THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

Understanding the Impact of SOEs Presence on Market Dynamism in ECA: Recent Evidence and Policy Implications

Mariana Iootty (Senior Economist, EECF1)

January 22nd, 2024

Business dynamism is influenced by multiple factors, including government interventions. The direct involvement of SOEs in markets is one such factor.

Business dynamism results from the interaction of various factors, including:

Inherent market features

(economies of scale, vertical integration, existence of multi-market contacts, etc)

Firm behavior

(including responsiveness to shocks + workers/manager skills/talent + firm distance to technological frontier)

Nature of new technologies (and their diffusion)

Finance

(especially risk K to finance new ideas)

Government interventions

Direct role

Government as a market player (SOE)

Indirect role

i) Government as a regulator (economy-wide + sectoral)

(ex-ante) rules/conditions for firms to enter and compete in markets

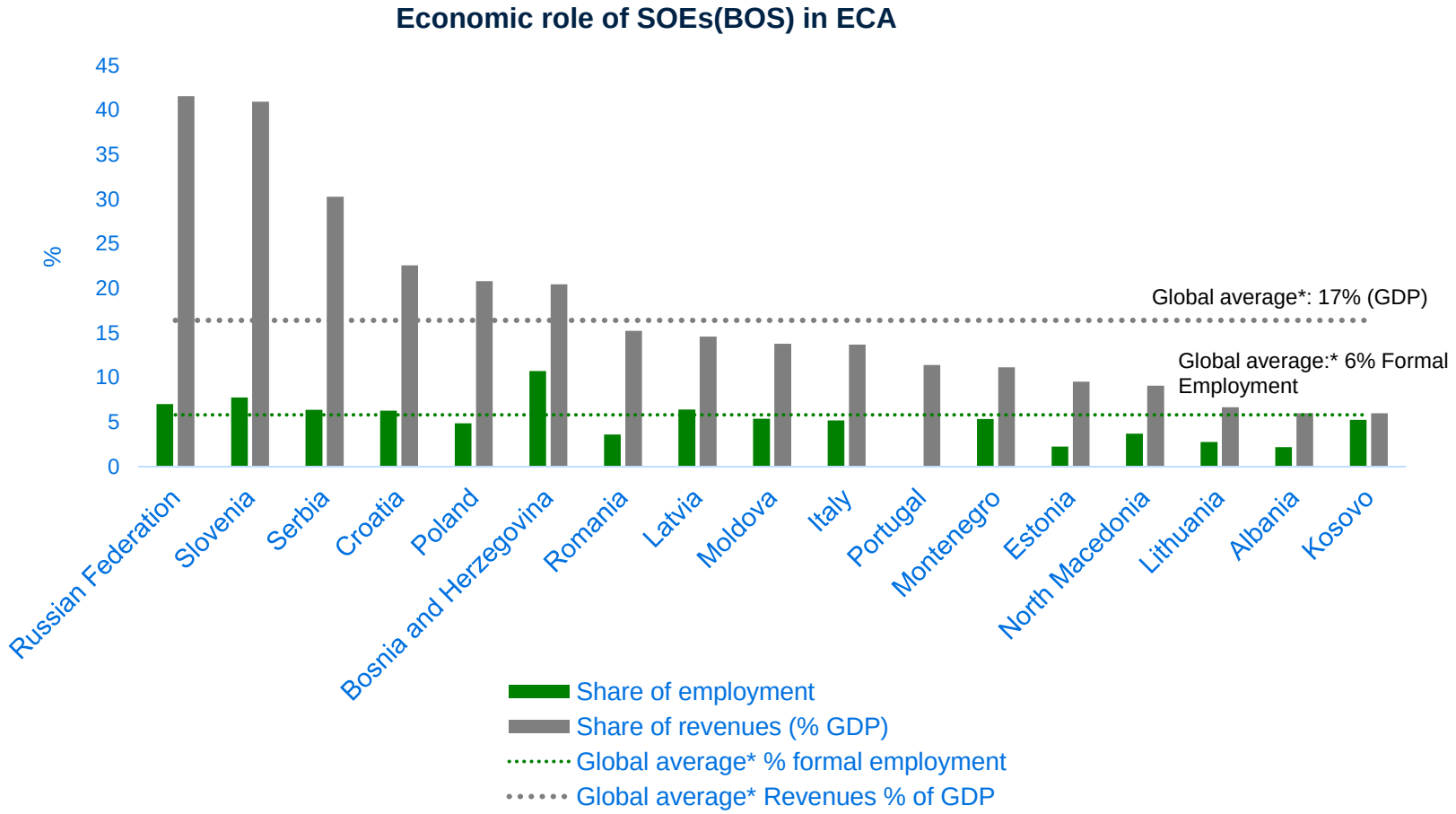
ii) Government as a referee

Addressing firm's anticompetitive behavior (ex-post)

iii) Tax, subsidies

- The presence of SOEs (and the rules governing their behavior) is a crucial policy domain in ECA.
- Reflects the legacy of an unfinished market transition

Thanks to the new BOS dataset, we now have a comprehensive view of SOE footprint in ECA.



- **ECA region is home to more than 53 k BOS (i.e. SOEs >10% ownership, including indirect ownership) spread across 21 countries**
  - Russia accounts for more than half of all such firms
- **SOEs/BOS presence in ECA (in terms of revenue and employment shares) is comparable to the world average.**
  - SOEs revenue represent 18% of GDP in ECA; SOEs employment 5% of formal workers in ECA
- **But there is huge variation within the region**
  - SOEs/BOS revenues over GDP ranges from 5 % (Lithuania) to over 40 % (Russia)
  - SOEs/BOS employment share ranges from to 2% (Estonia) to 11 % in Bosnia and Herzegovina

Source: Global Businesses of the State (BOS) database.
Note: Countries in figure and averages only include ECA countries out of 94 in the database, for which at least 70% of the BOS report information of revenues and employment to ensure proper comparisons.

Notable innovations from the BOS dataset include:

- **Go beyond standard SOE mapping**; include minority owned firms (state ownership >=10%), SOEs that are indirectly owned as well as SOEs run by local governments.
- **We refer to all such firms as businesses of the state (BOS).**

Key insights for ECA:
(1) more than half of SOEs operate in sectors classified as *competitive*, where private sector operation is viable

Distribution of SOEs(BOS) in ECA, by sector taxonomy

Source: Global Businesses of the State (BOS) database.

✓ **Two of every 3 SOEs in ECA operate in competitive sectors that account for about 38% of the total employment and 42% of the revenues among SOEs**

Examples: management of real state, manufacturing of transportation equipment, storage services, hospitality services, construction.

BOS dataset- sector taxonomy

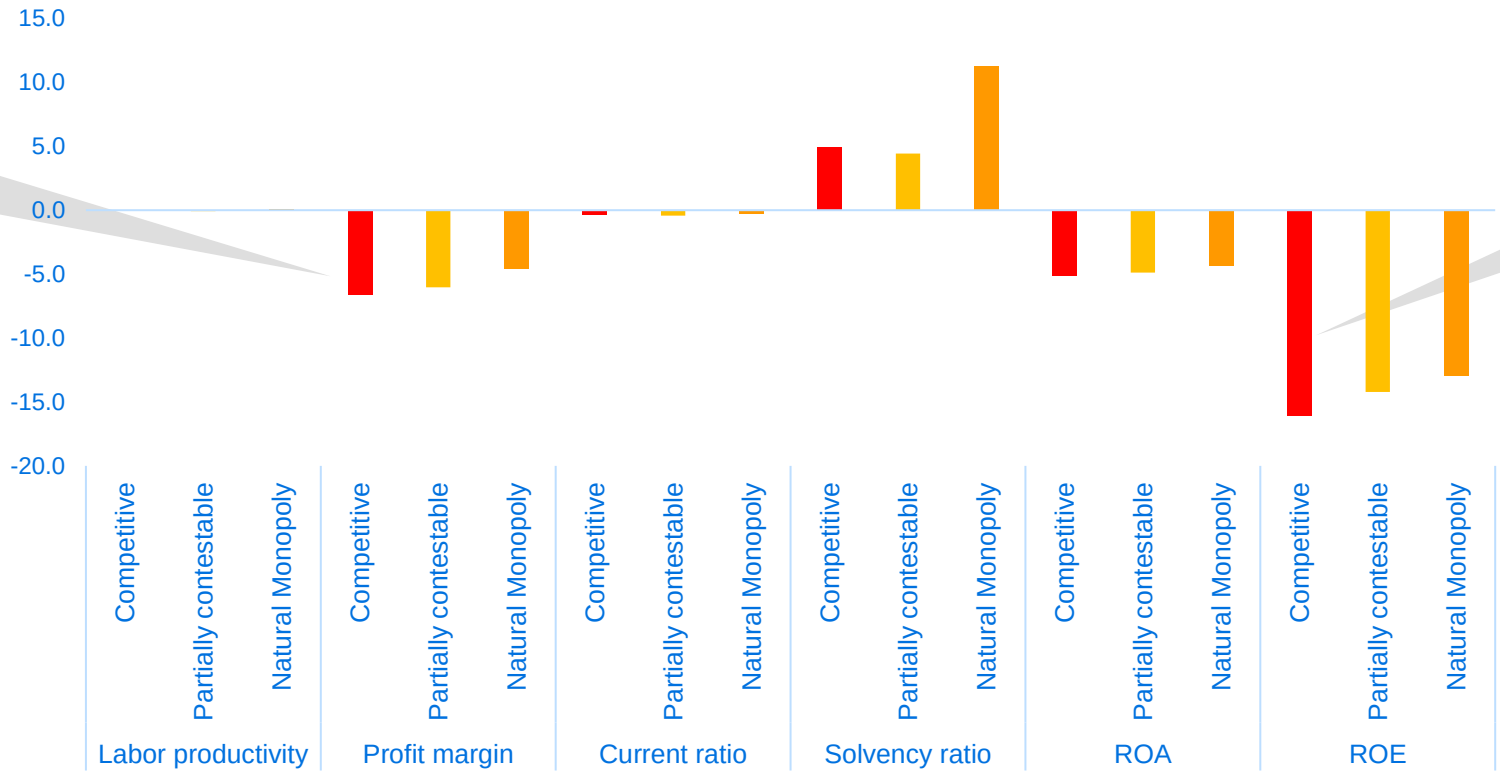
- **NACE-4 digit mapping based on industries technological features and market failures**
- **Competitive sectors: activities that can be efficiently provided by the private sector** (little to no entry barriers and are commercially viable for multiple firms to operate). Examples: Manufacturing of food, manufacturing of apparel
- **Partially contestable: activities that exhibit some market failures (such as externalities) that may lead to under provision of service**. Examples: aviation and banking
- **Natural monopolies: activities that are not economically viable for more than one operator** (high entry barriers, scale economies, or sub-additivity cost structures. Examples: water distribution; electricity transmission

(2) On average, when compared to private peers, SOEs underperform in terms of profitability and returns of investments, particularly for those operating in *competitive* sectors

Average performance of SOEs (BOS) relative to private-owned companies in ECA (16 countries), by sector taxonomy

Profit margins about 6.6 p.p. lower for SOEs in competitive sectors vis-à-vis a private peers.

Returns per USD invested in equity are about 15 p.p. lower vis-à-vis private peers

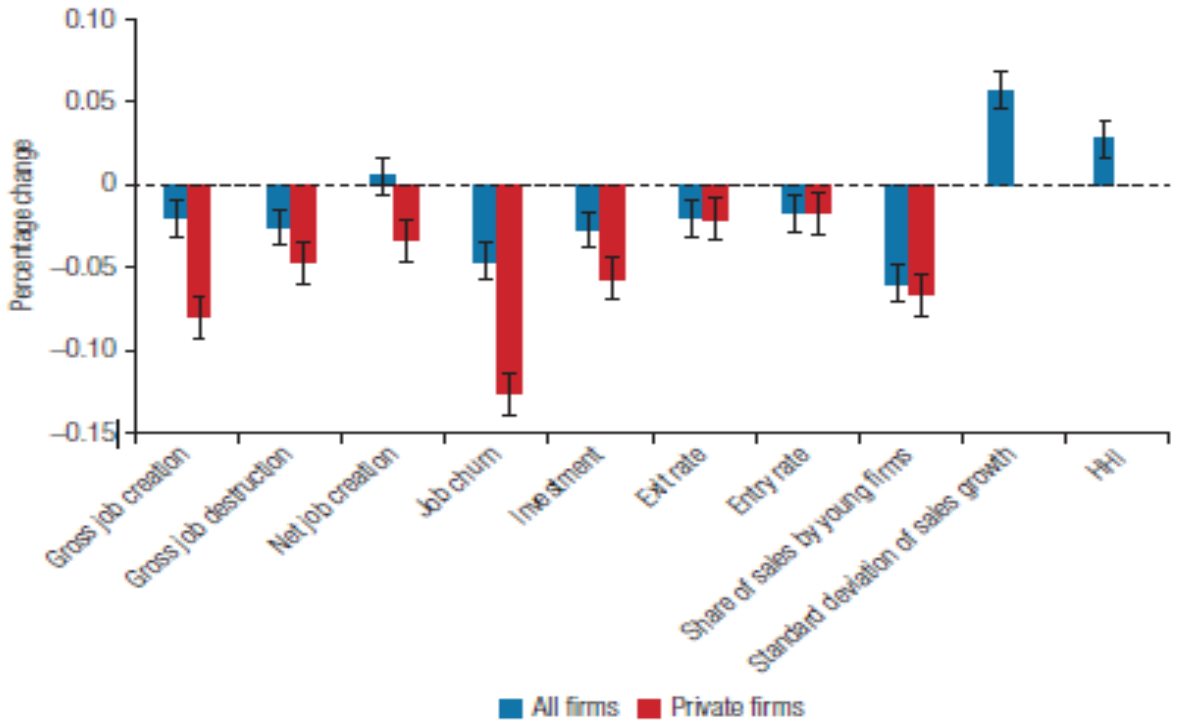


Source: Sanchez-Navarro, D. (forthcoming). *What happens when the State is bossing around markets? An analysis of the performance differentials between Businesses of the State (BOS) and private-owned enterprises (POEs).*

Note: The bars represent average marginal effects, and the black lines refer to the confidence intervals at 5% significance levels. Country coverage: Bosnia and Herzegovina, Bulgaria, Estonia, Spain, Croatia, Italy, Lithuania, Latvia, North Macedonia, Poland, Portugal, Romania, Russian Federation, Serbia, Slovenia, and Ukraine.

(3) On average, business dynamism is lower when the presence of the state is greater

Average impact of SOEs (BOS) share in markets on business dynamism in 14 ECA countries

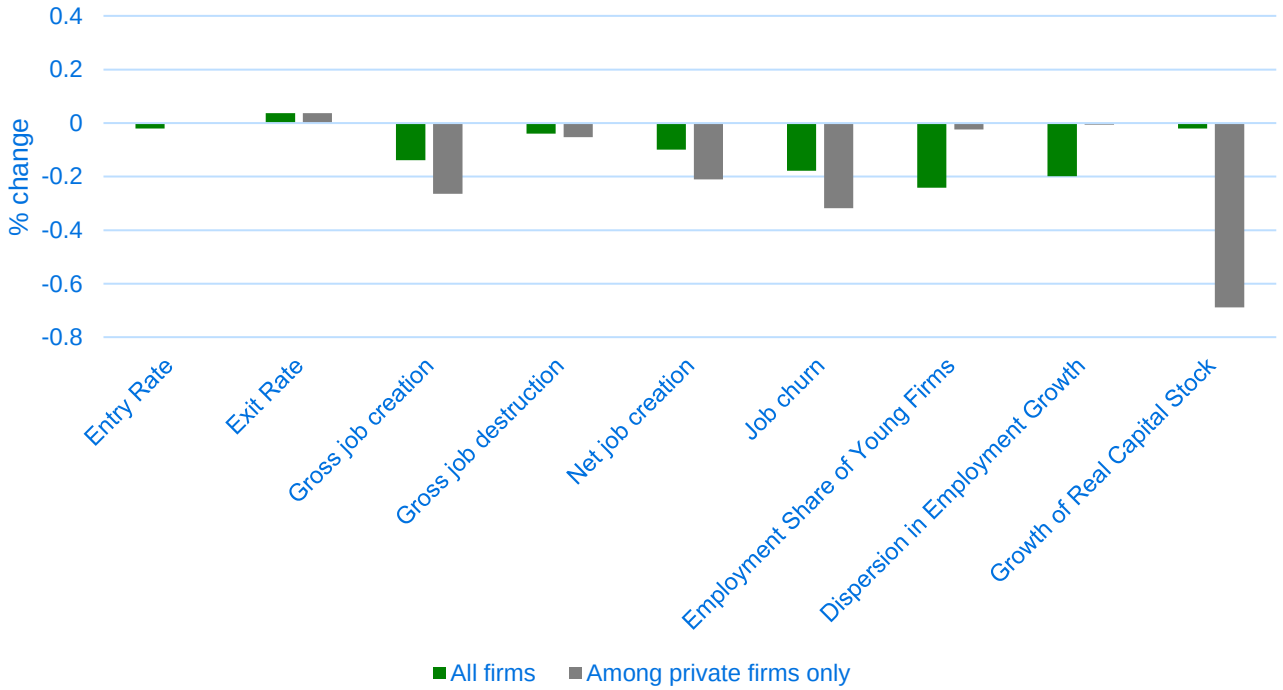


- ✓ **For instance, the greater the SOE market share in a sector…**
  - ✓ **the lower the net job creation and job reallocation, particularly among private firms**
  - ✓ **the lower share of economic activity accounted by young firms**

Source: World Bank (2023). *The Business of the State*.
Note: Coefficients on the market share of BOSs in a two-digit sector for each of the outcomes run separately, controlling for sector's size over time, sector, taxonomy, country, and year fixed effects. The error bars provide the 95 percent confidence interval around the estimated effect. If the error bars cross the x-axis, the result is not statistically significant at the 5 percent level.
Country coverage: Bosnia and Herzegovina, Bulgaria, Estonia, Croatia, Italy, Latvia, Lithuania, Montenegro, North Macedonia, Romania, Poland, Romania, Serbia, and Slovenia

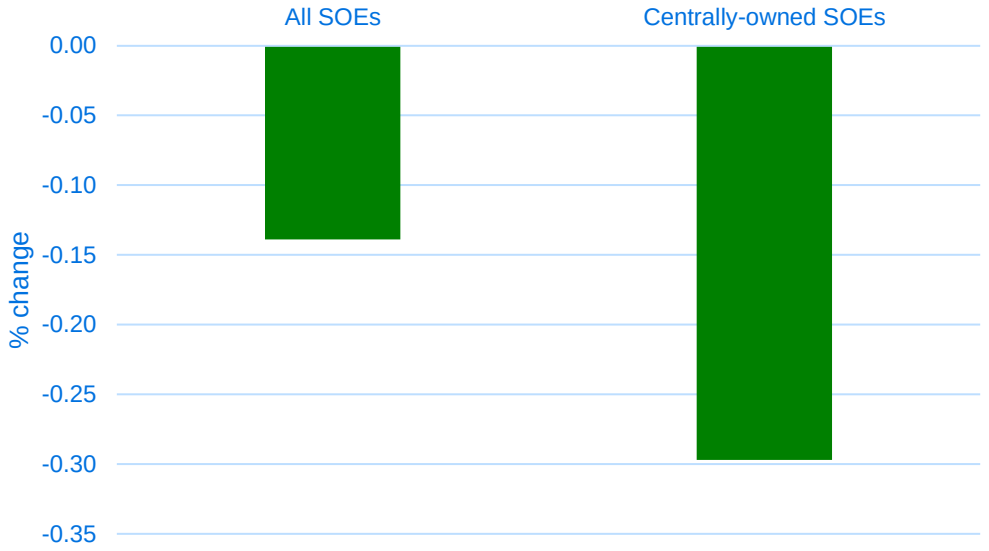
But country specific examples reveal some nuances….
(4) In the Kyrgyz Republic, the state presence in markets is indeed associated with lower business dynamism (specially among private firms) and lower allocative efficiency

Average impact of SOEs share in markets on business dynamism in the Kyrgyz Republic; 2010-2022



Source: Kyrgyz Republic CEM (forthcoming) - Competition chapter; WB staff elaboration based on Kyrgyz National Stats Committee administrative data (for non-agriculture sector)
Note: The bars in the visual representation correspond to coefficients on the SOEs (employment based) market share in a NACE 2-digit sector. These coefficients are derived from regressions where specific business dynamism measures serve as the outcome variables. The regressions control for average firm size and age, sector's size, NACE 2-sector, year fixed effects

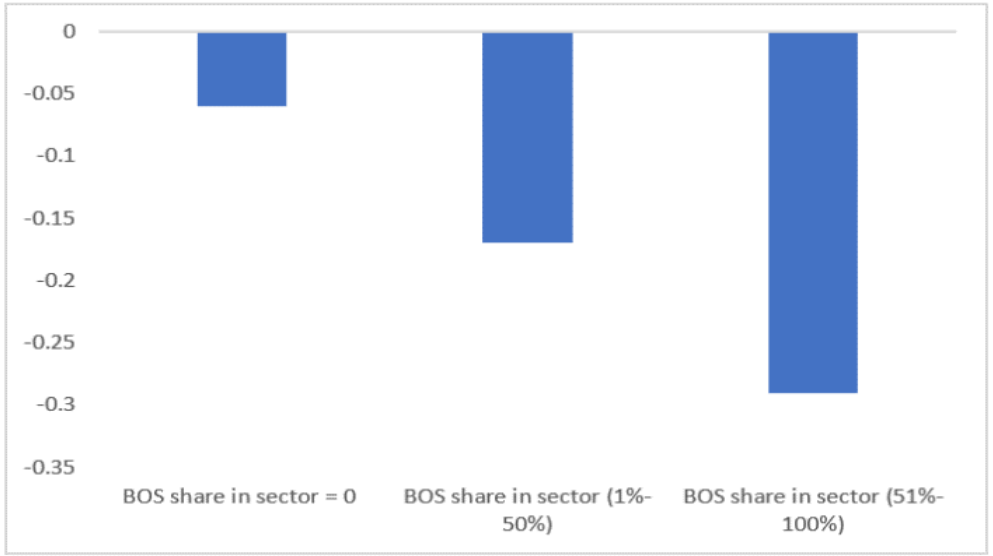
Average impact of SOE share in markets on allocative efficiency in the Kyrgyz Republic; 2010-2022



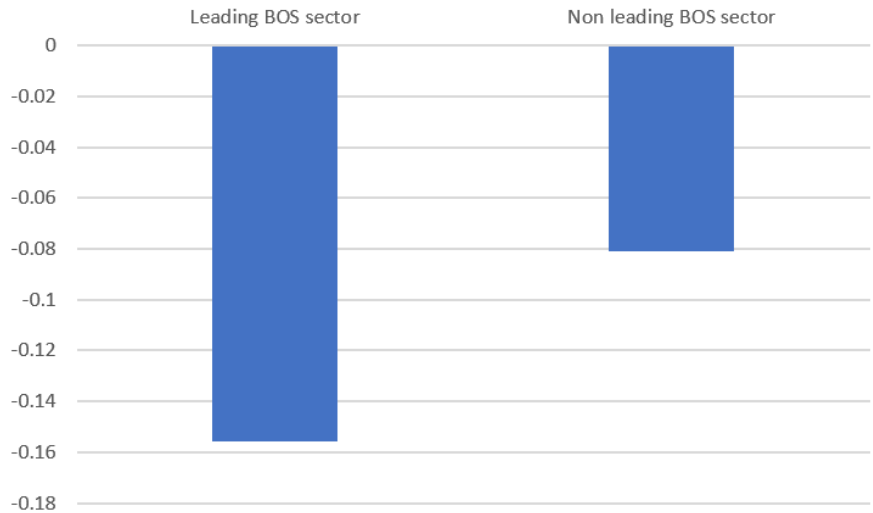
Source: Kyrgyz Republic CEM (forthcoming); WB staff elaboration based on Kyrgyz National Stats Committee administrative data (for non-agriculture sector) .
Note: Each bar in the visual representation correspond to coefficients on the SOEs (employment based) market share in a NACE 3-digit sector. These coefficients are derived from regressions where the market-level measure of allocative efficiency is the outcome variable, controlling for average firm age, average firm size, sector (employment-based) weight in the economy, NACE 3-digit fixed effects and year-fixed effects. Market-level measure of allocative efficiency is the static Olley and Pakes measure computed as the within market covariance between firm (value-added based) market share at NACE-3 digit and province level and (TFP) productivity.

(5) In Moldova, sectors with a greater presence of SOEs exhibit lower allocative efficiency. In competitive sectors, allocative efficiency decreases when SOEs take the lead in the market.

Average allocative efficiency in Moldova, by degree of SOE/BOS presence in sectors; 2015-2019



Average allocative efficiency in competitive sectors in Moldova, by SOE/SOB leadership; 2015-2019

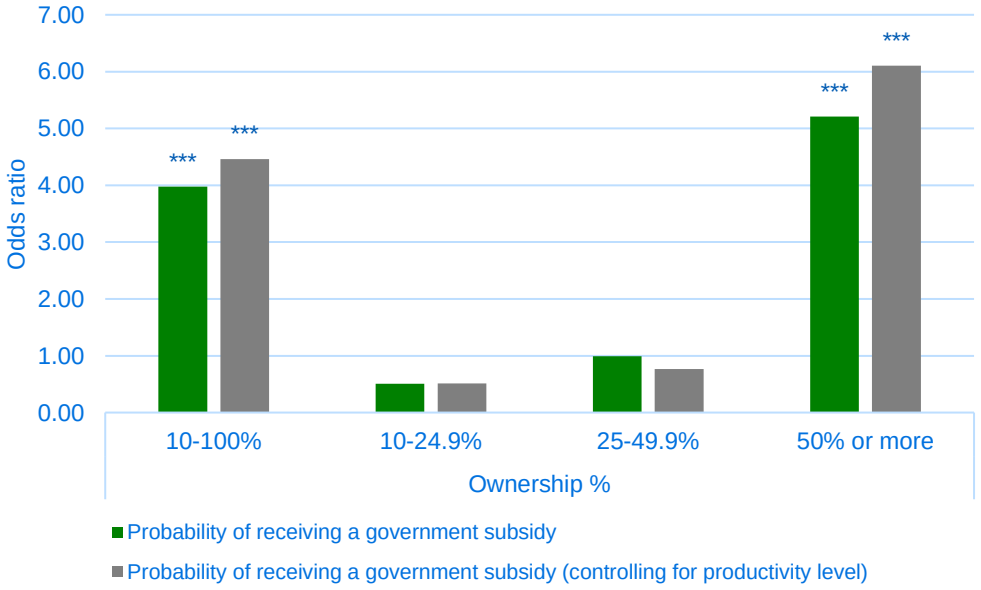


Source: Moldova CEM (forthcoming) - Competition chapter using the WB BOS database; Moldova firm census data, 2015-2019. Note: Results obtained from regressions including sector (NACE 2-digit) and year fixed effects

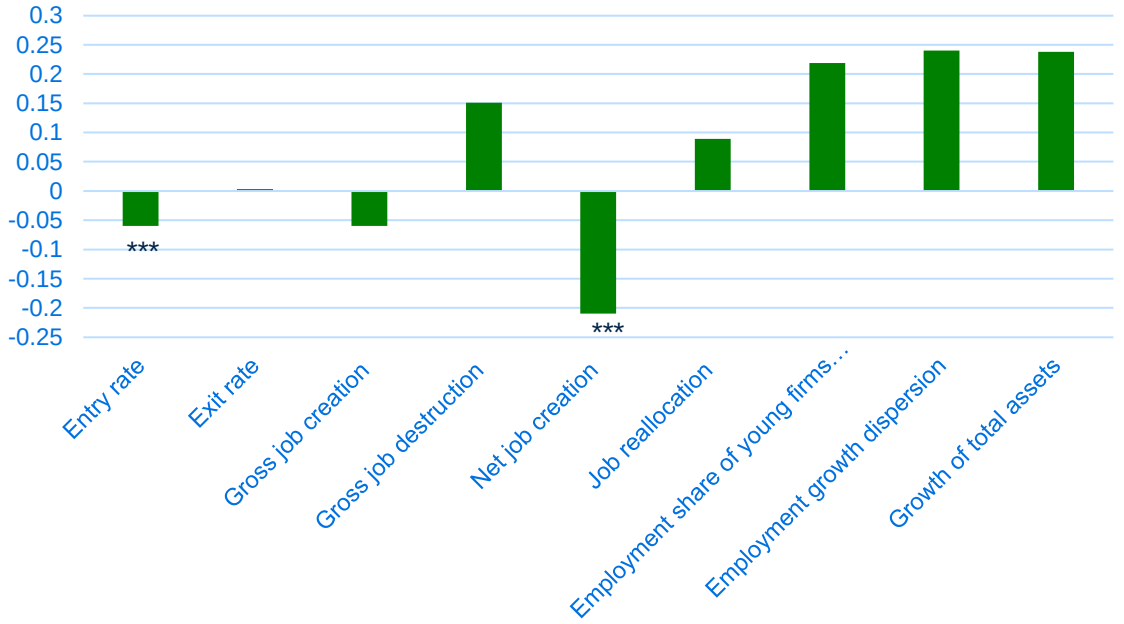
SOE impact on business dynamism was observed as negative, but the results lack statistical significance.

(6) In Romania, SOEs are more likely to receive subsidies, and the effect of state presence on business dynamism was more muted (except for negative impact on entry rate and net job creation)

Probability of an SOE receiving a subsidy relative to a private firms in Romania; 2011-19



Average impact of SOEs presence in markets on business dynamism in Romania; 2010-2022



Source: Dauda, Pop and Iootty(2023) using Romania MoF firm level data

Note**: Asterisks represent significance levels**. Indirectly owned BOSs are owned by the state through another company; directly owned BOSs are owned by a government or state agency. Minority-owned BOSs have state ownership of 10–49.9 percent; majority-owned BOSs have state ownership of 50–100 percent. Subnational BOSs are owned by a subnational government entity; national BOSs are owned by the central government. BOS = business of the state

So what? How to use/interpret these findings? What are the policy implications?

- **Data shows that, on average, SOE presence hinders business dynamism in ECA.**
  - But empiricism alone is insufficient. SOEs may not exert all these stifling effects in all countries and sectors. How to rationalize these facts?
- **SOEs effects on markets/business dynamism depends on the structure of the markets they operate in + broader policies and institutions regulating state ownership.**
- **Monitoring SOEs' effects on markets is crucial to ensure the prevention of negative outcomes.**
- **Finding the balance involves:**

1. **Acknowledging SOEs' distinguishing features:**
   - Non-profit objective.
   - Soft budget constraints
   - Benefit from a more favorable policy and regulatory environment (e.g. preferential access to inputs, legal or de facto monopolies).

2. **Bewaring of potentially negative effects:**
   - Decreased market-based incentives for SOEs to enhance technical efficiency.
   - Distorted market outcomes, impacting rivals' competitiveness, resource allocations among firms, and hindering business dynamism.

3. **Policy options:**
   - **Go beyond divestiture and privatization**
   - **More important: setting the preconditions for proper market functioning.**
     - **good corporate governance**
     - **pro-competition regulations to ensure a level playing field for SOEs and private sector firms**

What are the implications for our work in the region?

WB Engagement in SOE Reforms in ECA:

1. Use ASAs (CEMs, iSOEfs, etc.) to discuss the SOE role:

A) Generate empirical evidence on SOEs' performance and impact on markets.

B) Assess policy drivers for SOE performance/effects.

- A) Measure fiscal costs/risks of SOEs.
- B) Identify oversight roles and corporate governance rules guiding SOEs' strategic decisions.
- C) Map preferential policies benefiting SOEs, especially in sectors viable for private competition.

2. Use DPOs and IPFs to design/approve/implement reforms for competitive SOE behavior and proper market functioning.

3. Strong coordination among multiple GPs (FCI, MTI, GOV) + support from the global teams

4. Align messages and coordinate actions with other development partners (IFIs and others) on SOE reform

Example: Uzbekistan's recent DPOs, including approval of:

- **Establishment of State Asset Management Agency (SAMA) to centralize SOE oversight and promote privatization**.
- **New Privatization Law**: Eliminated direct negotiation modality.
- **New Insolvency La**w: Removed most exemptions for SOEs.
- Ceased direct on-lending of UFRD funds through SOBs to SOEs.
- Enhanced corporate governance and public disclosure for major SOEs:
  - Adoption of IFRS for all SOEs before 2025.
  - Requirements for annual independent audits.
- **Approval of State Property Management Law:** Introduces additional limitations on state ownership, retaining only objects of strategic interest and security, natural monopolies.
- **Approval of Competition Law**: Empowers the competition authority to approve/reject new SOEs based on potential impacts on markets.
- **Implement pro-market reforms (opening space for new entrants + building pro-competition institutions) in specific sectors**
  - **Railways and chemicals**: unbundling activities of major SOEs : UTY (railways) and UKS (chemicals)
  - **Telecom**: liberalized access to international telecommunication gateways
  - **Energy**: establishment of independent regulator