



# BULGARIA

## SELECTED ISSUES

March 2019

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## SELECTED ISSUES

March 4, 2019

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## CONTENTS

<b>CORPORATE PRODUCTIVITY IN BULGARIA</b>	<b>3</b>
A. Introduction	3
B. The Analytical Framework and Basic Statistics	4
C. Empirical Results	7
D. Concluding Remarks	9
<b>TABLES</b>	
1a. TFP Growth	10
1b. Labor Productivity Growth (2003-15)	11
2. Productivity Growth by Sub-periods	12
References	13
<b>BULGARIA'S GOVERNANCE REFORMS</b>	<b>14</b>
A. Governance for Growth	14
B. Overview of Governance	15
C. Key Governance Issues	19
D. Conclusion	26
<b>FIGURES</b>	
1. CESEE: Estimated Efficiency Gains from Institutional Reforms	14
2. Quantitative and Perception-based Indicators	22
<b>TABLE</b>	
1. Governance Indicators in Bulgaria, the NMS and the EU	19

**ANNEX**

I. Definitions and Sources of Governance Indicators \_\_\_\_\_ 28

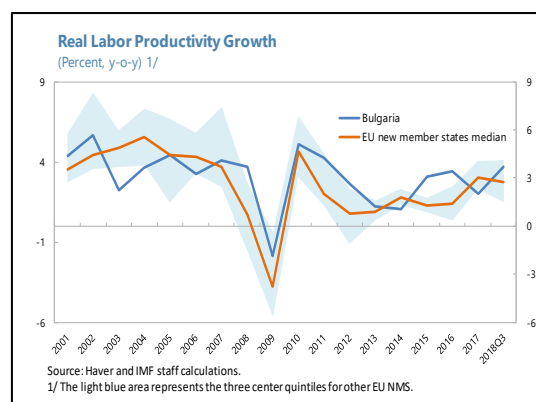
References \_\_\_\_\_ 31

# CORPORATE PRODUCTIVITY IN BULGARIA<sup>1</sup>

*This paper examines corporate productivity growth in Bulgaria using firm-level data. Firms with a higher share of innovative assets and lower financial distress are estimated to have higher productivity growth. The convergence of productivity to frontier firms may have slowed after the global financial crisis (GFC) for existing firms.*

## A. Introduction

**1. Productivity growth in Bulgaria has slowed since the onset of the 2008-09 GFC.** While the post-GFC slowdown of productivity growth is a global phenomenon (Adler et al., 2017) and Bulgaria's post-GFC productivity growth has been in line with other EU new member states (NMS),<sup>2</sup> boosting productivity growth is the ultimate way to address the long-term demographic challenges Bulgaria faces and achieve faster real convergence. Understanding the factors affecting productivity growth would help design policies to raise productivity.



**2. There have been a large number of studies on productivity growth in recent years, inspired by the need to understand the post-GFC slowdown of productivity growth.** Andrews et al. (2015) find that better education quality and well-functioning product and labor markets can help technology diffusion. IMF (2016) shows that the productivity gap between Central, Eastern, and Southeastern Europe countries and advanced Europe is largely due to structural and institutional obstacles that limit the efficient use of available technologies and allocative inefficiencies. Some recent studies on European firms point to a number of factors affecting productivity growth. Shabunina (2018) finds that regulatory barriers are associated with lower productivity growth. IMF (2018) shows that for Czech firms, smaller, younger, and more leveraged firms had lower productivity growth. Anderson and Raissi (2018) identify negative effects of corporate debt build-up on the growth of total factor productivity (TFP) for Italian firms, and provide weak evidence of a threshold level of corporate debt, beyond which productivity growth drops off significantly.

**3. This paper investigates some of the factors that are associated with Bulgarian firms' productivity growth.** Our analysis shows that Bulgarian firms with a higher share of innovative assets in total assets and stronger financial health had higher productivity growth. Foreign, larger, and younger firms and firms in the tradable sectors also generally had faster productivity growth.

<sup>1</sup> Prepared by Xiao Liu and Yi Wu.

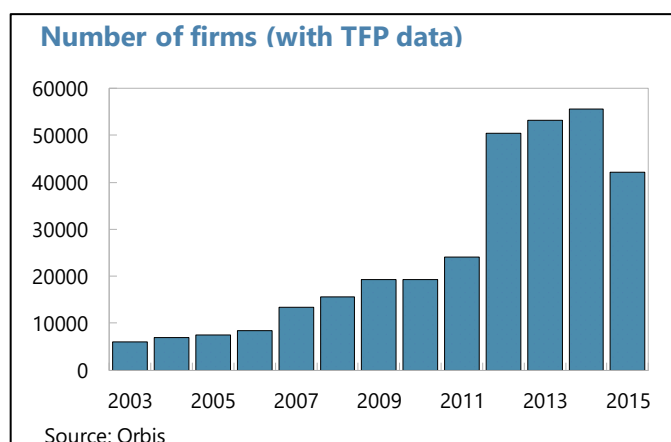
<sup>2</sup> Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.

Finally, the convergence of productivity to frontier firms seems to have slowed after the GFC for existing firms, though not for the whole sample of firms.

**4. The paper is organized as follows:** Section II describes the empirical framework and data. Section III presents the analysis. Section IV concludes.

## B. The Analytical Framework and Basic Statistics

**5. We use annual firm-level data from 2003 to 2015.** The data come from the Orbis database, and only cover non-financial corporates. Variables are converted from dollar to lev, and then converted into real variables using deflators at the 2-digit NACE industry level if available.<sup>3</sup> Data are cleaned by excluding clear misreporting and outliers. In particular, we dropped duplicate firm data, firms that have negative total assets, employment, sales or tangible fixed assets in any year, and firms with more than 2 million employees in any year. We also dropped firm-year observations with missing, zero, or negative values for costs of materials, operating revenue, and total assets, and firms without a NACE sector code. Furthermore, we calculated the ratio of assets, revenue, and revenue/assets per employee. Then we filtered out the top and bottom 0.1 percent of the sample based on the ratios. Further data quality checks are reported in Díez et al. (2018). The number of firms available in the sample increases substantially after the GFC.



Sector	No. of firms (2015)
Accommodation and food services	1,908
Administrative and support services	899
Agriculture, forestry and fishing	3,624
Arts and entertainment	225
Construction	2,430
Education	155
Electricity and gas	259
Finance and insurance	188
Health and social work	1,084
Information and communication	1,188
Manufacturing	6,317
Mining and quarrying	86
Other services	642
Professional and technical services	3,823
Real estate	1,266
Transportation and storage	5,196
Water supply and waste management	152
Wholesale and retail trade; car repair	12,803
Total	42,245

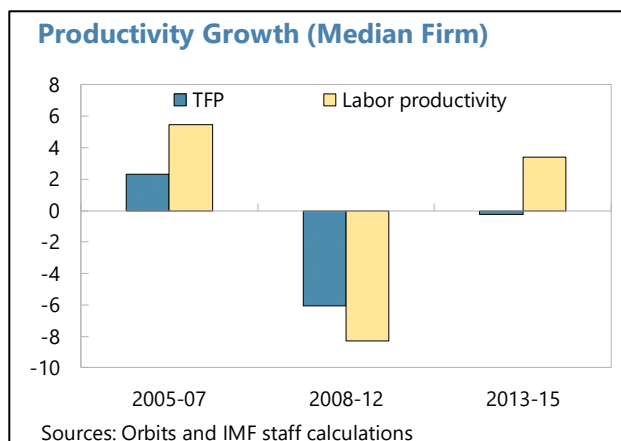
**6. The empirical analysis uses both TFP and labor productivity.** A Cobb-Douglas production function is estimated to derive TFP:

$$\ln Y_{it} = \alpha + \beta \ln K_{it} + (1 - \beta) \ln L_{it} + u_{it}, \quad (1)$$

<sup>3</sup> If not, 1-digit NACE level deflator or GDP deflator is used.

where  $i$  represents firm and  $t$  represents year.  $Y_{it}$  is value added,  $K_{it}$  and  $L_{it}$  are capital and labor inputs, respectively. Then, the residual,  $u_{it}$ , is the log of TFP. The estimation is done by the 2-digit NACE industry level for which the production function is assumed to be the same. Labor productivity is measured as value added divided by the number of employees.<sup>4</sup> Firm-level data (median or general distribution) also confirm a post-GFC slowdown in productivity growth.

**7. We relate productivity growth to the share of intangible assets, measures of debt burden, productivity gap to industry leaders, and firm age, size, and ownership.**



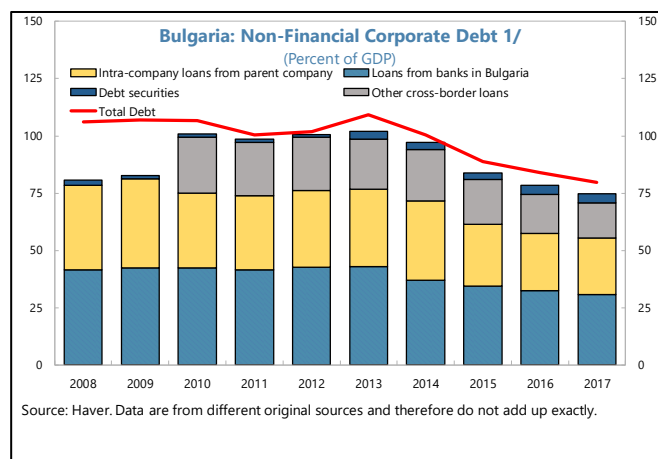
$$\Delta \text{Productivity}_{it} = \alpha + \beta IA_{it-1} + \delta D_{it} + \gamma S_{it} + u_{it}, \quad (2)$$

where  $\Delta \text{Productivity}_{it}$  measures the growth of productivity for firm  $i$  from year  $t-1$  to year  $t$ .

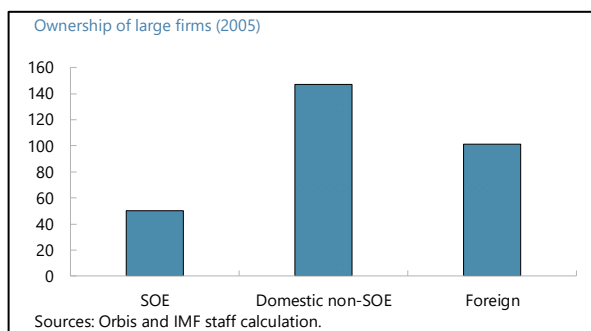
- $IA_{it-1}$  is the ratio of intangible fixed assets to total fixed assets (with a lag). Intangible fixed assets include a company's proprietary technology (computer software, etc.), patents, copyrights, licensing agreements, and goodwill. A high share of intangible assets to total assets may indicate higher investment in research and innovation, which could lead to higher productivity growth. Seventy five percent of firms have zero intangible assets. A direct measure of R&D expenditure is not available.
- $D_{it}$  represents two dummy variables used to measure corporate debt burden:
  - A dummy variable for firms with high debt-to-asset ratio: Bulgaria's non-financial corporate debt has continued to decline but remains high among the NMS. Debt is constructed as the sum of long-term and short-term financial debt. About half of the firms report zero debt, which raises concerns on misreporting. Measurement errors in independent variables would bias the estimated coefficients toward zero ("attenuation bias"). To capture possible threshold effects and to help alleviate the potential measurement error problem, we constructed a dummy variable set equal to 1 for firms whose debt-to-asset ratio is at the top 5 percentile. This is equivalent to a debt-to-asset ratio higher than 50 percent. But using other thresholds (e.g. the top 10 percentile) yields broadly similar results.

<sup>4</sup> While the correlation between the level of TFP and labor productivity amounts to 0.29, the correlation of their growth rates is only 0.1.

- A dummy variable for firms with low interest coverage ratio (ICR): ICR is measured as the ratio of earnings before interest, tax, depreciation and amortization (EBITDA) to interest expenses. The dummy variable is set as 1 for firms with the ICR ratio less than 2, but using alternative cutoffs or directly using the level of ICR yields broadly similar results.
- $S_{it}$  represents other firm characteristics including



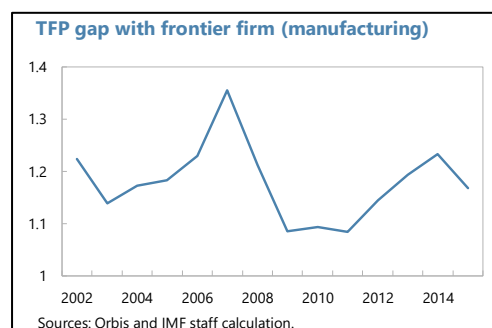
- Dummy variables representing firm size: medium-sized (50 to 250 employees), small (10 to 50 employees), and micro firms (less than 10 employees). Together they account for 99 percent of the firms and 56 percent of total assets.<sup>5</sup>



Share	No. of firms	Assets
Medium-sized firms	9%	24%
Small firms	37%	23%
Micro firms	53%	9%
Sum	99%	56%

Note: For firms included in Col. (1) of Table 1.

- Productivity gap to industry leaders at NACE2 two-digit levels (with a lag), where the leaders are the top 1 percent of firms in level of productivity: This is to explore how fast firms' productivity tends to converge towards the frontier firms (a measure of efficiency in technology diffusion). For the manufacturing sector, e.g., the TFP gap was 117 percent for the median firm in 2015.



- A dummy variable for state-owned enterprises (SOEs) which account for 1.4 percent of total firms; and a dummy variable for foreign firms, which account for 6.6 percent of total firms. State and foreign firms play an important role in the Bulgarian economy. This is to investigate whether there is any difference in productivity growth systemic for these firms. It should be noted, however,

<sup>5</sup> Eighteen percent of Bulgarian firms in Orbis report only one employee, raising the possibility of misreporting. But most of these firms also have missing data for some of the other variables used in the regressions. As a result, only 3 percent of the firms included in the baseline regression (Column (1) of Table 1a) has only one employee, and dropping them did not change the regression results.

that the sample size will be significantly reduced when the two dummy variables are added to the regression, due to data limitations.

- A dummy variable for firms in the tradable sectors (mining, agriculture, manufacturing, information and communications technology). This is to examine whether firms in the tradable sectors had faster productivity growth than firms in the services sectors (where the products are less traded internationally). Faster productivity growth in the tradable sector would lead to a real exchange rate appreciation (the Balassa-Samuelson Effect).
- Sector and year dummy variables to capture omitted explanatory variables that are industry or year specific, e.g., industry-specific shocks or overall macroeconomic environment.
- Firm age. This is to see whether there is a difference in productivity growth as firms grow in years (not in size). We constructed the age of the firm based on the date of incorporation, and dropped those with non-positive values. Usually firms less than 5 years old are considered young firms. Young firms are less experienced but on the other hand are often more receptive to new technologies and innovations. Adding firm age significantly reduces the sample size due to data limitations.

## C. Empirical Results

**8. Stronger financial health is associated with higher productivity growth.** Table 1a reports the results for TFP growth and Table 1b for labor productivity growth. High indebtedness is negatively associated with both TFP and labor productivity growth but not statistically significantly. On the other hand, firms with high interest payment burden (low ICR) had lower TFP and labor productivity growth, with the coefficient significant at the 1 percent level. One possible channel is that high debt payment burden prevented these firms from making more capital investment. While the current low interest rate environment does help reduce corporate interest payment costs, policy initiatives such as an efficient corporate debt restructuring framework could also potentially help reduce debt payment burden and possibly lead to higher investment and productivity growth. Reforms that improve business environment, e.g., strengthening governance and upgrading infrastructure, could also help improve corporate profitability and improve debt service capacity.

**9. Firms with a higher share of intangible assets are estimated to have higher labor productivity growth.** The share of intangible fixed assets in total fixed assets is positive in the labor productivity regressions and in most TFP regressions, but only statistically significant in the former. One possible explanation for these firms to have higher labor productivity growth (but not necessarily higher TFP growth) could be that some components of intangible assets are more effective in raising labor productivity. This suggests that policies that increase intangible assets, e.g., supporting R&D and innovation, could potentially help raise labor productivity growth. Bulgaria's R&D expenditure (in share of GDP) was low in the EU. In addition, accordingly to OECD (2017), Bulgaria has no expenditure-based R&D tax incentives. In this context, the recent proposal of tax relief for R&D activity by the Ministry of Economy is welcome.



**10. The evidence also points to technological convergence for both TFP and labor productivity to industry leaders.** The result is robust with the coefficient statistically significant at the 1 percent level in all specifications. The half-life of convergence to frontiers is about four years for TFP and three years for labor productivity.

**11. Firm size, ownership, and age also are found to matter.** Large firms generally had higher productivity growth except that the results are a bit mixed for micro firms. For labor productivity regressions using ICR (columns (4) to (6) of Table 1b), the evidence points to higher productivity growth for micro firms (not driven by outliers). Foreign firms and firms in tradable sectors generally had higher productivity growth. In this respect, a better business environment as discussed above could also be conducive to attracting more FDI. There is some evidence suggesting that younger firms had higher productivity growth and SOEs had lower productivity growth, although the coefficients are not always statistically significant.

**12. There is some evidence of a post-GFC slowdown for existing firms in technological convergence, though not for the whole sample (Table 2).** Table 2 reports the regression results for pre- and post-GFC periods separately. The coefficients for technological convergence are actually larger for the post-GFC period when all firms are included. However, the post-GFC period also includes a much larger number of firms. Limiting the sample to the same firms as in the pre-GFC period, the speed of convergence seems to have slowed in the post-GFC period, for both TFP and labor productivity.<sup>6</sup> Klein (2016) also finds that the pace of productivity convergence to the frontier has slowed in the post-crisis period for Irish firms. Note earlier results suggest that older firms have lower productivity growth. But the magnitude of the impact is very small (0.01-0.03 percent per year), so this is not really what drives the decline in post-GFC convergence for existing firms. Most other results are generally similar to those from the whole sample. Firms with a higher share of intangible assets had faster labor productivity growth, although the coefficient is only statistically significant in the post-GFC period. Firms with stronger interest payment capacity and large firms had higher productivity growth. The results for the tradable sector dummy are however a bit mixed. When the post-GFC sample is limited to the same sample as in the pre-GFC period, firms in the tradable sector actually had lower TFP growth after the GFC and the coefficient is statistically significant (Column 4). One possible explanation is that the GFC had a severe impact on global trade and thus might have a particularly larger impact on the TFP growth of firms in the tradable sector during and post the crisis.

**13. Additional robustness checks do not change the main results.** Various robustness checks as mentioned earlier yield broadly similar results. Using debt-to-equity ratio instead of debt-to-asset ratio also yields similar results. We also tried including lagged productivity growth as an explanatory variable (the correlation between productivity growth and its lagged value is negative for both TFP

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<sup>6</sup> The median age for firms only included in the post-GFC sample is four years and the 90 percentile is ten years. This suggests while many or most of these firms are indeed new firms, there are also old firms which were simply not included in the pre-GFC sample.

and labor productivity), and used the Blundell-Bond system GMM for the estimation. The results are again broadly similar. These results are not reported, but available upon request.

## D. Concluding Remarks

**14. This paper uncovered several firm characteristics that are associated with higher productivity growth.** The evidence suggests that firms with a higher share of innovative assets and lower financial distress had higher productivity growth, although the former correlation is only statistically significant for labor productivity. Foreign firms had faster productivity growth, so were larger and younger firms. The productivity catch-up seems to have slowed after the GFC for existing firms, but not for the whole sample of firms.

**15. Policies that support R&D and innovation, improve business environment, and reduce debt service burden could potentially help raise productivity growth.** Bulgaria's R&D spending lags behind other EU countries and there is ample room for improvement. A better business environment supported by stronger institutions could help improve company's profitability and financial health, raise investment, and attract more FDI, all conducive to raising productivity growth.

Table 1a. Bulgaria: TFP Growth

	(1)	(2)	(3)	(4)	(5)	(6)
Intangible assets/total assets	0.010 (0.011)	-0.007 (0.013)	0.010 (0.017)	0.018 (0.014)	0.004 (0.016)	0.022 (0.019)
Dummy for high debt	-0.002 (0.002)	-0.001 (0.002)	-0.001 (0.002)			
Dummy for low interest coverage ratio (ICR < 2)				-0.007*** (0.001)	-0.007*** (0.002)	-0.010*** (0.002)
Dummy for medium-sized firms	-0.020*** (0.003)	-0.019*** (0.003)	-0.020*** (0.003)	-0.019*** (0.003)	-0.017*** (0.004)	-0.017*** (0.004)
Dummy for small firms	-0.020*** (0.003)	-0.018*** (0.003)	-0.021*** (0.003)	-0.018*** (0.003)	-0.016*** (0.004)	-0.020*** (0.004)
Dummy for micro firms	-0.025*** (0.003)	-0.023*** (0.003)	-0.034*** (0.004)	-0.022*** (0.003)	-0.019*** (0.004)	-0.030*** (0.004)
Lagged distance to frontier	0.126*** (0.002)	0.128*** (0.002)	0.134*** (0.002)	0.116*** (0.002)	0.118*** (0.002)	0.120*** (0.003)
Dummy for tradable sectors	0.081*** (0.007)	0.070*** (0.018)	0.052** (0.022)	0.120*** (0.010)	0.127*** (0.013)	0.025 (0.030)
Dummy for SOEs		0.004 (0.003)			-0.002 (0.004)	
Dummy for foreign firms		0.020*** (0.002)			0.022*** (0.002)	
Firm age			-0.0001** (0.00004)			-0.0001 (0.00005)
R-squared	0.20	0.20	0.18	0.21	0.21	0.20
No. of firms	91678	27202	57003	64223	40465	27948
No. of obs	319,176	201,785	135,748	213,765	136,636	95,477

Note: \*\*\*, \*\*, \* indicate significance at 1, 5, and 10% level. All regressions include year and sector dummies.

Table 1b. Bulgaria: Labor Productivity Growth (2003-15)

	(1)	(2)	(3)	(4)	(5)	(6)
Intangible assets/total assets	0.126*** (0.029)	0.101*** (0.035)	0.200*** (0.042)	0.183*** (0.034)	0.165*** (0.040)	0.254*** (0.048)
Dummy for high debt	-0.007 (0.004)	-0.001 (0.005)	-0.008 (0.007)			
Dummy for low interest coverage ratio (ICR<2)				-0.152*** (0.005)	-0.145*** (0.006)	-0.126*** (0.007)
Dummy for medium-sized firms	-0.048*** (0.006)	-0.032*** (0.006)	-0.026*** (0.006)	-0.049*** (0.006)	-0.031*** (0.007)	-0.025*** (0.007)
Dummy for small firms	-0.043*** (0.006)	-0.024*** (0.006)	-0.019*** (0.006)	-0.032*** (0.006)	-0.011 (0.007)	-0.009 (0.007)
Dummy for micro firms	-0.016*** (0.006)	0.007 (0.007)	0.005 (0.007)	0.041*** (0.006)	0.064*** (0.007)	0.069*** (0.008)
Lagged distance to frontier	0.173*** (0.001)	0.178*** (0.001)	0.170*** (0.002)	0.177*** (0.001)	0.180*** (0.002)	0.171*** (0.002)
Dummy for tradable sectors	0.051*** (0.017)	0.041 (0.026)	0.010 (0.019)	0.011 (0.025)	0.059 (0.037)	0.124*** (0.040)
Dummy for SOEs		-0.024*** (0.007)			-0.008 (0.009)	
Dummy for foreign firms		0.124*** (0.006)			0.122*** (0.006)	
Firm age			-0.0003*** (0.0001)			-0.0002 (0.0001)
R-squared	0.12	0.12	0.11	0.13	0.14	0.13
No. of firms	104432	64768	46226	69396	43574	30428
No. of obs	351,323	221,653	150,491	225,723	143,864	100,930

Note: \*\*\*, \*\*, \* indicate significance at 1, 5, and 10% level. All regressions include year and sector dummies.

Table 2. Bulgaria: Productivity Growth by Sub-periods

	(1)	(2)	(3)	(4)	(5)	(6)
	2003-08		2009-15			
	<i>TFP</i>	<i>Labor prod.</i>	<i>TFP</i>	<i>Labor prod.</i>	<i>TFP</i>	<i>Labor prod.</i>
				<i>Same firms as in Col (1)</i>	<i>Same firms as in Col (2)</i>	
Intangible assets/total assets	0.004 (0.045)	0.064 (0.094)	0.020 (0.014)	0.029 (0.027)	0.200*** (0.037)	0.157** (0.064)
Dummy for low interest coverage ratio (ICR < 2)	-0.007 (0.005)	-0.127*** (0.014)	-0.006*** (0.002)	-0.004* (0.002)	-0.155*** (0.005)	-0.105*** (0.007)
Dummy for medium-sized firms	-0.026*** (0.006)	-0.027** (0.011)	-0.022*** (0.004)	-0.016*** (0.004)	-0.069*** (0.007)	-0.065*** (0.008)
Dummy for small firms	-0.030*** (0.006)	0.043*** (0.012)	-0.024*** (0.004)	-0.017*** (0.004)	-0.074*** (0.007)	-0.050*** (0.008)
Dummy for micro firms	-0.037*** (0.007)	0.173*** (0.013)	-0.026*** (0.004)	-0.016*** (0.005)	-0.007 (0.007)	0.009 (0.010)
Lagged distance to frontier	0.102*** (0.004)	0.169*** (0.003)	0.125*** (0.002)	0.072*** (0.003)	0.182*** (0.002)	0.135*** (0.002)
Dummy for tradable sectors	0.062* (0.034)	-0.053 (0.061)	-0.025 (0.019)	-0.056** (0.028)	0.038** (0.016)	0.030 (0.031)
R-squared	0.18	0.13	0.22	0.28	0.13	0.12
No. of obs	34,048	34,481	179,717	57,383	191,242	58,447

Note: \*\*\*, \*\*, \* indicate significance at 1, 5, and 10% level. All regressions include year and sector dummies.

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# BULGARIA'S GOVERNANCE REFORMS<sup>1</sup>

*"Little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism, but peace, easy taxes, and a tolerable administration of justice; all the rest being brought about by the natural course of things." Adam Smith, The Wealth of Nations.*

## A. Governance for Growth

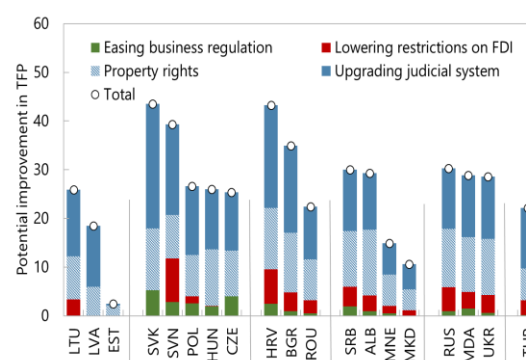
**1. Effective institutions are critical to promoting economic growth and development.** This insight dates back to Adam Smith who advocated strong institutions—protection of private property rights and enforcement of contracts—for economic growth and development. Both theoretical and empirical research have reaffirmed the importance of institutions in explaining variations in economic development. For example, Hall and Jones (1999) find that differences in institutions and government policies, so called "social infrastructure", largely explain the variation of capital accumulation, productivity and hence output per worker across countries. Acemoglu, Johnson and Robinson (2001) find economic institutions, as represented by protection from expropriation risk, are the fundamental cause of differences in economic development. Rodrik, Subramanian and Trebbi (2002) show that, compared to other variables such as trade and geography, the quality of institutions has the largest explanatory power in determining income levels around the world.

**2. For Central, Eastern, and Southeastern European (CESEE) countries, strengthening governance could stimulate key drivers of growth, namely productivity, investment and labor.**

- **Productivity:** In CESEE countries, reforms of judicial systems and protection of property rights may contribute significantly to increasing productivity and narrowing their income gaps with advanced EU economies (IMF, 2016a).
- **Investment:** Improving public investment institutions can boost public investment in the CESEE (IMF, 2016b). Strong institutions also improve business environment and thus promote private investment, especially FDI (Daude and Stein, 2007). Unpredictable policies, excessive regulatory burden, deficient enforcement of property rights and lack of commitment from the government appear to deter FDI flows.

**Figure 1. CESEE: Estimated Efficiency Gains from Institutional Reforms 1/**

(Percent; Potential Improvement in Total Factor Productivity)



Source: IMF Regional Economic Issues, May 2016.

1/ Include Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Kosovo, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovak Republic, Slovenia, Turkey, and Ukraine.

<sup>1</sup> Prepared by Nujin Suphaphiphat.

- **Labor:** Weak governance has been found to be one of the push factors for labor migration, especially high-skilled labor. Cooray and Schneider (2016) show that higher numbers of skilled emigrants are associated with a higher degree of corruption. Atoyán et al (2016) also find similar correlation between emigration of better-educated people and weak governance in CESEE. Weak governance also discourages high-skilled immigration from other countries, which can undermine long-term growth prospects (Ariu and Squicciarini, 2013).

**3. Further strengthening institutional reforms could be a key priority for Bulgaria to raise potential growth and accelerate real convergence.** Improving the quality of Bulgaria’s institutions—through promoting independence of the judicial system, impartiality of courts, and protection of property rights—to the EU-15 average could bring about efficiency gains of almost 20 percent (IMF 2016a)<sup>2</sup>. Considering unfavorable demographic developments (aging and declining population) and relatively low private investment, institutional reforms should be one of the key priorities to boost inclusive long-term growth and promote real convergence for Bulgaria.

**4. The objective of this paper is to deepen understanding of governance reforms and discuss areas for further reforms in Bulgaria.** The next section provides an overview of various aspects of governance in Bulgaria, bringing out both relative strengths and weaknesses. The paper goes on to highlight key governance challenges and corresponding reforms. These relate to the fight against corruption, the judiciary, fiscal governance including public procurement and state-owned enterprises’ (SOE) governance, and anti-money laundering and combating the financing of terrorism (AML/CFT). The paper then concludes.

## B. Overview of Governance

**5. This section compares Bulgaria with peer countries in several aspects of governance.** Governance is a broad concept involving institutions, mechanisms, and practices through which governmental power is exercised in a country (IMF, 2017). The paper focuses on three aspects of governance: judicial system and the fight against corruption and organized crime, fiscal governance, and AML/CFT. Control of corruption and an independent judicial system are a basis for sound governance in all institutions, including for public investment management and financial sector supervision. Good governance in public institutions—including fiscal transparency—enhances efficiency. Finally, strong AML/CFT measures are important for promoting the integrity and stability of the financial markets.

**6. Cross-country comparisons should be interpreted with caution, as each country has different institutional settings.** Multiple third-party indicators are used to compare governance and can be classified into two categories: quantitative and perception-based indicators. Quantitative indicators appear to be a more straightforward basis for comparing countries, but the underlying

<sup>2</sup> The result is based on a cross-country analysis and should be seen as indicative given the limitations inherent in gauging technical efficiency with macroeconomic data and sample specific issues.



institutions or problems are at times difficult to measure accurately. For example, corruption is difficult to accurately quantify because the perpetrators have every reason to conceal their activities. Perception-based indicators could be subject to “emotional bias.”<sup>3</sup> Nonetheless, they reflect public confidence in the integrity of public institutions, and can have an impact on the economy through business sentiment and investment.

## 7. Bulgaria outperforms the EU and NMS averages in several areas of fiscal transparency, including revenue outcomes and budget transparency.

- **Revenue outcomes** reflect the efficiency of collecting personal income tax (PIT) and value added tax (VAT) revenues. Bulgaria has simplified its PIT by levying a flat rate of 10 percent since 2008, making its PIT rate one of the lowest in Europe. The flat tax regime aims to alleviate tax evasion and reduce administrative burden, thereby improving efficiency. The PIT efficiency for Bulgaria—measured by the ratio of actual PIT to the PIT rate times GDP—was above the averages of the EU and the new member states (NMS) during 2013-15.<sup>4</sup> For VAT, during 2012-16, the average C-efficiency ratio in Bulgaria was 63 percent, higher than the average of 55 percent among European countries.<sup>5</sup> Based on self-reported data in the Revenue Administration Fiscal Information Tool (RA-FIT), key management practices of the revenue administration and its risk management in Bulgaria are well aligned with those of other EU countries, including the use of external auditor, e-services for taxpayers, automated risk profiling, and a formal approach for identifying, assessing, and prioritizing risk.
- **Budget transparency** is high, as Bulgaria made a substantial improvement since 2006 and now provides sufficient budget information to enable the public to engage in budget discussion (Open Budget Survey 2017). In particular, extensive information is available to the public in the pre-budget statement, executive’s budget proposal, enacted budget, in-year reports, year-end report, and audit report, within a timeframe that aligns with best practices. For instance, the pre-budget statement is made available to the public at least four months in advance of the budget year and at least one month before the executive’s budget proposal is introduced in the legislature. The in-year reports have been published every month, and within one month of the period covered.

## 8. However, Bulgaria does not compare well with peers in public procurement and SOE governance.

- **Public procurement.** The assessment by the World Bank and IMF relates to both public procurement and public-private partnership (PPP) projects. Public procurement is assessed in

<sup>3</sup> For example, unfair criticism by media and politicians, and ignorance or limited knowledge on the judicial process and anti-corruption reforms.

<sup>4</sup> New member states include Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.

<sup>5</sup> C-efficiency ratio is defined as the ratio of actual VAT to potential VAT if all final consumption were taxed at the current standard rate without an exemption.

terms of quality, adequacy, and transparency of information provided by the procuring entity to prospective bidders, regulatory framework and procedures of bid opening and evaluation process, and procedures needed for suppliers to receive payment during the contract execution phase. For PPP, the assessment includes preparation, procurement, contract management, and unsolicited proposals of PPPs.

- **SOE governance.** The indicator, as part of the OECD's product market regulation index, considers the degree to which SOEs are subject to market discipline and insulated from political interference. In Bulgaria, SOEs are highly represented in network industries such as healthcare, energy, water, and transport services. Consequently, the effectiveness and governance of SOEs are important for the welfare of citizens and the competitiveness of the economy. Based on the SOE Governance Survey (IMF, forthcoming) and IMF's SOE technical assistance, key challenges for SOE governance in Bulgaria include an ownership policy, SOE management and oversight, and publication of key reports.

**9. Based on the 2003 FATF recommendations, Bulgaria performs relatively well on several indicators of AML/CFT.** Bulgaria does relatively well on entity transparency, criminal justice, and international cooperation, but not on preventive measures.<sup>6</sup> Based on the 2013 MONEYVAL report<sup>7</sup>, the physical and material elements of the money laundering offence as defined in the legal framework are broadly in line with the Vienna Convention. International cooperation by a main AML/CFT agency—FID-SANS (Financial Intelligence Directorate-State Agency for National Security) and law enforcement agencies is effective and more advanced than the minimum standards recommended by the FATF. However, preventive measures in AML/CFT need strengthening. For instance, the coverage of the list of predicate offences to money laundering could be expanded to include all categories of piracy, market manipulation, insider trading, and cover all aspects of terrorism financing. In addition, the capacity and awareness of the law in preventing ML activities can be improved especially in the non-financial institutions.

**10. Compared to its regional peers, Bulgaria performs relatively well in some aspects of judicial capacity and public communication but could improve the rate of resolving cases.** According to the 2018 EU Justice Scoreboard, during 2010-2016, Bulgaria was one of a few countries that provided the public with comprehensive online information about the judicial system<sup>8</sup> and facilitated judicial procedure by using an electronic platform to submit and monitor the claims. In terms of human resources, Bulgaria also had one of the highest numbers of judges per 100,000

<sup>6</sup> The outcomes are taken from the assessments against the 2003 FATF recommendations for 20 EU countries including Bulgaria. The revised recommendations (the 2012 recommendations) which focus on effectiveness have been established but the outcomes for these countries are not yet available. As a result, the cross-country comparisons do not necessarily reflect the current regime of AML/CFT in the countries.

<sup>7</sup> The 2013 assessment is a follow-up round of evaluation for Bulgaria, in which Core and Key (and some other important) FATF Recommendations have been re-assessed, as well as all those for which Bulgaria received non-compliant (NC) or partially compliant (PC) ratings in its 3rd round report. The report is not, therefore, a full assessment against the FATF 40 Recommendations 2003 and 9 Special Recommendations 2001 but is intended to update readers on major issues in the AML/CFT system of Bulgaria.

<sup>8</sup> Others include Italy, and Lithuania.

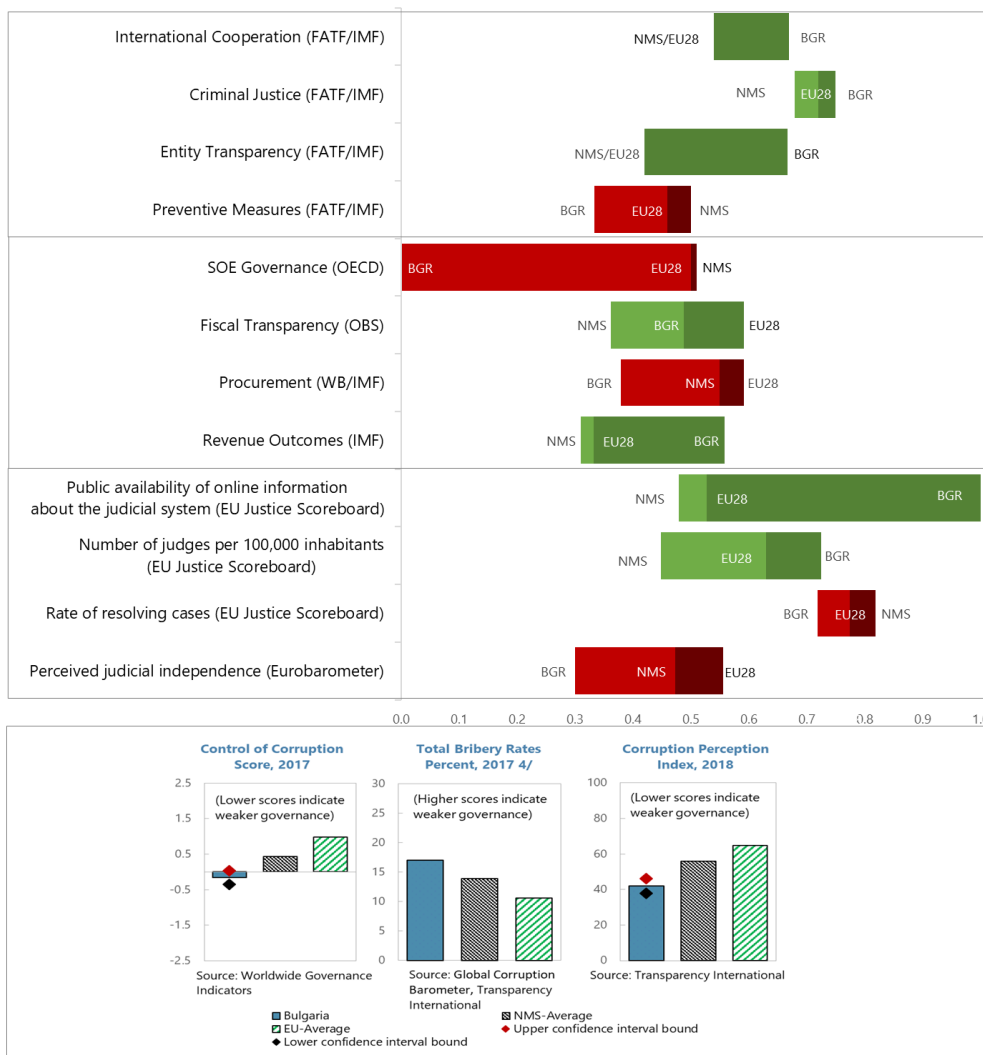
inhabitants among the EU, with a high proportion of female judges at Supreme Courts. Bulgaria also performs relative well on other aspects, for instance, time needed to resolve cases, average length of first instance court cases dealing with money laundering, and the average length of judicial review cases against decisions of national regulatory authorities applying the EU law on electronic communication as well as the average length of judicial review cases against decisions of consumer protection authorities applying the EU law. However, the rate of resolving cases lagged behind others, resulting in backlogs. In this context, the authorities have requested supports from the EU to address the issue under the Structural Reform Support Program (SRSP).

**11. Bulgaria lags behind peers in public perception of the control of corruption and judicial independence.** Effective rule of law is fundamental to a market economy as it ensures that everyone is treated equally and consistently under well-defined and established laws. Consequently, a strong judicial system and the control of corruption are the basis of good governance. An independent judiciary plays a fundamental role to maintaining the rule of law and protection from arbitrary and wrongful actions by others, including public officials. Compared to other NMS and the EU, there is room to improve Bulgaria's judicial system and the fight against corruption and organized crime.

**12. The Cooperation and Verification Mechanism (CVM) was set up to ensure progress of judicial and anti-corruption reforms at the time of EU accession.** In September 2006, the European Commission (EC) recommended Bulgaria's accession to the European Union on January 1, 2007. However, it highlighted the need for further reforms in the judicial system and the fight against corruption and organized crime. Specifically, the EC report (EC 2006) stated that (i) coordination of the anti-corruption strategy remained incomplete and the bodies involved were too dispersed, (ii) preventive measures were insufficient including whistle blower encouragement and inspectorates within public administration, and (iii) few concrete results emerged from the investigation and prosecution of corruption cases. Consequently, the Commission recommended the establishment of a mechanism to cooperate and verify progress in these areas after the accession.

**Table 1. Bulgaria: Governance Indicators in Bulgaria, the NMS and the EU**

The table shows Bulgaria's position vis-à-vis other NMS countries and EU-28 averages on various governance indicators. All indicators are normalized between 0 (worst among EU-28) to 1 (best among EU-28), unless otherwise indicated. The red bars correspond to indicators where Bulgaria performs worse than NMS and EU28 averages, where the green bars indicate that Bulgaria performs better.<sup>1/</sup>



1/ Cross-country comparisons should be interpreted with caution, as each country has different institutional settings. Multiple third-party indicators including quantitative and perception-based indicators, are used to compare various aspects of governance.  
 2/Excludes Austria, Denmark, Hungary, Ireland, Italy, Portugal, Slovenia, Spain and Sweden  
 3/ Use of this indicator should be considered carefully, as they are derived from perception-based data, which represent a combination of opinion surveys and expert assessments of corruption. Ranges are for a 90 percent confidence interval. Confidence intervals for peer group averages are negligible.  
 4/ EU countries include BGR, HRV, CYP, CZE, EST, DEU, GRC, HUN, ITA, LVA, LTU, POL, PRT, ROM, SVK, SVN, ESP. Confidence intervals are not available for this indicator.  
 Sources: Economic Freedom of the World, EU Justice Scoreboard, Financial Action Task Force, IMF Staff calculations, Maplecroft, Open Budget Survey, OECD, Transparency International, World Justice Project, World Bank, World Economic Forum, and Worldwide Governance Indicator.

### C. Key Governance Issues

**13. The section discusses four subsectors of governance, highlighting challenges and reforms that are ongoing or recommended.** They include reforms on judicial system and the

fight against corruption and organized crime, public procurement process, SOE governance, and AML/CFT. This section draws on assessments and recommendations from various technical assistance reports by domestic and international organizations.

### ***Judicial System and Control of Corruption***

**14. In the 2018 CVM assessment, the EC acknowledged steady progress on judicial reform and the fight against corruption and organized crime, and indicated a possible conclusion of the CVM in 2019.** The latest assessment noted that three out of six benchmarks—including judicial independence, legislative framework, and the fight against organized crime—could be considered provisionally closed. The EC further noted that, if progress continues at the current positive trend, the CVM process can be concluded before the end of the current Commission’s mandate in 2019.

**15. Many reforms to enhance judicial independence were undertaken.** Key developments included the election of the new Supreme Judicial Council (SJC), competitive court appointments, and a stronger inspectorate to monitor the judiciary. The election of the new SJC both by magistracy (judicial quota) and by the National Assembly (parliamentary quota) in 2017 and subsequent appointments of heads of judicial bodies were broadly viewed as open and transparent (EC 2017). Upcoming court appointments such as the Supreme Court of Cassation are prepared in a competitive manner (EC 2018). In addition, constitutional amendments created an independent judicial inspectorate to the SJC to monitor the integrity of the judiciary, such as conflicts of interest and financial disclosures of magistrates. Another major reform included the separation of two chambers for prosecutors and judges within the SJC to prevent prosecutors and investigators from participating in personnel decisions for judges, including career development, disciplinary matters and dismissals.

**16. Measures were implemented to strengthen the efficiency and capacity of the judicial system.** According to the Council of Europe European Commission for the efficiency of justice (CEPEJ), Bulgaria’s budget to the judiciary was the largest share of GDP among the EU countries in 2014. Judicial capacity was strengthened through improved training programs and stronger involvement of the Bulgarian Judges Association (ABA 2013). The authorities note that steps to address workload in the busiest courts have been implemented, including by amending civil procedure codes that allow cases to be distributed to other courts based on codes regardless of jurisdictions. Key legislative amendments have been approved, including amendments in criminal procedure codes to accelerate the process leading to trials.

**17. Public communication has improved.** The Ministry of Justice has published a report on the implementation of the Updated Strategy for Continuing the Reform of the Judiciary System semiannually, covering progress on implementing judicial reforms, and recommendations to achieve the objectives of the reform strategy. Procedures were established for a parliamentary hearing and approval of annual reports from chairpersons of the two Supreme Courts and the Chief Prosecutor. The Council of Ministers also engages in communication by publishing minutes and agenda of the meetings related to judicial reforms.

**18. Reforms on the fight against corruption and organized crime have advanced.** A new anti-corruption law was adopted in 2018, and consequently, a new unified anti-corruption agency “The Commission for Counteracting Corruption and for Seizure of Illegally Acquired Property” has become fully operational. The head of the Commission was elected and the board members were appointed in a transparent and competitive procedure (EC 2018).

- **For the fight against corruption**, the legal framework has been updated, expanding powers of internal inspectorates of the State administration to verify asset declarations for public employees. Additional staff have been allocated and the qualification of the inspectors has been strengthened. Reform of the public procurement system has been strengthened (see procurement). The new sectoral anti-corruption plans are implemented by relevant ministries under the new guidelines set by the National Anti-Corruption Policy Council. The plans cover a wide range of risk areas such as the management of public funds and procurement, and provide mitigating measures to address such risks, including the training of personnel and introduction of electronic services.
- **For the fight against organized crime**, the EC acknowledged progress in this area and considered the benchmark provisionally closed. Past reforms include an established track record of final convictions in serious organized crime cases by the specialized court and prosecution office, and amendments to legislation on asset forfeiture to ensure the overall effectiveness of the system for seizure and confiscation of illicit assets.
- **Public communication:** The National Anti-Corruption Policy Council has published on its website the progress on implementing anti-corruption strategy and summary information related to corruption cases gathered from prosecution and courts. Representatives of relevant non-governmental organizations and business representatives are actively involved in the Council meetings. In addition, according to the new anti-corruption law, the Commission shall report to the National Assembly on its activities annually by March 31. At the same time, the report shall be submitted to the President of the Republic and the Council of Ministers, and published on the Commission’s website.

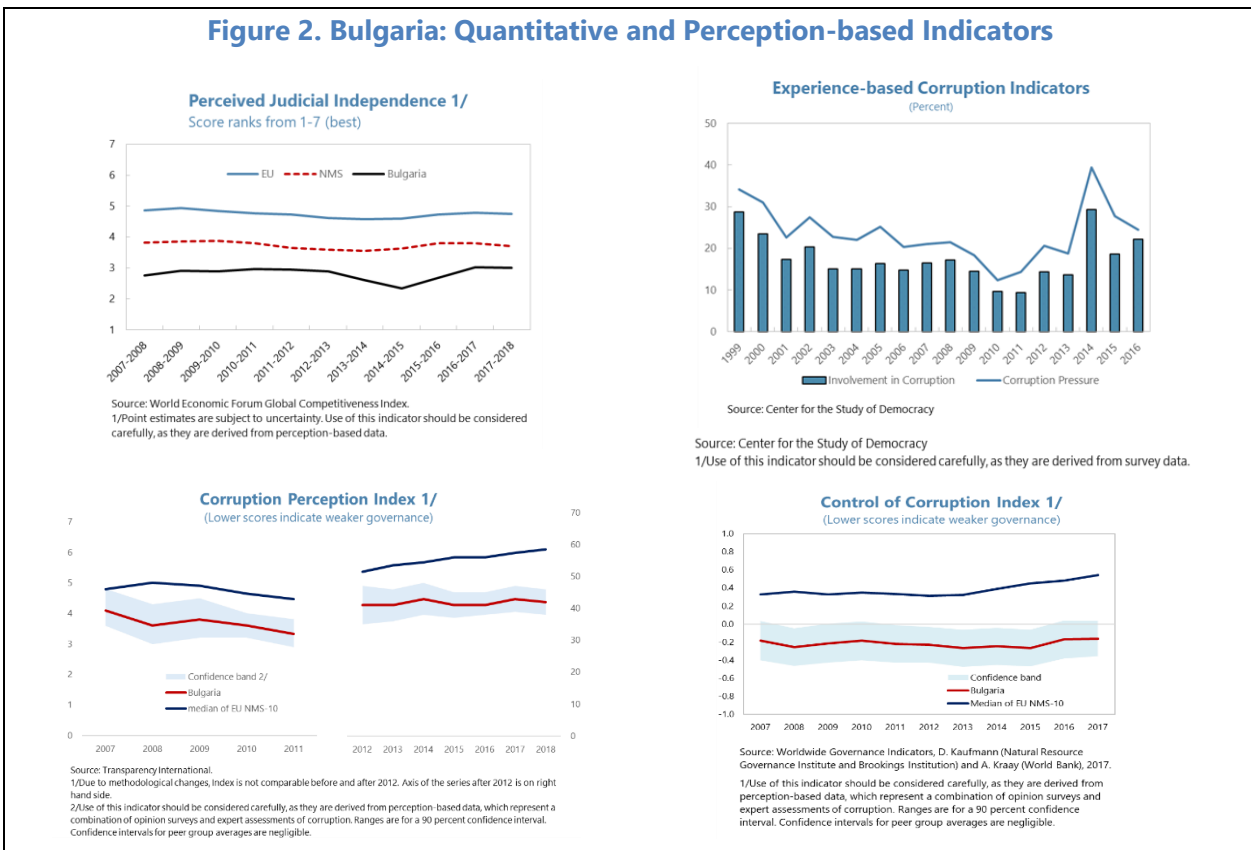
**19. The latest CVM report recommended steady implementation of the reforms, establishment of a track record of concrete results, and monitoring.**

- For judicial reforms, the remaining recommendations include publishing a report for public consultation on the progress of the reform and remaining steps, agreeing on a roadmap for the reform of the judicial map and e-justice development, and establishing roadmaps for the implementation of reform of the prosecutor’s office and investigation of crime in Bulgaria.
- For the fight against corruption and organized crime, effectively managing the new unified anti-corruption agency, building a track record, and transparent reporting of corruption cases will be important. Managing the unified anti-corruption agency effectively could be a challenge because of its broad mandate which covers promoting corruption prevention, verifying and investigating corruption cases, and forfeiting assets. A track record should be built through

stronger enforcement and inspection. Finally, a mechanism for public reporting of implementation of the national anti-corruption strategy and corruption cases to the wider public should be established.

**20. Despite many reforms since EU accession, public perception of weak judicial independence and widespread corruption has changed little.** Based on the Global Competitiveness Reports during 2007-2017, Bulgaria’s judicial independence is perceived to be lower than the averages of NMS and the EU. In addition, the 2018 Eurobarometer result shows that, despite improvement, only 30 percent of respondents from both the general public and companies (compared to the EU averages of 56 and 48 percent, respectively) think courts and judges are independent. Moreover, corruption is identified as one of the most problematic factors for doing business in Bulgaria (2017 Executive Opinion Survey, and 2017 Eurobarometer). Almost 90 percent of respondents believe that there is corruption in national public institutions and agree that bribery and connections often make it easier to obtain public services. Based on experience-based indicators, corruption appears to have improved throughout the course of the EU accession and shortly after, but deteriorated after 2010 and remained high. The 2017 Special Eurobarometer on Corruption report showed that 12 percent of Bulgarians—among the highest in the EU—have experienced or witnessed corruption.

**Figure 2. Bulgaria: Quantitative and Perception-based Indicators**



**21. The apparent dissonance between reform efforts and public perception could reflect several factors.**

- Many judicial reforms yield positive outcomes in terms of improving the efficiency of the system. Nonetheless, public perception is mostly related to qualitative aspects—such as impartiality and confidence in the system—where the reforms are much more difficult to implement or measure.
- It may take a long time for reforms to have a positive impact on public perception, and the lag generates a greater mismatch of perceptions for ongoing or recent reforms. In addition, a few scandals can have an immediate and damaging effect on the perception, further slowing the improvement in perception.
- While a strong legal framework including rules and regulations are a good start, changes in public perception will also depend on strong implementation and continued commitment to address the issues.

***Public Procurement Process***

**22. The institutional framework for public procurement aims at promoting an open and competitive tender process.** The Public Procurement Law (PPL) refers to open tender as a default method, and defines conditions and thresholds for which bidding methods could be used. Based on data from the Public Procurement Portal, around 95 percent of procurement underwent an open tender during 2017-2018H1. The 2016 Public Procurement Act and its subsequent revisions aimed at clarifying procurement procedures, addressing delays caused by complaints and aligning procedures with the EU directives. There are three key agencies among the many institutions that oversee the public procurement process. The Public Procurement Agency (PPA) has a wide range of responsibilities, including developing and implementing procurement strategy, drafting legislation, providing guidance, monitoring and evaluating procurement processes, managing the public procurement register, and cooperating with other agencies. The Commission for the Protection of Competition (CPC) examines claims of irregularities and imposes sanctions for non-compliance. Finally, the National Audit Office regularly audits contracting authorities at central and local levels.

**23. The public procurement process has been made more transparent and efficient in recent years.** The National Strategy for the Development of the Procurement Sector 2014-20 outlines a comprehensive reform of public procurement, aiming at simplifying the legislative and regulatory framework, strengthening preventive measures to reduce irregularities, and developing an e-procurement system. To address delays caused by numerous complaints, the 2018 Public Procurement Act imposes that only stakeholders with material interest in a given procedure can file an appeal. To curb corruption, measures to strengthen ex-ante and ex-post controls have been introduced. In line with the CVM recommendations, the International Bank for Reconstruction and Development is conducting a comprehensive assessment of the public procurement system including the PPA, and plan to identify potential areas for improvement. The review is expected to be completed in early 2019.



**24. However, there is a notable gap between the legal framework and the procurement practices.** The public procurement process in practice faces many challenges including irregularities. Common irregularities include procedural errors by contracting authorities, violation of procurement criteria, misevaluation of received tenders, and errors during execution of public procurement contracts. In 2017, the State Financial Inspection Agency reported more than 10 percent of awarded contracts were not compliant with the PPL. Almost a quarter of the audited sample of the EU Operational Programs during July 2016 and June 2017 was subject to financial penalties due to noncompliance.

**25. Enhanced communication and capacity can improve Bulgaria's public procurement process.** Publishing a list of tenders in the public procurement plan and adopting an upcoming E-Procurement that allows contractors to submit bids electronically would increase the efficiency and transparency of the process. Given the frequent amendments in legal and regulatory frameworks, effective communication of the changes to related parties is essential to reduce uncertainties and noncompliance risk. The capacity and resources of the contracting authorities could also be strengthened. While highly specialized, the PPA has insufficient staff and faces difficulty to retain qualified ones. The administrative capacity of the contracting authorities at all levels of government (notably at the municipal level) also suffers from frequent staff turnover. Apart from the EU Operational Programs, many projects have no procurement-specific staff.

### ***SOE Governance***

**26. As part of the ERM II preparation, the authorities have committed to strengthening SOE governance.** The authorities plan to modernize the management of the SOE framework to be in line with international standards, by aligning legislation with the OECD Guidelines on Corporate Governance of SOEs. The guidelines aim to help governments improve the transparency and accountability of SOEs. The principles include ensuring the basis for an effective corporate governance framework (legal and regulatory framework), equitable treatment of shareholders and key ownership functions, disclosure and transparency, and responsibilities of the board.

**27. The OECD recommends developing an ownership policy.** The SOE framework law, or ownership policy document referencing and synthesizing policies and regulations applicable to SOEs, is the foundation of a strong ownership policy. The policy should identify the rationale for state ownership, the role of the state in the governance of SOEs, and how the state will implement its ownership policy. The respective roles and responsibilities of those concerned should be clearly specified. The ownership policy should also be subject to regular reviews and disclosed to the public. In Bulgaria, the objectives of the SOEs are to support national economic and strategic interests, supply specific public goods and services, and perform business operations in a natural monopoly situation. However, there is no ownership policy and there is a coverage gap of a list of SOEs at the subnational level.

**28. A centralized entity to exercise the ownership function is recommended, to ensure transparency and consistency.** A centralized unit helps clarify the ownership policy and ensure a more consistent implementation. It also brings in pools of expertise on key issues such as financial

reporting or board nomination. More importantly, it is an effective way to separate the state's ownership function from other potentially conflicting policy functions. Based on the current structure, SOEs in Bulgaria report to the line ministries or relevant sub-national governments, and there is no separation of ownership and policy functions.

**29. Large and listed SOEs should be subject to the same high-quality accounting, disclosure, compliance, and auditing standards as listed companies.** All SOEs should disclose financial and non-financial information, and large and listed ones should adopt high quality standards. Such information includes (i) objectives of the SOEs; (ii) their financial and operating results; (iii) the governance, ownership, voting structure of the SOEs; (iv) remuneration of the board members and key executives; (v) board member qualifications and selection process; (vi) risks and mitigating measures; (vii) any financial assistance including guarantees from the state; and (viii) any significant transactions or issues relating to employees and other stakeholders. SOEs' annual financial statements should be subject to an independent and high-quality external audit. Finally, the OECD also recommends annual publication of an aggregate report on SOEs and calls for web-based communications to the public. In Bulgaria, the line ministries approve SOEs' financial plans and endorse quarterly and annual performance reports. These reports include annual financial performance and operational performance targets and their evaluations, as well as a dividend policy. However, there is no aggregate report on the financial performance of the SOE sector.

**30. The boards of SOEs should have the necessary authority, competencies, and objectivity to carry out their functions.** The SOE board should be assigned with a clear mandate and the ultimate responsibility for the SOEs' performance, including the appointment of key executives and audit committees. The selection process should be centralized, transparent, and merit-based, with a remuneration policy that reflects standard market compensation for qualified candidates. In Bulgaria, there is no legislation requiring a minimum percentage of independent board members. Existing board members are typically nominated by line ministries through General Shareholder Meetings and include political appointees, regardless of relevant professional expertise. In addition, SOE executives and members of the audit committees are also appointed by line ministries, with no requirement to include independent or external experts except for public-interest entities.<sup>9</sup>

### **AML/CFT**

**31. Bulgaria's AML/CFT regime was found to be largely compliant with the previous version of the FATF standard though it has not been assessed for effectiveness in recent years.** Bulgaria is a member of MONEYVAL, a permanent monitoring body that assesses compliance and provides recommendations on AML/CFT measures to its members. Based on latest assessment (update) in 2013, Bulgaria's legal framework related to AML/CFT—including the Law on Measures against Money Laundering (LMML), criminalization of money laundering legislation, and a legal framework for confiscation regime— was generally in line with international standards. The institutional framework covering the Financial Intelligence Unit, law enforcement authorities,

<sup>9</sup> Public-interest entities include SOEs in the energy, water, and railway sectors.

supervisors, resources, national co-operation and statistics was also largely compliant with the FATF standards. Nonetheless, Bulgaria's AML/CFT regime has not been formally assessed against the revised FATF standards, which focus on effectiveness, and consequently the last assessment may not reflect the current AML/CFT regime in Bulgaria.

**32. The authorities strengthened AML/CFT measures through the 4<sup>th</sup> EU Anti-Money Laundering Directive (AMLD4) and the Bulgarian AML Act.** Bulgaria transposed the AMLD4 into its legislation and the Measures Against Money Laundering Directive Act became effective in March 2018. One key improvement is the obligation to gather and maintain accurate information on ultimate beneficial owners (UBOs) of companies and other legal entities. The new act requires businesses operating in Bulgaria to identify and provide such information to the Commercial Register and Register for Non-Profit Legal Entities or the BULSTAT Register no later than February 1, 2019. Other improvements of the act include (i) enhanced customer due diligence, including comprehensive identification of the origin of funds, and simplified customer due diligences based on a risk assessment; (ii) a lower cash payment threshold; (iii) expansion of the definition of politically exposed persons and a new definition for shell bank; and (iv) inclusion of the entire gambling sector other than casinos.

**33. Improving the AML framework is one of ERM II commitments.** The authorities plan to approve a draft law transposing the 5<sup>th</sup> Anti-Money laundering directive (AMLD5) into Bulgaria's legislation by March 2019. The EC's AMLD5 was adopted by the European Parliament and entered into force in July 2018. Member states, including Bulgaria, will have to incorporate these new rules into their national legislation by January 2020. The Directive aims at (i) increasing transparency on the real owners of companies and trusts; (ii) improving the work of Financial Intelligence Units by providing better access to information through centralized bank account registers; (iii) eliminating the anonymity on electronic money products (virtual currencies and pre-paid instruments); (iv) strengthening the cooperation between anti-money laundering supervisors and the European Central Bank; and (v) broadening the criteria for assessing high-risk third countries.

## D. Conclusion

**34. Comparative analysis shows how Bulgaria's governance performs relative to other regional peers.** Based on various indicators, Bulgaria outperforms the averages of the NMS and the EU in most areas of AML/CFT, revenue outcomes, budget transparency, and some aspects of the judicial system. Nonetheless, indicators point to room for improvement in areas including overall anti-corruption framework, public procurement system, SOE governance, and preventive measures in AML/CFT.

**35. The authorities have advanced reforms in these areas of relative weakness: the anti-corruption framework and the judiciary, public procurement system, SOE governance, and AML/CFT.** For judicial reforms and the fight against corruption and organized crime, the authorities have received support from the EC under the CVM. The latest report acknowledged steady progress of the reforms and indicated a possible conclusion of the mechanism in 2019. Based on the 2018 CVM report, remaining aspects of reforms include establishing roadmaps for implementing reform

of the prosecutor's office and investigation of crime in Bulgaria, agreeing on a roadmap for developing e-justice solutions to ensure an effective and efficient judiciary, and improving public reporting on the implementation of the judicial reform, anti-corruption strategy, and progress in corruption-related cases. Reforms on public procurement are taking shape through the external review of the public procurement system. Concrete measures will be recommended and followed up by the authorities. As parts of the ERM II commitments, the authorities commit to aligning its SOE legislation to the OECD guidelines on Corporate Governance of SOEs and strengthening the AML/CFT framework by the transposition of the AMLD5 into national legislation.

## Annex I. Definitions and Sources of Governance Indicators

Areas of Governance	Indicators	Definition	Sources
<b>AML/CFT</b>	Preventive measures	Proceeds of crime are prevented from entering the financial and other sectors (e.g., lawyers, accountants, real estate) or are detected and reported by these sectors.	FATF recommendations (2003 standard).
	Transparency of companies and trusts	Information on beneficial ownership is available to competent authorities without impediments.	FATF recommendations (2003 standard).
	Criminal justice measures	Money laundering activities are detected and disrupted, and criminals are sanctioned and deprived of illicit proceeds.	FATF recommendations (2003 standard).
	International cooperation	International cooperation facilitates action against criminals and their assets.	FATF recommendations (2003 standard).
<b>Fiscal Transparency</b>	SOE governance	Degree of insulation of state-owned enterprises (SOEs) from market discipline and degree of political interference in the management of SOEs.	2013 OECD Product Market Regulation (2013)
	Budget transparency	The Open Budget Index (OBI) measures public availability of budget information. It assigns each country a score from 0 to 100 based on the simple average of the numerical value of each of the responses to the 109 questions in the questionnaire that assess the public availability of budget information. A country's OBI score measures the extent to which it makes the eight key budget documents available to the public on the relevant government website in a timely manner and the comprehensiveness of publicly available budget information.	2017 Open Budget Survey

<b>Areas of Governance</b>	<b>Indicators</b>	<b>Definition</b>	<b>Sources</b>
	Procurement	Average of the normalized values of sub-indicators, including (i) Payment of suppliers score; (ii) Needs assessment, call for tender, and bid preparation score; (iii) Bid opening, evaluation and award; (iv) Preparation of PPPs; (v) Procurement of PPPs; (vi) PPP contract management; and (vii) Unsolicited proposals. The sample period is 2017.	The World Bank: Benchmarking Public Procurement and Benchmarking PPPS
	Revenue outcomes	Average of PIT and VAT efficiencies. The PIT efficiency for Bulgaria is measured by the ratio of actual PIT to the PIT rate times GDP. VAT efficiency refers to VAT C-efficiency, defined as the ratio of actual VAT to potential VAT if all final consumption were taxed at the current standard rate without an exemption. Average of 2013-15 values.	WEO, DART
<b>Judicial System</b>	Public availability of online information about judicial system	Online information refers to a web portal with online forms for the public and companies, targeted information for non-native speakers, targeted information for visually or hearing impaired, education on legal rights, targeted information for children, and interactive online simulation to assess eligibility for legal aid.	2018 EU Justice Scoreboard
	Number of judges per 100,000 inhabitants	This category consists of judges working full-time, under the CEPEJ methodology.	2018 EU Justice Scoreboard
	Rate of resolving cases	Rate of resolving civil, commercial, administrative and other cases (1st instance). The values higher (fewer) than 100 percent indicate that more (fewer) cases are resolved than come in.	2018 EU Justice Scoreboard

<b>Areas of Governance</b>	<b>Indicators</b>	<b>Definition</b>	<b>Sources</b>
	Perceived judicial independence	Based on the survey question "From what you know, how would you rate the justice system in (our country) in terms of the independence of courts and judges? Would you say it is very good, fairly good, fairly bad or very bad?"	2018 Eurobarometer survey FL461
<b>Corruption</b>	Bribery	Total bribery rate refers to percent of households who paid a bribe when accessing basic services	2017 Global Corruption Barometer, Transparency International
	Control of corruption	This indicator reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. 2016 values.	Worldwide Governance Indicators, , <i>D. Kaufmann (Natural Resource Governance Institute and Brookings Institution) and A. Kraay (World Bank), 2017</i>
	Corruption perception	The Corruption Perceptions Index (CPI) aggregates data from a number of different sources that provide perceptions by business people and country experts of the level of corruption in the public sector.	2017 Corruption perception Index, Transparency International

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