other EU countries. One of the key instruments to improve the job matching efficiency particularly for LTU is to strengthen the role of public employment services.

1/ Based on [Mitigating Long-term Unemployment in Europe] by Hiroaki Miyamoto and Nujin Suphaphiphat, IMF Working paper 20/168.

[5] These comprise Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.

31. Efforts to strengthen governance should continue, including by enhancing the transparency and accountability of emergency fiscal spending. The existing information management system allows for tracking the pandemic-related spending, and the authorities already publish contracts for all public procurement projects. Transparency could be further strengthened by publishing information on beneficial ownership of legal entities that were awarded procurement contracts. Ex-post audits of COVID-19 related spending would strengthen accountability. Continued progress is also needed in strengthening the judiciary and the fight against corruption, particularly to establish a track record in demonstrating judicial independence and effectiveness, and to step up the fight against high-level corruption. The European Commission's new framework for the rule of law provides a framework to maintain reform efforts.

Authorities' View

32. The authorities prefer education to fiscal redistribution as the means to address inequality. They concur with the desirability of more investment in education, which they think is also a better way to address inequality than higher social spending or progressive taxation for the purpose of redistribution. The authorities view the current level of overall ALMP spending adequate, while intending to allocate more resources to training programs. They reaffirm their commitment to sustain education reforms, which will take time to yield positive outcomes.

33. The authorities are committed to further strengthening governance. They plan to continue strengthening the judiciary and the fight against corruption, including through the EU's rule of law framework. On the transparency of emergency spending, the authorities will continue monitoring and accurately recording emergency spending and are willing to undertake ex-post audits of pandemic-related spending.

STAFF APPRAISAL

34. Recovery is expected in 2021 but uncertainty remains large. With a sharp economic contraction in 2020, unemployment has risen, inflation remains subdued and credit growth has decelerated. Growth is expected to pick up in 2021 although uncertainty is unusually large. The main downside risks to the outlook stem from prolonged and widespread lockdowns and slower progress on vaccines and therapies, while upside risks include rapid progress on controlling the virus and faster absorption of large EU funds. The external position is assessed to be stronger than warranted by fundamentals and desirable policy settings.

35. Fiscal policy appropriately plans to provide steady support, while implementation can be further strengthened. The policy package that aimed at mitigating the impact of the evolving crisis led to an expansion of the fiscal deficit in 2020. The delivery of support could be improved, including by adjusting the design of measures and continuing the efforts to improve the implementation. The 2021 budget envisages maintaining a similar level of support as in 2020, while increasing some social spending. Increases in public sector wages and pension provide a welcome stimulus for the downturn, though warranting a review in the future.

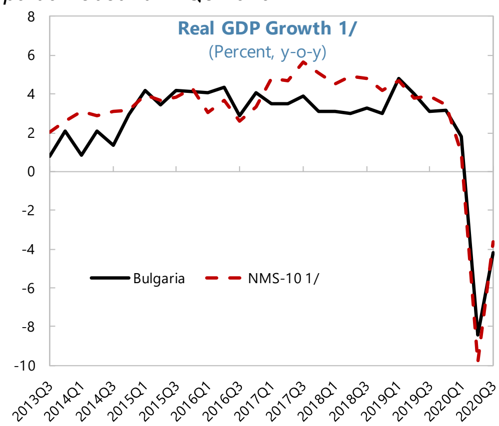
36. Policy should be adjusted flexibly as the pandemic evolves. Were the virus resurgence to depress activity further, health spending and support to activity should be augmented in a timely manner. Once recovery takes hold, policies should shift to facilitating resource reallocation and economic transformation. The government should use EU transfers effectively, including the NGEU funds, to facilitate the recovery and help the transformation to a greener and more digitalized economy. Once recovery is entrenched, the fiscal stance needs to move closer to the medium-term objective. In this connection and to finance ongoing reforms, revenue mobilization should be strengthened and efficiency of public investment improved further.

37. Bank supervisors should continue bolstering financial stability and closely monitor NPL developments. Macroprudential policy measures have enhanced banks' balance sheet and helped credit continue flowing. However, NPLs will likely increase during the protracted crisis. Macroprudential policy should continue allowing banks room to absorb the deterioration of asset quality while extending necessary credit. Supervisors should continue encouraging timely recognition of problem loans during the crisis and proactive efforts to resolve NPLs when the recovery takes hold.

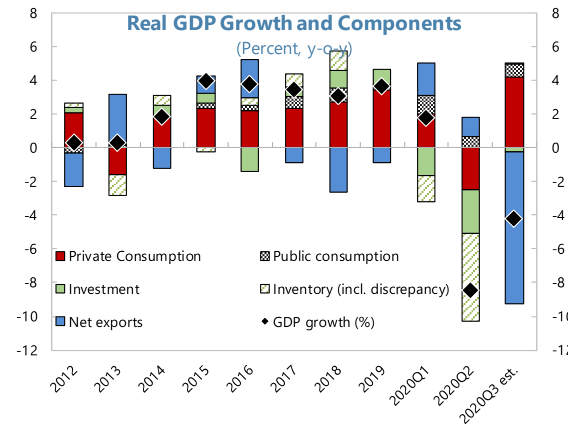
38. Once the pandemic wanes, focus should progressively shift to broad-based reforms to promote inclusive growth. Strengthening active labor market policies and the education system, including via higher public spending on them, would help raise human capital and growth. Improving the social protection system and access to quality education would help alleviate inequality and poverty. Continued efforts to strengthen governance would also be conducive to promoting inclusive growth.

Figure 1. Bulgaria: Real Sector Developments, 2012–20

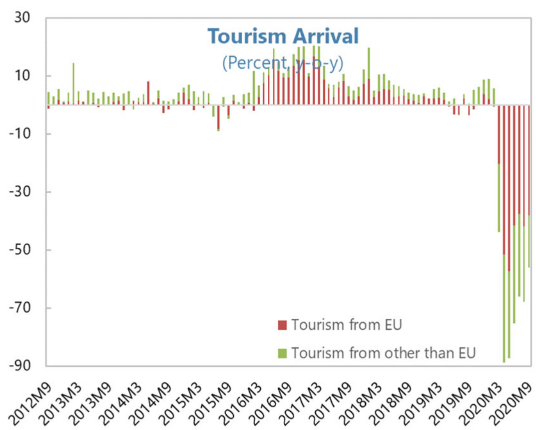
Bulgaria saw a sharp drop in real GDP in Q2:2020, followed by a partial rebound in Q3:2020.



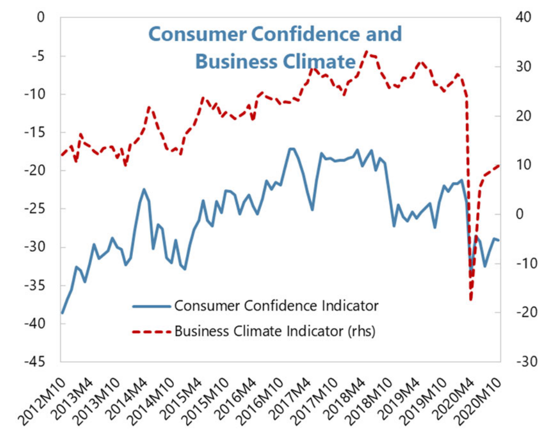
The lockdown triggered a collapse in domestic demand.



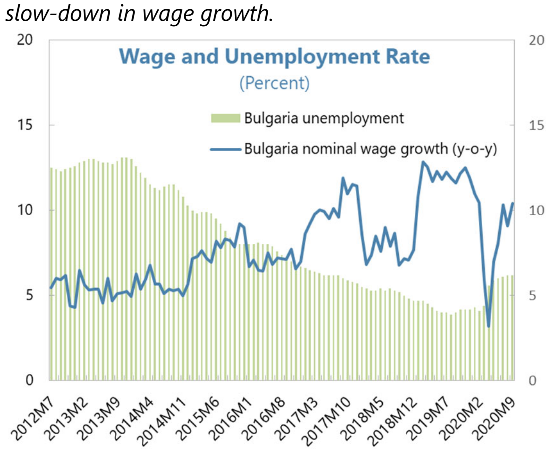
A large decline in tourism arrival will affect growth and current account surplus in 2020…



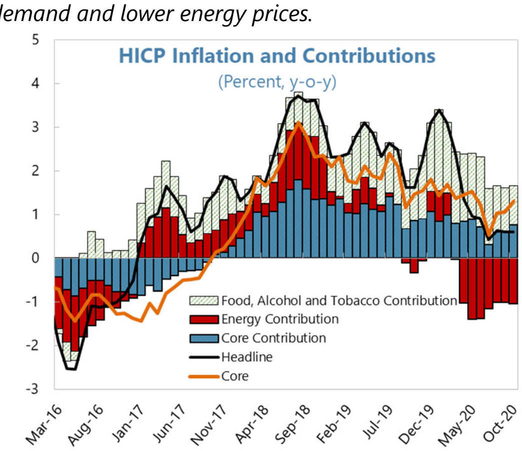
.. although business confidence, unlike consumer confidence, is recovering somewhat from the initial collapse related to the pandemic.



Despite the increase in public sector wages, the pandemic led to a slow-down in wage growth.



Inflation slowed due to the combined effect of lower domestic demand and lower energy prices.

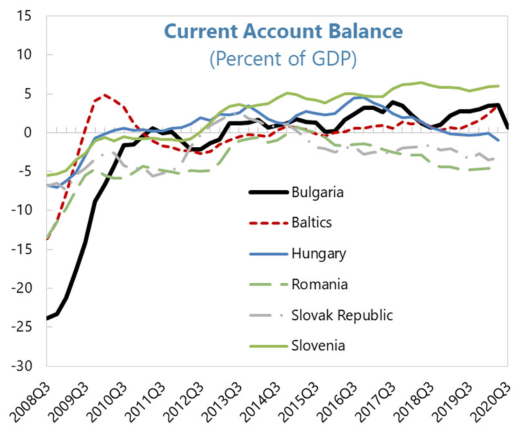


Sources: Haver Analytics; National authorities; and IMF staff calculations.

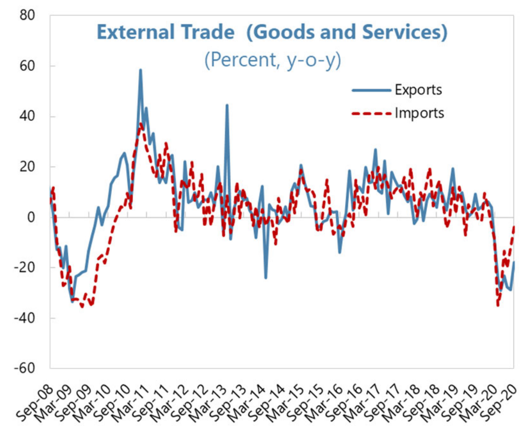
1/ Both data points of GIR and gross excess reserves over reserve money are in percent of projected 2020 GDP.

Figure 2. Bulgaria: External Sector Developments, 2008–20

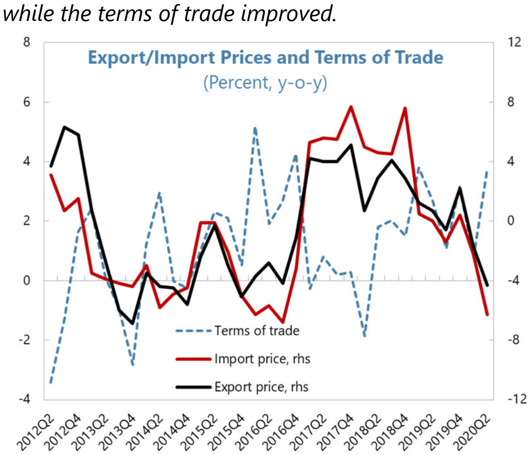
In Q1–Q3:2020, the current account surplus shrunk.



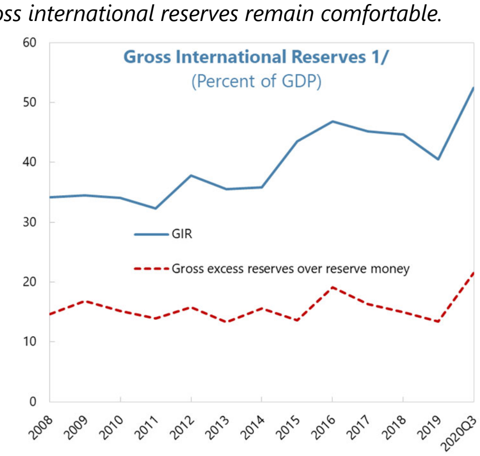
Trade contracted …



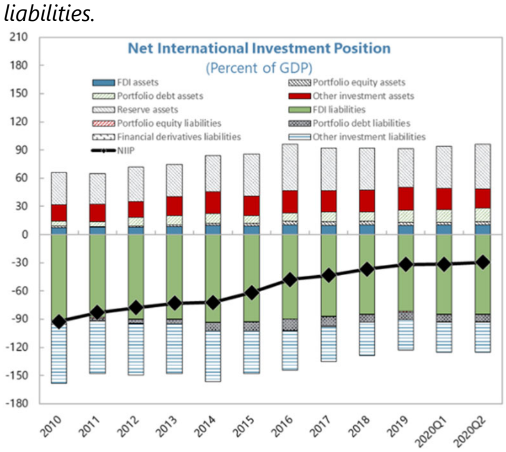
… while the terms of trade improved.



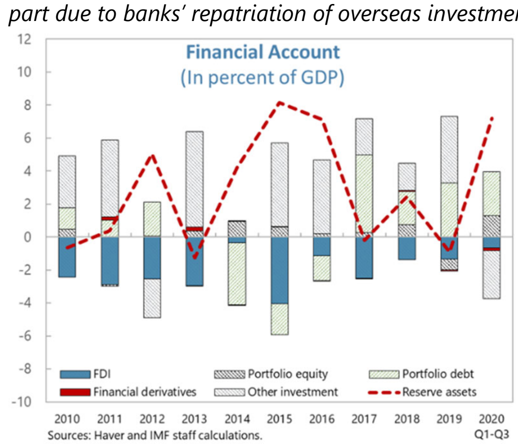
Gross international reserves remain comfortable.



The NIIP continue to improve due to a reduction in liabilities.



The pandemic had a large impact on financial flows in part due to banks' repatriation of overseas investment.

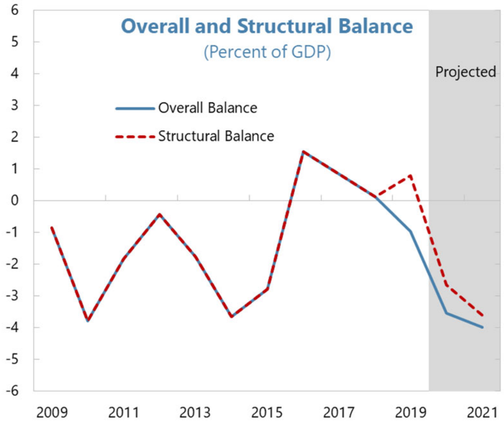


Sources: BNB; Haver; and IMF staff estimates.

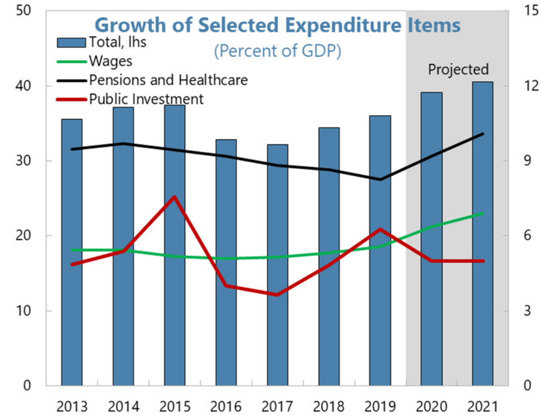
1/ Both data points of GIR and gross excess reserves over reserve money are in percent of projected 2020 GDP.

Figure 3. Bulgaria: Fiscal Developments, 2009–21

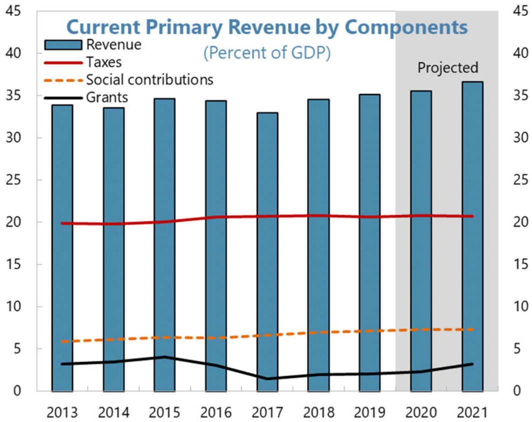
Due to the pandemic, the fiscal deficit is projected to widen in 2020…



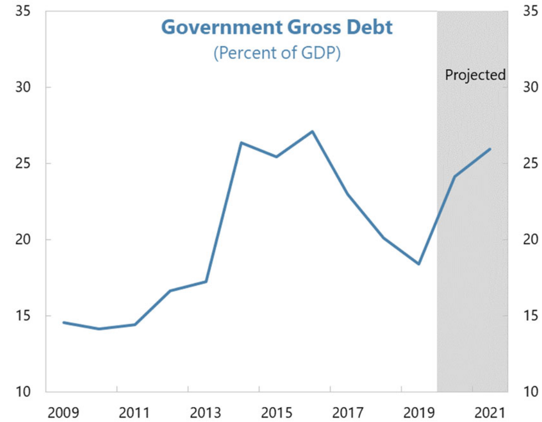
… as spending increases despite a decline in public investment…



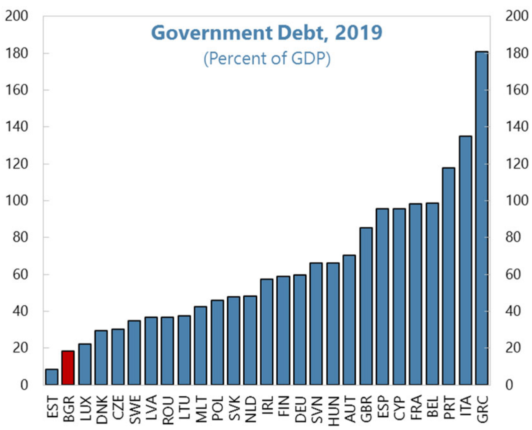
… while revenues remain solid



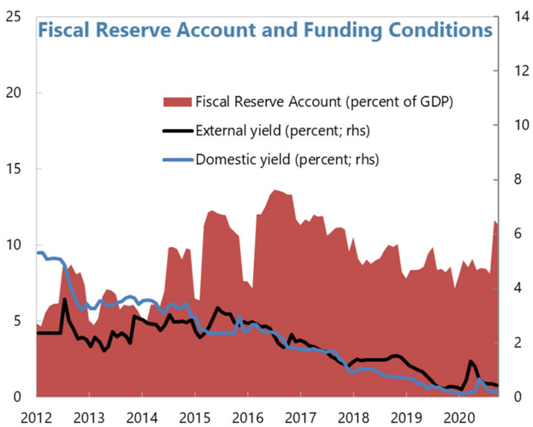
Gross domestic debt increased in 2020 due to borrowings to cover part of the cost of the pandemic crisis, …



… but remains very low by EU standards.



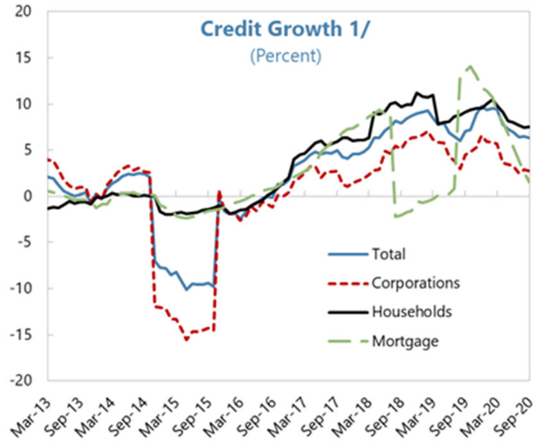
The fiscal reserve remains comfortable.



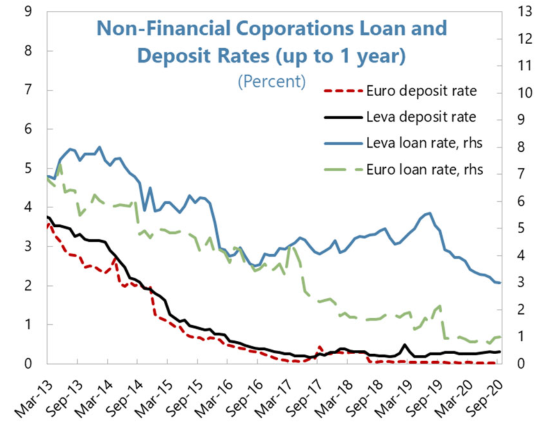
Sources: Bulgarian authorities; Eurostat; Bloomberg Finance L.P.; and IMF staff estimates.

Figure 4. Bulgaria: Monetary and Financial Sector Developments, 2007–20

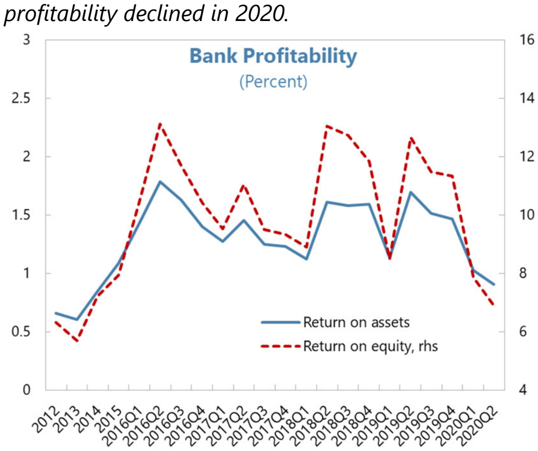
Credit growth slowed during the pandemic.



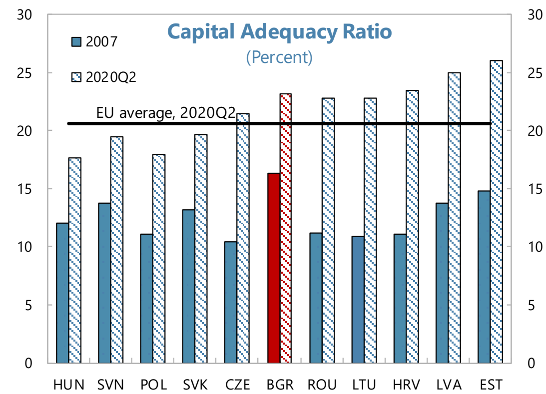
Interest rates remain low and continue to decline for leva loan rate.



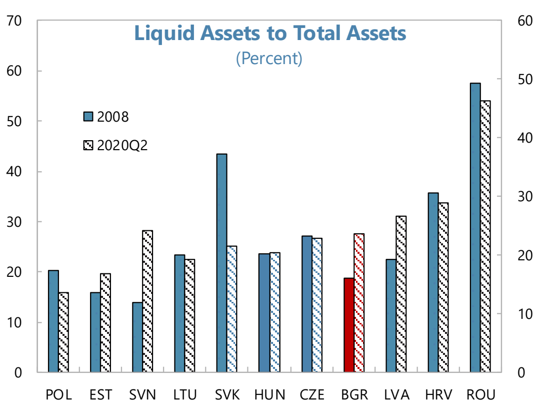
After remaining broadly stable in 2018–19, bank profitability declined in 2020.



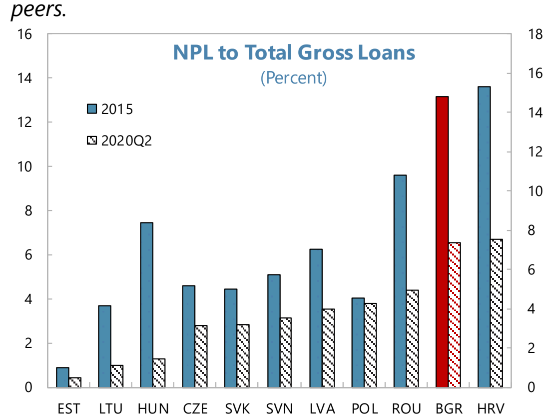
Banks are generally well capitalized…



… and liquid.



NPL have declined but remain high when compared to peers.

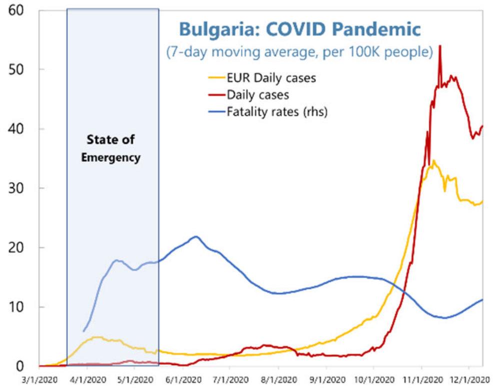


Sources: BNB, IMF FSI, and IMF staff calculations.

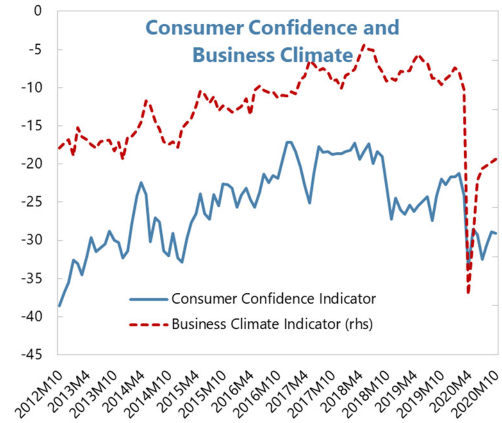
1/ Due to the revocation of the banking license of KTB, the bank is excluded as a reporting agent from the monetary statistics data used in the panel charts starting in November 2014.

Figure 5. Bulgaria: COVID-19 Monitor, 2008–20

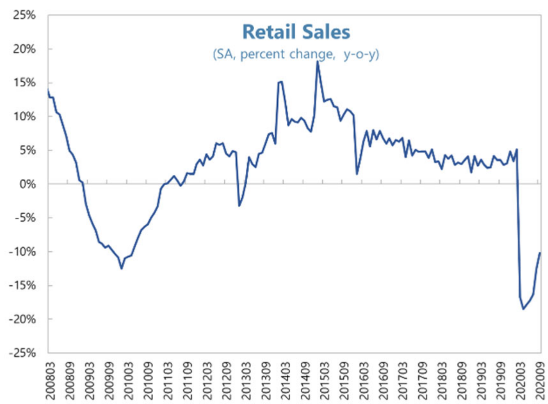
Infections and death rates have resurged significantly in recent weeks…



Though business confidence has recently rebounded, consumer confidence remains low…

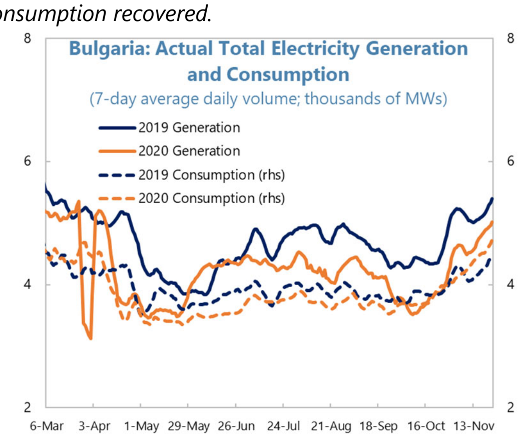


… and retail sales remain depressed…

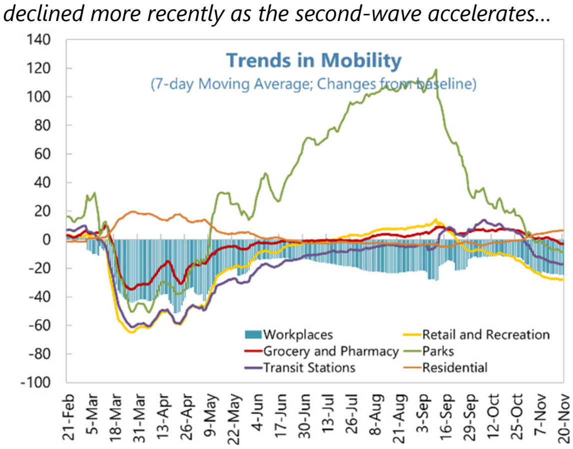


Sources: Haver Analytics.

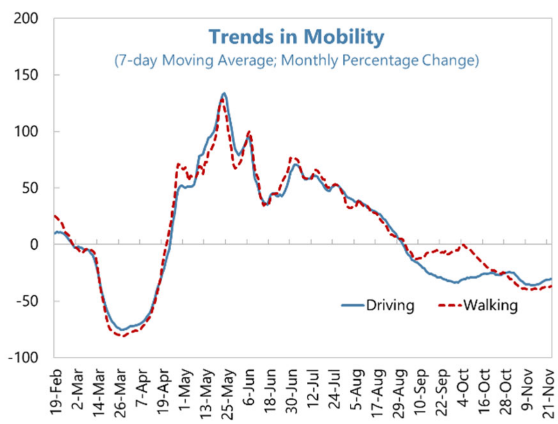
… and so is electricity generation, though electricity consumption recovered.



Mobility rebounded after the first-wave lockdown but has declined more recently as the second-wave accelerates…



… so has mobility in relation to work.



Sources: Bloomberg Finance L.P., ENTSOE, Google, Apple, national authorities, and IMF staff calculations.

Table 1. Bulgaria: Selected Economic Indicators, 2017–25
(Annual percentage change, unless otherwise indicated)

	2017	2018	2019	2020	2021	2022	2023	2024	2025
						Proj.			
Real GDP	3.5	3.1	3.7	-4.6	3.6	4.3	3.9	3.2	3.0
Real domestic demand	4.5	5.8	4.6	-3.3	3.3	4.5	5.5	3.8	2.8
Public consumption	4.3	5.4	2.0	5.6	6.1	-5.6	-0.8	6.0	3.3
Private consumption	3.8	4.4	5.5	-2.0	3.5	5.6	4.5	3.7	3.6
Gross capital formation	7.0	10.7	4.1	-14.1	0.3	10.7	14.2	2.4	0.2
Private investment	5.8	-2.3	3.6	-20.5	3.4	13.3	9.5	5.1	4.0
Public investment 1/	-5.9	36.8	7.2	-3.2	-7.2	9.9	33.6	-2.8	-8.7
Stock building 2/	0.8	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net exports 2/	-0.9	-2.6	-0.9	-1.2	0.2	-0.4	-1.8	-0.7	0.1
Exports of goods and services	5.8	1.7	3.9	-12.4	9.7	6.0	5.0	3.7	3.5
Imports of goods and services	7.4	5.7	5.2	-10.4	9.1	6.3	7.4	4.5	3.1
Resource utilization									
Potential GDP	3.5	3.1	3.5	-1.5	3.5	2.7	2.9	2.8	2.8
Output gap (percent of potential GDP)	0.0	0.0	0.2	-3.1	-3.1	-1.5	-0.6	-0.2	0.0
Unemployment rate (percent of labor force)	6.2	5.2	4.2	5.2	4.8	4.4	4.2	4.2	4.2
Price									
GDP deflator	3.9	4.0	5.3	2.1	2.0	2.6	2.5	2.5	2.5
Consumer price index (HICP, average)	1.2	2.6	2.5	1.3	1.2	2.0	2.0	2.0	2.0
Consumer price index (HICP, end of period)	1.8	2.3	3.1	0.5	1.9	2.0	2.0	2.0	2.0
Fiscal indicators (percent of GDP)									
General government net lending/borrowing (cash basis)	0.8	0.1	-1.0	-3.5	-4.0	-2.0	-1.8	-1.2	-1.2
General government primary balance	1.6	0.8	-0.4	-2.9	-3.4	-1.4	-1.1	-0.6	-0.6
Structural overall balance	0.8	0.1	0.8	-2.3	-2.8	-1.4	-1.6	-1.1	-1.2
Structural primary balance	1.6	0.8	1.3	-1.7	-2.2	-0.8	-0.9	-0.5	-0.6
General government gross debt	23.0	20.1	18.4	24.0	25.8	27.0	27.7	27.4	27.1
Monetary aggregates									
Broad money	7.7	8.8	9.9	10.6	7.7	9.0	8.5	7.7	7.6
Domestic private credit	4.5	8.9	9.7	5.9	8.9	7.7	7.2	6.5	6.3
Exchange rates regime									
Leva per U.S. dollar (end of period)	1.7	1.7	1.8	...	...	...	...	...	...
Nominal effective rate	1.4	3.3	-0.1	...	...	...	...	...	...
External sector (percent of GDP)									
Current account balance	3.5	1.0	3.0	1.2	2.1	1.6	0.6	0.6	0.3
o/w: Merchandise trade balance	-1.5	-4.8	-4.7	-3.6	-3.9	-3.9	-5.0	-5.4	-5.2
Net international investment position	-43.3	-37.4	-31.2	-29.2	-23.3	-18.1	-14.1	-9.8	-5.8

Sources: Bulgarian authorities; World Development Indicators; and IMF staff estimates.

1/ Includes the delivery of fighter planes in 2023 and 2024. The sharp increase in 2023 also reflects disbursements due to EU funding cycle.

2/ Contribution to GDP growth.

Table 2. Bulgaria: Macroeconomic Framework, 2017–25
(Annual percentage change, unless otherwise indicated)

	2017	2018	2019	2020	2021	2022	2023	2024	2025
						Proj.			
GDP and prices									
Real GDP	3.5	3.1	3.7	-4.6	3.6	4.3	3.9	3.2	3.0
Real GDP per working age population	4.9	4.6	5.0	-3.3	4.5	5.2	4.7	4.0	3.9
Real GDP per capita	4.3	3.8	4.4	-4.1	4.2	4.9	4.5	3.8	3.7
Real domestic demand	4.5	5.8	4.6	-3.3	3.3	4.5	5.5	3.8	2.8
Of which: private	3.8	4.4	5.5	-2.0	3.5	5.6	4.5	3.7	3.6
GDP deflator	3.9	4.0	5.3	2.1	2.0	2.6	2.5	2.5	2.5
Consumer price index (HICP, average)	1.2	2.6	2.5	1.3	1.2	2.0	2.0	2.0	2.0
Nominal wages	9.4	10.5	10.6	8.8	9.8	6.5	6.5	6.5	6.5
Real effective exchange rate, CPI based	1.1	3.3	0.4	...	...	...	...	...	...
Monetary aggregates (percent change)									
Broad money	7.7	8.8	9.9	10.6	7.7	9.0	8.5	7.7	7.6
Domestic private credit	4.5	8.9	9.7	5.9	8.9	7.7	7.2	6.5	6.3
Saving and investment (percent of GDP)									
Gross national saving	23.4	22.2	24.1	19.7	19.6	20.1	20.4	19.9	19.1
Government	4.5	4.9	4.7	1.4	1.0	2.6	3.3	3.6	3.7
Private	18.9	17.3	19.4	18.3	18.6	17.5	17.1	16.3	15.4
Gross domestic investment	19.9	21.3	21.1	18.5	17.5	18.4	19.8	19.3	18.8
Government 1/	3.6	4.8	4.9	5.0	4.4	4.6	5.9	5.5	4.9
Private	16.3	16.4	16.2	13.6	13.1	13.8	13.9	13.7	13.9
General government (percent of GDP)									
Revenue	33.0	34.5	35.1	35.3	36.4	35.3	35.4	36.0	36.1
Tax revenue (including social security contributions)	27.4	27.7	27.8	27.9	27.8	28.1	28.0	28.0	28.0
Non-Tax revenue	4.1	4.8	5.3	5.0	5.4	4.5	4.3	4.3	4.3
Grants	1.5	1.9	2.1	2.3	3.2	2.8	3.2	3.7	3.8
Expenditure	32.1	34.4	36.0	38.8	40.4	37.3	37.2	37.2	37.3
Balance (net lending/borrowing on cash basis)	0.8	0.1	-1.0	-3.5	-4.0	-2.0	-1.8	-1.2	-1.2
Structural balance	0.8	0.1	0.8	-2.3	-2.8	-1.4	-1.6	-1.1	-1.2
Balance of payments (percent of GDP)									
Current account	3.5	1.0	3.0	1.2	2.1	1.6	0.6	0.6	0.3
Trade balance 1/	-1.5	-4.8	-4.7	-3.6	-3.9	-3.9	-5.0	-5.4	-5.2
Services balance	5.8	7.4	8.0	5.6	6.2	6.1	6.1	6.1	6.1
Primary income balance	-4.4	-4.8	-3.1	-2.3	-2.2	-2.3	-2.3	-2.3	-2.3
Secondary income balance	3.5	3.2	2.9	1.6	2.0	1.7	1.8	2.2	1.8
Capital account	1.0	1.1	1.5	1.6	2.2	2.0	2.3	2.9	3.1
Financial account	4.6	3.1	5.3	0.2	0.4	-1.6	-3.0	-1.4	-1.6
Of which: Foreign direct investment	-2.5	-1.4	-1.3	-0.5	-1.0	-1.3	-1.4	-1.4	-1.4
Memorandum items:									
Gross international reserves (billions of euros)	23.7	25.1	24.8	26.4	28.9	32.4	36.7	40.3	44.4
Short-term external debt (percent of GDP) 2/	15.1	14.7	14.1	14.1	14.5	14.6	14.5	14.4	14.1
Export volume (goods, percent change)	8.3	0.1	3.2	-6.3	7.8	6.0	4.6	3.7	3.5
Import volume (goods, percent change)	7.1	7.5	5.4	-6.9	9.8	7.3	8.2	4.2	3.8
Terms of trade (percent change)	0.3	0.6	1.9	0.8	0.2	0.1	0.1	0.0	0.0
Output gap (percent of potential GDP)	0.0	0.0	0.2	-3.1	-3.1	-1.5	-0.6	-0.2	0.0
Nominal GDP (millions of leva)	102,345	109,743	119,772	116,641	123,267	131,851	140,418	148,534	156,876
Nominal GDP (millions of euros)	52,328	56,111	61,239	59,638	63,025	67,414	71,795	75,944	80,209

Sources: Bulgarian authorities; and IMF staff estimates.
1/ Includes the jet purchase of 2.1 billion Leva, delivered in 2023 and 2024.
2/ At original maturity.

Table 3. Bulgaria: Balance of Payments, 2017–25

(Millions of euros, unless otherwise indicated)

	2017	2018	2019	2020	2021	2022	2023	2024	2025
						Proj.			
Current account balance	1,825	554	1,847	726	1,321	1,106	445	443	259
Trade balance	-766	-2,699	-2,891	-2,153	-2,434	-2,625	-3,583	-4,083	-4,200
Exports (f.o.b.)	26,950	27,744	29,119	25,735	26,549	28,432	30,261	32,170	34,104
Imports (f.o.b.)	27,716	30,443	32,011	27,888	28,983	31,057	33,844	36,253	38,304
Services balance	3,053	4,129	4,875	3,321	3,920	4,142	4,375	4,631	4,893
Exports of non-factor services	8,256	9,187	10,191	6,717	7,511	8,043	8,679	9,226	9,781
Imports of non-factor services	5,203	5,058	5,316	3,396	3,591	3,901	4,304	4,595	4,888
Primary Income balance	-2,316	-2,671	-1,910	-1,395	-1,416	-1,530	-1,648	-1,761	-1,863
Receipts	1,364	1,137	1,245	735	868	912	951	987	1,023
Payments	3,680	3,808	3,156	2,130	2,284	2,442	2,599	2,748	2,887
Secondary income balance	1,854	1,795	1,774	953	1,250	1,118	1,301	1,656	1,428
Capital account balance	530	602	892	948	1,405	1,371	1,642	2,214	2,525
Financial account balance	2,423	1,729	3,223	117	262	-1,109	-2,121	-1,029	-1,245
Foreign direct investment balance	-1,313	-779	-825	-303	-621	-864	-1,020	-1,079	-1,140
Portfolio investment balance	2,616	1,548	1,600	-703	68	-807	-630	-495	-583
Other investment balance	1,145	916	2,479	1,177	846	594	-439	576	510
Errors and omissions	-31	1,935	-76	0	0	0	0	0	0
Overall balance	-99	1,362	-560	1,557	2,464	3,585	4,209	3,687	4,029
Financing	99	-1,362	560	-1,557	-2,464	-3,585	-4,209	-3,687	-4,029
Gross international reserves (increase -)	99	-1,362	560	-1,558	-2,465	-3,586	-4,209	-3,688	-4,030
Memorandum items:			(Percent of GDP, unless otherwise indicated)						
Current account balance	3.5	1.0	3.0	1.2	2.1	1.6	0.6	0.6	0.3
Merchandise trade balance	-1.5	-4.8	-4.7	-3.6	-3.9	-3.9	-5.0	-5.4	-5.2
Exports	51.5	49.4	47.6	43.2	42.1	42.2	42.2	42.4	42.5
Imports	53.0	54.3	52.3	46.8	46.0	46.1	47.1	47.7	47.8
Capital account balance	1.0	1.1	1.5	1.6	2.2	2.0	2.3	2.9	3.1
Foreign direct investment balance	-2.5	-1.4	-1.3	-0.5	-1.0	-1.3	-1.4	-1.4	-1.4
Terms of trade (merchandise, percent change)	0.3	0.6	1.9	0.8	0.2	0.1	0.1	0.0	0.0
Exports of goods (volume, growth rate)	8.3	0.1	3.2	-6.3	7.8	6.0	4.6	3.7	3.5
Imports of goods (volume, growth rate)	7.1	7.5	5.4	-6.9	9.8	7.3	8.2	4.2	3.8
Exports of goods (prices, growth rate)	7.7	2.8	1.7	-5.7	-4.3	1.1	1.7	2.6	2.5
Imports of goods (prices, growth rate)	7.5	2.2	-0.2	-6.4	-4.5	1.0	1.6	2.5	2.5
Net international investment position	-43.3	-37.4	-31.2	-29.2	-23.3	-18.1	-14.1	-9.8	-5.8
GDP (millions of euro)	52,328	56,111	61,239	59,638	63,025	67,414	71,795	75,944	80,209

Sources: Bulgarian authorities; and IMF staff estimates.

Table 4a. Bulgaria: General Government Operations, 2017–25 1/

(Millions of leva, unless otherwise indicated)

	2017	2018	2019	2020	2021	2022	2023	2024	2025
						Proj.			
Revenue	33,733	37,865	42,013	41,161	44,886	46,552	49,750	53,421	56,629
Taxes	21,216	22,777	24,734	24,113	25,342	27,318	28,924	30,573	32,307
Taxes on profits	2,308	2,464	2,695	2,487	2,651	2,826	2,992	3,176	3,357
Taxes on income	3,336	3,668	4,020	4,094	4,328	4,827	5,166	5,489	5,821
Value-added taxes	9,320	10,064	11,086	10,640	11,220	12,290	13,175	13,878	14,649
Excises	4,985	5,203	5,486	5,450	5,580	5,735	5,865	6,204	6,552
Customs duties	194	226	231	225	238	254	271	286	302
Other taxes	1,073	1,151	1,216	1,216	1,326	1,386	1,456	1,540	1,626
Social contributions	6,782	7,673	8,511	8,466	8,983	9,676	10,397	10,992	11,621
Grants	1,521	2,113	2,465	2,694	3,963	3,686	4,431	5,512	6,000
Other revenue 2/	4,215	5,302	6,303	5,888	6,598	5,872	5,998	6,344	6,701
Expenditure	32,888	37,730	43,165	45,273	49,773	49,222	52,290	55,226	58,509
Expense	28,748	32,263	35,458	39,259	43,426	42,873	44,777	47,733	50,516
Compensation of employees	6,275	6,919	7,892	8,351	9,698	9,567	9,608	10,302	10,883
Wages and salaries	5,275	5,849	6,662	7,370	8,528	8,447	8,466	9,092	9,606
Other compensation	1,000	1,070	1,229	981	1,170	1,120	1,142	1,210	1,278
Use of goods and services	3,941	4,391	4,536	5,451	5,513	5,209	5,490	6,155	6,600
Interest	792	688	649	725	657	798	934	879	925
External	546	447	445	452	491	588	656	569	598
Domestic	247	241	204	273	167	210	279	310	327
Subsidies 3/	1,959	3,043	3,855	3,751	4,489	4,041	4,307	4,555	4,811
Grants 4/	888	1,083	1,193	1,397	1,463	1,484	1,555	1,645	1,737
Social benefits	14,734	15,959	17,122	19,433	21,437	21,609	22,716	24,031	25,394
Pensions	9,039	9,491	9,901	10,624	12,405	12,745	13,485	14,265	15,080
Social assistance	2,621	2,824	3,139	4,355	4,006	3,792	3,847	4,069	4,297
Health Insurance Fund	3,074	3,643	4,082	4,454	5,026	5,072	5,385	5,696	6,016
Other expense	159	180	211	150	169	167	167	167	167
Contingency	425	177	216	240	262	271	281	328	345
Net acquisition of nonfinancial assets 5/	3,715	5,290	7,491	5,774	6,085	6,078	7,233	7,164	7,647
Net lending/borrowing	846	135	-1,152	-4,112	-4,887	-2,670	-2,540	-1,805	-1,880
Primary balance	1,638	823	-504	-3,387	-4,230	-1,872	-1,606	-926	-955
Financing	-846	-135	1,152	4,112	4,887	2,670	2,540	1,805	1,880
Privatization proceeds	3	4	5	3	5	35	0	0	0
Net external financing	-2,176	-219	-72	5,727	2,696	1,026	674	0	1,447
Disbursements	17	120	209	6,077	2,975	3,716	3,325	3,000	1,697
Amortization	-2,193	-339	-280	-350	-279	-2,690	-2,651	-3,000	-250
Net domestic financing	4	-1,243	52	188	1,206	2,731	2,650	1,805	433
Bank credit / Securities issuance	-536	-770	967	1,198	2,000	3,000	3,000	2,305	1,333
Amortization	-785	-1,243	-920	-1,013	-799	-304	-350	-500	-900
Fiscal Reserve Account	1,325	770	5	3	5	35	0	0	0
Net lending and other items	1,320	1,317	1,168	-1,806	981	-1,122	-784	0	0
Memorandum items:									
Fiscal reserve account	9,783	9,013	9,008	9,005	9,000	8,965	8,965	8,966	8,966
Gross public debt	23,534	22,066	22,041	27,953	31,849	35,571	38,895	40,700	42,580
Nominal GDP (percent change)	7.6	7.2	9.1	-2.6	5.7	7.0	6.5	5.8	5.6
Real GDP (percent change)	3.5	3.1	3.7	-4.6	3.6	4.3	3.9	3.2	3.0
HICP inflation (percent change)	1.2	2.6	2.5	1.3	1.2	2.0	2.0	2.0	2.0
Nominal private consumption (percent change)	7.1	6.5	7.6	-0.1	5.4	8.7	7.4	6.4	6.1
Nominal imports (percent change)	14.6	7.8	5.1	-16.2	4.1	7.3	9.1	7.1	5.7

Sources: Ministry of Finance; and IMF staff estimates.

1/ On cash basis. The data correspond to the Consolidated Fiscal Program of the government.

2/ Includes dividends. For 2021, includes the Sofia Airport concession revenue BGN 660 million, which will be transferred to the state-owned railway company BDZ and included in capital expenditure.

3/ Since July 2018, includes expenditure of the Electricity Power Security Fund.

4/ Contribution to EU budget.

5/ Includes only acquisitions of nonfinancial assets, i.e., capital expenditure. For 2021, includes concession revenue BGN 660 million for the Sofia Airport.

Table 4b. Bulgaria: General Government Operations, 2017–25 1/

(Percent of GDP, unless otherwise indicated)

	2017	2018	2019	2020	2021	2022	2023	2024	2025
						Proj.			
Revenue	33.0	34.5	35.1	35.3	36.4	35.3	35.4	36.0	36.1
Taxes	20.7	20.8	20.7	20.7	20.6	20.7	20.6	20.6	20.6
Taxes on profits	2.3	2.2	2.3	2.1	2.2	2.1	2.1	2.1	2.1
Taxes on income	3.3	3.3	3.4	3.5	3.5	3.7	3.7	3.7	3.7
Value-added taxes	9.1	9.2	9.3	9.1	9.1	9.3	9.4	9.3	9.3
Excises	4.9	4.7	4.6	4.7	4.5	4.3	4.2	4.2	4.2
Customs duties	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other taxes	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0
Social contributions	6.6	7.0	7.1	7.3	7.3	7.3	7.4	7.4	7.4
Grants	1.5	1.9	2.1	2.3	3.2	2.8	3.2	3.7	3.8
Other revenue 2/	4.1	4.8	5.3	5.0	5.4	4.5	4.3	4.3	4.3
Expenditure	32.1	34.4	36.0	38.8	40.4	37.3	37.2	37.2	37.3
Expense	28.1	29.4	29.6	33.7	35.2	32.5	31.9	32.1	32.2
Compensation of employees	6.1	6.3	6.6	7.2	7.9	7.3	6.8	6.9	6.9
Wages and salaries	5.2	5.3	5.6	6.3	6.9	6.4	6.0	6.1	6.1
Other compensation	1.0	1.0	1.0	0.8	0.9	0.8	0.8	0.8	0.8
Use of goods and services	3.9	4.0	3.8	4.7	4.5	4.0	3.9	4.1	4.2
Interest	0.8	0.6	0.5	0.6	0.5	0.6	0.7	0.6	0.6
External	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4
Domestic	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2
Subsidies 3/	1.9	2.8	3.2	3.2	3.6	3.1	3.1	3.1	3.1
Grants 4/	0.9	1.0	1.0	1.2	1.2	1.1	1.1	1.1	1.1
Social benefits	14.4	14.5	14.3	16.7	17.4	16.4	16.2	16.2	16.2
Pensions	8.8	8.6	8.3	9.1	10.1	9.7	9.6	9.6	9.6
Social assistance	2.6	2.6	2.6	3.7	3.3	2.9	2.7	2.7	2.7
Health Insurance Fund	3.0	3.3	3.4	3.8	4.1	3.8	3.8	3.8	3.8
Other expense	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Contingency	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Net acquisition of nonfinancial assets 5/	3.6	4.8	6.3	5.0	4.9	4.6	5.2	4.8	4.9
Net lending/borrowing	0.8	0.1	-1.0	-3.5	-4.0	-2.0	-1.8	-1.2	-1.2
Primary balance	1.6	0.8	-0.4	-2.9	-3.4	-1.4	-1.1	-0.6	-0.6
Financing	-0.8	-0.1	1.0	3.5	4.0	2.0	1.8	1.2	1.2
Privatization proceeds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net external financing	-2.1	-0.2	-0.1	4.9	2.2	0.8	0.5	0.0	0.9
Disbursements	0.0	0.1	0.2	5.2	2.4	2.8	2.4	2.0	1.1
Amortization	-2.1	-0.3	-0.2	-0.3	-0.2	-2.0	-1.9	-2.0	-0.2
Net domestic financing	0.0	-1.1	0.0	0.2	1.0	2.1	1.9	1.2	0.3
Bank credit / Securities issuance	-0.5	-0.7	0.8	1.0	1.6	2.3	2.1	1.6	0.8
Amortization	-0.8	-1.1	-0.8	-0.9	-0.6	-0.2	-0.2	-0.3	-0.6
Fiscal Reserve Account	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net lending and other items	1.3	1.2	1.0	-1.5	0.8	-0.9	-0.6	0.0	0.0
Memorandum items:									
Gross public debt	23.0	20.1	18.4	24.0	25.8	27.0	27.7	27.4	27.1
Structural fiscal balance	0.8	0.1	0.8	-2.3	-2.8	-1.4	-1.6	-1.1	-1.2
Output gap (percent of potential GDP)	0.0	0.0	0.0	-3.1	-3.1	-1.5	-0.6	-0.2	0.0
Nominal GDP (millions of leva)	102,345	109,743	119,772	116,641	123,267	131,851	140,418	148,534	156,876

Sources: Ministry of Finance; and IMF staff estimates.

1/ On cash basis. The data correspond to the Consolidated Fiscal Program of the government.

2/ Includes dividends. For 2021, includes the Sofia Airport concession revenue BGN 660 million, which will be transferred to the state-owned railway company BDZ and included in capital expenditure.

3/ Since July 2018, includes expenditure of the Electricity Power Security Fund.

4/ Contribution to EU budget.

5/ Includes only acquisitions of nonfinancial assets, i.e., capital expenditure. For 2021, includes concession revenue BGN 660 million for the Sofia Airport.

Table 5. Bulgaria: Monetary Accounts, 2012–19 1/

(Billions of leva, unless otherwise indicated)

	2012	2013	2014	2015	2016	2017	2018	2019
Monetary Survey								
Net foreign assets	25.3	28.4	35.0	40.7	49.7	51.7	56.1	57.8
Net domestic assets	53.9	55.8	50.5	51.7	49.7	53.7	57.9	66.1
Domestic credit	55.1	57.1	52.1	53.2	51.0	54.4	58.5	65.2
General government	-0.7	1.2	0.4	2.4	-0.7	0.4	-0.4	0.6
Non-government	55.8	55.9	51.6	50.8	51.7	54.0	58.9	64.6
Broad money (M3)	61.7	67.2	68.0	74.0	79.6	85.7	93.3	102.5
Currency outside banks	8.5	9.1	10.2	11.4	12.8	14.1	15.6	17.2
Reserve money	17.4	17.3	19.2	27.5	28.6	29.6	32.6	32.5
Deposits 2/	53.2	58.2	57.8	62.6	66.8	71.6	77.7	85.3
Accounts of the Bulgarian National Bank								
Net foreign assets	29.0	26.8	30.8	38.1	44.9	44.7	47.4	47.0
Net foreign reserves (billions of euro)	14.8	13.7	15.7	19.5	23.0	22.9	24.2	24.0
Net domestic assets	-6.7	-5.7	-7.3	-6.4	-11.8	-10.8	-10.6	-9.8
Net claims on government	-5.7	-4.3	-6.7	-6.0	-11.0	-10.1	-9.4	-9.1
Base money	17.4	17.3	19.2	27.5	28.6	29.6	32.6	32.5
Currency in circulation	8.5	9.1	10.2	11.4	12.8	14.1	15.6	17.2
Banks reserves	8.9	8.2	9.1	16.1	15.8	15.4	17.0	15.3
Deposit money banks								
Net foreign assets	-3.6	1.6	4.2	2.6	4.9	7.0	8.6	10.8
Gross foreign assets	10.0	13.6	15.3	10.6	12.4	14.5	16.8	19.2
Gross foreign liabilities	13.7	12.1	11.1	8.1	7.6	7.5	8.1	8.4
Net domestic assets	59.3	59.9	56.9	57.4	60.7	63.8	67.4	75.2
Domestic credit	60.7	61.3	58.6	59.1	61.9	64.4	67.8	74.1
Memorandum items:	(Annual percentage change, unless otherwise indicated)							
Base money	16.7	-0.4	11.1	43.0	4.0	3.5	10.1	-0.3
Broad money	8.4	8.9	1.1	8.8	7.6	7.7	8.8	9.9
Domestic non-government credit	2.8	0.3	-7.7	-1.6	1.8	4.5	8.9	9.7
Domestic deposits	8.3	9.3	-0.6	8.2	6.8	7.1	8.5	9.8
Domestic currency	17.0	8.6	0.1	9.2	10.1	10.8	10.3	11.6
Foreign currency	-2.1	10.3	-1.5	6.8	1.9	1.3	5.4	6.4
Money multiplier (ratio)	3.5	3.9	3.5	2.7	2.8	2.9	2.9	3.2
Velocity (M3) (ratio)	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2
GDP (millions of leva)	82,239	81,955	83,885	89,362	95,131	102,345	109,743	119,772

Sources: BNB and IMF (http://data.imf.org/?sk=B83F71E8-61E3-4CF1-8CF3-6D7FE04D0930).

1/ Due to the revocation of the banking license of KTB, the bank is excluded as a reporting agent from the monetary statistics data starting in November 2014.

2/ Includes deposits at central bank.

Table 6. Bulgaria: Financial Soundness Indicators, 2015–20:Q2

(Percent)

	2015	2016	2017	2018	2019	2020Q1	2020Q2
Core indicators							
Capital adequacy							
Capital to risk-weighted assets	22.2	22.2	22.1	20.4	20.2	20.4	23.1
Tier 1 capital to risk-weighted assets	20.5	20.9	20.9	19.4	19.5	19.8	22.5
Asset quality							
Nonperforming loans to total gross loans	14.6	13.2	10.4	7.8	6.6	6.5	6.5
Nonperforming loans net of provisions to capital	49.8	44.7	36.6	28.2	23.9	22.3	22.3
Large exposures to capital	51.4	58.2	57.7	77.0	88.7	88.9	60.4
Earnings and profitability							
Return on assets	1.1	1.4	1.2	1.6	1.5	1.0	0.9
Return on equity 1/	7.9	10.4	9.3	11.8	11.3	7.9	6.9
Net interest income to gross income	66.2	69.2	69.4	65.1	65.0	73.0	61.8
Noninterest expense to gross income	47.3	44.0	45.7	44.8	46.9	49.9	44.5
Personnel expense to total income	17.2	18.4	20.3	20.3	20.9	24.3	21.2
Liquidity							
Liquid assets to total assets	31.1	32.4	33.1	28.9	27.9	26.0	27.6
Liquid assets to short-term liabilities	40.2	41.0	41.5	35.8	33.9	31.8	33.4
Liquid assets to total liabilities	39.2	40.3	41.3	35.8	34.4	32.2	33.8
Encouraged indicators							
Deposit-taking institutions							
Capital to assets 2/	12.0	11.6	11.4	10.8	11.6	12.3	12.7
Trading income to total income	7.9	10.3	2.3	8.9	8.1	16.6	11.5
Personnel expenses to noninterest expenses	36.3	41.7	44.5	45.2	44.5	48.8	47.6
Customer deposits to total (non-interbank) loans	127.7	134.7	138.8	139.2	139.2	137.6	139.7
Foreign currency denominated loans to total loans	50.0	45.1	38.5	36.5	34.7	34.2	34.1
Foreign currency denominated liabilities to total liabilities	42.6	41.7	39.4	38.0	36.2	39.8	39.8

Sources: BNB and IMF (http://data.imf.org/?sk=51B096FA-2CD2-40C2-8D09-0699CC1764DA&sId=1411569045760).
1/ Return on equity is calculated with Tier I capital as denominator.
2/ Capital to assets is based on Tier I capital.

Annex I. Bulgaria's Participation in ERM II and Entry into Euro Area

1. **Bulgaria joined ERM II in July 2020 and entered close cooperation on banking supervision.** Joining ERM II has been a priority for the Bulgarian authorities given their ultimate goal of joining the euro area. In consultation with the ERM II partners, they made several pre-commitments in June 2018 and agreed to simultaneously join ERM II and the banking union as a non-euro area country. All agreed commitments were fulfilled.

2. **Pre-commitments included reforms that are important for a smooth transition to and participation in ERM II:**

Entering into close cooperation with the ECB (namely, joining the banking union as a non-euro area country).

Providing the legislative basis for borrower-based macroprudential measures.

Enhancing the supervision of the non-banking financial sector.

Identifying gaps in the insolvency framework and preparing a roadmap to address them.

Strengthening the anti-money laundering (AML) framework by addressing any issues identified in the transposition into national legislation of the fourth EU AML directive and transposing the fifth AML directive into national legislation.

Improving the SOE governance by aligning legislation with the OECD Guidelines on Corporate Governance of SOEs.

3. **The close cooperation on banking supervision means the BNB is part of the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM).** With Bulgaria's accession to the SSM on October 1, 2020, the ECB started exercising direct supervision of significant institutions. Common procedures apply for all supervised entities, as well as the oversight of less significant institutions that will be directly supervised by the BNB. The BNB is represented on the ECB's Supervisory Board with the same rights and obligations as all other members, including voting rights. Bulgaria also now participates in the SRM and has a representative at the Single Resolution Board, which performs resolution planning and takes resolution actions in close cooperation with the BNB.

4. **The ERM II membership is conducive to sustaining structural reforms.** The agreement on participation of Bulgarian lev in ERM II is accompanied by a firm commitment by the authorities to pursue sound economic policies with the aim of preserving economic and financial stability and achieving a high degree of sustainable economic convergence. They have committed to implementing policy measures on the non-banking financial sector, state-owned enterprises, the insolvency framework, and the anti-money laundering framework, as well as continuing to

implement reforms in the judiciary and in the fight against corruption and organized crime in light of their importance for the stability and the integrity of the financial system.

5. **The ultimate goal of joining the euro area would bring further economic benefits of integration but also greater spillover effects.** Bulgaria must stay in the ERM II for at least two years prior to joining the euro area. The eventual euro area membership would bring higher investor confidence, greater trade integration, and reduced funding costs. At the same time, once in the euro area, the exit option is virtually foregone, and Bulgaria would be exposed to greater two-way spillover effects from and to other members. It raises the premium of a strong and flexible economy as well as greater real convergence.

Annex II. Debt Sustainability Analysis

Public DSA

1. **The public debt-to-GDP ratio declined in 2019.** Despite a small fiscal deficit, high nominal GDP growth lowered the debt-to-GDP ratio from 20.1 percent of GDP at end-2018 to 18.4 percent of GDP at end-2019. Reflecting the fiscal deficit due to the purchase of jet fighters, gross financing needs increased to 2 percent of GDP in 2019 from 1.3 percent of GDP in the previous year. The government issued domestic bonds worth BGN 967.3 million (0.8 percent of GDP), matching the amortization.

2. **The COVID-19 pandemic has led to a sizable increase in public debt in 2020.** The public debt-to-GDP ratio is projected to increase by 5.6 percentage points in 2020. Reflecting the policy package to mitigate the effect of the crisis, staff projects a fiscal deficit of 3.5 percent of GDP (while the 2020 budget envisages a greater deficit of 4.4 percent of GDP) in 2020. Gross financing needs is forecasted to increase by 2.7 percentage points of GDP. Accordingly, the authorities raised the 2020 debt ceiling (from BGN 2.2 billion to BGN 10 billion for the domestic debt and from EUR 8 billion to EUR 10 billion for the external debt) to ensure that there are sufficient resources available to finance the fiscal deficit and possible additional spending associated with the COVID-19 pandemic. They issued EUR 2.5 billion Eurobonds in September 2020 (4.2 percent of projected 2020 GDP) on favorable terms, following the entry into ERM II and the banking union in July. The bonds were split between 10-year and 30-year maturities, and this contributed to the increase in fiscal reserves.

3. **General government gross debt is projected to increase over the medium term and remain above its pre-pandemic level.** Staff projects a fiscal deficit of 4.0 percent of GDP in 2021 and around 2 percent of GDP in 2022–2023. Subsequently, the fiscal stance is projected to tighten, closer to the structural balance deficit target of around 1 percent of GDP in 2024–2025. The public debt-to-GDP ratio is projected to increase from 25.8 percent in 2021 to 27.1 percent in 2025, as the authorities plan to borrow an average of 4.5 percent of GDP annually in gross terms during 2021–2023, of which 2.5 percent of GDP each year on average will be borrowed from the external market. Alternative scenarios indicate that public debt would likely remain below 35 percent of GDP under various shocks.

External DSA

4. **Bulgaria's external debt-to-GDP ratio has continued to decline in 2019.** External debt has declined from a peak of 106 percent of GDP in 2009 to 57 percent of GDP in 2019, mainly driven by deleveraging of the private sector. The decline was broad-based across banks and non-financial corporations, including in intercompany lending.

5. **Due to the pandemic, external debt ratios would temporarily increase in 2020.** On September 15, 2020, the authorities borrowed for the first time since 2016 on the external market. They issued EUR 2.5 billion split between two EUR 1.25 billion tranches with maturities of 10 and 30 years. The interest rate is 0.375 percent for the 10-year issue, and 1.375 percent for the 30-year

issue. Combined with a decline in nominal GDP and in exports of goods and services, this borrowing pushed up the external debt-to-GDP ratio from 57 percent in 2019 to 69 percent in 2020 and external debt-to-exports ratio from 89 percent in 2019 to 127 percent in 2020.

6. The external debt ratios are projected to decline over the projection period but would remain above its pre-pandemic level by 2025. In light of the continuing pandemic crisis, the authorities will continue to provide fiscal support to the economy in 2021 and the recent medium-term budget framework envisages a relatively slow fiscal consolidation with the deficit largely financed by external borrowing. As a result, in nominal terms, public external debt would start rising again. The decline in external-debt-to-GDP and the external-debt-to-exports would be slower than in the recent past and the ratio would remain, in 2025, higher than they were before the pandemic. The current account surplus excluding interest payments (declining from 1.9 percent of GDP in 2020 to 1.1 percent of GDP in 2025) would be significantly above the debt stabilizing level of a non-interest current account deficit of 4.0 percent of GDP. Gross financing needs as a share of GDP are expected to increase in 2020 from their low level of 2019 but remain below their 2015–19 average during the projection period.

7. External debt appears broadly resilient to various shocks, but risks could build up over the medium term. Bulgaria's external debt is sensitive to a real depreciation shock: with a 30 percent real depreciation in 2020 (unlikely given the fixed exchange rate with the euro and the large share of exports to the euro area), external debt would rise to 106½ percent of GDP in 2021, before declining to 100 percent of GDP by 2025. Bulgaria's external debt-to-GDP ratio would increase until 2023 under the historical scenario to about 77 percent of GDP before stabilizing but would remain close to its 2020 level under other standard shocks (including the combined shock scenario)

Figure 1. Bulgaria: Public Sector Debt Sustainability Analysis (DSA)—Baseline Scenario

(In percent of GDP unless otherwise indicated)

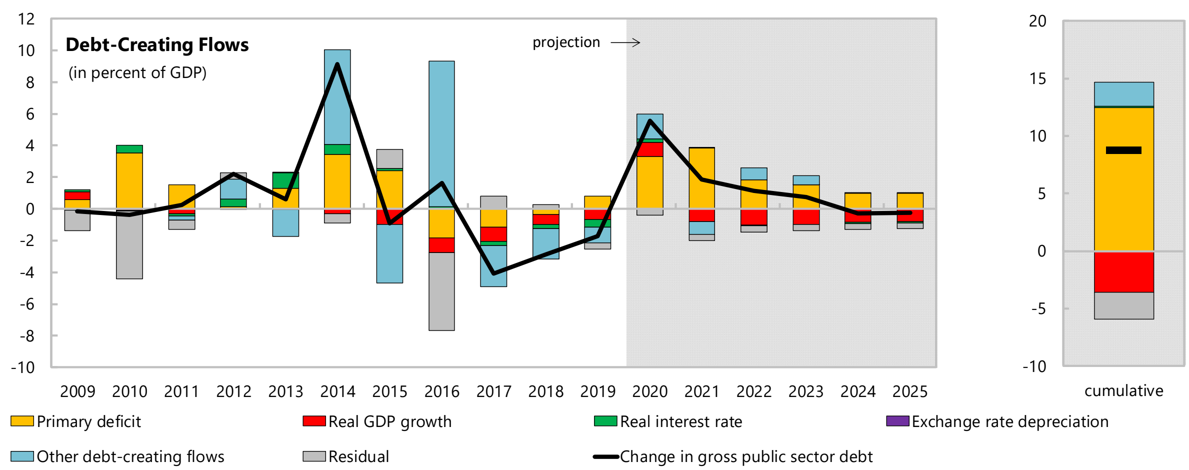
Debt, Economic and Market Indicators [1/]

	Actual			Projections					
	2009-2017 [2/]	2018	2019	2020	2021	2022	2023	2024	2025
Nominal gross public debt	19.9	20.1	18.4	24.0	25.8	27.0	27.7	27.4	27.1
Public gross financing needs	4.2	1.3	2.0	4.7	4.8	4.3	3.9	3.6	1.9
Real GDP growth (in percent)	1.5	3.1	3.7	-4.6	3.6	4.3	3.9	3.2	3.0
Inflation (GDP deflator, in percent)	2.4	4.0	5.3	2.1	2.0	2.6	2.5	2.5	2.5
Nominal GDP growth (in percent)	3.9	7.2	9.1	-2.6	5.7	7.0	6.5	5.8	5.6
Effective interest rate (in percent) [4/]	4.2	2.9	2.9	3.3	2.4	2.5	2.6	2.3	2.3

As of November 19, 2020		
Sovereign Spreads		
EMBIG (bp) 3/		108
5Y CDS (bp)		46
Ratings	Foreign	Local
Moody's	Baa1	Baa1
S&Ps	BBB	BBB
Fitch	BBB	BBB

Contribution to Changes in Public Debt

	Actual			Projections							
	2009-2017	2018	2019	2020	2021	2022	2023	2024	2025	cumulative	debt-stabilizing primary balance [9/]
Change in gross public sector debt	0.9	-2.9	-1.7	5.6	1.9	1.1	0.7	-0.3	-0.3	8.7	
Identified debt-creating flows	1.9	-3.2	-1.3	6.0	2.3	1.5	1.1	0.1	0.1	11.1	
Primary deficit	1.1	-0.3	0.8	3.3	3.8	1.8	1.5	1.0	1.0	12.5	-0.9
Primary (noninterest) revenue and grants	32.4	34.1	34.7	34.9	36.0	34.9	35.0	35.6	35.7	212.2	
Primary (noninterest) expenditure	33.5	33.8	35.5	38.2	39.8	36.7	36.6	36.6	36.7	224.6	
Automatic debt dynamics [5/]	-0.1	-0.9	-1.1	1.1	-0.8	-1.1	-1.0	-0.9	-0.9	-3.5	
Interest rate/growth differential [6/]	-0.1	-0.9	-1.1	1.1	-0.8	-1.1	-1.0	-0.9	-0.9	-3.5	
Of which: real interest rate	0.3	-0.3	-0.5	0.2	0.1	0.0	0.0	-0.1	-0.1	0.1	
Of which: real GDP growth	-0.3	-0.7	-0.7	0.9	-0.8	-1.0	-1.0	-0.8	-0.8	-3.6	
Exchange rate depreciation [7/]	0.0	0.0	0.0	…	…	…	…	…	…	…	
Other identified debt-creating flows	0.9	-1.9	-1.0	1.5	-0.8	0.8	0.6	0.0	0.0	2.1	
0 (negative)	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2) (e.g., ESM and Euroarea loans)	1.0	-1.9	-1.0	1.5	-0.8	0.8	0.6	0.0	0.0	2.1	
Residual, including asset changes [8/]	-1.0	0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-2.3	



Source: IMF staff.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Long-term bond spread over German bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as $[(r - \pi(1+g) - g + ae(1+r)]/(1+g+\pi+g\pi))$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi(1+g)$ and the real growth contribution as -g.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+r)$.

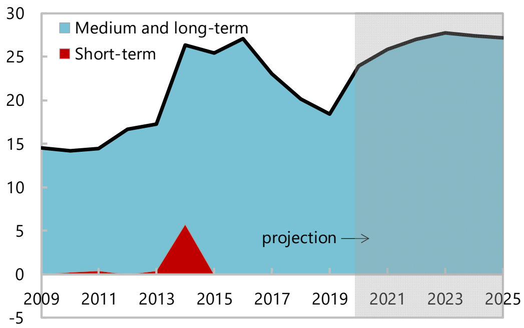
8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

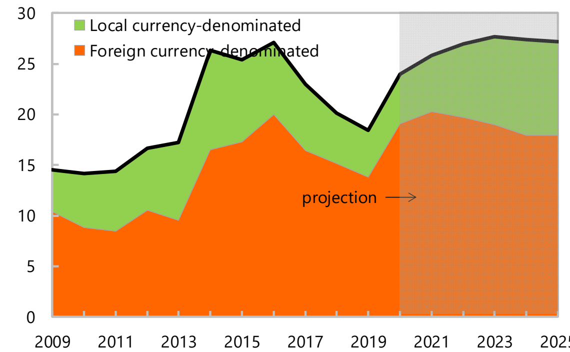
Figure 2. Bulgaria: Public DSA—Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

By Maturity
(in percent of GDP)



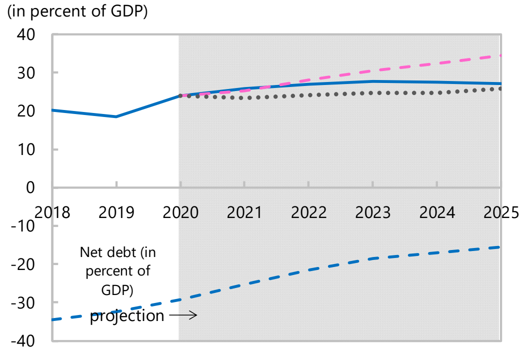
By Currency
(in percent of GDP)



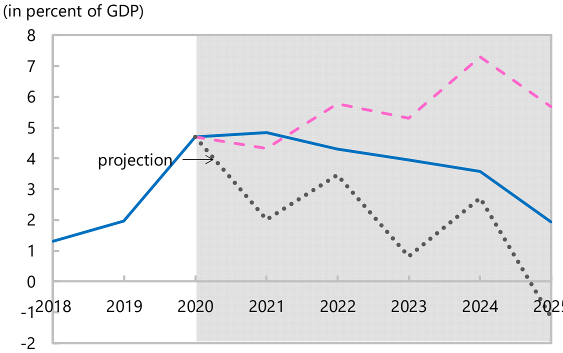
Alternative Scenarios

Baseline　　Historical　　Constant Primary Balance

Gross Nominal Public Debt
(in percent of GDP)



Public Gross Financing Needs
(in percent of GDP)



Underlying Assumptions

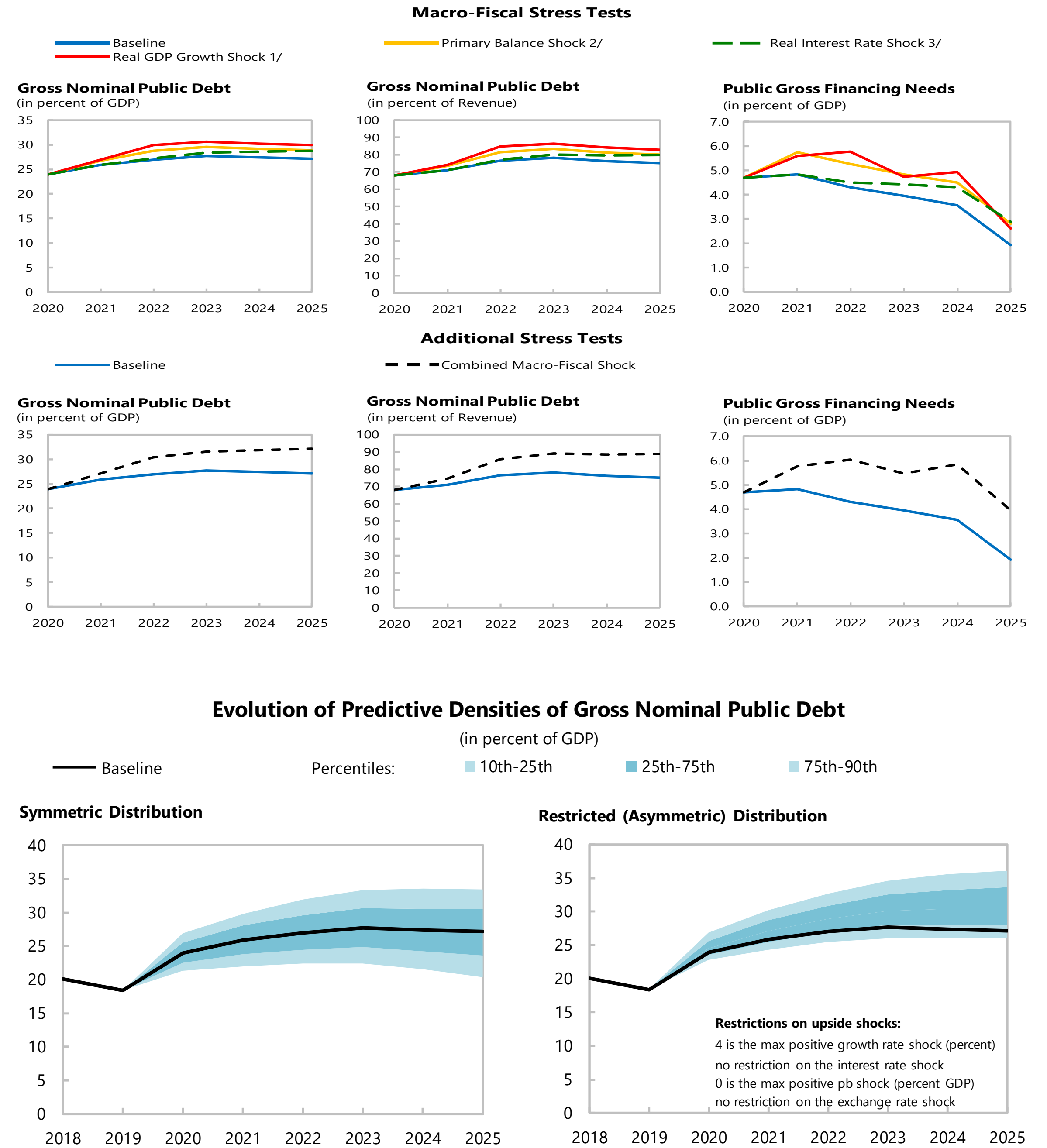
(in percent)

Baseline Scenario	2020	2021	2022	2023	2024	2025
Real GDP growth	-4.6	3.6	4.3	3.9	3.2	3.0
Inflation	2.1	2.0	2.6	2.5	2.5	2.5
Primary Balance	-3.3	-3.8	-1.8	-1.5	-1.0	-1.0
Effective interest rate	3.3	2.4	2.5	2.6	2.3	2.3
Constant Primary Balance Scenario						
Real GDP growth	-4.6	3.6	4.3	3.9	3.2	3.0
Inflation	2.1	2.0	2.6	2.5	2.5	2.5
Primary Balance	-3.3	-3.3	-3.3	-3.3	-3.3	-3.3
Effective interest rate	3.3	2.4	2.5	2.7	2.4	2.6

Historical Scenario	2020	2021	2022	2023	2024	2025
Real GDP growth	-4.6	2.4	2.4	2.4	2.4	2.4
Inflation	2.1	2.0	2.6	2.5	2.5	2.5
Primary Balance	-3.3	-1.0	-1.0	-1.0	-1.0	-1.0
Effective interest rate	3.3	2.4	2.4	2.7	2.2	2.1

Source: IMF staff.

Figure 3. Bulgaria: Public DSA—Stress Tests



Source: IMF staff.

1/ Real GDP growth shock scenario assumes (i) real GDP growth is reduced by 1 standard deviation for 2020-21; (ii) revenue-to-GDP ratio remains the same as in the baseline; (iii) level of non-interest expenditures is the same as in the baseline; (iv) deterioration in primary balance lead to higher interest rate; and (v) decline in growth leads to lower inflation (0.25 percentage points per 1 percentage point decrease in GDP growth).

2/ Primary balance shock scenario assumes (i) the primary balance for 2020-21 to be below the baseline projections by 50 percent of the 10-year historical standard deviation; and (ii) additional borrowing leads to increase in interest rate of 25bp per 1 percent of GDP worsening of the primary balance.

3/ Real interest rate shock scenario assumes nominal interest rate increases by the difference between the maximum real interest rate over history (last 10 years) and the average real interest rate level over projection.

Table 1. Bulgaria: External Debt Sustainability Framework 2009–2025

(In Percent of GDP, unless otherwise indicated)

	Actual													Projections						
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019			2020	2021	2022	2023	2024	2025	Debt-stabilizing non-interest current account 6/
Baseline: External debt	106.2	97.2	83.4	91.6	91.0	85.3	71.9	67.1	67.8	59.2	57.0			**69.0**	**67.4**	**66.4**	**65.4**	**64.0**	**63.7**	**-4.0**
Change in external debt		-9.1	-13.8	8.2	-0.6	-5.8	-13.3	-4.9	0.7	-8.6	-2.2			12.0	-1.6	-1.0	-1.0	-1.4	-0.4	
Identified external debt-creating flows (4+8+9)		2.7	-15.0	3.5	-6.8	-3.5	6.4	-8.5	-12.3	-9.8	-6.2			1.0	-5.1	-5.5	-4.3	-3.9	-3.5	
Current account deficit, excluding interest payments		-0.1	-2.3	-1.3	-3.1	-2.6	-1.4	-4.2	-4.4	-1.8	-3.6			-1.9	-2.8	-2.4	-1.5	-1.3	-1.1	
Deficit in balance of goods and services		3.0	-0.2	3.3	0.7	0.5	-1.0	-5.0	-4.4	-2.5	-3.2			-2.0	-2.4	-2.3	-1.1	-0.7	-0.9	
Exports	44.6	50.5	59.1	60.7	64.7	65.0	64.1	64.1	67.3	65.8	64.2			54.4	54.0	54.1	54.2	54.5	54.7	
Imports		53.6	59.0	64.0	65.4	65.5	63.0	59.1	62.9	63.3	61.0			52.5	51.7	51.9	53.1	53.8	53.8	
Net non-debt creating capital inflows (negative)		-2.5	-2.8	-2.5	-2.9	-0.2	-4.0	-1.1	-2.8	-1.5	-1.2			-0.4	-0.9	-1.2	-1.3	-1.3	-1.3	
Automatic debt dynamics 1/		5.3	-9.9	7.3	-0.8	-0.7	11.8	-3.2	-5.1	-6.6	-1.3			3.3	-1.5	-1.9	-1.6	-1.2	-1.1	
Contribution from nominal interest rate		1.8	2.0	2.2	1.8	1.4	1.3	1.0	0.9	0.8	0.6			0.7	0.7	0.8	0.8	0.8	0.7	
Contribution from real GDP growth		-0.6	-2.0	-0.3	-0.3	-1.7	-3.8	-2.6	-2.1	-1.9	-2.1			2.6	-2.2	-2.7	-2.4	-2.0	-1.8	
Contribution from price and exchange rate changes 2/		4.1	-9.9	5.5	-2.3	-0.4	14.4	-1.6	-3.9	-5.5	0.2			...	...	...	...	...	...	
Residual, incl. change in gross foreign assets (2-3) 3/		-11.8	1.2	4.7	6.3	-2.3	-19.7	3.6	13.0	1.2	4.0			11.0	3.5	4.5	3.4	2.5	3.1	
External debt-to-exports ratio (in percent)	238.4	192.2	140.9	151.0	140.6	131.3	112.3	104.7	100.8	90.0	88.8			126.8	124.7	122.7	120.6	117.5	116.3	
Gross external financing need (in billions of US dollars) 4/		24.2	19.9	19.7	19.6	17.2	18.5	12.7	12.1	15.7	13.0			15.8	15.5	18.7	20.4	21.8	21.0	
in percent of GDP		48.0	34.7	36.5	35.3	30.2	36.5	23.6	20.5	23.7	18.9	10-Year	10-Year	23.1	20.1	22.3	22.8	23.0	20.9	
Scenario with key variables at their historical averages 5/														**69.0**	**74.1**	**76.3**	**77.0**	**76.5**	**76.7**	**-3.2**
Key Macroeconomic Assumptions Underlying Baseline												Historical Average	Standard Deviation							
Real GDP growth (in percent)		0.6	2.4	0.4	0.3	1.9	4.0	3.8	3.5	3.1	3.7	2.4	1.5	-4.6	3.6	4.3	3.9	3.2	3.0	
GDP deflator in US dollars (change in percent)		-3.7	11.3	-6.2	2.6	0.4	-14.4	2.3	6.1	8.8	-0.3	0.7	7.5	4.2	9.7	3.6	3.0	2.7	2.6	
Nominal external interest rate (in percent)		1.7	2.3	2.4	2.0	1.5	1.3	1.4	1.5	1.3	1.1	1.7	0.4	1.2	1.2	1.3	1.4	1.2	1.2	
Growth of exports (US dollar terms, in percent)		9.9	33.3	-3.4	9.8	2.7	-12.2	6.3	15.3	9.8	0.9	7.2	12.1	-15.7	12.9	8.2	7.3	6.5	6.1	
Growth of imports (US dollar terms, in percent)		-0.6	25.4	2.2	5.2	2.5	-14.3	-0.4	16.9	12.8	-0.4	4.9	11.0	-14.4	12.0	8.4	9.7	7.3	5.8	
Current account balance, excluding interest payments		0.1	2.3	1.3	3.1	2.6	1.4	4.2	4.4	1.8	3.6	2.5	1.4	1.9	2.8	2.4	1.5	1.3	1.1	
Net non-debt creating capital inflows		2.5	2.8	2.5	2.9	0.2	4.0	1.1	2.8	1.5	1.2	2.2	1.1	0.4	0.9	1.2	1.3	1.3	1.3	

1/ Derived as [r - g - r(1+g) + ea(1+r)]/(1+g+r+gr) times previous period debt stock, with r = nominal effective interest rate on external debt; r = change in domestic GDP deflator in US dollar terms, g = real GDP growth rate, e = nominal appreciation (increase in dollar value of domestic currency), and a = share of domestic-currency denominated debt in total external debt.

2/ The contribution from price and exchange rate changes is defined as [-r(1+g) + ea(1+r)]/(1+g+r+gr) times previous period debt stock. r increases with an appreciating domestic currency (e > 0) and rising inflation (based on GDP deflator).

3/ For projection, line includes the impact of price and exchange rate changes.

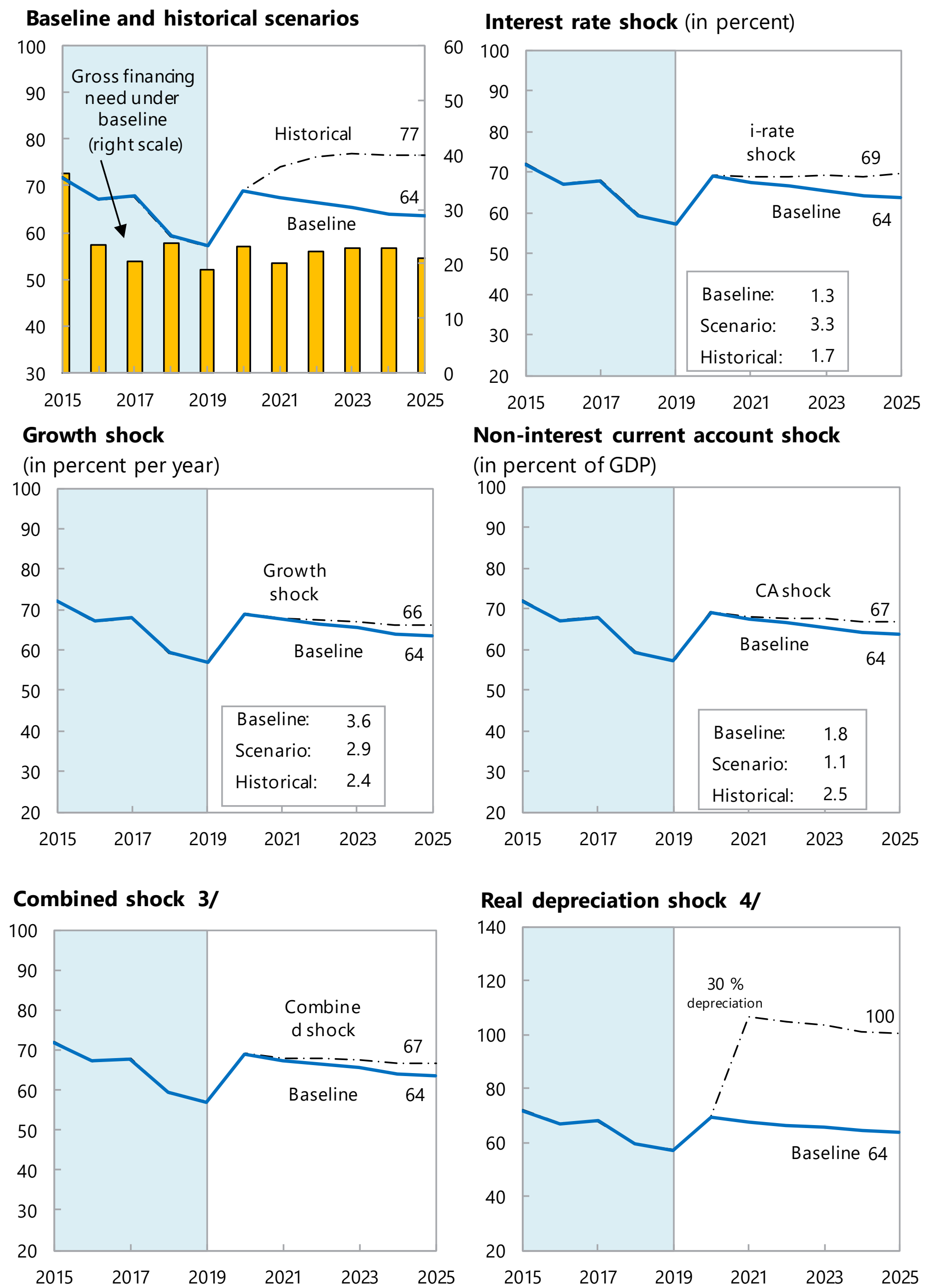
4/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.

5/ The key variables include real GDP growth; nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.

6/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

Figure 4. Bulgaria: External Debt Sustainability—Bound Tests 1/ 2/

(External debt in percent of GDP)



Sources: International Monetary Fund, Country desk data, and staff estimates.

1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks, except in case of the interest rate shock where a 200 bp shock is assumed. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.

2/ For historical scenarios, the historical averages are calculated over the ten-year period, and the information is used to project debt dynamics five years ahead.

3/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.

4/ One-time real depreciation of 30 percent occurs in 2021.

Annex III. External Sector Assessment

Overall Assessment: *The external position in 2020 is preliminarily assessed to be stronger than the level implied by medium-term fundamentals and desirable policies. The current account is projected to narrow to 1.2 percent of GDP from 3 percent of GDP in 2019, following a marked contraction in the net services surplus, more than offsetting the improvement in the trade balance. However, this assessment is highly uncertain given the lack of full-year data for 2020 and the ambiguous impact of the pandemic on the CA balance, amid the collapse in global trade, international tourism, remittances, and investment income. In the medium term, the CA surplus is projected to further narrow from 2020 levels, due to continuing strength of private-sector consumption and rising medium-term imports driven by EU grants.*

Potential Policy Responses: Short-term policies should focus on containing the COVID-19 outbreak and its economic consequences and provide relief to households and firms to maintain their activities and thereby limit the long-term scarring effect of the crisis. If the pandemic worsens more than expected, policy support should promptly be scaled up, taking advantage of Bulgaria's substantial fiscal space and strong external position. Once the pandemic wanes, policies should progressively shift to facilitating recovery, transformation, and inclusive growth. To that effect, it will be of great importance to make effective and efficient use of EU transfers, which are expected to become quite large.

Foreign Assets and Liabilities: Position and Trajectory

Background. From a peak of 100 percent of GDP in 2009, the negative NIIP improved to 31.2 percent in 2019. The main factors include the increase in foreign reserve assets, the reduction of banks' liabilities towards parent companies as well as the increase of foreign assets by domestic companies (mainly pension funds). Positive current account developments and sustained economic growth performance have also contributed to the favorable NIIP trend.

Assessment. The NIIP has continued to improve over the first three quarters of 2020 and is expected to reach -29.2 percent of GDP by year-end. Projections of continued CA surpluses and increases in reserve assets over the medium term suggest that the NIIP-to-GDP ratio will improve further. Bulgaria's overall NIIP financing vulnerabilities appear moderate, as foreign direct investment fund accounts for an increasingly large share of the position.

2019 (% GDP)	NIIP:	Gross Assets:	Debt Assets:	Gross Liabilities:	Debt Liabilities:
	-31.2	91.5	12.8	-122.6	-7.7

Current Account

Background. Bulgaria's external balance has significantly improved in recent years as a result of a narrowing trade deficit, recording sizable current account surpluses every year since 2013. Following the crisis, the current account has narrowed, posting a surplus of 1.1 percent of GDP in the first three quarters of 2020 (down from 3.4 percent of GDP in the same period last year). While weak domestic demand severely reduced the trade deficit, a sharp decrease in foreign tourist arrivals led to a large contraction in the service balance, more than offsetting the change in the trade balance. In line with the deterioration observed over the first nine months of the year, the current account surplus is projected to narrow from 3 percent of GDP in 2019 to 1.2 percent of projected GDP in 2020. However, uncertainty remains high, while current account data are subject to frequent revisions and large errors and omissions: in January-September the total "net errors and omissions" was positive by €2.4bn, making a revision of the full-year surplus likely.

Assessment. The EBA-lite current account model suggests that the projected 2020 cyclically-adjusted current account was 3.7 percent of GDP higher than the estimated level that is consistent with fundamentals and desirable policy settings. On balance, close to 6.5 percent of GDP is attributed to policy gaps. Low domestic public health care spending contributes 3.4 percentage point to the CA gap, while looser fiscal policy in the rest of the world, relative to Bulgaria, also contributes 1.9 percentage point to the excess surplus. Unidentified residuals are large, potentially reflecting other idiosyncratic factors that are not captured by the model, including potentially temporary shocks and structural impediments encouraging both higher savings and lower investment. However, the level of uncertainty remains very high, given the lack of full-year data, the ambiguous impact of the pandemic, and the frequent and substantial revisions to current account data.

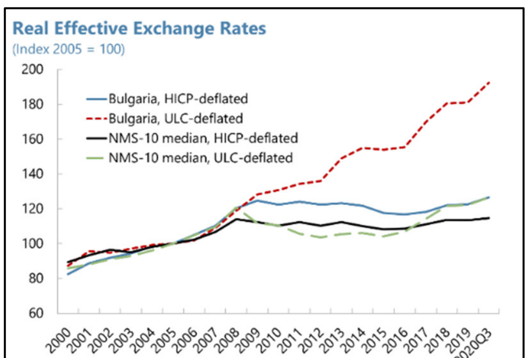
Text table. Bulgaria: Results from EBA-lite models, 2020
(in percent of GDP, unless otherwise indicated)

	CA model	REER model
CA-Actual	**1.2**	
Cyclical contributions (from model)	0.2	
Additional temporary/statistical factors	0.0	
Natural disasters and conflicts	-0.1	
Adjusted CA	**1.1**	
CA Norm (from model) 1/	**-2.6**	
Adjustments to the norm	0.0	
Adjusted CA Norm	**-2.6**	
CA Gap	**3.7**	
o/w Policy gap	6.5	
Elasticity	-0.43	
REER Gap (in percent)	**-8.5**	**4.4**

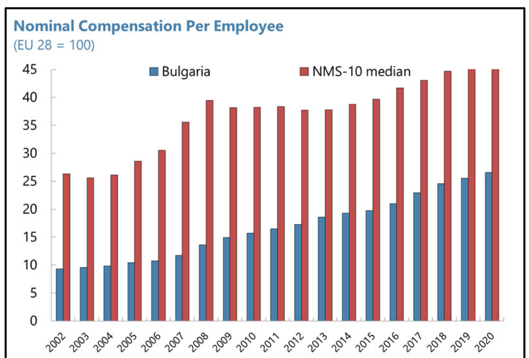
1/ Cyclically adjusted, including multilateral consistency adjustments.

Real Exchange Rate

Background. With wage growth outpacing productivity growth by a wide margin in recent years, ULC-based REER has deviated from the CPI-based REER and appreciated significantly since 2009. The comparatively low initial levels of ULCs for the whole economy, structural changes, and the process of nominal and real convergence are among the factors behind this long-term development. Cyclical factors have also played a role, fueling rapid ULC growth in the booming years before the 2009 crisis and limiting the pace of ULC increase thereafter. While faster-rising ULC-based REER raises concerns on eroding price competitiveness, Bulgaria's 2019 wage level was still substantially below the median NMS level and corporate profits (measured by gross operating surplus) are viewed to have room to absorb labor cost increases. Aggregate competitiveness developments tend to mask nonetheless different trends across production sectors.



Sources: European Commission and IMF staff calculations.



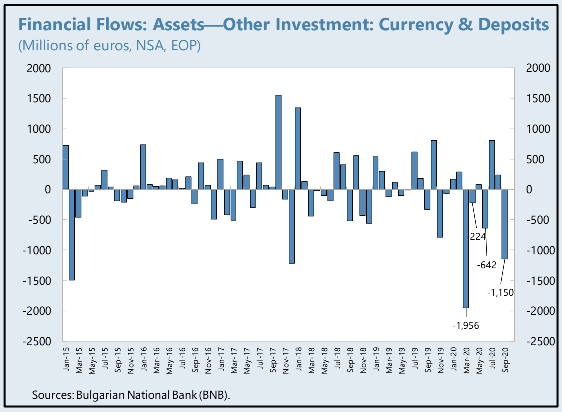
Sources: European Commission and IMF staff calculations.

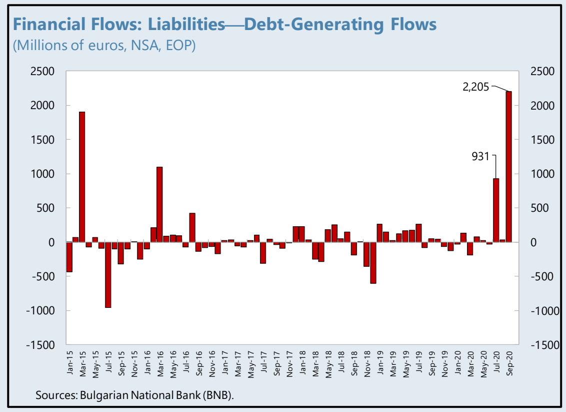
Assessment. Based on October 2020 WEO projections, the EBA-lite REER model estimates Bulgaria's REER in 2020 to be moderately overvalued (by 4.4 percent), while the REER gap derived from the IMF staff's CA gap assessment, with an estimated elasticity of 0.43, implies that the real exchange rate was undervalued by 8.5 percent. Given the high uncertainty around these estimates, the staff-assessed REER gap range is -11.0 to 0, as the size of the current account gap is deemed to be large enough to uphold the assessment implied by the current account model.[1]

[1] The REER gap range derived from the CA gap range (2.7 to 4.7 percent) is –11.0 to –6.3 percent (with an elasticity of 0.43). The range of –11.0 to 0 is determined by putting more weight on the current account model and less on the REER model. It implies a mid-point estimate of REER undervaluation of 5.5 percent.

Capital and Financial Accounts: Flows and Policy Measures

Background. Echoing its CA surplus, Bulgaria experienced net capital outflows in 2019, driven largely by transactions in other investment and portfolio flows, while net FDI inflows remained relatively low. Over the first three quarters of 2020, sizable net inflows of funds were reported, largely reflecting a €2.2bn decline in banking sector's foreign assets (under the category "other investments: currency and deposits") in March–April— most likely related to measures announced in March by the BNB in response to the COVID-19 pandemic aimed at strengthening banks' balance sheets and further enhancing banking system's liquidity—and the placement of €2.5bn Eurobonds by the government in mid-September.



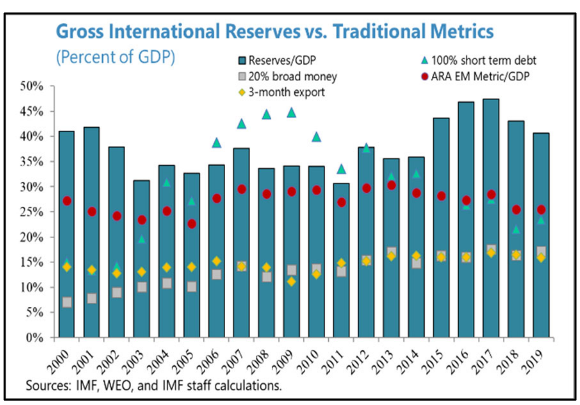


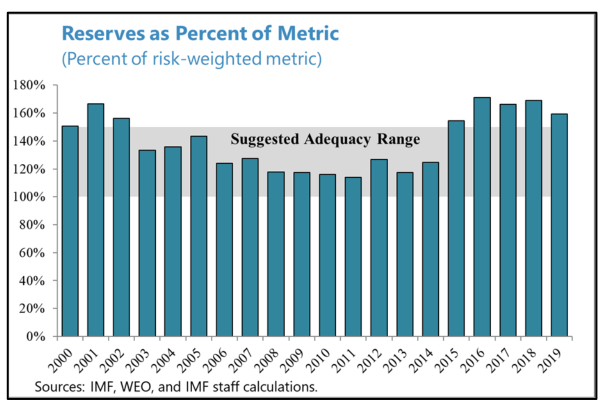
Assessment. While Bulgaria's external debt-to-GDP ratio has continued to decline in 2019, following the pandemic, gross external indebtedness of Bulgarian residents is expected to rise by 8 percent of GDP by the end of 2020—mainly on account of public external debt, which is expected to increase from 8.9 to 14 percent of projected GDP. In terms of maturity structure, the high share of long-term debt in Bulgaria's total gross external debt has reduced economy's vulnerability to potential volatility of international capital flows, whereas the current terms for servicing external obligations by Bulgarian residents are expected to remain favorable.

FX Intervention and Reserves Level

Background. As of end-2019, gross international reserves amounted to €24.8bn (40.6 percent of GDP). As of end-October 2020, the foreign reserves have further surged to €29.5bn (49.5 percent of projected GDP), broadly mirroring a €2.2bn repatriation of banking sector's foreign assets in March-April and the placement of €2.5bn Eurobonds in mid-September. As a result, the import coverage of reserves has risen to 11.5 months and the reserve coverage of short-term external debt has increased to 3.6 times.

Assessment. Foreign exchange reserves are assessed to be adequate under a currency board arrangement. Available FX reserves at the end of 2019 exceed the upper bound of the suggested adequacy range and the coverage ratio required for the functioning of the currency board, while remaining well above traditional metrics.





Annex IV. Risk Assessment Matrix[1]

Risks	Likelihood	Impact if Realized	Policy Response
Domestic Risks			
1. A faster-than-expected wage growth (medium term)	**Medium** Public wage and minimum wage increases could accelerate private sector wage hike.	**Low/Medium** Strong consumption, inflation acceleration, and if persistent, erosion of external competitiveness in the long term. Overheating could lead to asset and real estate price bubbles.	Continue structural reform efforts that would boost labor productivity, including education, healthcare, and labor market reforms.
2. Slow progress in structural reforms to raise potential growth and mitigate unfavorable demographics (medium term)	**High/Medium** Lack of political support delays the structural reform agenda.	**High** Lower potential growth, high structural unemployment, stalling real convergence, and increased fiscal risks.	Announce and implement structural reforms with clear objectives and timeline.
Global Risks			
3. The COVID-19 pandemic proves harder to eradicate (short/medium term)	**High** The disease proves hard to eradicate, requiring more containment efforts and impacting economic activity and prompting permanent behavioral changes.	**High** Economic activity is disrupted. Negative global spillover through trade, tourism and confidence effects on financial markets and investment.	Allow automatic stabilizers to operate. Use fiscal space to provide adequate support and, if needed, further stimulus. Advance structural reform to facilitate reallocation of resources.
4. Intensified geopolitical tensions and security risks (short term)	**High** Regional tensions in the black sea between neighboring countries intensifies.	**Medium** Political and trade disruptions, higher commodity prices (if supply is disrupted), and lower confidence investment.	Continue structural reform efforts to boost productivity and competitiveness.
5. Accelerating de-globalization (short/medium term).	**High** Fraying consensus about the benefits of globalization lead to further fragmentation and protectionist measures.	**Low/Medium** Negative global spillover through trade, tourism and confidence effects on financial markets and investment.	Advance structural reforms that bolster competitiveness and raise potential growth, including labor market reforms. If needed, use available fiscal space to implement reform.

[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relatively likelihoods of risks listed is the staff's subjective assessment of the risks surrounding the baseline. The RAM reflects staff's views on the sources of risk and overall level of concern as of the time of discussions with the authorities.

Annex V. Public-Private Investment Relationship in EU Member States

1. Large scale public investment financed by EU funds could affect private investment and medium-term growth. Accumulation of public capital stock could raise medium-term growth. For example, a recent study by IMF suggests a large potential for infrastructure investment to raise medium-term potential growth in CESEE countries. Public investment could also raise growth through its catalyzing effect on private investment (i.e., crowding-in effect). The effect could depend on several factors, including the level of development and type of capital expenditure.[1]

2. A panel regression for EU economies suggests the presence of crowding-in effect. Regressions (see technical details section) estimate the effect on private capital formation of total public investment (model 1) and its main subcomponents by government functions (model 2), controlling for other potential factors that affect private investment. The findings are as follows (Text Table):

Table. Regression Results 1/2/

	(1)	(2)
Private investment (-1)	1.039***	0.620***
Private investment (-2)	-0.463**	-0.281***
Output gap	1.761***	1.683***
NPL	-0.028**	-0.056**
Convergence interest rate	-0.021	-0.037***
Public investment (-1)	0.181**	
(Output gap*Public investment) (-1)	-0.152**	
GDP per capita*Public investment	-0.021***	
Public investment in transport (-4)		0.062**
Public investment in education (-8)		0.099***
Public investment in healthcare (-6)		0.046***
Public investment in general public services (-1)		0.044*
Memorandum:		
Sargan test (p-value)	0.12	0.21
AR(1) test (p-value)	0.14	0.13
AR(2) test (p-value)	0.75	0.23

Sources: staff estimates.

1/ Dependent variable is private investment.

2/ *p<0.1; **p<0.05; ***p<0.01

The estimation result of model (1) suggests a positive impact of public investment on private investment with a one-year lag. Furthermore, the interaction terms of public investment with the output gap and the GDP per capita indicate that public investment has a more pronounced positive effect on private investment activity in times of negative output gap and for less developed economies.

The estimation result of model (2) suggests that several types of public investment are positively associated with private capital formation. Public investments in human capital (education and health) and transport have positive effects with long time lags (8 years for education, 6 years for health and 4 years for transport). The results also suggest a greater impact of the public investment in education than that in transport, albeit with a significant time lag, probably reflecting education's direct contribution to the accumulation of human capital. Capital expenditures in general public services, which could strengthen provision of public services and improve public governance, are also positively

[1] Recent related studies include Ari et al. (2020) and Buffie et al. (2020).

associated with private capital formation. The capital expenditures in defense and other (small, miscellaneous) investments are found to be statistically insignificant.

To summarize several results of the regression analysis, both models confirm the importance of the usual drivers for private investment that have been documented in the literature. Next, private investment exhibits persistence and pro-cyclicality as captured by the coefficients for the lagged dependent variables and the output gap. Lastly, sound financial sector and public finances also contribute to private investment, as shown by the coefficients for the share of NPLs in total loans in the banking sector and the convergence interest rate.[2]

Technical Information

3. Panel regression is estimated with difference GMM with individual effects. The annual data cover all EU member states and the UK for the period between 2001 and 2019 and are available from the Eurostat and IMF. Data are transformed in logarithms. In both regression models, up to 10 period lags for the explanatory variables are tested and the ones that have the highest statistical significance are chosen. Main subcomponents of public investment are derived based on government functions COFOG (2).

4. Two variables that are not directly observable are derived through additional calculations—private investment and output gap (to account for the business cycle).

Private investment is calculated as a difference between total gross fixed capital formation and public gross fixed capital formation in current prices. The resulting variable is then deflated by the total gross fixed capital price deflator, based on the assumption that the private and public investments have the same deflator.

Potential output is estimated with a simple Hodrick-Prescott filter with a smoothing parameter $\lambda=100$, which corresponds to annual data.

[2] The convergence interest rate is defined as the monthly average interest rate on long-term government bonds. It can be interpreted as a measure of investors' perceptions about sovereign risk.

References

Ari A. et al, 2020, "Infrastructure in Central, Eastern, and Southeastern Europe: Benchmarking, Macroeconomic Impact, and Policy Issues," IMF Departmental Paper No. 20/11.

Buffie E. F. et al, 2020, "Investment, and Growth in Developing Countries with Segmented Labor Markets," IMF working paper WP/20/102.

Appendix I. Main Recommendations of the 2019 Article IV Consultation and Authorities' Actions

IMF 2019 Article IV Recommendations	Policy Actions
Fiscal Policy	
Preserve fiscal buffers that are critical for currency board arrangement and later in the euro area. Strengthen revenue mobilization.	Public debt remains low and the fiscal reserve is large. The authorities implemented measures to strengthen efficiency of excise tax collection.
Improve public spending efficiency and effectiveness including for EU funds, as guided by PIMA TA.	The authorities enforced large contracting authorities to use an e-procurement platform (mandatory modules) and planned to extend to all contracting authorities by January 2021. National public investment information system was planned to start functioning at the beginning of 2021.
Need further pension reforms to address long-term fiscal pressures.	No additional pension reform is planned in the near term.
Structural Reforms	
Public goods	
Improve the quality of public goods, including education and training and public health. Pay increases should reflect the findings of a functional review of public sector employment and wages.	The government plans to prioritize training in digital skills in the next EU cycle. For healthcare, they implemented measures that aim at reducing cost of medicines and clean up balance sheets of public hospitals and the national insurance fund. They also provided additional funds for the system to cope with the COVID-19 epidemic. No functional review of public sector employment and wages is planned at this stage.
SOEs	
Enhance the oversight and efficiency of SOEs to reduce contingent liabilities and raise growth potential. Establish a fiscal risk management unit.	The authorities have aligned SOE legislation with the OECD guidelines of SOE corporate governance. To ensure effective implementation of the legislation, they set up the Public Enterprises and Control Agency to develop SOE ownership policy and aggregate report. No plan to establish a fiscal risk management unit.
Governance	
Establish a track record in demonstrating judicial independence and effectiveness, and to step up the fight against high-level corruption.	The Council of Ministers adopted a Decree establishing a National mechanism for sustaining reform continuity. The authorities will continue the efforts under the EU's rule-of-law framework.
Financial Sector Policies	
Continue the efforts to strengthen banking sector supervision	The BNB completed the calibration of the bank-specific Pillar II capital add-ons. BNB has entered into close cooperation with the ECB and joined the Single Supervisory Mechanism.
Advance progress in reducing NPLs	The BNB adopted the EBA guidelines on management of NPLs. Banks' NPL reduction plans are assessed in the SREP. BNB is closely monitoring banks to ensure timely recognition and proper coverage of NPLs.