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State-Owned Enterprises in Bosnia and Herzegovina:  
Assessing Performance and Oversight

By Bobana Cegar and Francisco J. Parodi

**IMF Working Papers describe research in progress by the author(s) and are published to elicit comments and to encourage debate.** The views expressed in IMF Working Papers are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

I N T E R N A T I O N A L M O N E T A R Y F U N D

**IMF Working Paper**

European Department

**State-Owned Enterprises in Bosnia and Herzegovina: Assessing Performance and Oversight**

**Prepared by Francisco J. Parodi and Bobana Cegar<sup>1</sup>**

Authorized for distribution by Srikant Seshadri

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**Abstract**

Based on a new database of State-Owned Enterprise (SOE) financial statements, we find that SOEs in Bosnia and Herzegovina are mostly in poor financial shape. We estimate the overall size and composition of the SOE sector, and identify individual companies that affect fiscal and macroeconomic performance. Financial analysis suggests that SOEs are not contributing enough to the economy. We also review the SOE governance framework and find that governments do not exercise their ownership function in line with WB/OECD guidelines. Reforms to the governance frameworks are necessary to foster transparency and improve accountability. More fundamental reform of the SOE sector might increase overall GDP by 3 percent per year.

JEL Classification Numbers: G38, H63, L33

Keywords: State-Owned Enterprises, Bosnia and Herzegovina, Financial Performance, SOE Governance

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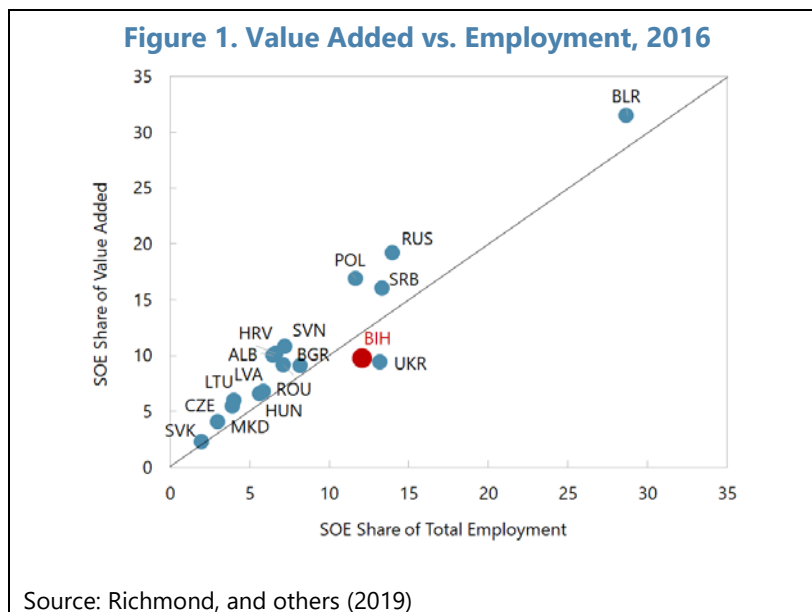
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**ABBREVIATIONS**

|        |  |
|--------|--|
| BiH    | Bosnia and Herzegovina                                       |
| CESEE  | Central, Eastern, and Southeastern Europe                    |
| CLR    | Current Liquidity Ratio                                      |
| EBITDA | Earnings before Interest, Tax, Depreciation and Amortization |
| EU     | European Union   |
| FBiH   | Federation of Bosnia and Herzegovina                         |
| FDB    | Federation Development Bank                                  |
| FSAP   | Financial Sector Assessment Program                          |
| GDP    | Gross Domestic Product                                       |
| IDBRS  | Investment Development Bank of Republika Srpska              |
| MOF    | Ministry of Finance  |
| OECD   | Organization for Economic Co-operation and Development       |
| PSO    | Public Sector Obligations                                    |
| ROA    | Return on Assets   |
| ROE    | Return on Equity   |
| RS     | Republika Srpska   |
| SF     | Share Fund   |
| SOEs   | State-Owned Enterprises                                      |
| SSC    | Social Security Contribution                                 |
| WB     | World Bank   |

## I. INTRODUCTION AND MOTIVATION

**State-Owned Enterprises (SOEs) are a large part of Bosnia and Herzegovina's (BiH) economy, impacting macroeconomic performance, including its fiscal sustainability, labor market and competitiveness.**<sup>2</sup> The size and breadth of the SOE sector is a legacy of former Yugoslavia, where public capital played a predominant role in the economy at all levels of government. Furthermore, the 1995 Dayton Peace Agreement that ended the 1992-1995 conflict introduced further decentralized government functions and SOE ownership to two entities Federation of Bosnia and Herzegovina (FBiH) and Republika Srpska (RS), ten cantons in FBiH, 145 municipalities, and the Brcko district. While a large number of SOEs were privatized during 1996-2006, the results of this effort are perceived by the public as mixed because of a few unsuccessful high-profile privatizations. Yugoslav-era legislation governing SOEs was updated during this period, but the governance and oversight of this sector is seen as lacking in accountability, transparency, and enforcement. Furthermore, there are no accurate, up-to-date, and publicly-available datasets about the SOE sector. SOEs account for about 11 percent of total employment, but only 10 percent of value added, suggesting that SOE employees in BiH produce less value added than other countries in the region.



**This paper has three objectives.** The first objective is to establish the overall size and composition of the SOE sector in BiH. To this end, we constructed a new firm-level dataset of SOEs for 2015-2017 using multiple sources. The second objective is to analyze the financial

<sup>2</sup> Since there is no harmonized definition of SOEs in BiH, we included companies in which any level of the government (central, cantonal, municipal) has directly or indirectly more than 50 percent of ownership. This definition tracks closely the definition of SOEs in the RS (Law on Public Companies, RS Official Gazette, 75/04, 78/11), while in FBiH, SOEs are defined as legal entities that carry out activities of general interest and legal entities defined as a public enterprise by a special act (Law on Public Companies, FBiH Official Gazette, 08/05, 81/08, 22/09, 109/12). This excludes from the list companies where state-ownership is below 50 percent, but where the state still plays a major role.

performance of the overall SOE sector and individual firms. Financial ratio analysis is used to identify individual firms that pose fiscal risks to the governments (Renteria 2018). The third objective is to review governments' ownership functions and oversight policies to identify weaknesses and opportunities for their improvement. Governments' responses to region-wide survey on SOE Governance are benchmarked vis-à-vis the region and World Bank and OECD recommendations in the areas of i) ownership and governance framework; ii) financial oversight; and iii) fiscal and policy interactions with the government (Bower 2017; Richmond and others 2019; OECD 2015; World Bank 2014). While several papers have recently taken stock of these issues in other countries in the region, this is the first paper to establish the size of the SOE sector in BiH, review its performance, and address governance issues.<sup>3</sup>

**SOEs have a significant footprint in the economy, but a large number of SOEs impact macroeconomic performance negatively by distorting the labor market and imposing significant fiscal costs.** Roughly 80 thousand workers are employed in 550 SOEs across all sectors of the economy (about 11 percent of total employment). SOEs own 40 percent of all fixed assets in the economy, and account for 10 percent of aggregate turnover. However, the largest 20 SOEs based on fixed assets and turnover represent around 80 percent and 70 percent of total SOEs fixed assets and turnover, respectively. SOEs distort labor markets because average salaries are 40 percent higher than in private firms, despite lower productivity. In fact, BiH SOEs have the third highest wage premium in the region (Richmond and others 2019). Aggregate SOE debts are roughly 26 percent of GDP. This includes close to 4 percent of GDP in tax and social contributions arrears, which depress tax revenues and negatively impact the functioning of the social benefits system. Financial ratio analysis shows that over 44 thousand persons are employed in SOEs facing high or very high financial risks (6 percent of total employment).

**The SOE sector is not contributing enough to the economy.** During 2015-2017, the SOE sector Return on Equity (ROE) averaged -0.3 percent, implying that government investment in the sector was yielding negative returns. With an average Return on Assets (ROA) of -0.2 percent, the SOE sector does not extract value from the assets at its disposal. For example, if return on equity were 4 percent, a level consistent with SOEs operating with moderate profitability risk, GDP would be some 3 percent higher; the latter can be interpreted as the implicit opportunity cost of sustaining an inefficient SOE sector. Leverage is also high making it highly unlikely that SOEs can reduce debt levels without government support or operational restructuring to improve performance.<sup>4</sup> And, many SOEs rely on implicit or explicit government support in the short run because their liquidity is low.

**SOE governance falls short of WB and OECD guidelines and ranks low compared to other Eastern European countries.** In the area of ownership policy, the FBiH has recently established a centralized list of SOEs, and the RS has not updated its SOE register since 2014. There are no ownership policy documents that outline the rationale for government ownership of SOEs,

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<sup>3</sup> For example, see Di Bella and others 2017 for a recent study of the overall government footprint in Russia.

<sup>4</sup> We use leverage as Debt/Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA). This ratio measures the ability of firms to generate enough earnings to service debt.

operational and financial objectives, and division of responsibilities for policy and ownership functions in the governments. Management and Supervisory Board member selection is decentralized and independence requirements weak. The oversight frameworks are also lagging. Financial and operational performance evaluations are not conducted by specialized units. Compliance with publication of audited financial performance statements of SOEs is weak and the entity governments do not produce aggregate SOE sector reports that are subsequently submitted to parliaments. Fiscal links with the governments are sizable but there are no formal policies that condition government support to SOEs. There are no formal dividend policies. Direct subsidies and loan guarantees to SOEs are granted without explicit Public Sector Obligations (PSO). In addition, there is large implicit government support in the form of tax and social security contribution arrears. Richmond and others (2019) ranks BiH as second to last for SOE governance in the region.

**This paper is organized as follows.** Section II establishes the footprint of the SOE sector in the BiH economy, including its size, sectoral composition, aggregate financial indicators, and role in labor markets. As aggregate figures mask performance challenges in individual companies, Section III uses financial ratio analysis to identify high risk SOEs. The risk profile of SOEs is assessed by taking into account profitability, leverage, and liquidity. Section IV reviews entity SOE governance frameworks by comparing FBiH and RS responses to a region-wide questionnaire and proposes measures for their improvement. Section V discusses options to improve performance of the SOE sector.

## II. SOE FOOTPRINT

**There are more than 550 SOEs in Bosnia and Herzegovina.**<sup>5</sup> While there are centralized SOE registers in FBiH and the RS, there is not a single registry at the BiH level.<sup>6</sup> To fill this gap, we created a financial statements database that includes SOEs at the entity, cantonal, and municipal levels.<sup>7</sup> Our quantitative analysis is based on a sample of 414 firms for 2014-2017.<sup>8</sup> Thus, we have

<sup>5</sup> There are 315 and 235 SOEs in FBiH and RS respectively.

<sup>6</sup> The FBiH business registration agency (Financial-Intelligence Agency of Federation of the BiH, FIA) has published a list of SOEs in FBiH in June 2019. The list includes companies where the FBiH general governments own both majority and minority stakes, totaling 341 SOEs. However, the list includes only individual SOE assets, debt, profit and number of employees (and not for all SOEs), but not their full financial statements. In addition, the list does not specify the governments' ownership stakes.

<sup>7</sup> The SOE list was created cross referencing information from court registries, entity business registration agencies (Financial-Intelligence Agency of Federation of the BiH: (<https://fia.ba/>); Agency for Intermediary, IT and Financial Services of the RS: (<https://www.apif.net/index.php/registri/2014-05-12-12-14-56.html>), Sarajevo stock exchange (<http://www.sase.ba/v1>), Banja Luka stock exchange (<https://www.blberza.com/Pages/Default.aspx>), the BiH register of business entities (<https://bizreg.pravosudje.ba/pls/apex/f?p=183:20:6232106962533052>), official government documents, and SOE websites.

<sup>8</sup> More than a hundred SOEs in both entities did not submit financial statements to the entity business registration agencies on a timely basis. According to the entity Accounting and Audit laws, all companies

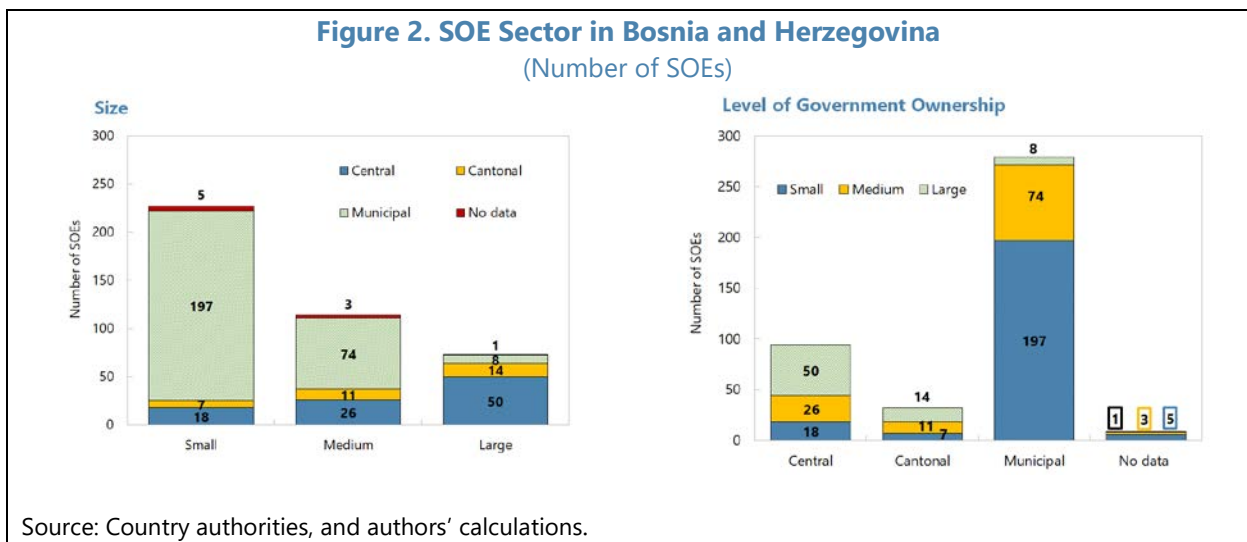
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information for almost 80 percent of SOEs, but we likely cover more than 90 percent of SOEs by revenue, employment, or assets because data is more likely to be available for larger companies.

**While the majority of SOEs are small and medium-size municipal utilities, entity-owned SOEs have the largest operations and account for most employment of the sector.<sup>9</sup>**

Municipalities own 279 SOEs, mainly in water supply, heating, and sewage sectors, but also some in communication (radio) and recreation (pools, parks). Total employment of municipal SOEs was 11 thousand at end-2017. Still, most economic activity is performed by SOEs owned by the entity central governments, which in 2017 generated about 85 percent of SOE revenues (EUR 2.9 billion), held roughly 85 percent of SOE assets and liabilities (EUR 13.3 billion and EUR 3.5 billion, respectively), and employed 58 thousand out of 76 thousand total SOE employment in the sample. The biggest entity central government-owned SOEs are in the electricity generation sector (FBIH and RS electricity companies), mining (coal mines in FBIH), manufacturing (weapons factories), agriculture (RS forest company), and transportation (road and highway companies, railways).



**Most revenues and assets are in the electricity, gas, steam and air conditioning sector.**

These SOEs generate 45.6 percent of total SOE revenues, followed by information and communication (12.4 percent), and transportation and storage (11.7 percent). The three SOEs with highest average revenues in the sample period are the BiH Electricity company - Elektroprivreda BiH (EUR 535 million), BH Telecom (EUR 274 million), and the RS electricity company – Elektroprivreda RS (EUR 210 million). More than 70 percent of total SOEs assets are

are obliged to submit annual financial statements to the FBIH Financial-Intelligence Agency and the RS Agency for Intermediary, IT and Financial Services within two months after the end of the year.

<sup>9</sup> Based on the entities' accounting laws, the distribution by size is estimated based on three criteria: number of employees, average assets value, and annual revenues as follows: Small – up to 50 employees, assets value up to EUR 0.5 million and revenues up to EUR 1 million. Medium: between 50 and 250 employees, assets value between EUR 0.5 and 2 million and revenues between EUR 1 and 4 million. Large: if two out of three criteria for medium companies are exceeded.

concentrated in the electricity, gas, steam and air conditioning sector (37 percent) and transportation and storage (36 percent).

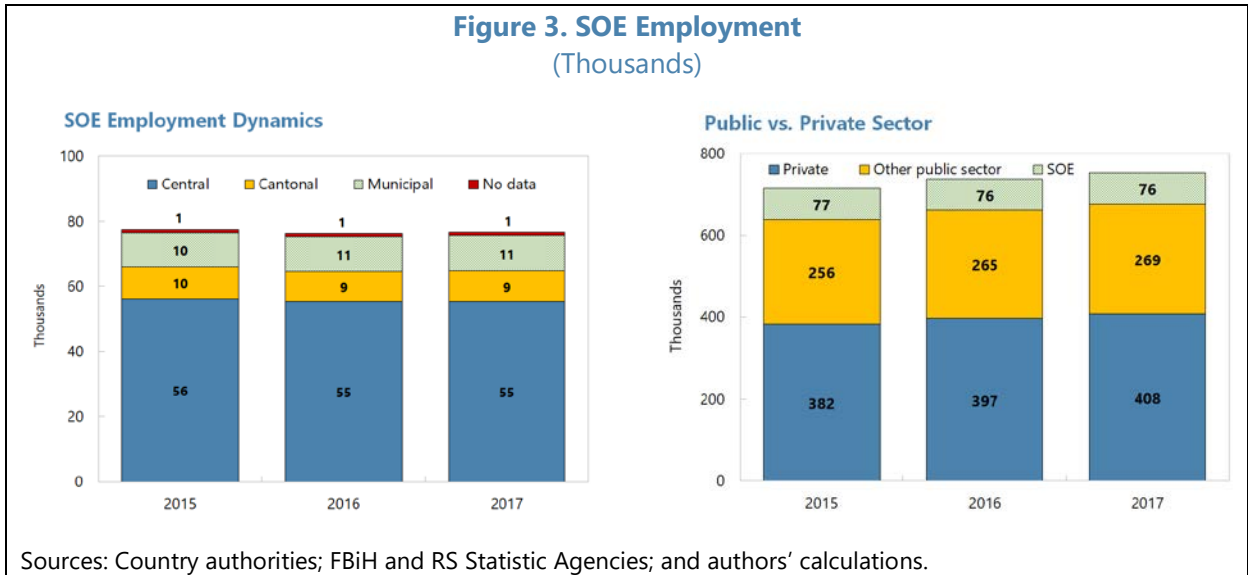
**Table 1. SOE Sectoral Distribution, 2017**

| Industry  | Number     | Revenues<br>(EUR mill) | Assets<br>(EUR mill) | Employment    |
|---|------------|------------------------|----------------------|---------------|
| Electricity, gas, steam and air conditioning supply           | 32         | 1,526.8                | 5,702.4              | 17,306        |
| Information and communication                                 | 38         | 414.7                  | 852.0                | 6,452         |
| Transportation and storage                                    | 19         | 390.3                  | 5,536.0              | 12,337        |
| Mining and quarrying  | 12         | 263.8                  | 744.8                | 11,500        |
| Water supply; sewage, waste management and remediation        | 168        | 208.5                  | 950.5                | 10,703        |
| Agriculture, forestry and fishing                             | 17         | 193.3                  | 636.9                | 9,126         |
| Manufacturing   | 31         | 151.2                  | 597.7                | 4,527         |
| Professional, scientific and technical activities             | 38         | 77.1                   | 122.7                | 1,024         |
| Wholesale and retail trade; repair of motor vehicle           | 10         | 39.1                   | 101.0                | 658           |
| Arts, entertainment and recreation                            | 15         | 37.7                   | 88.8                 | 1,364         |
| Construction  | 14         | 28.8                   | 60.4                 | 620           |
| Other service activities                                      | 6          | 7.1                    | 13.2                 | 358           |
| Accommodation and food service activities                     | 3          | 4.9                    | 35.1                 | 212           |
| Real estate activities  | 7          | 4.3                    | 42.2                 | 181           |
| Financial and insurance activities                            | 1          | 1.2                    | 1.3                  | 28            |
| Human health and social work activities                       | 1          | 0.6                    | 2.3                  | 51            |
| Administrative and support service activities                 | 1          | 0.2                    | 0.1                  | 15            |
| Education   | 1          | 0.0                    | 0.8                  | 6             |
| Public administration and defense; compulsory social security | 0          | 0.0                    | 0.0                  | 0             |
| <b>Total</b>  | <b>414</b> | <b>3,350</b>           | <b>15,488</b>        | <b>76,468</b> |

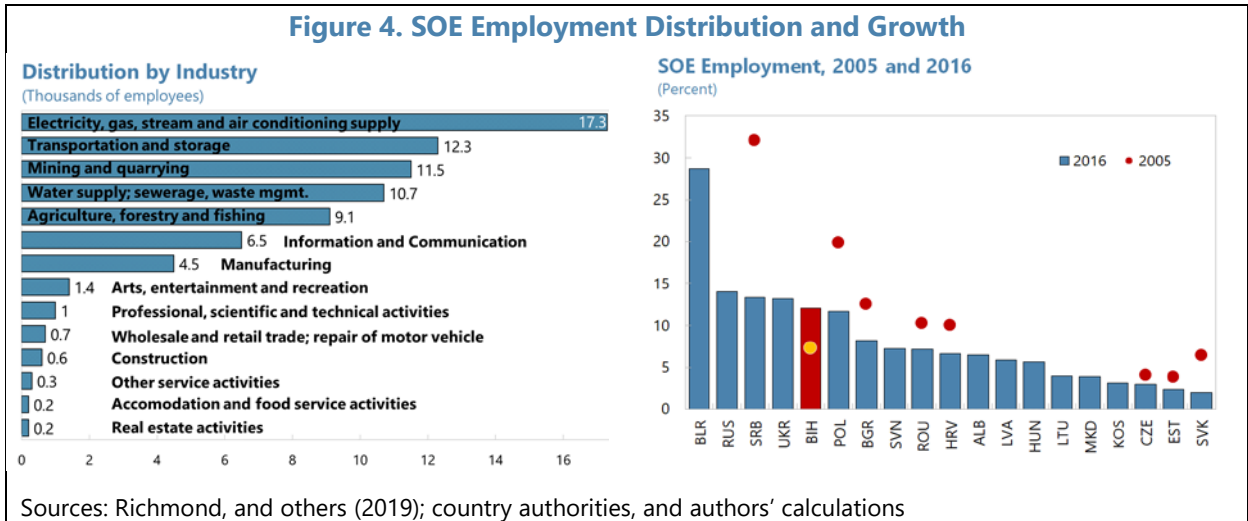
Sources: Country authorities, and authors' calculations.

**Employment in SOEs is around a quarter of public sector employment and 11 percent of total employment.** Our SOE database allows us to better estimate the footprint of the public sector at more than 46 percent of total employment. In 2017, general government employment is reported at 17 percent of total employment.<sup>10</sup>

<sup>10</sup> The reported general government data does not include health institutions and other institutions that are neither classified as private nor general government sector. Information on the number of employed in this category would be necessary to estimate total public sector employment. However, it is probably safe to assume that, properly accounted for, public employment is around half of total employment.

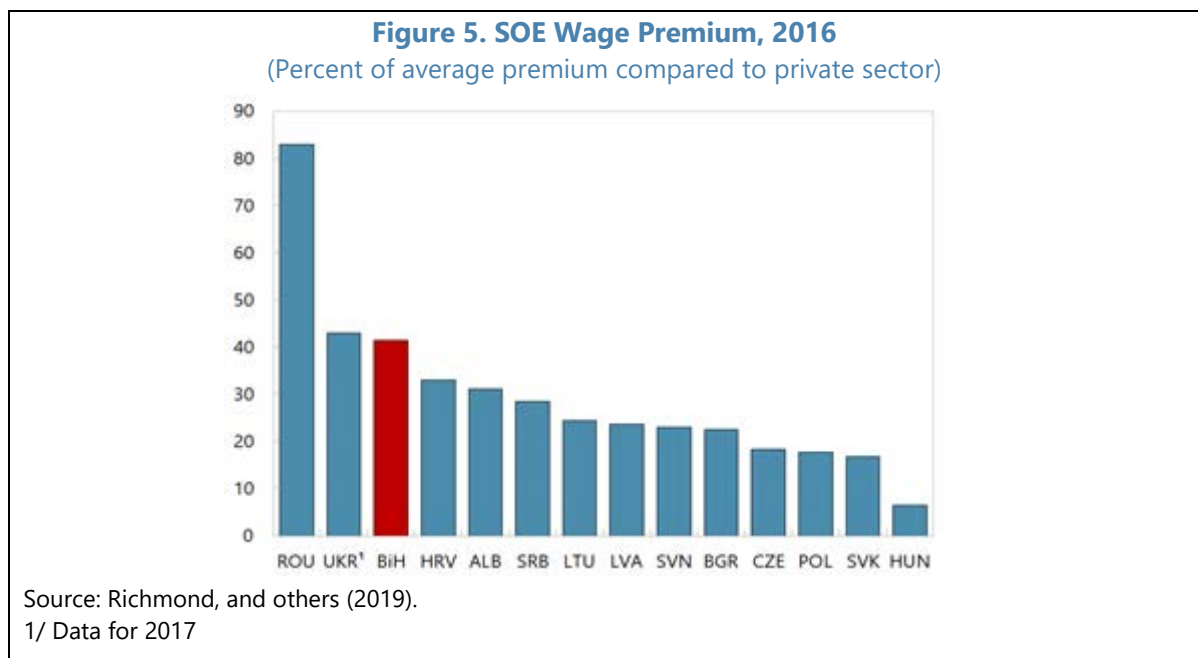


**Most of SOE employment is concentrated in the production of goods and services.** About 37 percent of SOE employment is concentrated in the electricity and water sectors (28 thousand), transportation (12 thousand) and mining (12 thousand). The top five SOE employers are the FBiH Electricity company - Elektroprivreda BiH, FBiH Railways, RS Railways, and coal mines Banovici and Kreka. Interestingly, BiH appears to be the only country in the region where SOE employment increased since 2005, when it ranks in the top third in terms of SOE employment as share of total employment (Richmond and others 2019). This may be explained by the relatively small scale of privatization in BiH compared to other countries in the intervening period.



**The average salary in SOEs is roughly 40 percent higher than in the private sector, despite lower worker productivity and profitability.** The SOE wage premium in BiH is higher than most countries in the CESEE region (Richmond and others 2019). In 2017, the average gross monthly salary in SOEs was EUR 756 compared to EUR 540 and EUR 535 in the general

government and private sector respectively.<sup>11</sup> The wage premium cannot be explained by higher productivity in the SOE sector because the average revenue per worker (a measure of productivity) is estimated to be around 8 percent lower than the private sector. Moreover, while SOEs tend to be less profitable than private sector firms, salaries are estimated at 30.5 percent of total operating expenditures in SOEs, compared to 12.0 percent in the private sector. The SOE wage premium introduces an important distortion in labor markets, because SOEs not only offer better compensation packages but also more stable employment compared to the private sector.



### III. SOE PERFORMANCE

SOEs negatively impact macroeconomic performance and do not contribute enough to the economy because of low profitability, high leverage, and low liquidity. Total SOE debts total EUR 4 billion (26 percent of GDP), and through significant tax arrears they impact the pension and health security systems. Almost half are illiquid and rely on state support, both implicit and explicit, to stay afloat.

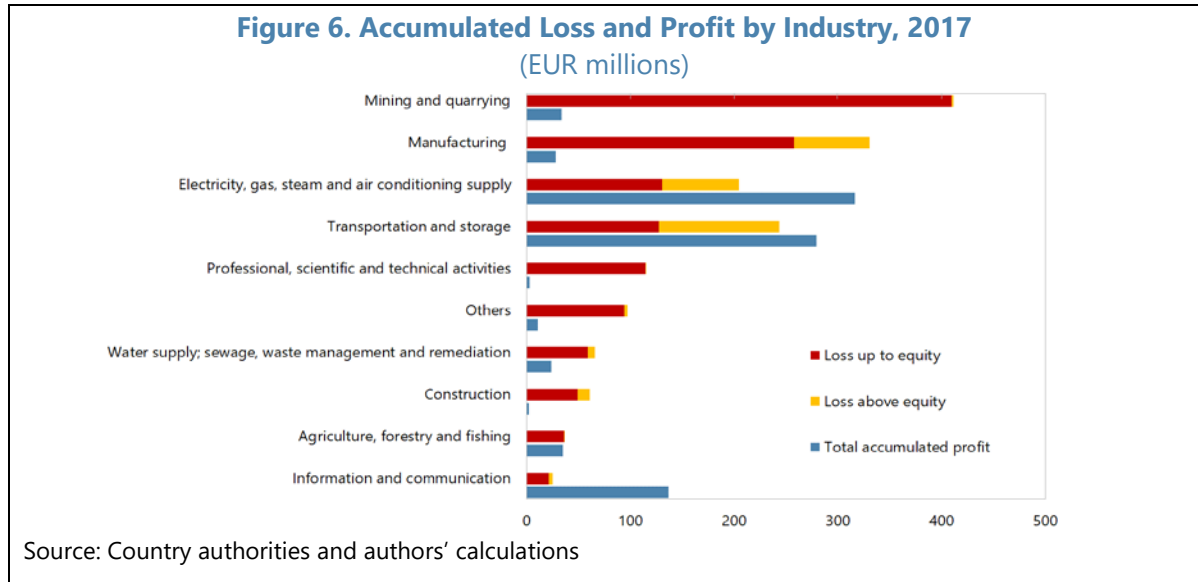
#### A. SOE Performance Overview

**The SOE sector balance sheets point to significant structural weaknesses, which may require policy measures in the short-term.** While about 85 percent of SOEs are solvent as of end-2017 with positive equity of about EUR 1 billion, there are 66 firms that have accumulated losses of EUR 1.6 billion thus wiping out the value of their equity. These firms are technically

<sup>11</sup> The magnitude is likely overstated because wages in the private sector tend to be underreported, especially in the service sector, due to the shadow economy.

(continued...)

insolvent with negative equity totaling EUR 290 million (2 percent of GDP).<sup>12</sup> This suggests that operational and financial restructuring, which may include fresh capital injections, are needed to restore solvency in these companies. Alternatively, some of these firms may have to be placed into bankruptcy proceedings. Most of the losses are accumulated in the Mining and Quarrying, Manufacturing, and Energy sectors (Figure 6).



### Box 1. Examples of SOEs Posing Macro-Critical Fiscal Risks

#### Sarajevo Public Transportation Company (GRAS)

*GRAS provides public transportation in the Sarajevo metropolitan area. It is fully owned by the Sarajevo cantonal government.*

**GRAS is insolvent and has an unsustainable business model.** As of end-2017, total liabilities were EUR 110 million or 1.1 percent of FBiH GDP. Tax and SSC arrears (direct and indirect taxes) totaled EUR 81.6 million or 0.8 of FBiH GDP-- more than four times the company's annual income. The company is also highly illiquid with a current liquidity ratio 0.1, and thus cannot cover operational expenses without continued budgetary support. The poor financial performance is mainly due to unsustainable business model, which is characterized by generous implicit subsidies (low fares not consistent with cost recovery) are not reimbursed by the cantonal government, poor revenue collection, and lack of adequate collection enforcement. The Sarajevo cantonal government has recently announced plans to undertake the much-needed operational restructuring.

<sup>12</sup> The SOEs with the most negative equity as of end-2017 are the Sarajevo public transportation company (GRAS) with negative equity totaling EUR 106 million (1.1 percent of FBiH GDP), the Sarajevo district heating company (EUR 44 million or 0.45 percent of FBiH GDP), and the Prijedor heating company (EUR 6.4 million or 0.1 percent of RS GDP).

(continued...)

### Aluminij Mostar

*Aluminij Mostar is a joint stock company whose primary activity is the production of primary aluminum and other aluminum products. The FBiH central government owns 44 percent of shares and the Croatian government 12 percent, while the rest are private minority shareholders.<sup>13</sup> While the FBiH government is only a minority shareholder, the company is highly indebted to the FBiH-owned Electricity Company of Mostar (Elektroprivreda HZHB). Implicit government support is in effect keeping Aluminij's operations afloat.*

**Aluminij's operations are unsustainable and require large government financial support.** The company operates with a negative gross margin, which means that the selling price of aluminum is not enough to cover the costs of production. The company is insolvent as of end-2017, with accumulated losses of more than EUR 120 million (1.3 percent of FBiH GDP). Liabilities increased by more than 140 percent from 2014 until 2017, reaching Euro 188 million (2.0 of FBiH GDP). Around three-quarters of the debt is owed to the Electricity Company of Mostar for unpaid electricity which is the primary input for aluminum production. The company is also highly illiquid (CLR is around 0.5). This has prompted the FBiH government to search for a strategic partner to avoid bankruptcy and loss of employment of 900 workers in Aluminij and about ten thousand workers its supply chain.

**SOE assets consist mostly of long-term assets.** Long-term assets are about 87 percent of total assets, while short-term assets are about 13 percent. In contrast, for the private sector, long-term assets are much lower at about 53.6 percent of total assets. However, the large proportion of long-term assets in SOEs could alternatively point to shortcomings in long-term asset valuation, including the lack of "fair value" valuation of large-scale infrastructure in the transportation and energy sectors. In this respect, there could be over-valuation of long-term assets if maintenance has not been performed, or assets are obsolete.

**The SOE sector is highly leveraged.** Unconsolidated SOE debt totaled roughly 26 percent of GDP in 2017. About half of the debts are held by SOEs in the transportation sector (mainly highway and railway companies), with electricity and mining sector companies holding more than 20 percent.

- Long-term liabilities total about 12 percent of GDP, but about 80 percent are held by SOEs with large long-term investment needs in the transportation and energy sectors, which issue government-guaranteed debt. Nevertheless, they represent large fiscal risks that need to be monitored carefully.
- Tax and social security contributions arrears amount to about 4 percent of GDP (mostly held by the railway and mining companies).<sup>14</sup> Most of these arrears are in the form of

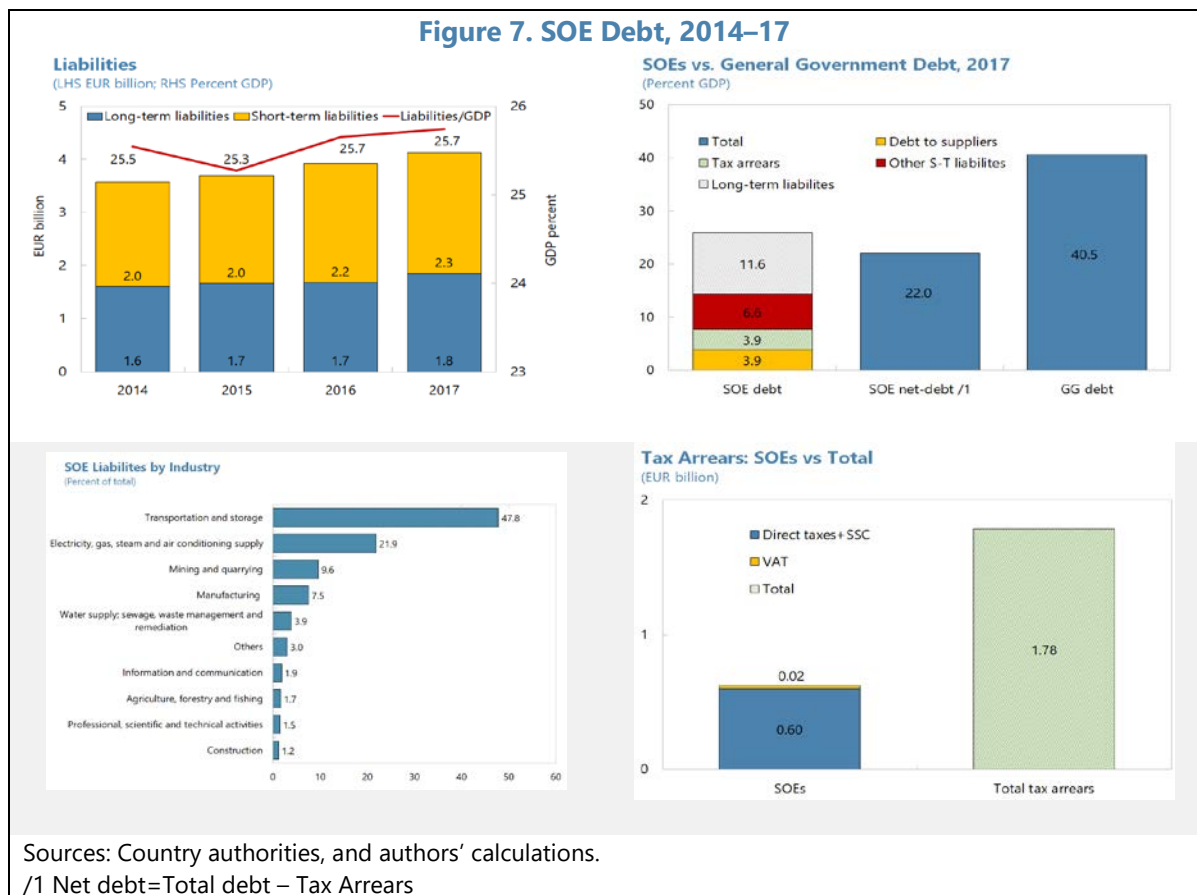
<sup>13</sup> This company is not included in the sample, but it helps illustrate the risks stemming even from minority FBiH central government ownership of SOEs.

<sup>14</sup> FBiH Railways (EUR 104.0 million), Public transportation company in Sarajevo – GRAS (EUR 81.6 million), coal mines Kreka (EUR 70.0 million), Zenica (EUR 61.8 million), and Kakanj (EUR 36.6 million).

“missing contributions” to the health and pension funds, which impact the sustainability of these funds.

- Liabilities to suppliers are about 4 percent of GDP. This potentially hinders the liquidity of private sector suppliers as well as other SOEs (such as water or electricity companies) if lack of payment discipline results in arrears.

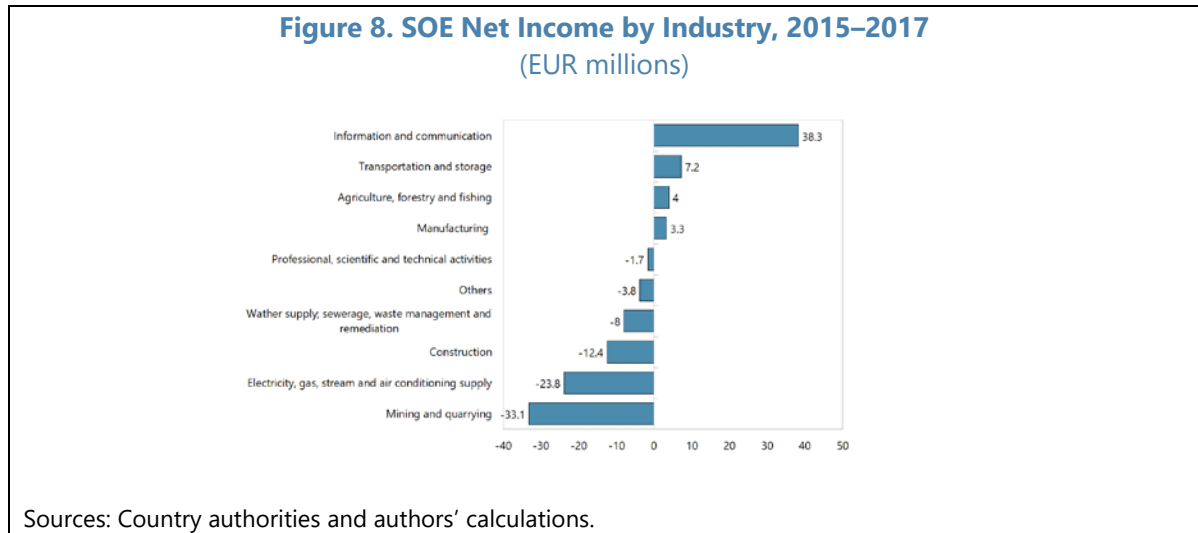
**Total SOE net-debt is estimated at 22 percent of GDP.** Tax arrears should be subtracted from total SOE liabilities to estimate net-debt to other sectors of the economy. A broader definition of indebtedness, such as total public sector debt, would allow for a more accurate assessment of debt sustainability. Given that general government debt including guarantees was roughly 40 percent of GDP in 2017, total public sector debt could amount to around 62 percent of GDP, depending on the amount of public sector cross debts that should be eliminated from the data.



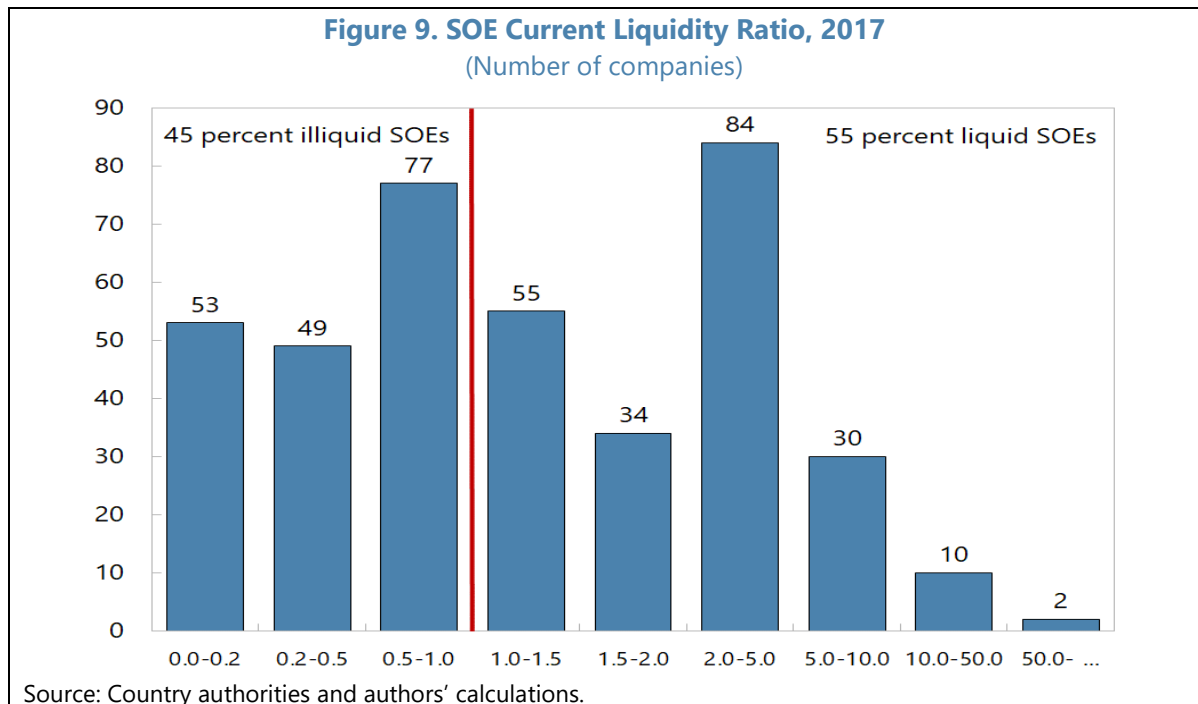
**The SOE sector was loss-making on average in 2015-2017.** While the sector as a whole was marginally profitable in 2017 with six profitable sectors, only three sectors were profitable during 2015-2017. The most profitable commercial sector was the information and telecommunication sector (Euro 38 million or 0.4 percent of FBiH GDP) because of large profits of BH Telecom, which accounted for more than three-quarters of the industry's profits. Other profitable sectors were



agriculture, forestry and fishing and transportation and storage. In contrast, the mining sector incurred large losses totaling 0.2 percent of GDP.



**Almost one half of SOEs are illiquid and require both explicit and implicit budgetary support.** We find that 45 percent of SOEs have current liquidity ratios below 1, signaling difficulties in meeting short term obligations (Figure 9). Liquidity problems often result in tax and SSC arrears, which further aggravate the financial situation in the entity pension and health funds and governments. Partly in response to liquidity shortfalls, the general governments provided 0.9 percent of GDP, or 2.2 percent of expenditures, through budget transfers, grants, and subsidies in 2017.





**SOEs only paid 0.3 percent of GDP in dividends in 2017, which implies negative returns to owners considering net budgetary support.** Moreover, 95 percent of dividends were issued by only three out of 18 companies that paid dividend (out of 414 SOEs in the sample). In addition, SOEs facing financial stress receive implicit government support via non-payment of labor taxes in addition to direct budgetary support. Thus, the overall return to ownership of SOEs is highly negative to the government as an owner, whereas it should be contributing to the economy and the government. By contrast, the SOE sector in Sweden paid 0.45 percent of GDP in dividends, despite SOE revenues as a percent of GDP being about one-third of the size of the SOE sector in BiH (Sweden SOE Annual Report 2017).

**Table 2. Top 10 SOE Dividend Issuers in 2017**

| <b>SOE</b>   | <b>Dividend<br/>(EUR million)</b> |
|--|-----------------------------------|
| BH Telecom   | 34.45                             |
| Elektroprivreda BiH, Sarajevo (Electricity company)                          | 2.61                              |
| JP Autoputevi RS (RS Highway company)  | 2.08                              |
| Unis - Ginex (company dealing with chemicals, igniting and initiating means) | 0.66                              |
| Igman, Konjic (military industry)  | 0.62                              |
| Gas-Res (gas project company)  | 0.25                              |
| Hidroelektrane na Trebisnjici (Hydroelectric power plan)                     | 0.19                              |
| JP Vodovod i kanalizacija, Zenica (Water supply and sewage)                  | 0.15                              |
| Gas promet, Pale (import, supply and transport of natural gas)               | 0.13                              |
| JP za vodovodnu djelatnost Spreča, Tuzla (Water supply company)              | 0.03                              |

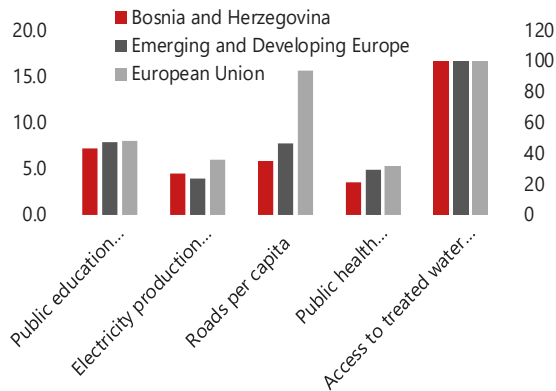
Sources: Country authorities, and authors' calculations

**SOEs do not contribute substantially to infrastructure development, thus failing on an important possible justification for public ownership.** Total SOE investments in 2017 were around EUR 500 million and three sectors invested almost 86 percent of that amount: Electricity (49.8 percent), Transportation and Storage (19 percent), and Information and Communication (16.6 percent). However, SOEs only invested EUR 274 million (1.7 percent of GDP) in non-financial assets. SOEs with the largest investments in non-financial assets were RS Highway company (EUR 67.3 million), BH Telecom (EUR 30.9 million), and Elektroprivreda BiH (EUR 23.0 million). As a result of relatively low investment, infrastructure quality lags regional peers (Box 2).

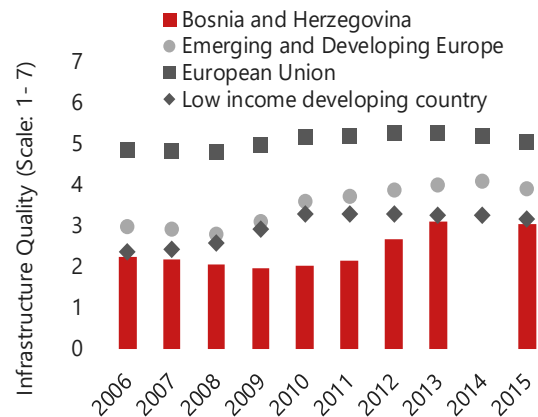
## Box 2. SOE Investment and Infrastructure Quality

**SOEs account for 16 percent of total investment, but the perception of infrastructure quality is low compared to the rest of Europe and its neighbors.** SOE investments in non-financial assets totaled 1.7 percent of GDP in 2017. The largest infrastructure investment projects in the country are undertaken by SOEs in the energy and transportation (highways) sectors. SOEs exercise monopolies in roads, railways and airports, as well as in electricity supply and telecommunication. However, in terms of access to public infrastructure, BiH still significantly lags behind EU member states. The perception of infrastructure quality has improved in recent years, but it remains far below peers according to the World Economic Infrastructure Quality Survey (2015).

**Figure 10. Access to Public Infrastructure**



**Figure 11. Perception of Infrastructure Quality**



Sources: Figure 14 – World Development Indicators (2015), Figure 15 – World Economic Forum (2006-2015)

Note: **Education**: secondary school teachers per 1000 persons; **Electricity**: kWh per person; **Roads**: km per 1000 persons; **Health**: hospital beds per 1000 persons; Right axis: **Water**: percentage of the population having access to clean water.

## B. Financial Ratio and Risk Analysis

### The SOE sector's financial performance compares poorly relative to the overall economy.

Profitability, leverage, and liquidity indicators point to weak performance of the SOE sector relative to the private sector (Table 3). Profitability indicators (ROE and ROA) suggest that the government received negative returns on equity invested, and that SOEs generate little value from the assets at their disposal. SOEs are also more leveraged than the private sector, and their liquidity is lower than the private sector. These indicators point to the need of continued government support of a number of SOEs in the short run.

**Table 3. Key Financial Ratios**

|             | SOEs 2015 | SOEs 2016 | SOEs 2017 | Economy 2017 |
|-------------|-----------|-----------|-----------|--------------|
| ROE         | -1.0      | -0.1      | 0.3       | 5.9          |
| Debt/EBITDA | 9.7       | 7.8       | 7.6       | 6.4          |
| CLR         | 0.9       | 0.8       | 0.8       | 1.1          |
| ROA         | -0.7      | -0.1      | 0.2       | 2.8          |

Sources: Country authorities, and authors' calculations

**We assess the financial health of individual SOEs using uniform criteria.** This allows us to identify financial difficulties of individual SOEs that could merit further attention by the authorities. Financial ratio analysis does not take into consideration operational and commercial viability, international benchmarking, spillovers to the rest of the economy via supply chains and labor markets, or regional impact. However, financial analysis is a crucial element of a comprehensive assessment of SOE performance.

**The assessment of the financial position of individual SOEs is based on three financial ratios following Renteria and others (2018):**

- *Profitability – Return on Equity.* This indicates whether a firm is generating profits that cover the opportunity cost of capital. For loss making firms, it indicates how quickly equity is being eroded.
- *Leverage – Debt to EBITDA Ratio.*<sup>15</sup> This measures the ability of a firm to cover its debt obligations (proxy for number of years needed for company to pay off all debt from earnings on operating activities).
- *Liquidity – Current Ratio.* This measures a firm's ability to meet its current or short-term liabilities using its short-term assets (defined as having a maturity of less than one year). A ratio below 1 suggests that financial support might be needed for a firm to meet its short-term obligations.

**Using a risk map scale each SOE is classified into one of five groups depending on the indicator value.** Coefficients are calculated as an average for three years (2015 – 2017).<sup>16</sup>

<sup>15</sup> Total debt divided by Earnings before Interest, Tax, Depreciation, and Amortization.

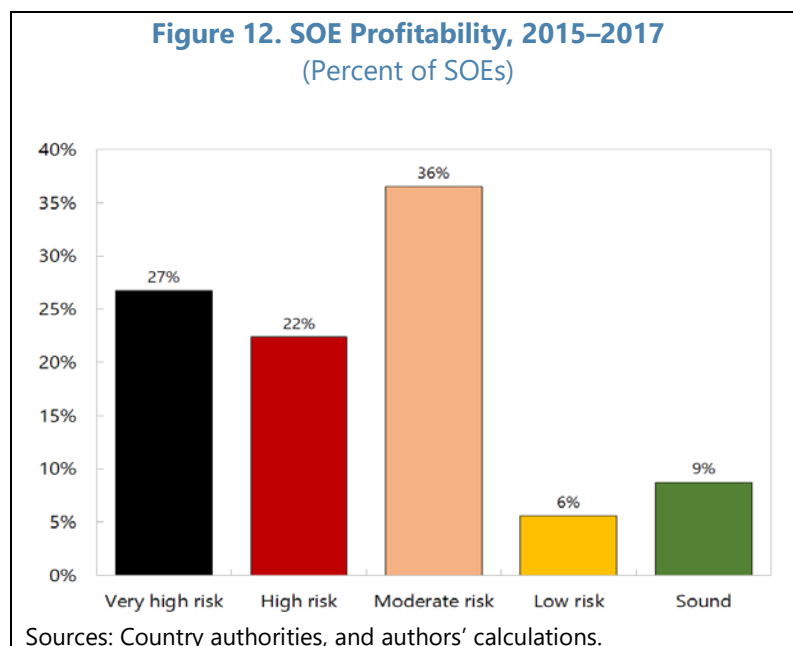
<sup>16</sup> See appendix 1 for risk indicators for FBiH and RS SOEs.

Table 4. Risk Map Scale

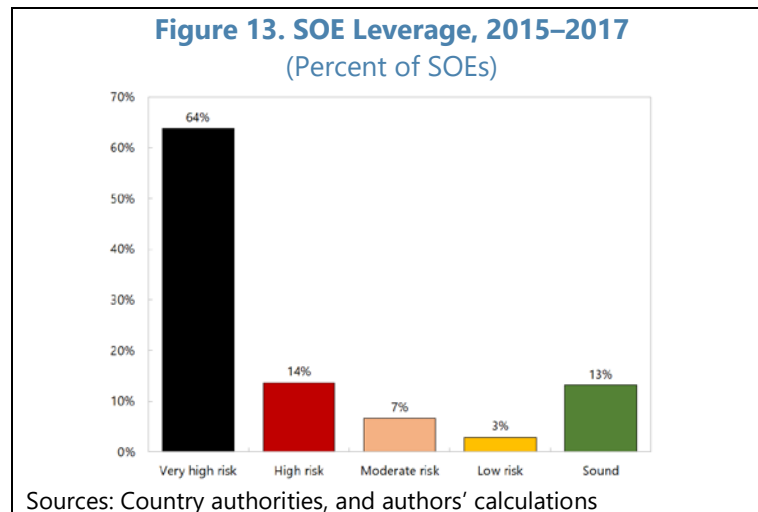
|   |                |           |
|---|----------------|-----------|
| <b>Profitability - Return on Equity</b><br><br>(Net Income / Average Equity)      | Very high risk | < -10%    |
|   | High risk      | -10% - 0% |
|   | Moderate risk  | 0% - 8%   |
|   | Low risk       | 8% - 15%  |
|   | Sound          | > 15%     |
| <b>Leverage - Debt to EBITDA Ratio</b><br><br>(Total Liabilities / EBITDA)        | Very high risk | > 5       |
|   | High risk      | 3 - 5     |
|   | Moderate risk  | 2 - 3     |
|   | Low risk       | 1.5 - 2   |
|   | Sound          | < 1.5     |
| <b>Liquidity - Current Ratio</b><br><br>(Current Assets / Short-term Liabilities) | Very high risk | < 1       |
|   | High risk      | 1 - 1.2   |
|   | Moderate risk  | 1.2 - 1.5 |
|   | Low risk       | 1.5 - 2   |
|   | Sound          | > 2       |

Source: Renteria, and others (2018).

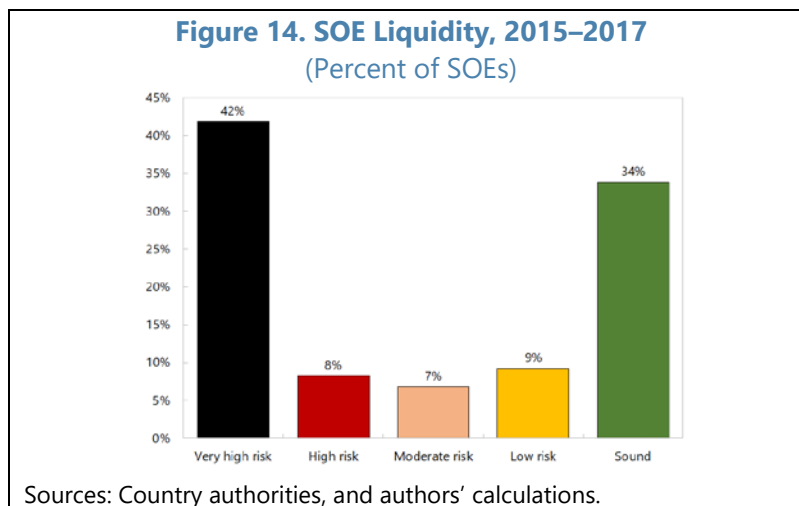
**Forty-nine percent of SOEs face high or very high profitability risks.** Medium size and cantonal SOEs face slightly higher profitability risks than large firms. Sectors that have the largest profitability risks (rated high or very high) are manufacturing (77 percent), mining (75 percent), construction (64 percent), and transportation (53 percent).



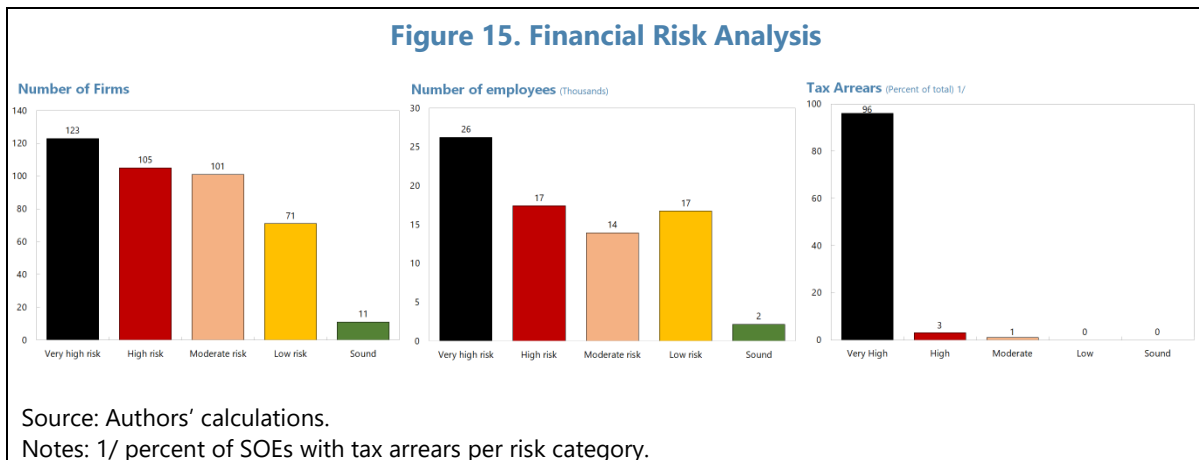
**More than 78 percent of SOEs are in the high or very high leverage risk categories.** While there is no discernible pattern for this risk category with respect to size or ownership, several sectors do face heightened risks. The sectors with the highest leverage risks (rated high or very high) are transportation (90 percent), manufacturing (87 percent), construction (86 percent), mining (83 percent), and water utilities (77 percent). This constitutes a significant fiscal risk exposure for governments, given explicit and implicit loan guarantees for SOEs. It is likely that many of the highly-leveraged SOEs will need government support to reduce their debt and/or significant financial and operational restructuring.



**Over 50 percent of SOEs likely face challenges in settling current liabilities.** This means that almost 50 percent of SOEs have less current assets than current liabilities, and will either have to sell long-term assets, receive budgetary support, or raise additional debt to cover their debts when they become due. Sectors that have the largest proportion of high and very high liquidity risks are transportation (68 percent), mining (67 percent), manufacturing (60 percent) and construction (57 percent).



**There are 228 SOEs that face high or very high financial risk.** We built a composite index based on the profitability, leverage and liquidity indicators and categorized SOEs into five risk categories.<sup>17</sup> Small size and cantonal and central level firms face slightly higher composite financial risks. Sectors that have the largest proportion of high and very high financial risks are transportation (74 percent), construction (71 percent) and manufacturing and mining (67 percent). Roughly 44 thousand workers are employed in high and very high financial risk SOEs. Interestingly, 99 percent of SOE tax arrears are held by companies classified as very high or high risk.



**Fourteen out of the 20 largest SOEs face high or very high overall financial risks:**<sup>18</sup>

- The entity railway companies are classified as very high risk. The RS railway company (Zeljeznice RS) is undergoing operational and financial restructuring under the auspices of a WB program (WB 2017). The risk score for the FBiH railway company (Zeljeznice FBiH) suggests that financial and operational restructuring may also be warranted to reduce financial risks to FBiH.
- The Sarajevo transportation company (GRAS) is classified as very high risk, as all three indicators are in the very high risk category. The company also has tax arrears totaling EUR 81.8 million or 438 percent of annual revenue. GRAS is one of the largest tax debtor in the country, mostly due to non-payment of labor taxes. (See Box 1)
- Two large Federation mines (RMU Kreka and RMU Kakanj) face very high financial risks and continue to accrue tax arrears. The combined employment of some 4,600 workers in these

<sup>17</sup> SOEs receive from 1 to 5 points for each analyzed ratio (1 – very high risk, 5 – sound). The total score is used to classify SOEs as very high risk (score from 3 to 4), high risk (5 – 7), moderate risk (8 – 10), low risk (11 – 13) and sound (14 – 15).

<sup>18</sup> We determined the top 20 SOEs by using six indicators: number of employees, value of assets, equity, liabilities, revenues, and expenditures. We assigned one point to SOEs that rank in the top 20 in any criteria (maximum total score equals six). SOEs receiving with highest scores were included in top 20.

mines has decreased during the sample period, but the continued financial weaknesses suggest that their restructuring may be required.

- Energoinvest was one of former Yugoslavia's main energy infrastructure construction conglomerates with sizable international operations. However, since the end of the war it has not been able to resume operations at the same scale. Given that the company is in the very high financial risk category and it undertakes limited operations, the FBiH government is considering options, including privatization and/or restructuring.
- The two entity highway companies (Autoceste FBiH and Autoputevi RS) are high risk because they are highly leveraged and have low liquidity. However, this is to be expected given the very large investments that are being undertaken to build Corridor Vc<sup>19</sup>. These investments are financed by multilateral debt and guaranteed by the entity governments. These SOEs are mostly funded by the entity governments through earmarking of fuel excise revenues, are not exposed to risk on their own account because governments either explicitly or implicitly guarantee most of their debts, and act on behalf of governments, hence their classification as general government for fiscal reporting and analysis would be more appropriate.
- The RS electricity companies (Elektroprivreda RS and Elektrokrajina Banja Luka) face high financial risks, and employment increased during the sample period. The 2019 RS Economic Reform Program calls for the operational and financial restructuring of Elektroprivreda RS.
- While BH Telecom and HT Mostar face low financial risks, the analysis should be broadened to include operational analysis and international benchmarking. Profits and revenues in these companies have declined substantially over 2014-2017. It is likely that their enterprise value declined significantly over this period and the sustainability of their current business models may be in question.
- The only sound large SOE is Igman dd Konjic, a munition supplier with a viable business model that exports a significant share of its production.

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<sup>19</sup> Corridor Vc is the main planned highway from north to south with total length of 335 km within BiH. It is trans-European corridor which connects Budapest (Hungary) with Ploce (Croatia).

Table 5. Top 20 SOEs: Financial Risk Assessment, 2015–17

| SOE   | ROE         | CLR | Debt/EBITDA | Group | Tax Arrears | Employment |
|---|-------------|-----|-------------|-------|-------------|------------|
| Rudnici Kreka (Mine company, Kreka)                         | -56.0%      | 0.1 | 19.2        | VHR   | Yes         | 2,548      |
| RMU Kakanj (brown coal mine, Kakanj)                        | -22.6%      | 0.1 | -13.6       | VHR   | Yes         | 1,849      |
| GRAS (Sarajevo public transportation company)               | (no equity) | 0.1 | -29.5       | VHR   | Yes         | 1,437      |
| Željeznice RS (RS Railway company)                          | -16.8%      | 0.2 | 514.6       | VHR   | Yes         | 3,018      |
| Energoinvest dd Sarajevo                                    | -4.1%       | 0.4 | 9.5         | VHR   | No          | 416        |
| Željeznice FBiH (FBiH Railway company)                      | -2.7%       | 0.2 | 90.2        | VHR   | Yes         | 3,269      |
| TE Gacko (Thermal-power plan, Gacko)                        | -1.9%       | 0.6 | 3.8         | HR    | No          | 1,859      |
| Šume RS (RS Forests company)                                | 10.9%       | 0.5 | 4.4         | HR    | Yes         | 4,805      |
| Putevi RS (RS Roads company)                                | 0.2%        | 0.1 | 3.2         | HR    | No          | 81         |
| JP Autoputevi RS doo (RS Highway company)                   | 22.0%       | 0.3 | 12.0        | HR    | No          | 95         |
| Autoceste FBiH (FBiH Highway company)                       | 5.0%        | 0.1 | 10.3        | HR    | No          | 393        |
| Elektrokrajina Banja Luka (Electricity company, Banja Luka) | 0.1%        | 0.9 | 9.1         | HR    | No          | 1,823      |
| Elektroprivreda RS - matično (RS Electricity company)       | 0.3%        | 1.1 | 48.3        | HR    | No          | 204        |
| Elektroprivreda, Ugljevik (Electricity company, Ugljevik)   | -1.8%       | 1.9 | 3.1         | HR    | No          | 1,875      |
| RMU Banovići (brown coal mine, Banovici)                    | 2.5%        | 1.6 | 4.2         | MR    | Yes         | 2,770      |
| Elektroprivreda HZ HB Mostar (Electricity company Mostar)   | -4.0%       | 1.8 | 0.6         | LR    | No          | 2,148      |
| Hrvatske telekomunikacije Mostar (telecom Mostar)           | 1.1%        | 2.6 | 0.4         | LR    | No          | 1,388      |
| BH Telecom  | 7.0%        | 6.0 | 0.3         | LR    | No          | 3,416      |
| Elektroprivreda BiH Sarajevo (BiH Electricity company)      | 0.2%        | 5.3 | 1.2         | LR    | No          | 4,566      |
| Igman dd Konjic (weapons company)                           | 41.0%       | 3.5 | 1.1         | S     | No          | 1,233      |

Sources: Country authorities, and authors' calculations.

### C. Impact of Potential Efficiency Gains

**BiH incurs sizable opportunity costs by not reforming SOEs.** We estimated the opportunity costs by comparing the financial performance of SOEs in BiH to the midpoints of the moderate risk category for profitability, leverage and liquidity indicators. The large opportunity costs point to a need to improve efficiencies by either increasing revenues or reducing operating costs.

**BiH governments forego up to 3.0 percent of GDP in potential income per year through inefficiencies.** In 2015-2017, ROE averaged -0.3 percent for all SOEs. In contrast, ROE averaged 4.0 percent for Swedish SOEs during the same period, which coincidentally is exactly in the mid-point of the 'moderate risk' category. Thus, if SOEs were to have averaged 4.0 percent ROE in 2017, net income would be 3 percentage points of GDP (or EUR 127 per capita).

| Foregone Profits<br>(million of Euros, average 2015-2017) |          |
|---|----------|
| Actual Total Equity                                       | 10,647.6 |
| Actual Total Net Income                                   | -29.9    |
| Actual ROE  | -0.3     |
| Potential ROE   | 4.0      |
| Potential Net Income                                      | 425.9    |
| Additional Net Income                                     | 455.8    |
| <i>as GDP percent</i>                                     | 3.0      |



**SOEs are over-indebted by close to 18**

**percent of GDP.** Unconsolidated SOE debt was 26.6 percent of GDP at end-2017 (Debt/EBITDA = 8.3). As an example, for the Debt/EBITDA to reach the mid-point target of 2.5, either debt would need to decrease by EUR 2.65 billion (about EUR 750 per person), or alternatively EBITDA would need to increase by the same amount. These estimates suggest that substantial debt reduction or improvements in

operational efficiency and profitability are needed to bring SOE debt to sustainable levels.

| <b>Overindebtedness</b>               |         |
|---------------------------------------|---------|
| (million of Euros, average 2015-2017) |         |
| Actual Total Debt                     | 3,910.8 |
| Actual EBITDA                         | 473.9   |
| Actual Debt/EBITDA                    | 8.3     |
| Target Debt/EBITDA                    | 2.5     |
| Target Debt                           | 1,184.8 |
| Target Debt Reduction                 | 2,726.1 |
| <i>as GDP percent</i>                 | 18.2    |

**Significant restructuring of the balance sheets is necessary to restore the sector's liquidity.**

For example, current liabilities would need to decline by 5.6 percent of GDP to bring the liquidity ratio to 1.4 (mid-point of moderate risk category).

| <b>Liquidity</b>                      |         |
|---------------------------------------|---------|
| (million of Euros, average 2015-2017) |         |
| Actual Total Current Assets           | 1,781.5 |
| Actual Total Current Liabilities      | 2,182.5 |
| Actual Liquidity Ratio                | 0.8     |
| Target Liquidity Ratio                | 1.4     |
| Target Current Liabilities            | 1,319.3 |
| Required decrease in c. liabilities   | 863.2   |
| <i>as GDP percent</i>                 | 5.6     |

**IV. SOE GOVERNANCE FRAMEWORK****Sound SOE governance frameworks are key to fostering transparency, ensuring accountability, and mitigating fiscal risks.**

Transparency is fostered when information on SOE commercial and non-commercial operations and financial results are disclosed on a timely and regular basis to governments and the public. Accountability is ensured when SOEs' managerial performance and that of their supervisory boards are scrutinized by parliaments and the public. Fiscal risks can be better mitigated when financial and operational soundness are assessed on a systematic basis and weaknesses are properly addressed by the governments, SOE management and supervisory boards.

**A robust governance framework should be based on the following three pillars:**

- **Ownership Policy:** First, all levels of government should have an accurate inventory of all SOEs under their control. This includes a publicly-available SOE register that properly accounts for all SOEs that are majority-owned by the government, as well as SOEs in which

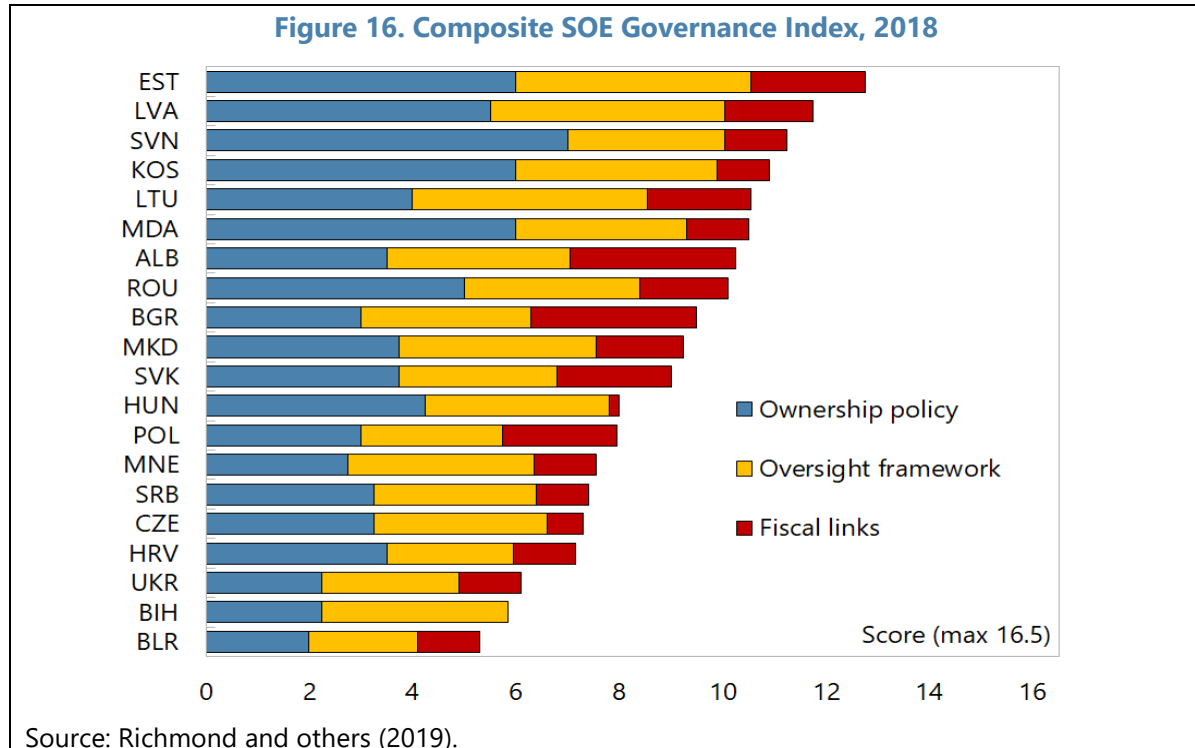
the government owns minority stakes.<sup>20</sup> Second, the rationale for state-ownership of SOEs should be expressed in an Ownership Policy document, preferably as part of SOE sector oversight legislation. And third, governments should appoint qualified individuals as their representatives in SOEs. As such, management board members should be appointed based solely on professional competencies. In parallel, qualified supervisory board members should discharge their duties independently with fiduciary responsibility to the public and not to a political party.

- **Financial Oversight:** Year-end financial and operational targets should be set to evaluate and hold accountable SOE management and supervisory boards for their performance. Likewise, annual financial statements should be externally audited and reviewed by governments and Supreme Audit boards. At the same time, governments should be held accountable for their ownership role by submitting SOE sector reports to the parliament.
- **Fiscal Links:** Systematic and regular assessment of risks stemming from SOE operations encourage SOEs and governments to address potential weaknesses in SOEs and to avoid unexpected use of budgetary resources and maintain the integrity of the annual and medium term budgets. If budgetary subsidies and transfers to SOEs are required, they should only be provided to satisfy pre-established and approved Public Sector Obligations by SOEs. This can help prevent quasi-fiscal support that is not provided for and disclosed in the budgets. In this respect, explicit non-commercial mandates of SOEs should be included in relevant legislation or Ownership Documents. Dividend policies based on pre-agreed metrics can help ensure predictable financial flows to avoid negatively impacting SOE operations and investment plans, and to prevent cash hoarding by SOEs.

**FBiH and RS responses to an oversight questionnaire point to persistent weaknesses in SOE governance.** A survey of oversight policies in Eastern Europe was conducted as part of a study of the SOE sector in the region (Richmond and others, 2019). A composite governance index was constructed using the responses that cover the three pillars described above. While the index cannot be used to evaluate actual implementation of policies, it can be used to assess gaps in legislation and policies underpinning the SOE governance framework. With these considerations in mind, FBiH and RS responses place BiH close to the bottom of the index ratings, with particularly low scores for fiscal links. Many countries with high index scores have undergone significant reforms partly in the context of their EU membership accession process. Countries in former Yugoslavia that are not EU members have relatively low index scores, reflecting similar SOE footprint and legal framework.

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<sup>20</sup> The database should also include information on firms in which the government holds a minority stake. While the ownership functions and oversight responsibilities are considerably reduced compared to majority government owned companies, the government should be able to influence Board decisions far more than its ownership stake may suggest.



### A. Ownership Policy

#### *SOE Register*

**In FBiH, the existing registers have significant shortcomings.** There is a register at the FBiH central government level created by the Prime Minister's office, but it only includes the 45 firms that are majority owned by the central government. The register does not include 188 firms that are owned by cantons and municipalities. While the register is publicly available, it can only be found in the official gazette.<sup>21</sup> Meanwhile, FIA has published a list of SOEs in which the general government institutions have ownership stakes, but no details are provided about which government owns the companies in question nor their respective ownership stakes.<sup>22</sup> In addition, there are no sector-wide ownership document that state the FBiH central government, cantonal and local government policies in the SOE sector and ownership rationale for each SOE.

**The RS government has published a comprehensive SOE register in 2014, but it has not been updated since then.** The register is publicly available on the registry agency's web site.<sup>23</sup>

<sup>21</sup> FBiH Official Gazette, 20/16, 3/17, 9/17, and 69/17.

<sup>22</sup> FIA SOE registry: <https://fia.ba/JavnoPreduzece/Index>

<sup>23</sup> Agency for Intermediary, IT and Financial Services of the RS: <https://www.apif.net/index.php/registri/2014-05-12-12-14-56.html>

As in FBiH, there is no ownership document that states the RS central government policy in the SOE sector.

### *SOE Oversight Unit*

**The FBiH authorities is planning to establish an SOE oversight unit in the FBiH Prime Minister's office.** However, the legal basis for this office is temporary because it was not yet legally established by a decree. Line ministries continue to exercise decentralized oversight over SOEs, including on financial performance, creating dual reporting lines.<sup>24</sup>

**The Investment and Development Bank of the Republika Srpska (IDBRS) performs the centralized ownership function on behalf of the RS government.** The IDBRS has a broad development and investment mandate that includes managing state assets on behalf of the RS central government and executing other government functions (Box 3). To this end, the Shares Fund (SF) was established in 2006 to manage SOEs. In 2015, the SF managed assets totaling EUR 600 million (about 12.6 percent of RS GDP). Despite this broad mandate and sizable assets, no government agency is tasked with overseeing the IDBRS to ensure the proper management of state assets and ensure adequate risk and return tradeoffs.

### **Box 3. Improving the Governance of Development Banks**

**There are two development banks in Bosnia and Herzegovina** – the FBiH-owned Federation Development Bank (FDB), and the RS-owned Investment and Development Bank of the Republika Srpska (IDBRS). While the mandates and size of the two banks differ, there are significant oversight weaknesses in both that merit attention.

#### ***Federation Development Bank***

The FDB has a very broad mandate to provide financing for reconstruction and development, economic infrastructure, agriculture, rural developments and exports. It manages a small share of the banking sector. In 2015, assets totaled EUR 148 million (1.5 percent of banking sector assets). The FBiH government is currently considering expanding its activities.

Government oversight of FDB is limited. The FBiH minister of finance represents the government in FDB supervisory board meetings, but there is no regular reporting to the FBiH MOF. Loan book data (including substantial government on-lending) is not publicly available. Compliance with board appointment qualification criteria has been uneven.

The supervisory board independence criteria are not aligned with those of private sector banks. The FBiH Supreme Audit Agency has never audited the FDB. Because the FDB is fully funded by

<sup>24</sup> WB/OECD guidelines recommend that dual reporting lines be clearly delineated. Line ministries should be responsible for setting sectoral policies, including potential operational targets. Meanwhile, oversight units tasked with implementation of ownership policy, should be primarily responsible for financial oversight.

the FBiH government, not exposed to risk by its own account, and acts on behalf of the FBiH government, it should be classified as and included in general government.

***Investment and Development Bank of the Republika Srpska***

IDBRS has a broad mandate to manage government investments and support social and economic development, including the financial stability of the RS banking sector. It operates both as lending institution and a fund manager, which includes the oversight of SOEs. During 2006-2008, six funds were capitalized using privatization state asset sales proceeds (EUR 298 million). The 2015 FSAP established that the IDBRS has systemic importance in the BiH banking system because of its large exposure to the banking system and sizable direct lending programs. In 2015, assets under IDBRS management totaled some EUR 1.2 billion (around 25 percent of RS GDP or 1/3 of RS banks assets. (IMF 2015)).

The RS government has not designated a government agency to oversee the IDBRS to ensure that government assets are well-managed and to assess fiscal risks stemming from its operations. The IDBRS mandate is very broad, and no specific and quantifiable development objectives or investment performance targets exist. Like the FDB, management and supervisory board selection requirements are not aligned with those of private banks. Financial reporting is limited. While audited financial statements of the IDBRS are published, there are no consolidated audited annual financial statements that include operations of all six funds and disclose related-party transactions. The RS Supreme Audit Board has not audited the bank since 2012. IDBRS is fully funded by RS government assets, not exposed to risk by its own account, and acts on behalf of the RS government, and thus it should be classified as general government.

*SOE Board Appointments*

**In FBiH and RS central governments, supervisory and board members are nominated by line ministries and approved by cabinets.** While professional competency requirements for board member selection exist, there are no provisions requiring independence from political parties nor regulating conflicts of interest. In addition, competency requirements are perceived to be weakly defined.

*Policy Recommendations*

**The authorities can strengthen their ownership function as follows:**

- *Establish centralized entity online registers that are updated regularly and are easily accessible to the public.* In FBiH, the centralized register should broaden its scope by including not only SOEs owned by the central government, but also cantonal and municipal SOEs. In the RS, the register should be updated to reflect SOE ownership structure changes since the register was first published. Both registers should also disclose information about government ownership of minority stakes in other enterprises.

- *Adopt Ownership Policy documents that specify the rationale for state ownership, commercial and policy objectives, and responsibilities of government, SOE boards and management.* The sector wide and individual SOE documents could be adopted by the entity parliaments.
- *Enhance supervisory and appointment procedures by strengthening independence requirements.* While professional requirements for SOE board membership exist in both entities, strengthening independence requirements in line with OECD guidelines would help separate SOE performance and board decision making from the political cycle (OECD 2015). More specifically, OECD guidelines recommend that independent supervisory board members should be free of any material interests or relationships with the enterprise, its management, other major shareholders and the ownership entity (in this case the governments) that could jeopardize their exercise of objective judgement. In addition, safeguards should be put in place to avoid conflicts of interest and to limit political interference in board processes.
- *Establish centralized SOE oversight units.* The broad objective is to separate oversight from policy and regulatory functions that are exercised by line ministries. In FBiH, legislation is necessary to provide a more solid legal basis for the existing oversight unit to discharge its responsibilities. International experience suggests that centralized oversight units located in ministries of finance are better equipped to assess broader fiscal risks and budgetary implications (see below). Consideration should be given to including cantonal and municipal firms in the oversight umbrella, taking into account constitutional competencies. In the RS, a centralized oversight unit would help improve oversight of the IDBRS.

## **B. Financial Oversight**

**Both FBiH and RS exhibit large implementation gaps in conducting financial oversight of SOEs.** Financial and operational performance oversight of SOEs is not done in practice and there is no fiscal risk assessment framework that assesses SOE performance systematically as outlined in Section III. While the entity-level Supreme Audit Boards have the legal mandate to conduct financial audits of SOEs, audits are conducted only sporadically due to capacity constraints. There are legal provisions for the publication of externally-audited annual financial statements, but compliance is uneven, which undermines transparency. In FBiH, many financial statements are not publicly available. In addition, the Financial Intelligence Agency (FIA) charges fees to access SOE statements. In the RS, the Agency for Intermediary, IT and Financial Services (APIF) only publishes shortened (summary) financial statements free of charge, and charges fees to access full financial statements. Partly as a result of poor enforcement of financial disclosure requirements, more than 100 SOEs have not submitted financial statements to FIA and APIF recently, and thus no information on their performance is available. Moreover, the entity governments have never produced an SOE sector-wide annual report summarizing performance and outlining fiscal risks.

### *Policy Recommendations*

#### **The authorities can strengthen financial oversight as follows:**

- *Broaden the coverage of Supreme Audit Boards review to include large SOEs.* Audits by entity-level Supreme Audit boards can help increase scrutiny and accountability of SOEs because the Supreme Audit boards are specialized in auditing public institutions. As an initial step, the audit capacity of these institutions should be strengthened. Moreover, the Supreme Audit boards should receive all public sector annual financial statements on a timely basis. In the RS, the Supreme Audit Board should resume audit of the IDBRS and individual SOEs.
- *Publish all annual financial statements of SOEs in centralized websites for each entity.* This should include the approved business plan for each SOE. In light of the relatively high number of non-reporting SOEs, this requirement should be enforced.
- *Submit annual comprehensive SOE sector reports to entity parliaments describing recent financial and operational performance, and highlighting fiscal risks.*

#### **C. Fiscal and Policy Interactions with the Government**

**Significant public support is channeled to SOEs without pre-conditions through subsidies, grants, and quasi-fiscal means.** In 2017, the entity governments disbursed EUR 109 million (0.9 percent of GDP) in budgetary subsidies and grants. The stock of social contributions and direct tax arrears was approximately EUR 0.6 billion or 4 percent of GDP in 2017. Allowing SOEs to accumulate arrears on their tax obligations is a clear form of quasi-fiscal support, that has not been approved through the budget process.

**SOE dividends are distributed on an ad-hoc basis.** While SOEs distributed EUR 40 million in dividends in 2017 (see Section III), no formal dividend policies are in place. The absence of dividend policies impact SOE operations if the entity governments do not take into account financial performance, and operational and capital plans when requesting dividend payouts. Similarly, the absence of pre-committed parameters for dividend distribution add uncertainty and undermine medium-term budget planning for both governments and SOEs.

**The medium-term budget planning frameworks are hampered by the lack of formal fiscal risk assessments.** The entity MOFs do not conduct fiscal risks assessments that take into account the potential and planned financial interactions (explicit and implicit) between the governments and SOEs.

### *Policy Recommendations*

#### **The authorities can enhance transparency and predictability of fiscal links as follows:**

- *SOEs and Governments should formalize “arms-length” financial relations by following EU directives on State Aid.*<sup>25</sup> Budgetary support to SOEs should only be granted in exchange for ex-ante Public Sector Obligations (PSOs) that clearly specify the nature of the policy mandate mandated by the government (owner). This could also include ex-post assessments of SOEs compliance with PSOs.
- *Formal dividend policies would help increase transparency and predictability of dividend payments.* The dividend policies should condition dividend payouts on financial performance.
- *Fiscal risk assessments can be conducted by centralized oversight units.* The assessments should be included in medium-term budget planning documents and budget execution reports sent to parliament.

## V. OPTIONS TO IMPROVE SOE SECTOR PERFORMANCE

**Given the large footprint of SOEs in the BiH economy, their impact on competitiveness, their financial weakness, and the elevated fiscal risks, additional measures should be considered in addition to enhancements in the ownership functions.** First, the rationale for state ownership should be clarified by the two entity governments in Ownership Policy Documents. In this respect, the FBiH and RS central governments have designated strategic companies, but no ex-ante criteria or rule is used to determine this designation. Thus, in practice, the “strategic” designation is perceived to be arbitrary. Second, the authorities should consider options for the future of each SOE based on a systematic decision-making process that is disclosed to the public. This process should be based on assessments of financial soundness and policy objectives for each SOE.

**The financial soundness assessment introduced in Section III can be broadened to include forward-looking projections, benchmarking with international peers, and impact on the rest of the economy:**

- *Introducing a forward-looking financial and operational assessment:* The financial ratio analysis based on profitability, leverage, and liquidity is backward looking and does not take into consideration other factors that may be relevant to determine the viability of SOEs. Therefore, this analysis could be enhanced by including forward looking financial projections and analysis of business plans that include the assessment of market conditions. For example, some SOEs may be insolvent, but might be restructured (including with new private capital) to regain commercial viability.
- *Using international benchmarks:* In some sectors, an international benchmarking of SOEs with private companies operating in neighboring countries could help identify relative operational and financial weaknesses of domestic SOEs. For example, while the two state-owned telecom

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<sup>25</sup> See [http://ec.europa.eu/competition/state\\_aid/overview/state\\_aid\\_procedures\\_en.html](http://ec.europa.eu/competition/state_aid/overview/state_aid_procedures_en.html), for a description of the EU state-aid framework.



companies in FBiH are financially solvent, their operational performance and investment plans appear to compare poorly to private telecoms in neighboring countries.

- *Assessing the impact of SOEs in the rest of the economy:* Poorly performing SOEs can impact the rest of the economy through their interactions with private sector firms and the public sector. Subsidies give competitive advantage to SOEs over the private sector, and SOEs may also lobby governments to block private competitors' entry into markets. In terms of interactions with the private sector, poor quality and relatively high cost provision of inputs to private firms impacts private sector competitiveness. For example, the SOE wage premium may boost wages in the entire economy. Meanwhile, tax and social contributions arrears impact public sector service provision and undermine budgetary stability. Furthermore, governments' tolerance of tax arrears by SOEs puts SOEs at a comparative advantage over competing private sector firms and creates systemwide liquidity constraints.

**The rationale for SOE ownership should be based on clearly defined policy objectives.**

Public ownership of SOEs could be justified for sectors where market failures exist, such as transportation or energy provision in small local communities. Still, market failure could also be potentially addressed by providing budgetary support to private companies in return for PSOs, or by establishing Public Private Partnerships (PPPs), while previously conducting a rigorous assessment of the potential fiscal risks and costs. Similarly, state ownership of weapons production companies might be justified on security grounds.

**The authorities should consider several options for the future of SOEs.** These options will depend on the potential financial viability and policy objectives criteria for each individual SOE summarized in Table 6.

**Table 6. Decision Matrix**

|                     |                      | Policy Relevance    |                                |
|---------------------|----------------------|---------------------|--------------------------------|
|                     |                      | Not policy relevant | Policy relevant                |
| Financial Viability | Financially viable   | Privatize           | Retain as SOE, Enter PPPs      |
|                     | Financially unviable | Shut down           | Convert into government agency |

Source: Adapted from Allen and Alves (2016).

## *Privatization*

**Privatization can be considered when there is no policy rationale for continued public ownership.** If the SOE is not financially sound but potentially financially viable, privatization could improve financial and operational performance. As part of the privatization process, a credible restructuring process that includes budgetary support may be needed to put the SOE back on a sustainable financial footing and to maximize market value. In case the SOE is already financially sound, the timing and privatization process are still important to maximize the sale price, and in return strengthen the government balance sheet.

**Privatization can result in improved economic performance and stronger governance, in the context of broader economic reforms and under the appropriate circumstances.**<sup>26</sup> There is strong microeconomic evidence suggesting that private companies operate more efficiently than SOEs, particularly in competitive industries. At the macro level, there is strong correlation between privatization and growth. The fiscal impact also tends to be positive over time; revenues increase, transfers and quasi-fiscal operations decline markedly, especially if privatization leads to efficiency improvements. While aggregate unemployment typically decreases following privatization, some workers may be negatively affected. In this regard, countries that have privatized successfully have often also embarked on broader economic reforms and have introduced measures to mitigate the social impact of privatization on vulnerable groups.

**A package of broader institutional reforms that fosters transparency can help ensure that privatization does not lead to increased concentration of resources and inequality (IMF 2017).** More equal distribution of resources and transparency are among the factors that helped Eastern European new member states speed up convergence with the European Union. The manner in which privatizations in Eastern European countries were implemented have had a major impact on whether a few dominant players emerged or more balanced economic structures prevailed. In contrast, past privatization attempts in Bosnia and Herzegovina are perceived to have resulted in increased concentration of resources. In order to avoid a repeat of past experience, stronger emphasis should be placed on policies that ensure a level playing field, such as stronger enforcement of competition rules, lower trade barriers, and redistributive fiscal policies that promote equality of opportunity. Transparency enhancement measures should not only be limited to the SOE sector, but also apply to fiscal reporting, financial disclosure of public officials, and disclosure of private sector financial statements and ownership structures.

**Tailored measures to mitigate the impact of privatization on vulnerable groups should be implemented in parallel.** Careful assessments of the impact of each privatization should be conducted to identify the “winners” and “losers”. Retraining programs, expanded social safety nets, or, as a last resort, transition pension arrangements, may be needed for workers that lose their jobs. Active labor market policies and local economic development projects may soften the impact on communities where SOE closures or privatizations take place.

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<sup>26</sup> This paragraph summarizes the findings on IMF 2000.

**The privatization process should be transparent, and proceeds need to be used prudently.**

Privatization proceeds should be reported, audited, and subject to parliamentary oversight. Earmarking of particular expenditures should be avoided because it complicates fiscal management by making it difficult to adjust in response to unexpected changes in circumstances. Privatization proceeds are one-off and a form of financing and therefore should not lead to increased current spending. The focus should be on priority investment spending, as set forth in entities' single project pipelines.

*Continued State Ownership*

**Governments could retain SOE ownership, if there is potential financial viability and a clear policy rationale for public ownership.** Restructuring may be possible under certain conditions for a financially unsound company that is potentially financially viable. In this respect, there should be a credible restructuring to put the SOE back on a sustainable financial footing including possible budgetary support. In parallel, fiscal risks should be reduced after restructuring. The government could also provide fiscal support if necessary in return for a PSO.

*Concessions/Public Private Partnerships*

**Concessions and PPPs could be potential alternatives to SOEs in certain cases.** If there is a policy rationale for state participation in fostering development of some sectors or projects, financial soundness and operational efficiency could be enhanced with private sector resources and management (for example – energy infrastructure, road construction, public transportation, natural and historical preservation). As concessions and PPPs are risk-sharing agreements, fiscal risks need to be clearly identified, disclosed, and costed in the budget.

*Bankruptcy*

**If an SOE does not have a policy rationale, is insolvent and is not viable even with restructuring, it should enter into bankruptcy procedure.** In parallel, vulnerable groups and communities affected by the bankruptcy should be identified and targeted measures to mitigate the negative impact on these groups should be introduced.

*Conversion to Government Agency*

**SOEs that do not perform commercial functions nor are financially viable should be converted into government agencies.** An SOE that is not solvent nor potentially financially viable but performs a government policy function should be incorporated into the general government as a budgetary unit. For example, the entity highway companies are highly leveraged, implement long-term strategic decisions of the governments (building highway infrastructure), and their debts are guaranteed by the entity governments. Financially unviable SOEs require continued government support and debts are implicitly and/or explicitly guaranteed by the government. Therefore, the government bears the fiscal risks of its eventual insolvency, which should be brought into the general government balance sheet to ensure transparency. Furthermore, insolvent companies that perform a policy function in practice also follow government directions. Moreover, the classification of these operations as SOEs adds

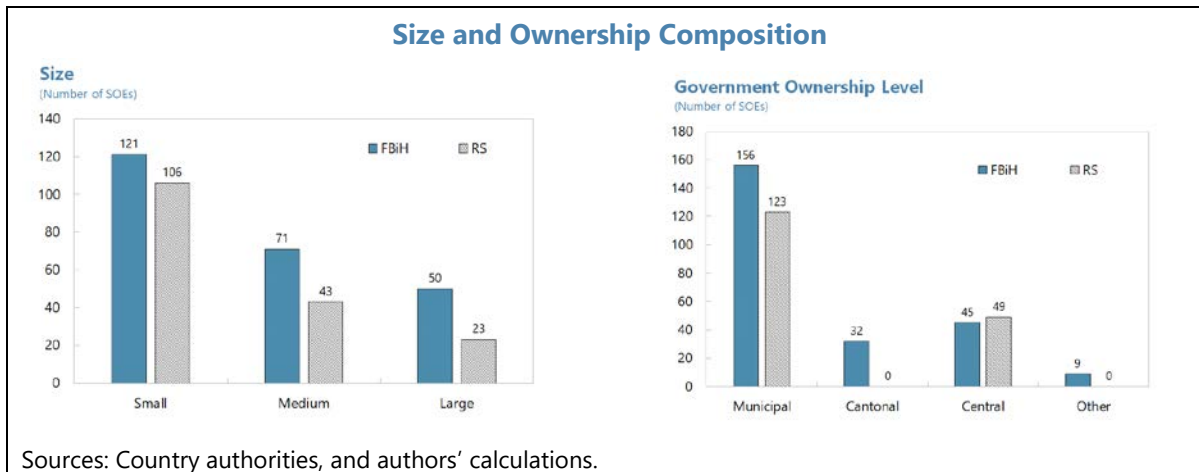
another layer to budgetary fragmentation. Thus, accountability for their operations and financial performance are better placed inside the government. Integrating these SOEs into the general government is likely warranted.

## VI. CONCLUSION

**Reforms to the entities' governance frameworks are necessary to foster transparency and improve accountability.** The authorities should establish centralized online SOE registers that include all SOEs owned by entity central, cantonal, and municipal governments. The registers should be updated regularly and include financial statements of all SOEs. Entity, cantonal and municipal governments should put in place Ownership Policy documents for their respective SOE sectors that specify the rationale for state ownership, commercial and policy objectives, and delineate the responsibilities of the governments and SOE management and supervisory boards. Policies to depoliticize appointments to SOE boards and management could help improve SOE performance. Financial oversight could be improved by setting up centralized oversight units at ministries of finance. Fiscal risks arising from SOEs should be disclosed. Lastly, budgetary support should only be granted with explicit conditions in return for ex-ante Public Sector Obligations provided by SOEs and quasi-fiscal subsidies through tax and SSC arrears should not be tolerated.

**In the context of a wider-reform effort, the authorities should consider the future of SOEs taking into account their policy relevance and financial performance.** SOEs that are not policy relevant and financially unsound, should be closed, restructured or privatized. Meanwhile, SOEs that are not policy relevant but are financially sound should be privatized. Options for privatization include concessions, Public-Private Partnerships (PPPs) or full privatization. As part of this process, the authorities should identify vulnerable groups that might be negatively affected by privatization and implement measures to mitigate possible social impact, such as employment support and possibly social safety net measures. Proceeds from privatization are a form of financing and should be reported, audited, and subject to parliamentary oversight.

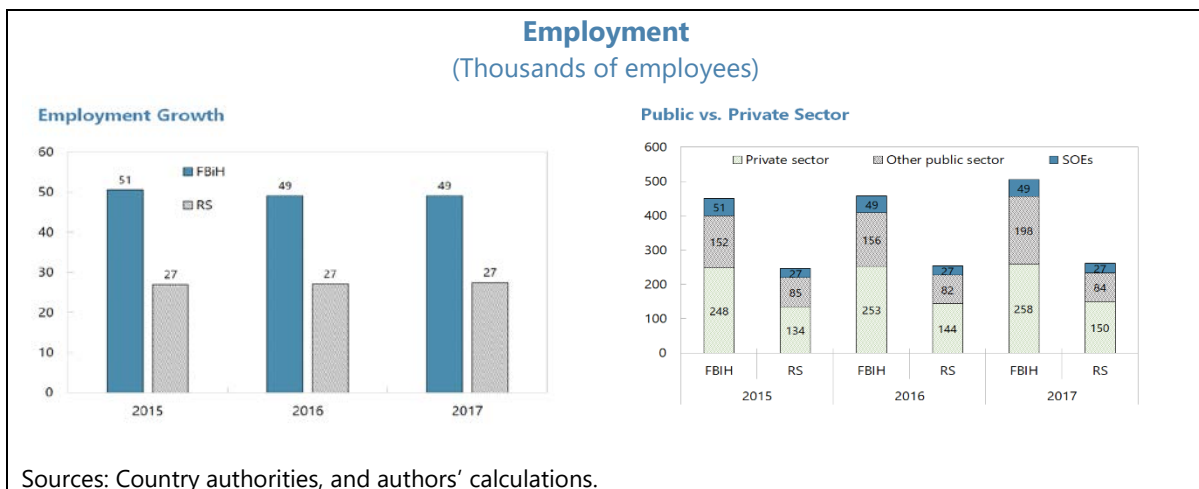
## ANNEX I. Descriptive Statistics by Entity

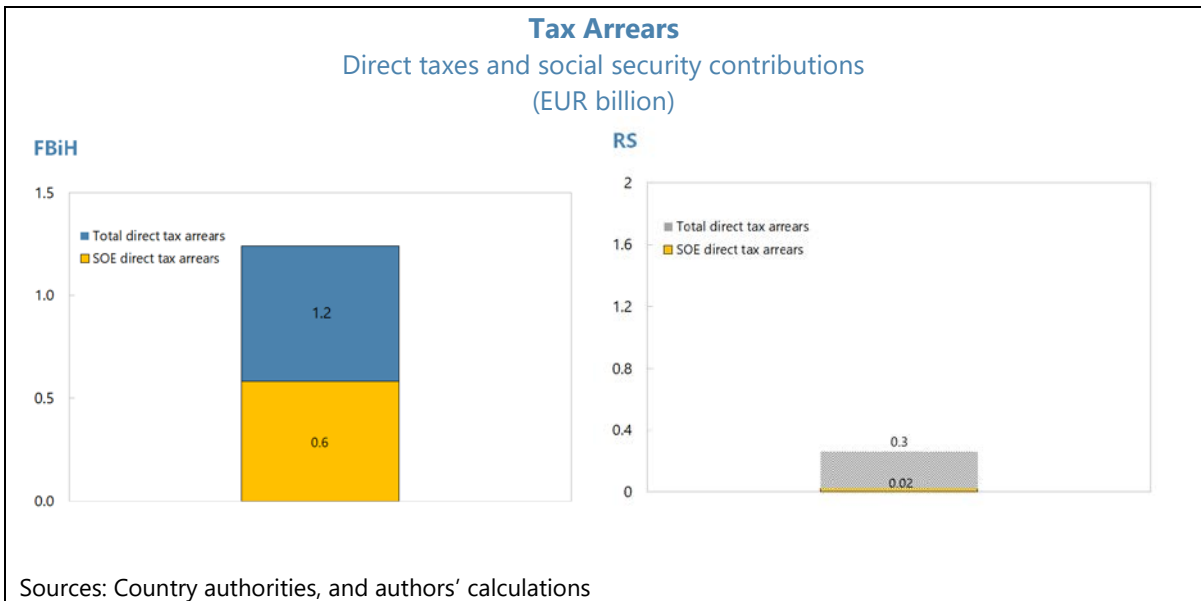
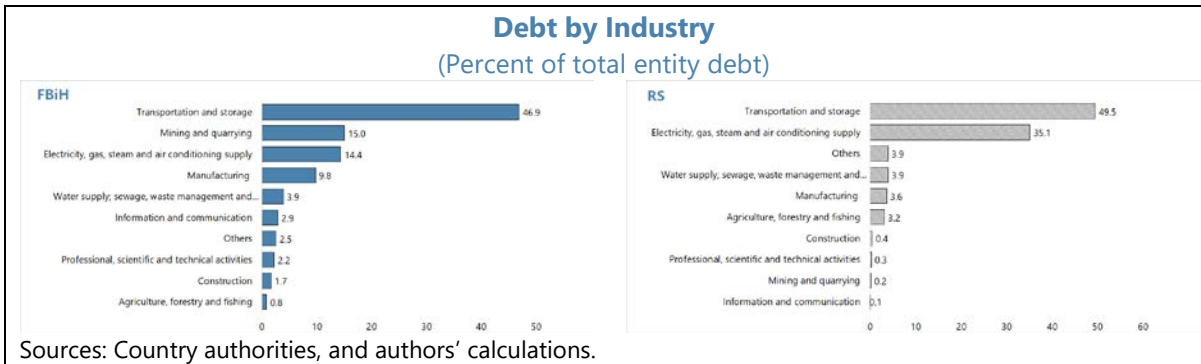
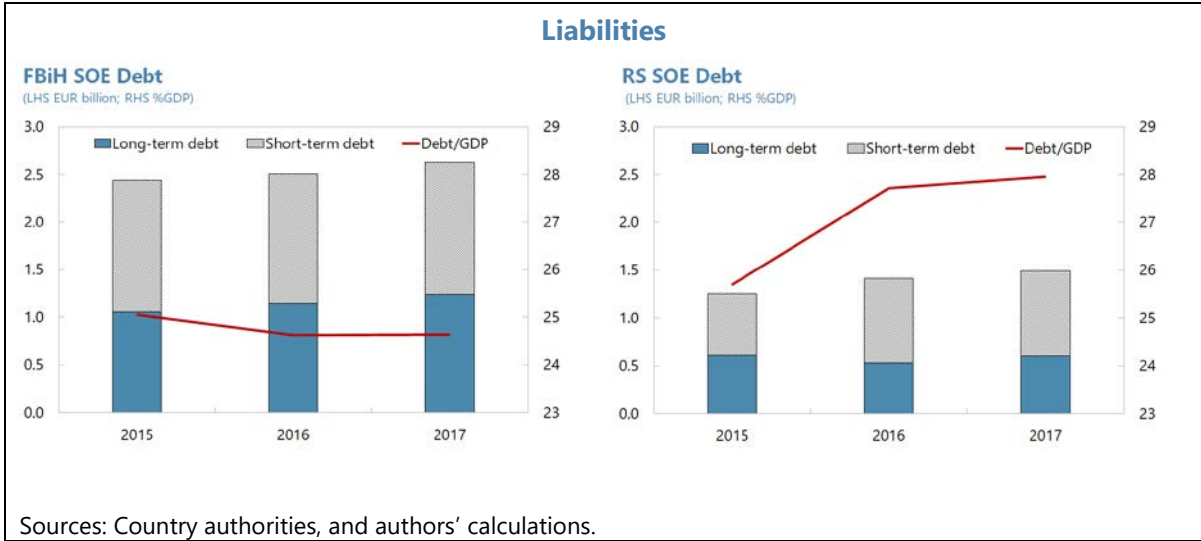


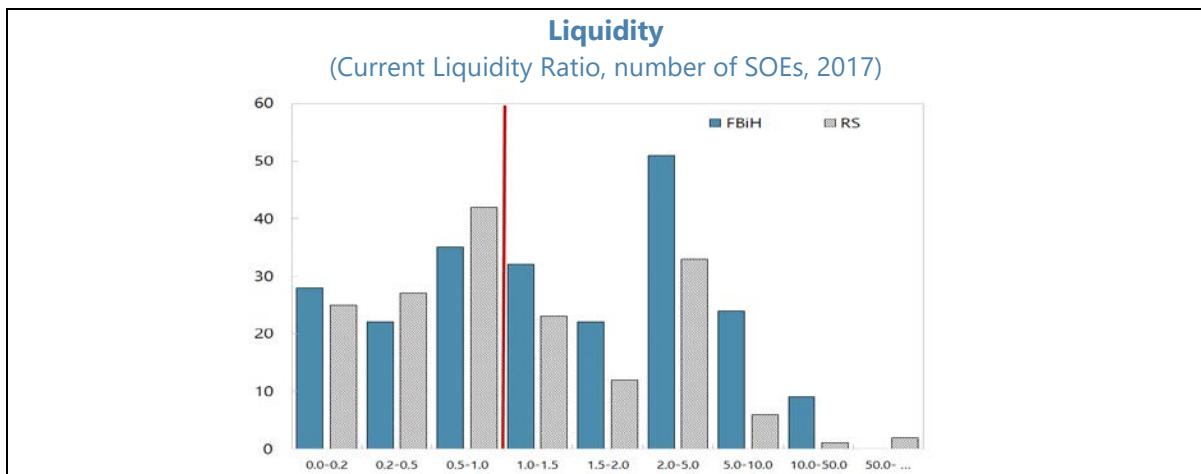
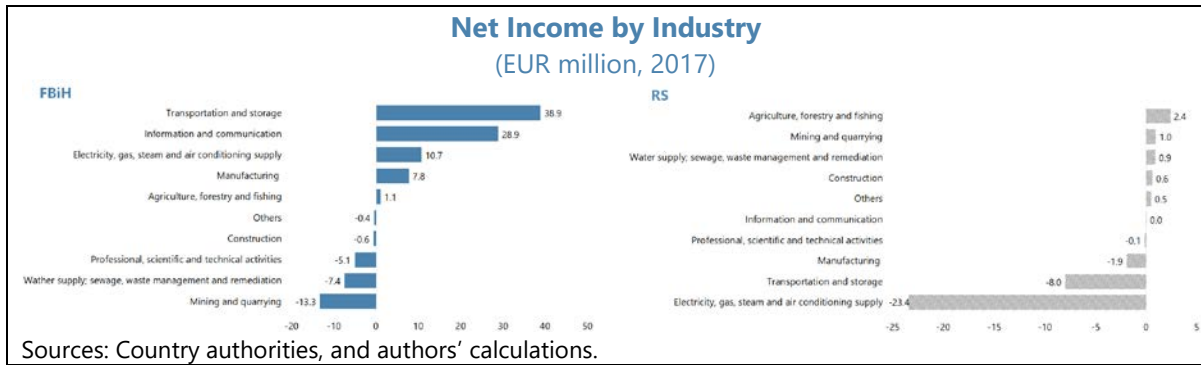
### Sectorial Distribution, 2017

| Industry  | Number of SOEs |            | Assets (EUR mill) |                | Revenues (EUR mill) |                | Employees     |               |
|---|----------------|------------|-------------------|----------------|---------------------|----------------|---------------|---------------|
|   | FBiH           | RS         | FBiH              | RS             | FBiH                | RS             | FBiH          | RS            |
| Agriculture, forestry and fishing                                   | 13             | 4          | 499.3             | 137.6          | 90.6                | 102.7          | 4,220         | 4,906         |
| Mining and quarrying  | 9              | 3          | 697.6             | 47.2           | 261.6               | 2.2            | 11,453        | 47            |
| Manufacturing   | 19             | 12         | 490.6             | 107.1          | 126.2               | 25.0           | 3,330         | 1,197         |
| Electricity, gas, steam and air conditioning supply                 | 10             | 22         | 2,582.1           | 3,120.3        | 890.1               | 636.7          | 7,697         | 9,609         |
| Water supply; sewage, waste management and remediation              | 88             | 80         | 715.6             | 234.9          | 143.8               | 64.7           | 6,815         | 3,888         |
| Construction  | 10             | 4          | 51.3              | 9.1            | 12.1                | 16.7           | 522           | 98            |
| Wholesale and retail trade; repair of motor vehicle and motorcycles | 6              | 4          | 88.9              | 12.1           | 17.0                | 22.1           | 456           | 202           |
| Transportation and storage  | 10             | 9          | 3,260.1           | 2,275.9        | 233.1               | 157.2          | 6,703         | 5,634         |
| Accommodation and food service activities                           | 1              | 2          | 3.0               | 32.1           | 0.5                 | 4.4            | 19            | 193           |
| Information and communication                                       | 26             | 12         | 845.7             | 6.3            | 410.3               | 4.4            | 6,216         | 236           |
| Financial and insurance activities                                  | 1              | 0          | 1.3               | 0.0            | 1.2                 | 0.0            | 28            | 0             |
| Real estate activities  | 5              | 2          | 20.4              | 21.8           | 2.9                 | 1.4            | 132           | 49            |
| Professional, scientific and technical activities                   | 32             | 6          | 112.9             | 9.8            | 70.8                | 6.3            | 681           | 343           |
| Administrative and support service activities                       | 1              | 0          | 0.1               | 0.0            | 0.2                 | 0.0            | 15            | 0             |
| Public administration and defense; compulsory social security       | 0              | 0          | 0.0               | 0.0            | 0.0                 | 0.0            | 0             | 0             |
| Education   | 1              | 0          | 0.8               | 0.0            | 0.0                 | 0.0            | 6             | 0             |
| Human health and social work activities                             | 0              | 1          | 0.0               | 2.3            | 0.0                 | 0.6            | 0             | 51            |
| Arts, entertainment and recreation                                  | 9              | 6          | 32.6              | 56.2           | 19.0                | 18.7           | 605           | 759           |
| Other service activities  | 1              | 5          | 11.6              | 1.6            | 5.0                 | 2.1            | 188           | 170           |
| <b>Total</b>  | <b>242</b>     | <b>172</b> | <b>9,413.9</b>    | <b>6,074.3</b> | <b>2,284.4</b>      | <b>1,065.2</b> | <b>49,086</b> | <b>27,382</b> |

Sources: Country authorities, and authors' calculations







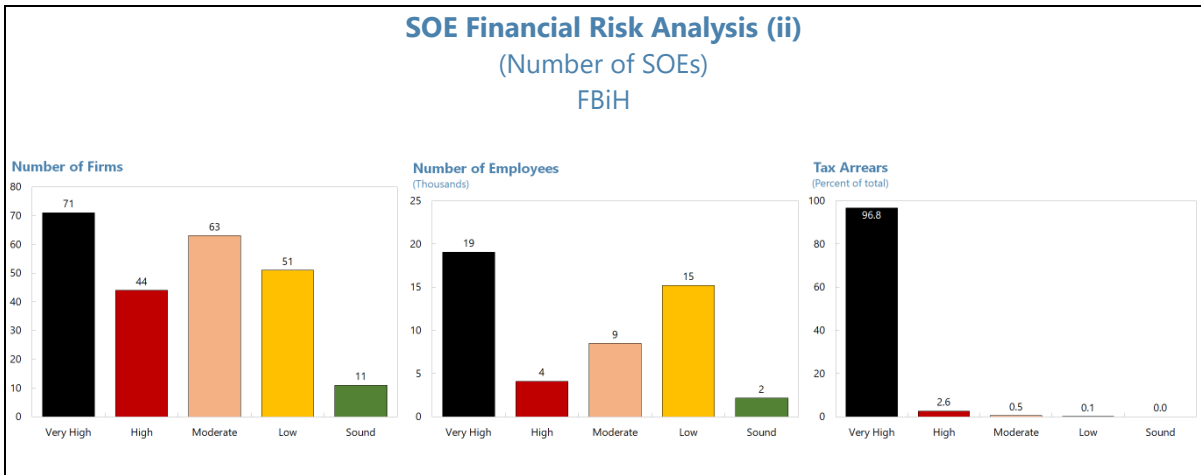
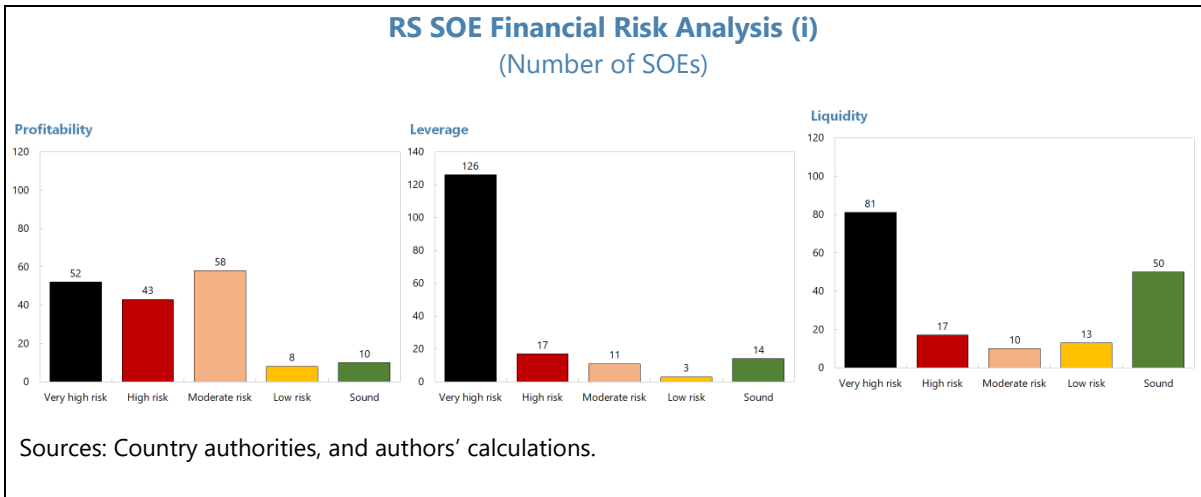
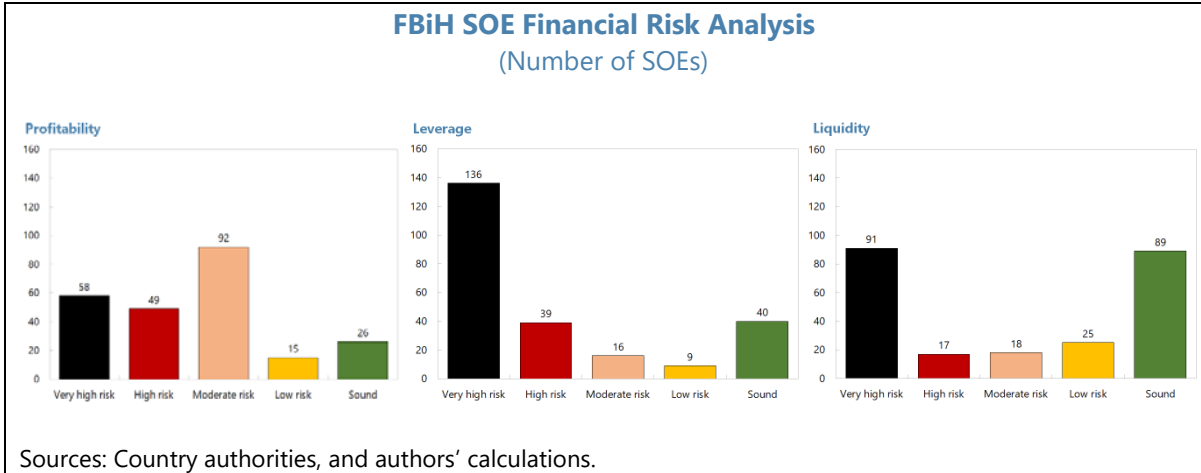
### SOE Dividend Issuers, 2017 (Above EUR 0.1 million)

| FBiH  | EUR mill | RS   | EUR mill |
|---|----------|--|----------|
| BH Telecom  | 34.5     | Autoputevi RS (RS highway company)                         | 2.1      |
| Elektroprivreda BiH (BiH electricity company)                   | 2.6      | Gas-Res (gas project company)                              | 0.2      |
| Unis-Ginex (chemical products industry)                         | 0.7      | Hidroelektrane na Trebisnjici (hydroelectric power plants) | 0.2      |
| Igman Konjic (military industry)                                | 0.6      | Gas Promet Pale (import, supply and transport of gas)      | 0.1      |
| Vodovod i kanalizacija Zenica (water supply and sewage, Zenica) | 0.2      |  |          |

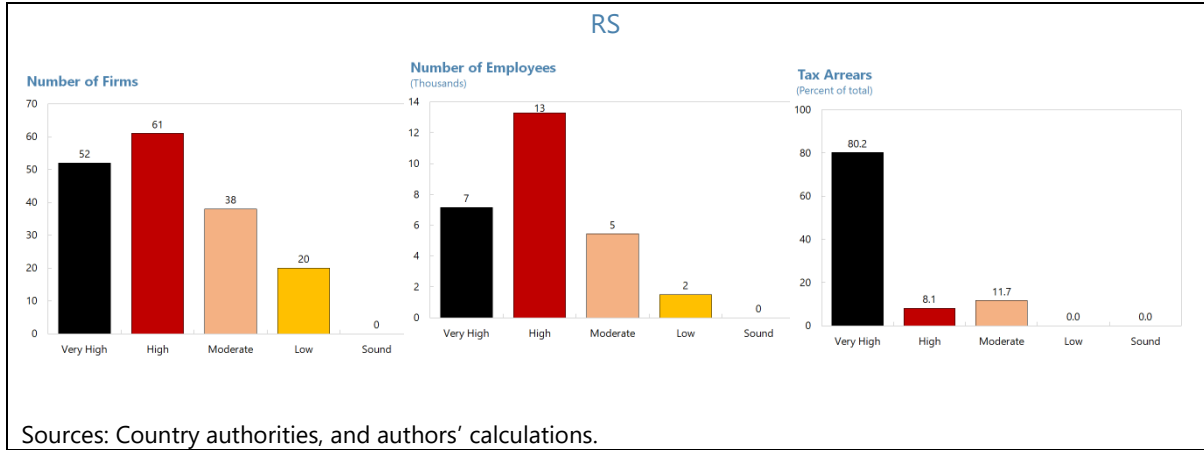
### SOE Financial Ratio Analysis

| FBiH | 2015 |             |     | 2016 |      |             | 2017 |      |     |             |      |     |      |
|------|------|-------------|-----|------|------|-------------|------|------|-----|-------------|------|-----|------|
|      | ROE  | Debt/EBITDA | CLR | ROA  | ROE  | Debt/EBITDA | CLR  | ROA  | ROE | Debt/EBITDA | CLR  | ROA |      |
|      | -1.2 | 8.2         | 0.8 | -0.8 | -0.8 | 14.9        | 0.9  | -0.6 | 0.1 | -0.4        | 9.4  | 0.7 | -0.3 |
|      | 0.1  | 7.1         | 0.8 | 0.1  | -0.4 | 9.4         | 0.7  | -0.3 | 1.0 | -0.7        | 10.0 | 0.6 |      |
|      | 1.0  | 6.7         | 0.9 | 1.0  | -0.7 | 10.0        | 0.9  | 0.6  |     |             |      |     |      |

Sources: Country authorities, and authors' calculations.







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FBiH Tax Authority: <http://www.pufbih.ba/v1/>

Financial-Intelligence Agency of Federation of the BiH: <https://fia.ba/>

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Regulation on Exercising Authority in Companies with Share of State Capital from Jurisdiction of FBiH, FBiH Official Gazette, 20/16, 3/17, 9/17, and 69/17.