

Accelerating Growth through Entrepreneurship, Technology Adoption, and Innovation

Europe and Central Asia Economic Update

Office of the Chief Economist

Spring 2025



Outline

- **Key messages**
- **Patterns of growth and role of innovation**
- **Patterns of firms' (stunted) growth and the role of large businesses**
- **Focus on key drivers and policy challenges**
- **Policy recommendations**

Key messages: ECA countries require a set of reforms and policies to promote Entrepreneurship, Technology Adoption, and Innovation

Foster enterprise dynamism and innovation

- Implement long-overdue enterprise reforms
- Private sector driven growth needed to sustain long-term prosperity

Move beyond broad SME support and focus on high-growth firms

- A “missing large” problem—too many small, unproductive firms
- Focus on value added: jobs, innovation, exports, to name a few

Strengthen domestic competition

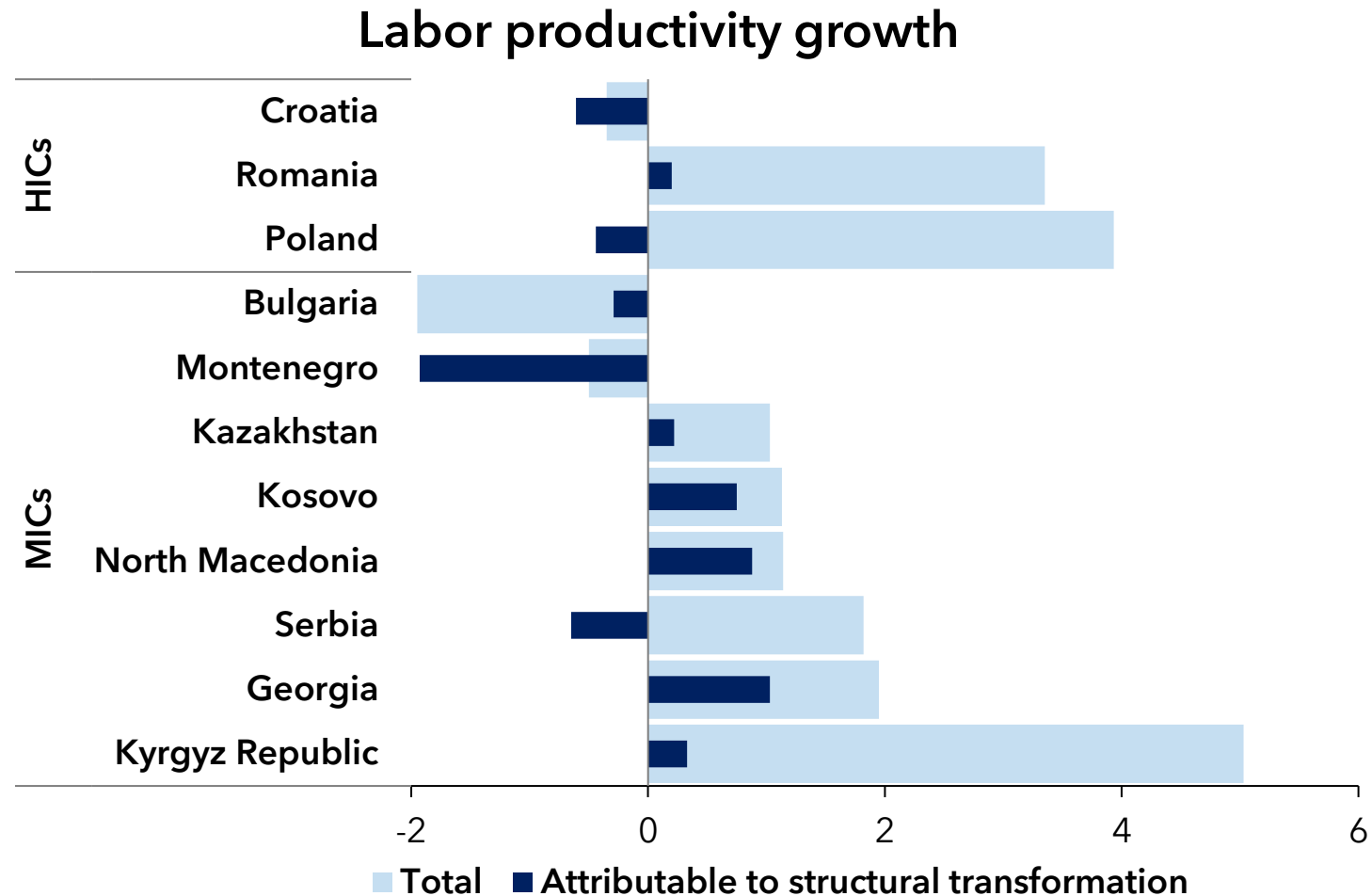
- Large incumbents—including SOEs—often dominate markets
- New entrants must have access to markets, finance, and technology

Facilitate better access to finance

- Deepen financial markets and reduce distortions, including from directed credit
- Venture capital and other forms of long-term financing remain underdeveloped

Patterns of growth and role of innovation

Resource reallocation rather than “firm upgrading” drives productivity growth in most ECA MICs...and this runs into decreasing returns

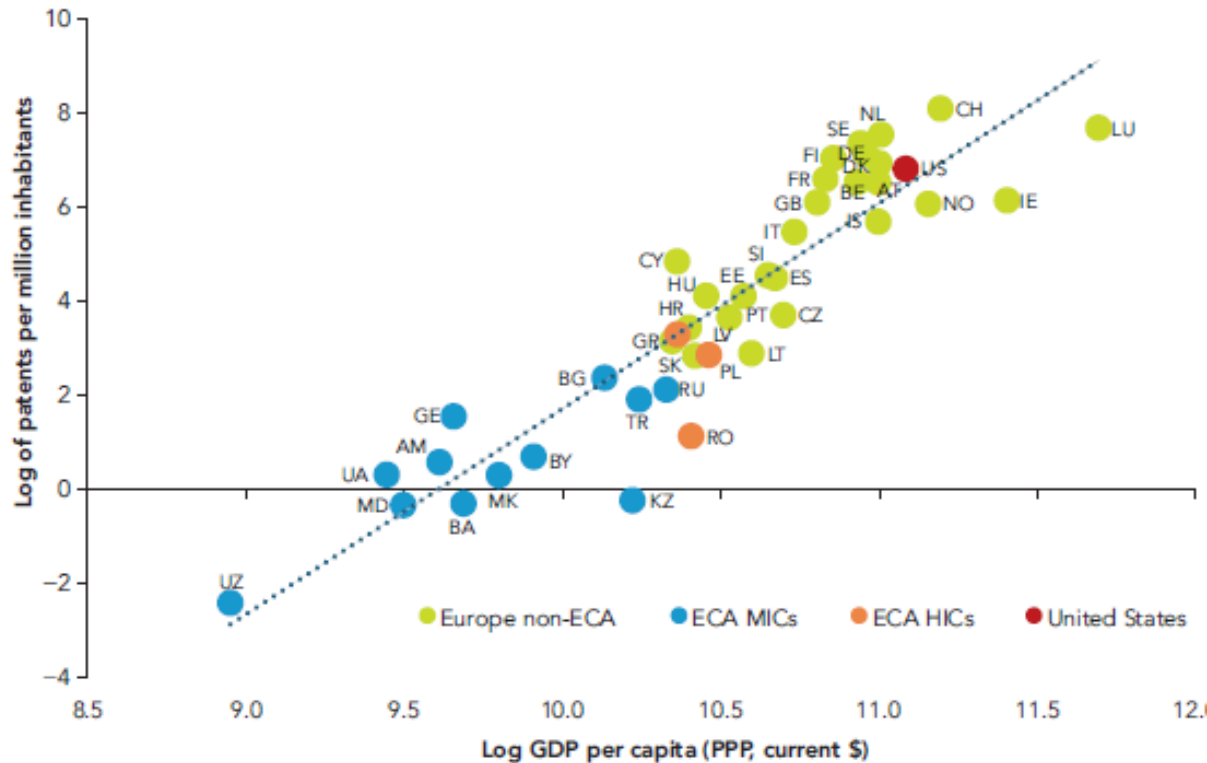


Sources: National statistical offices; Melitz and Polanec (2015); Orbis (<https://www.moody's.com/web/en/us/capabilities/company-reference-data/orbis.html>).

Note: The data reported are one-year arithmetic averages. A dynamic Olley-Pakes decomposition was performed at the three-industry level of NACE Rev. 2 using a two-year rolling window (EC 2008). Firms and sectors were weighted based on the employment weight in each activity and economy during the reference period. NACE = Statistical Classification of Economic Activities in the European Community. HICs = high-income countries; MICs = middle-income countries.

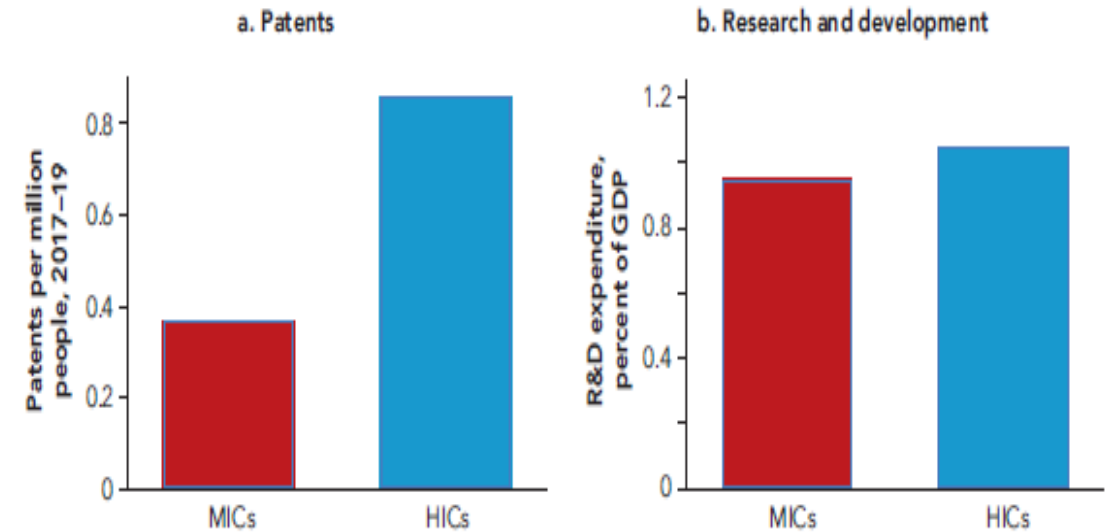
Low innovation capacities and investments are behind the weak “within firms” upgrading patterns

Number of patents and GDP per capita



Sources: European Patent Office; World Bank.

Note: GDP per capita is in log, current US dollars adjusted by purchasing power parity as of 2022. For country abbreviations, refer to International Organization for Standardization (ISO) (<https://www.iso.org/obp/ui/#search>). ECA = Europe and Central Asia; HICs = high-income countries; MICs = middle-income countries; PPP = purchasing power parity.

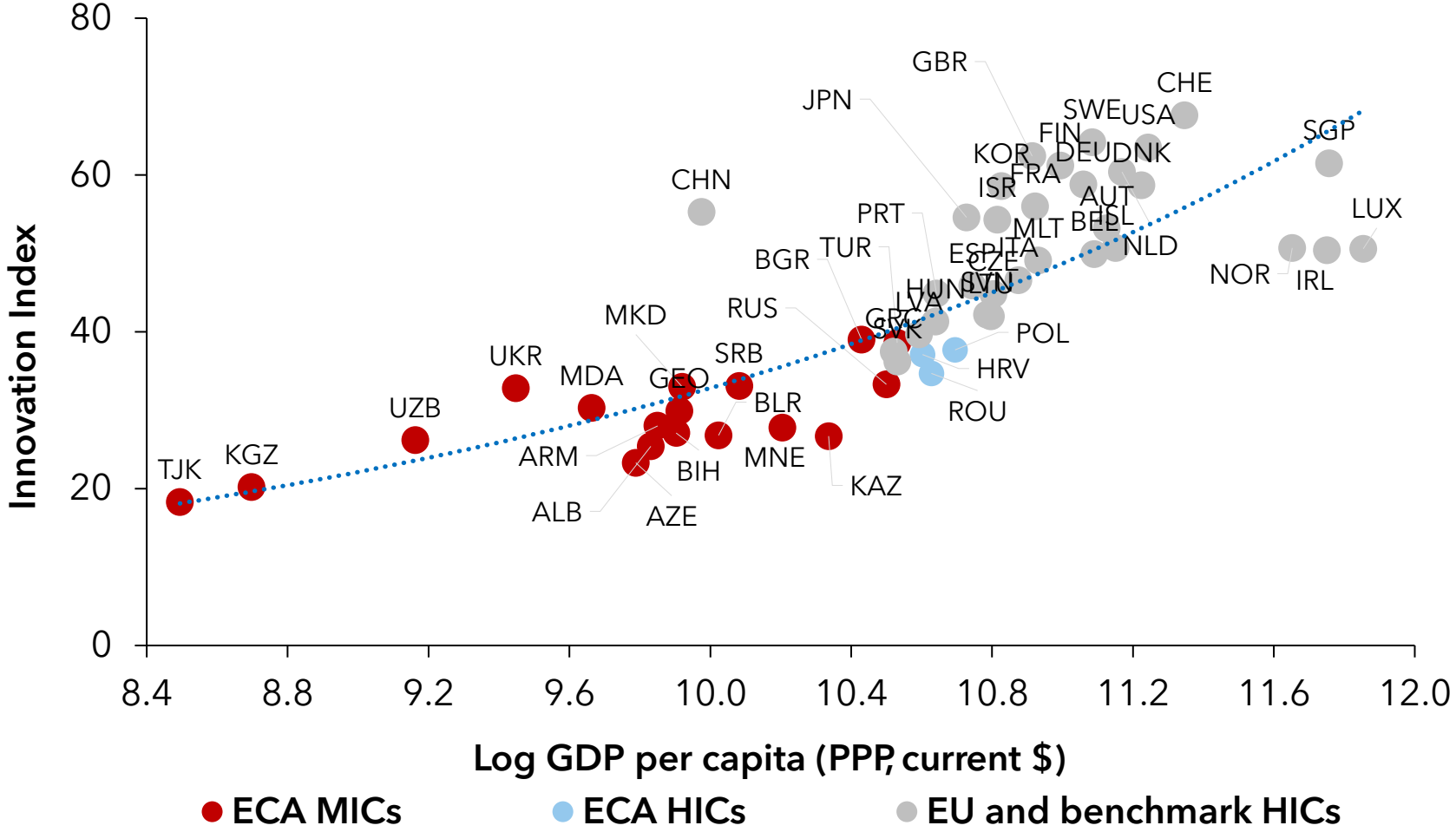


Sources: European Patent Office; World Bank.

Note: The most common interventions delivered by governments and innovation agencies include (a) tax incentives for R&D (such as subsidies, tax exemptions, and tax credits); (b) patent boxes (which operate as special tax regimes that lower the tax rate on revenues deriving from patents); (c) R&D grants, loans, and subsidies; and (d) policies that seek to increase human capital (Bloom, Van Reenen, and Williams 2019).

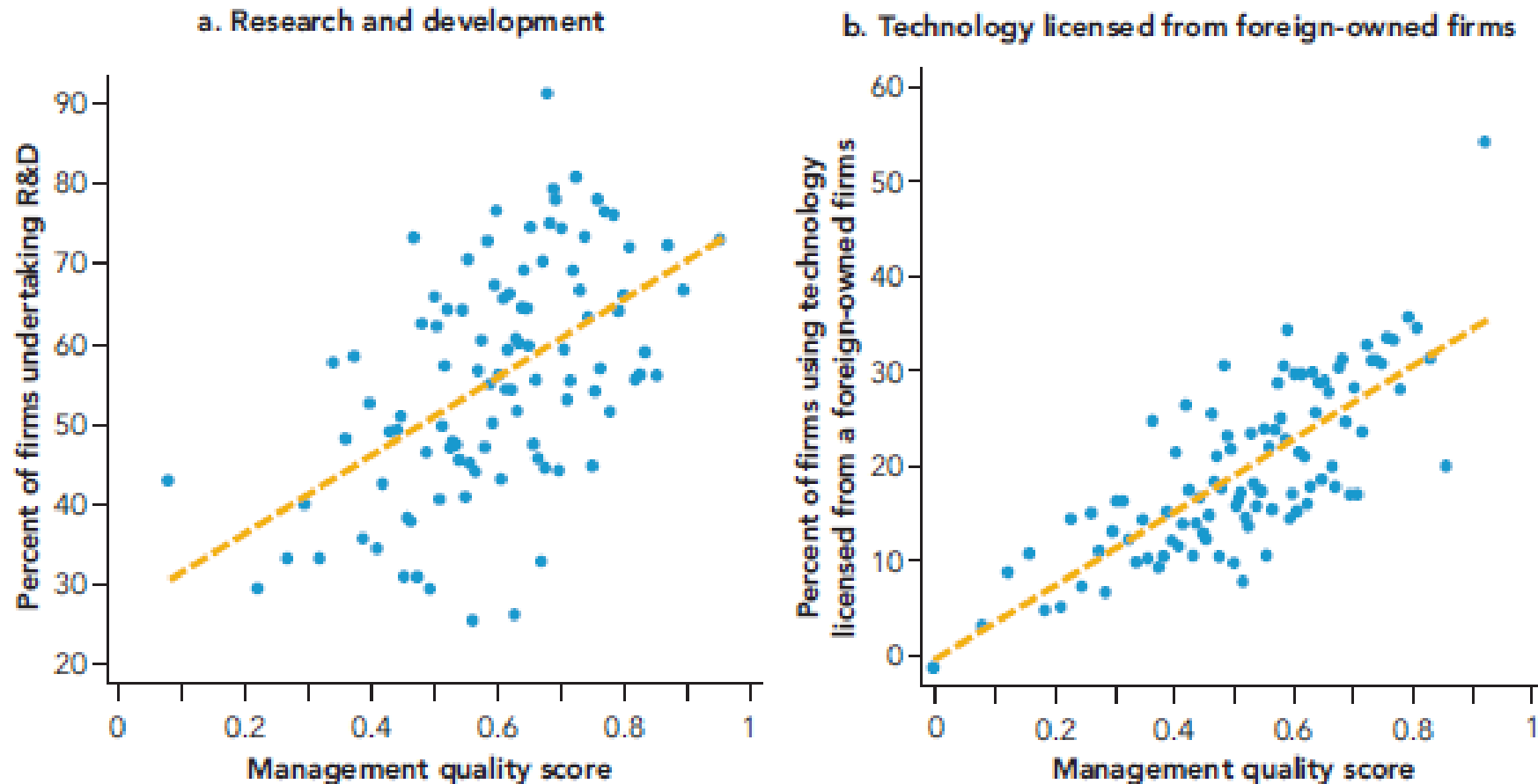
Especially in ECA MIC firms lag behind in terms of innovation

Global Innovation and economic development



Source: World Bank elaboration based on Dutta, Lanvin, Rivera León, and Wunsch-Vincent (2023) and World Bank Data.
 Note: 3-letter ISO country codes. GDP per capita (in logs, current \$ PPP-adjusted) as of 2022.

Underlining these weak innovation capacities there are weak “foundational” capacities in management

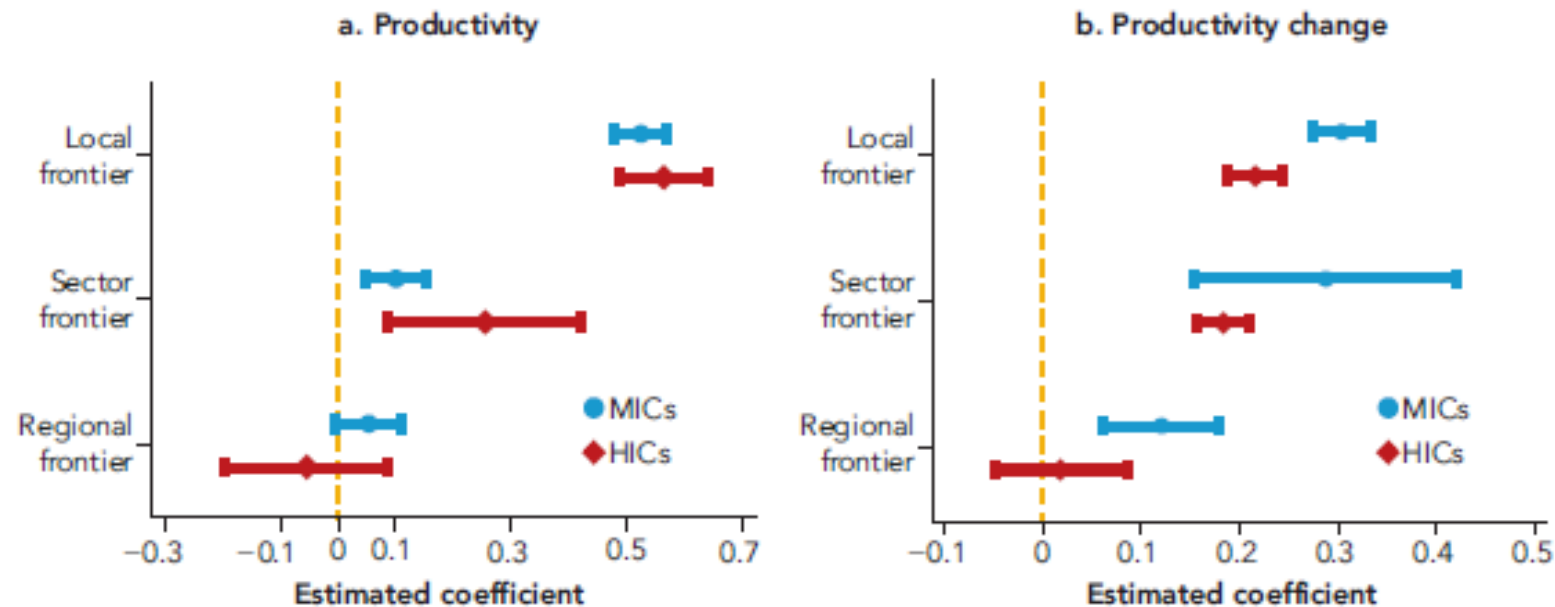


Source: World Bank Enterprise Surveys (www.enterprisesurveys.org).

Note: ECA countries include Albania, Azerbaijan, Bulgaria, Croatia, Czechia, Estonia, Georgia, Hungary, the Kyrgyz Republic, Lithuania, North Macedonia, Poland, Serbia, Slovenia, Türkiye, and Ukraine. Binned scatterplots control for country and sector fixed effects as well as age-size controls. Number of quantiles is set to 100.

And firms may under-invest in upgrading their technology and management as don't take into account "spillovers" to other businesses

Businesses in ECA benefit from the presence of highly productive firms

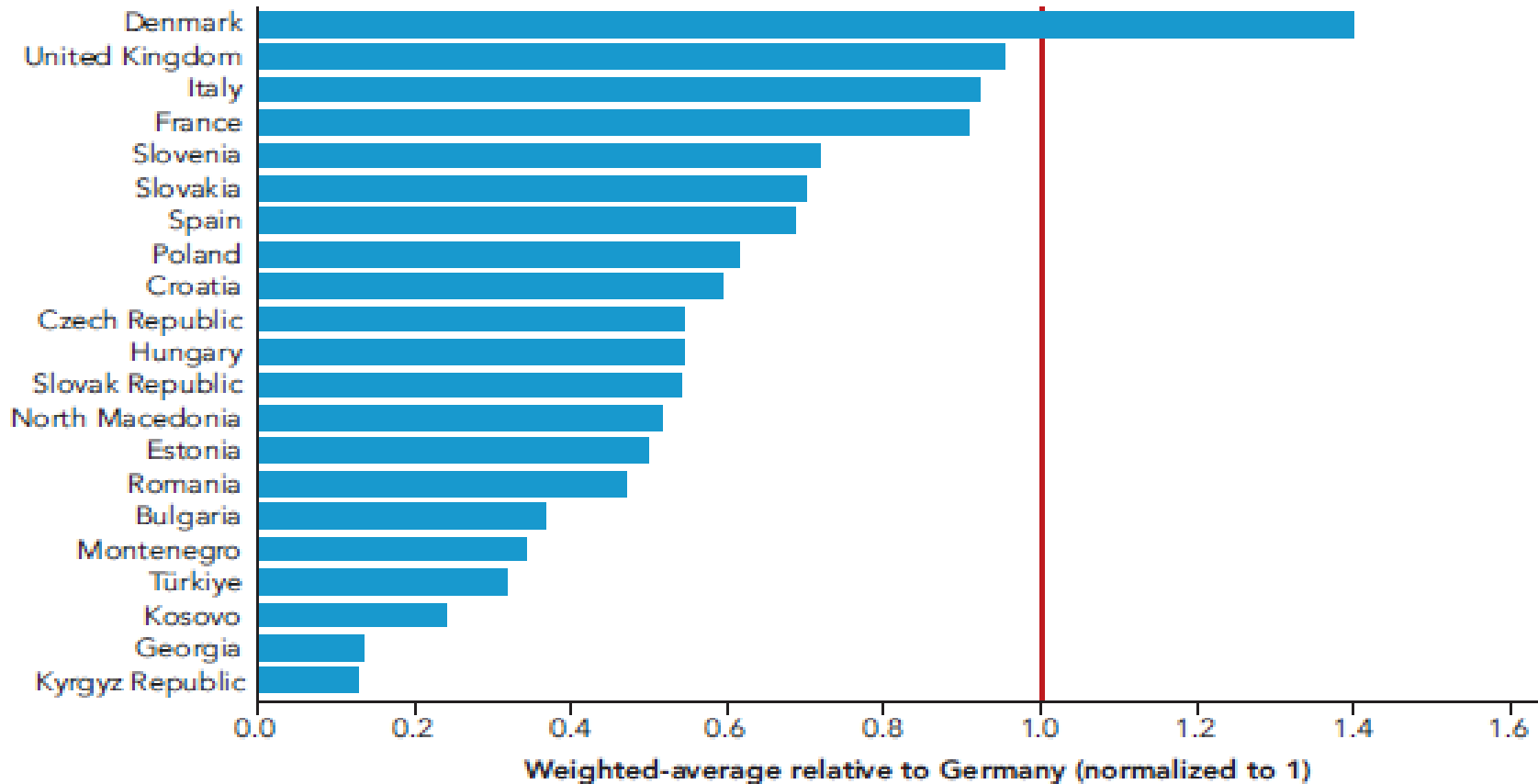


Sources: National statistical offices; Orbis (<https://www.moody.com/web/en/us/capabilities/company-reference-data/orbis.html>).

Note: Baseline categories are as follows: Micro/small firms (< 49 employees); domestic private, and young firms (0–4 years). Ordinary least squares regression includes three-digit sector and geographic (NUTS 2-equivalent) fixed effects and year effects. Standard errors are clustered at the NUTS 2 level. Whiskers show 95 percent level confidence intervals. NUTS 2 = Nomenclature of Territorial Units for Statistics, basic regions (<https://ec.europa.eu/eurostat/web/nuts>). HICs = high-income countries; MICs = middle-income countries.

This translates into a large productivity gap with rich countries

The productivity gap between ECA countries and Germany is large



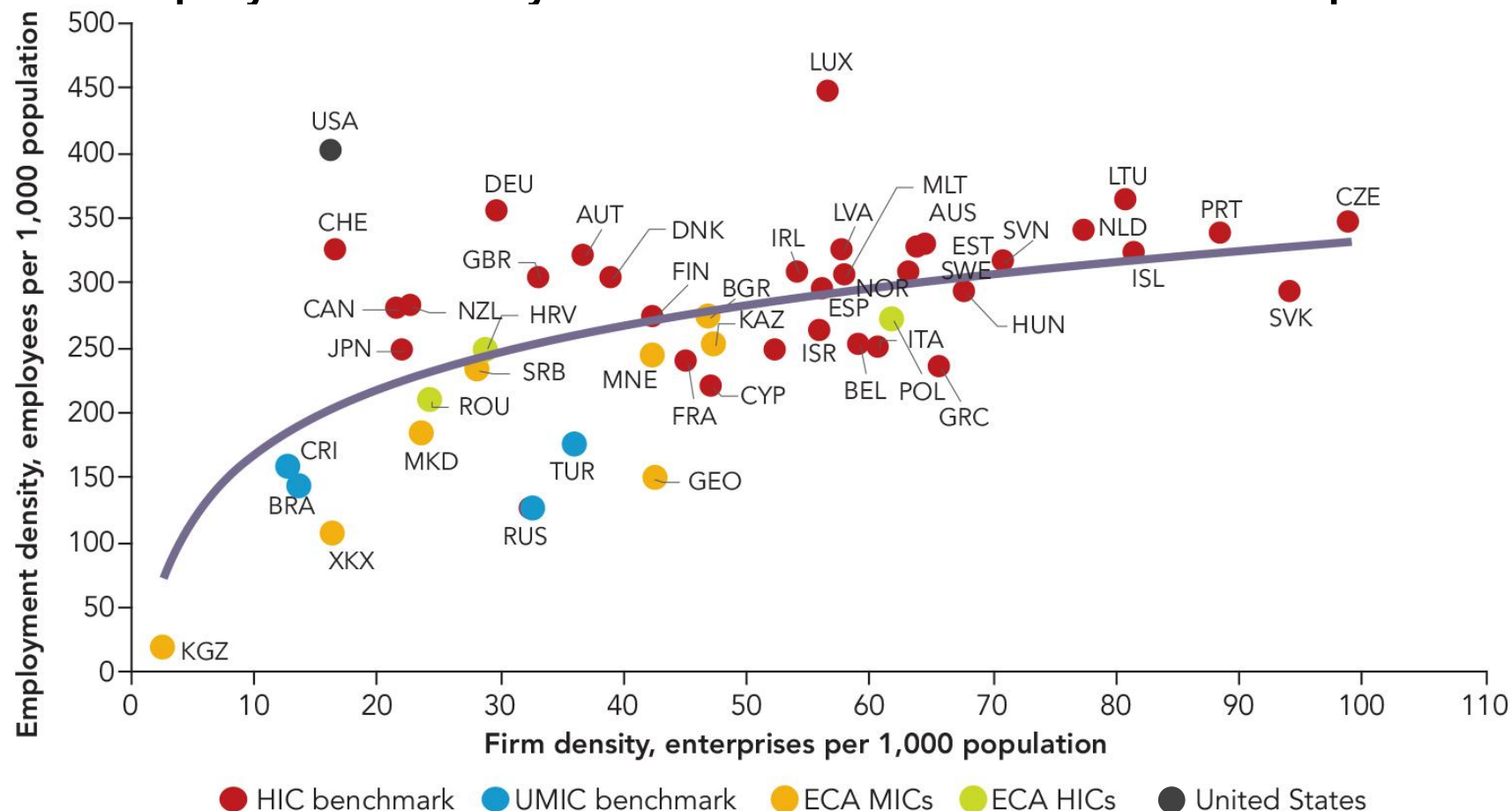
Sources: National statistical offices; EC (2008); Orbis (<https://www.moody.com/web/en/us/capabilities/company-reference-data/orbis.html>).

Note: Figures are based on firms with at least 250 employees are considered. Labor productivity is defined as value added per worker (sales net of intermediate consumption).

Patterns of firms' (stunted) growth and the role of large businesses

There are too many small firms in ECA

ECA MIC employment density is low because their firms do not expand enough

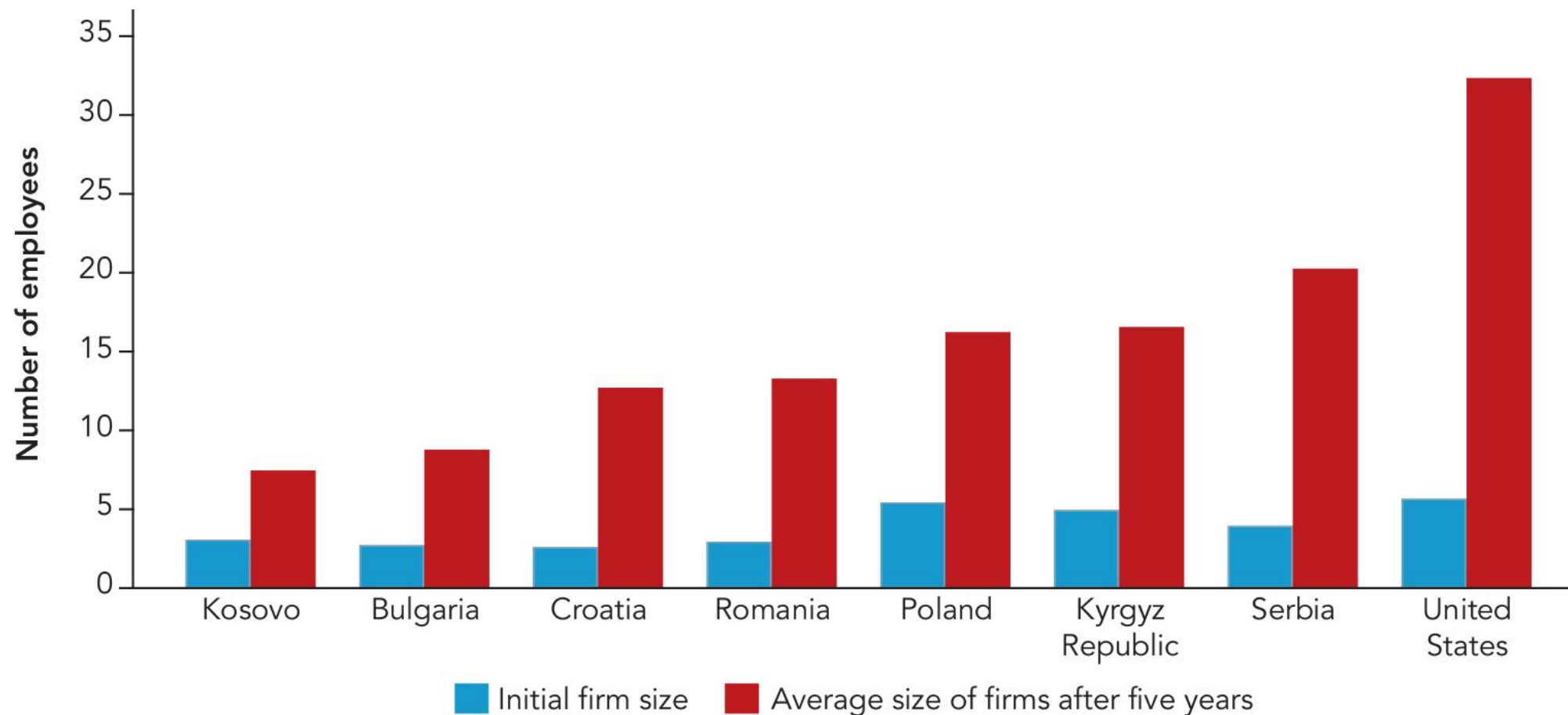


Sources: National statistical offices; Organisation for Economic Co-operation and Development; Orbis (<https://www.moody's.com/web/en/us/capabilities/company-reference-data/orbis.html>).

Note: The high-income country benchmark is based on selected high-income OECD and EU member countries. The upper-middle-income country (UMIC) benchmark countries includes countries on which data were available. Firm counts and employment were cross-checked with published data on the web portals of national statistical institutes. The solid line indicates a logarithmic trendline. ECA = Europe and Central Asia; HICs = high-income countries; MICs = middle-income countries.

ECA firms show stunted job growth

Post-entry employment growth

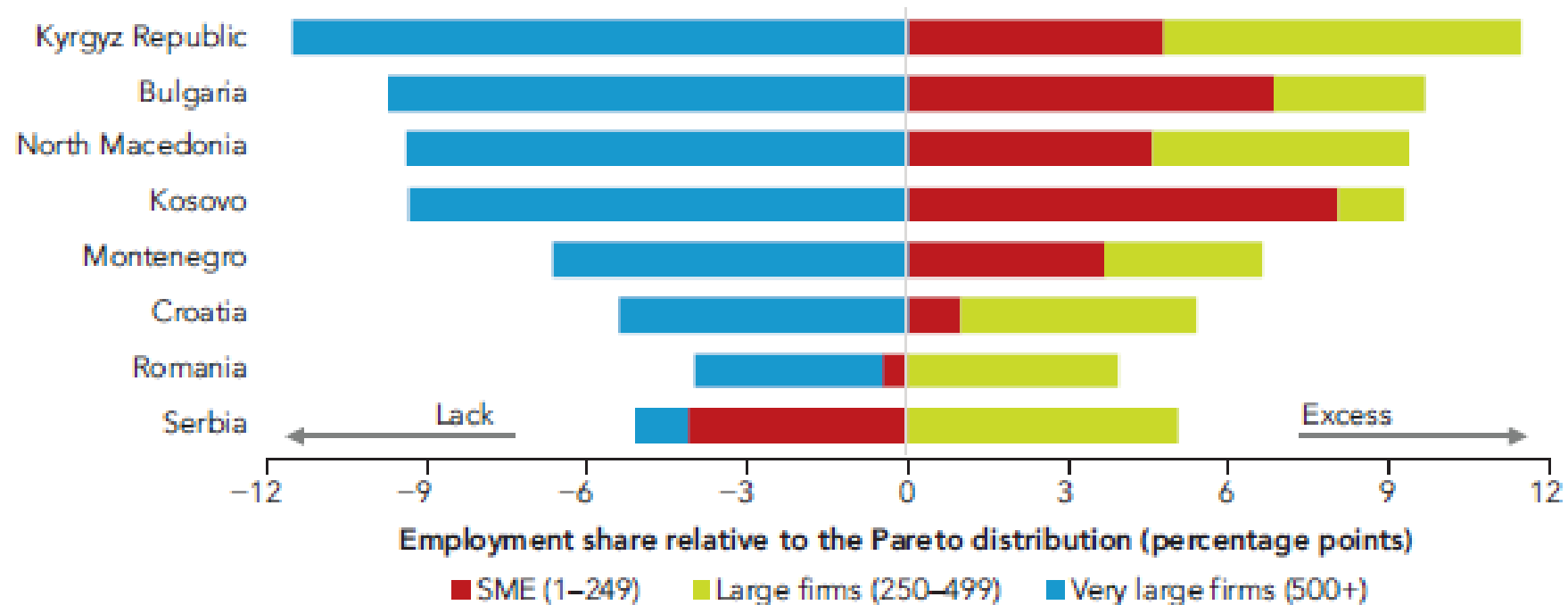


Sources: National statistical offices; Orbis (<https://www.moody.com/web/en/us/capabilities/company-reference-data/orbis.html>).

Note: Although the average size of entrants is above five in Poland, filing business registries is not mandatory among microenterprises, which increases the average size of the observed sample of firms. The minimum size threshold in Poland may therefore be considered five employees.

Not a “missing middle” but “missing large” (very large)

ECA countries have too little employment in (very) large firms

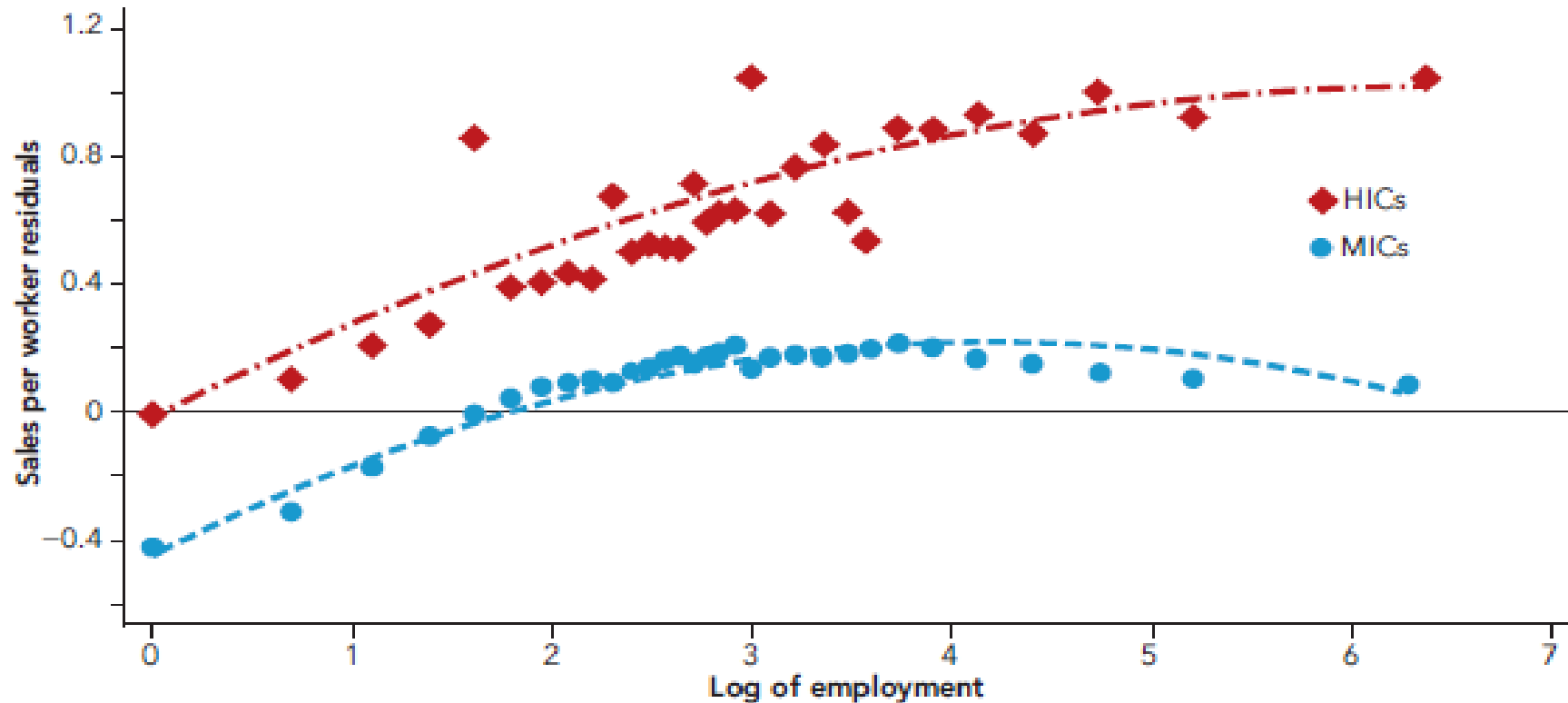


Sources: National statistical offices; EC (2008); Orbis (<https://www.moody's.com/web/en/us/capabilities/company-reference-data/orbis.html>).

Note: SME = small or medium-size enterprise. “Excess” refers to the share of employment in excess of what would be predicted given the country size by a Pareto distribution. “Lack” refers to the lack of employment in specific companies relative to what would be predicted.

Larger businesses grow “fatter” rather than more productive

Larger firms are not always more productive in ECA



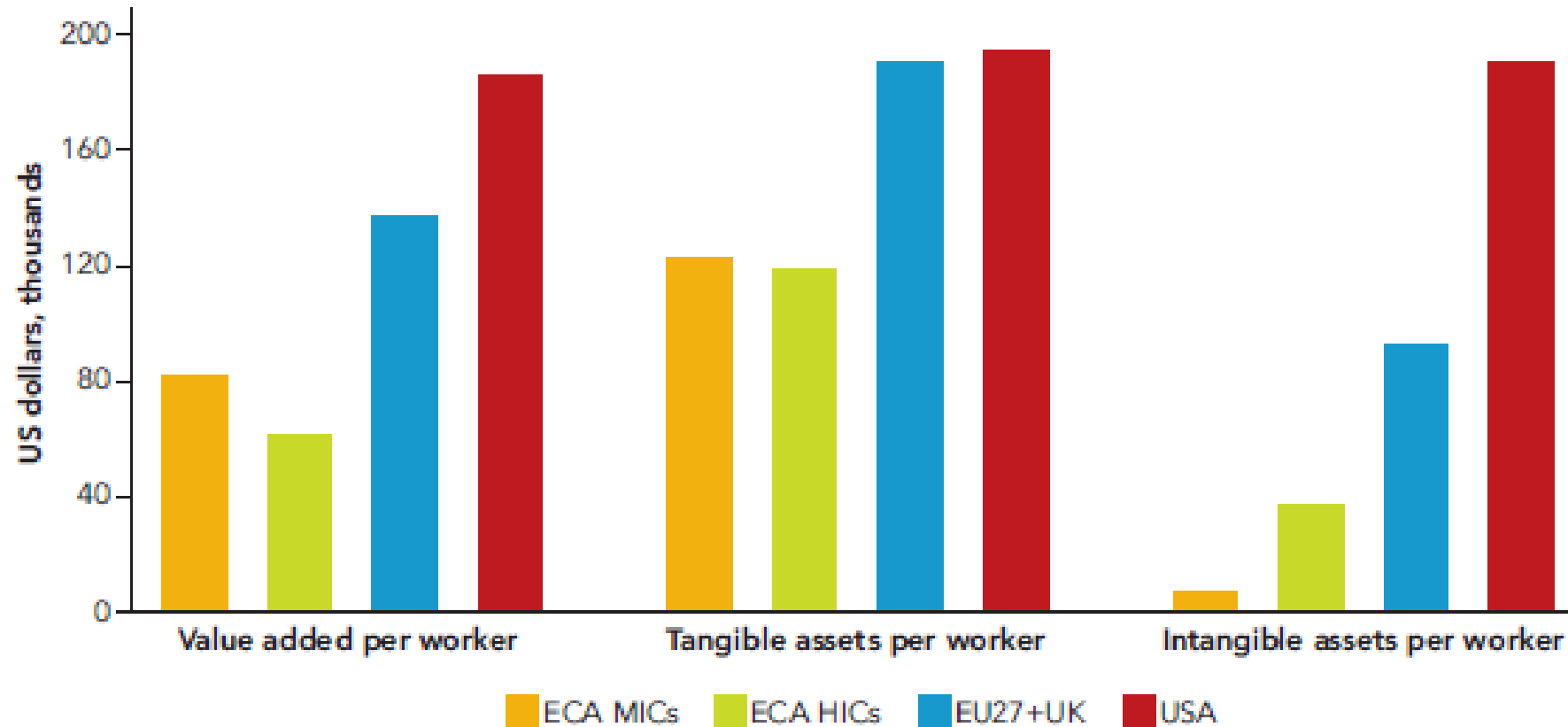
Sources: National statistical offices; Orbis (<https://www.moody.com/web/en/us/capabilities/company-reference-data/orbis.html>).

Note: The number of bins is set to 100. Figure shows the log of sales per worker residuals from regressing the log of sales per worker on capital per worker (in logs) and three-digit sector fixed effects, year effects, and ownership controls.

HICs = high-income countries; MICs = middle-income countries.

Troubles at the top

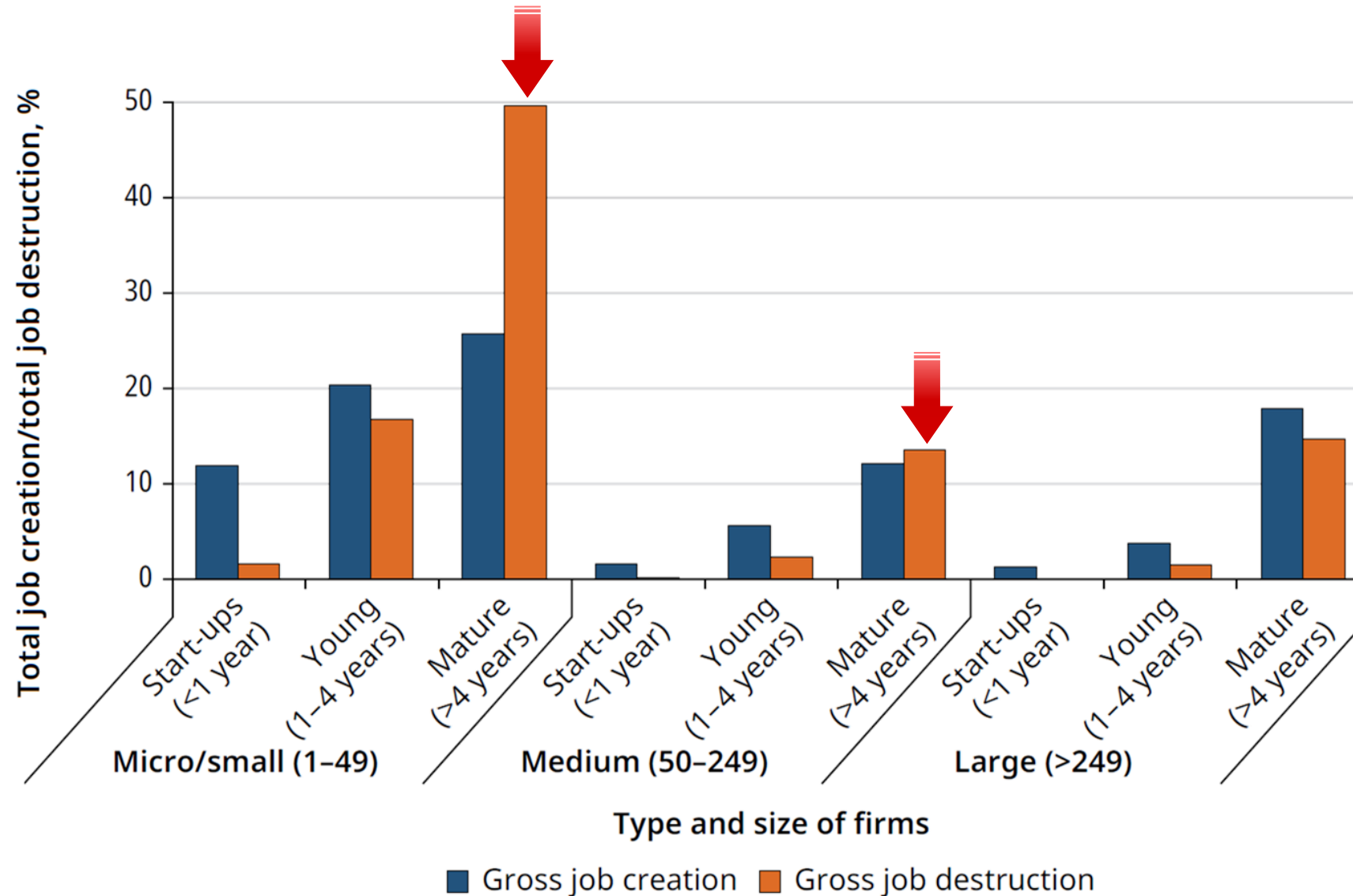
The performance of the top 100 firms is lower in ECA than in the European Union and the United States



Source: Orbis (<https://www.moody's.com/web/en/us/capabilities/company-reference-data/orbis.html>).

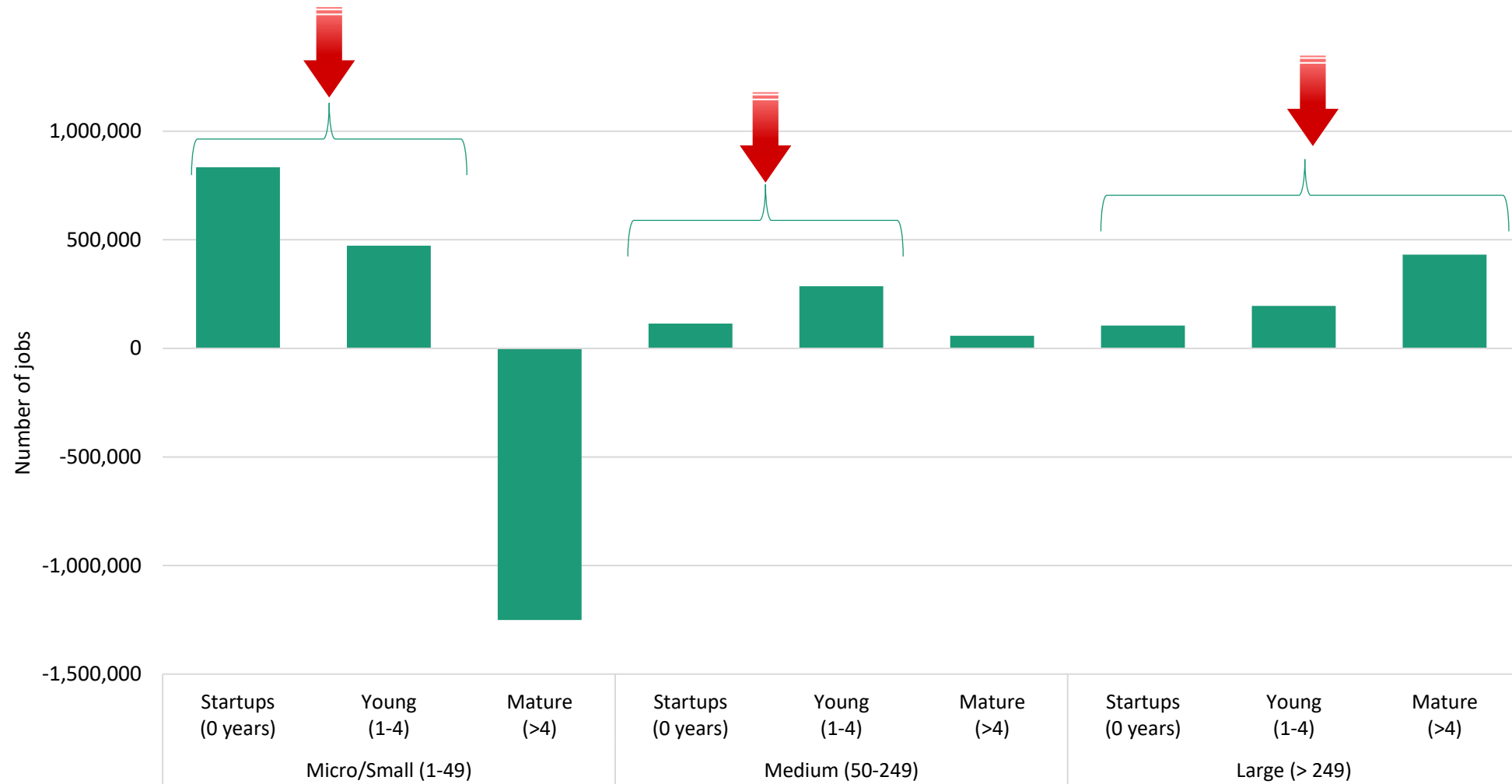
Note: Data are for 2019. ECA = Europe and Central Asia; EU = European Union; HICs = high-income country; MICs = middle-income country; UK = United Kingdom.

Mature SMEs destroy more jobs than they create



Sources: National statistical offices; Orbis (<https://www.moody's.com/web/en/us/capabilities/company-reference-data/orbis.html>).
Note: Firm size is based on number of employees.

Young businesses and larger ones are the main drivers of jobs creation

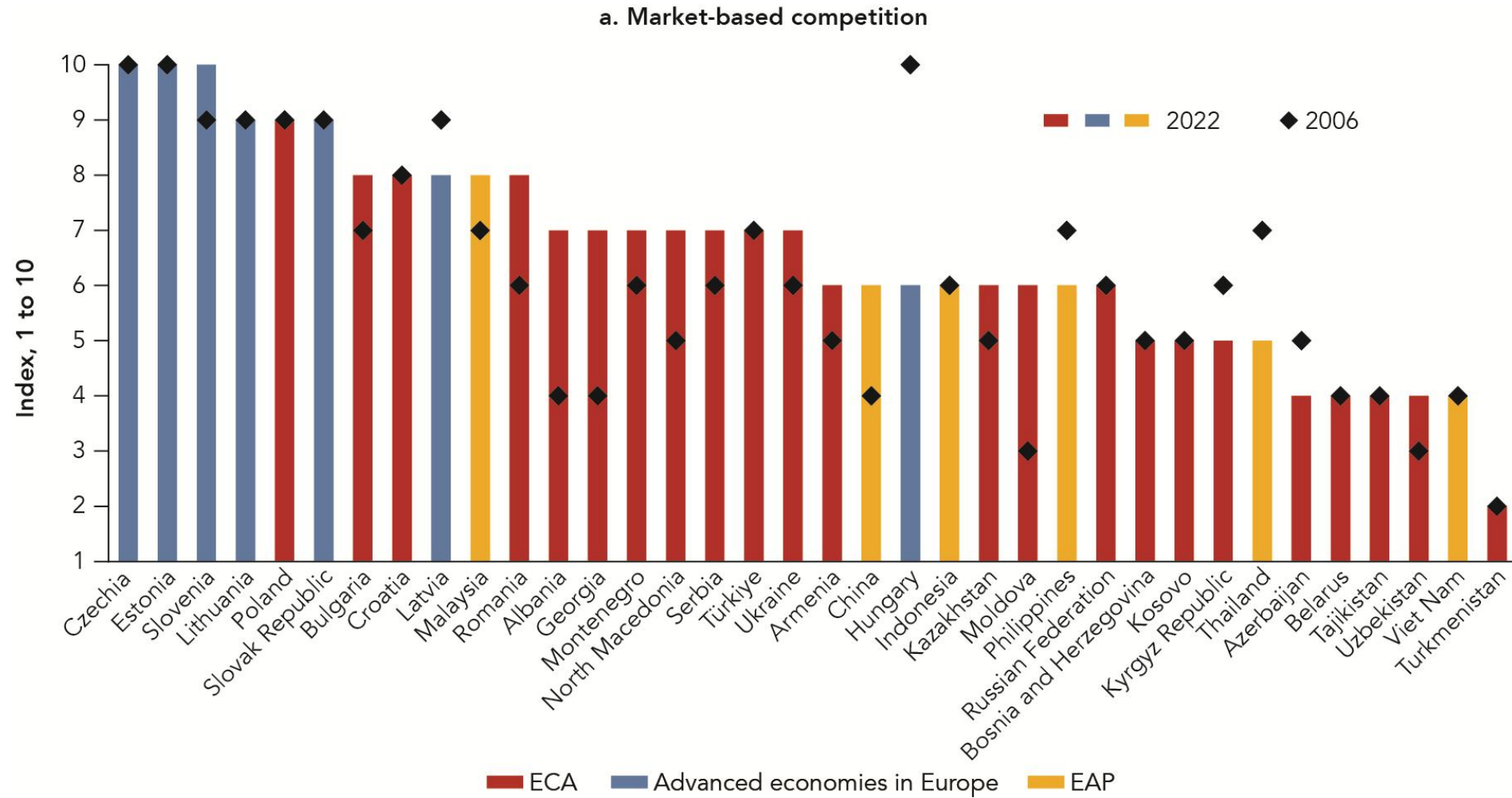


Sources: National statistical offices; Orbis (<https://www.moody's.com/web/en/us/capabilities/company-reference-data/orbis.html>).

Note: Firm size is based on number of employees.

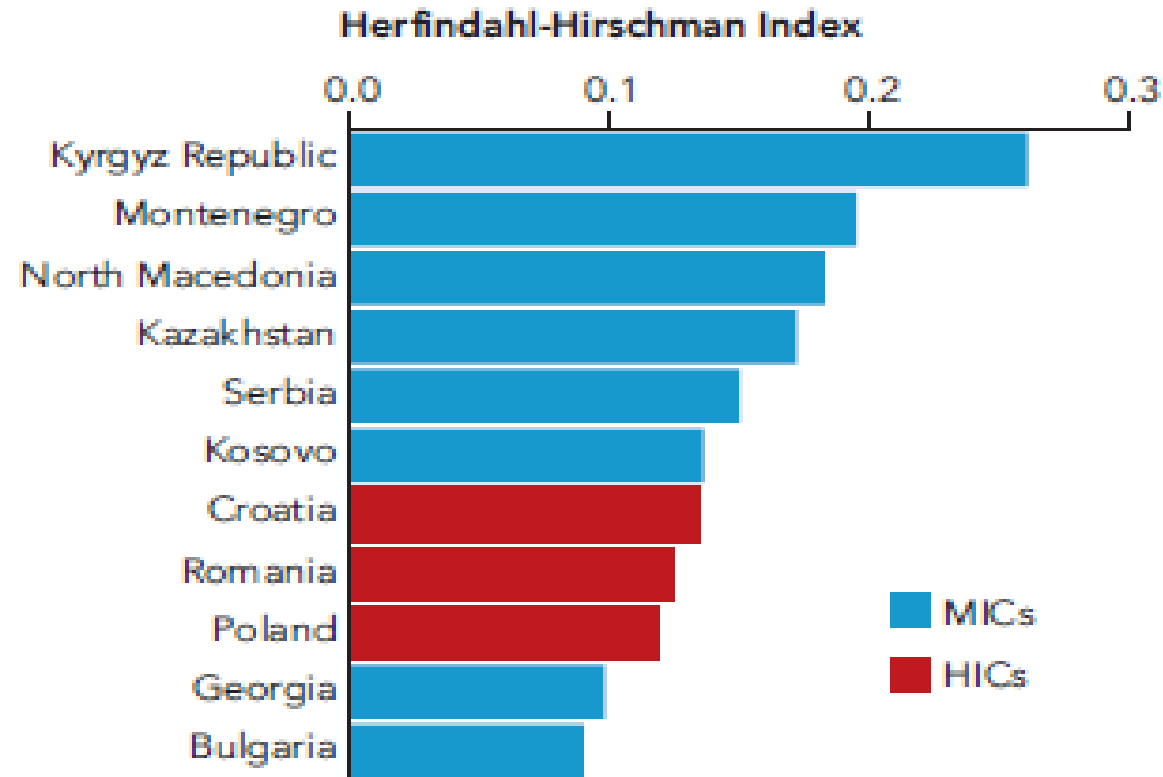
Focus on key drivers and policy challenges

The competition environment is problematic for many MICs



Source: Bertelsmann Stiftung Transformation Index (2022).

And this is reflected in relatively high market concentration

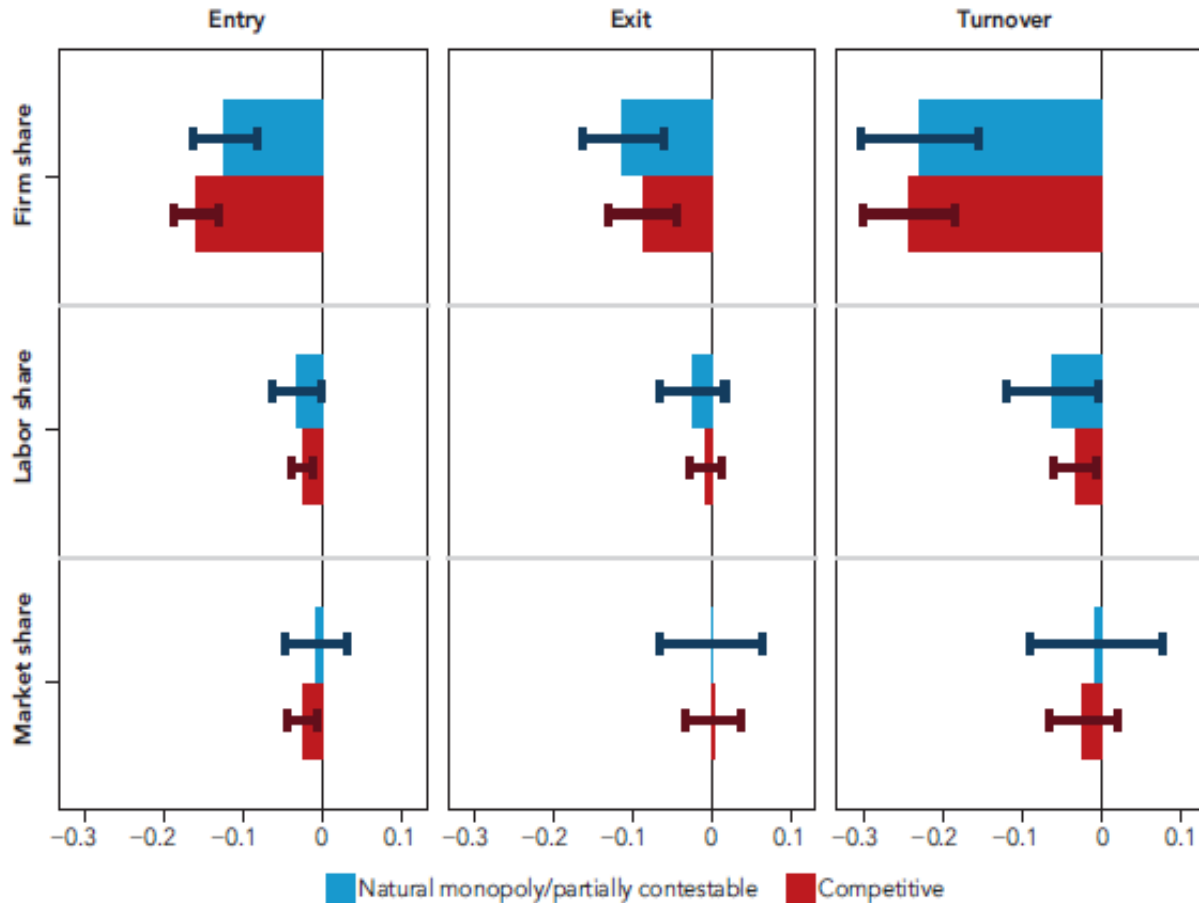


Sources: National statistical offices; Orbis (<https://www.moody.com/web/en/us/capabilities/company-reference-data/orbis.html>).

Note: Data are for 2021 or most recent available. The Herfindahl-Hirschman Index (HHI) is a measure of market concentration, with lower values indicating a less concentrated market.

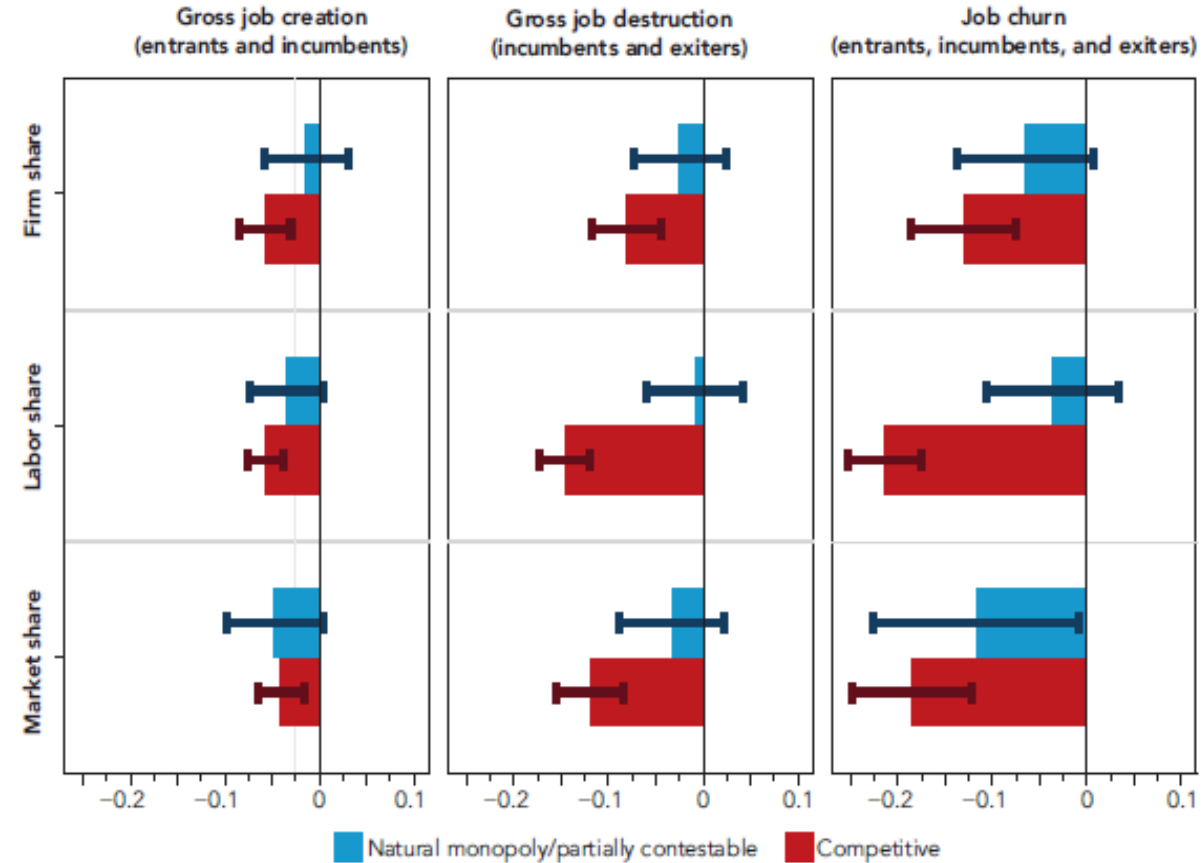
ECA = Europe and Central Asia; HICs = high-income countries; MICs = middle-income countries.

The presence of SOEs is another issue that hinders entrepreneurial and jobs dynamism



Sources: National statistical offices; Orbis (<https://www.moodys.com/web/en/us/capabilities/company-reference-data/orbis.html>).

Note: Each specification includes market fixed effects and controls for aggregate market productivity and capital intensity, changes in market size, functioning (covariance term of the Olley-Pakes static decomposition) and concentration (Herfindahl-Hirschman Index). Country-year effects and activity-year effects and the presence of foreign firms are included, using the same criteria as for exposure to SOEs. Whiskers show 95 percent level confidence intervals. SOE = state-owned enterprise.

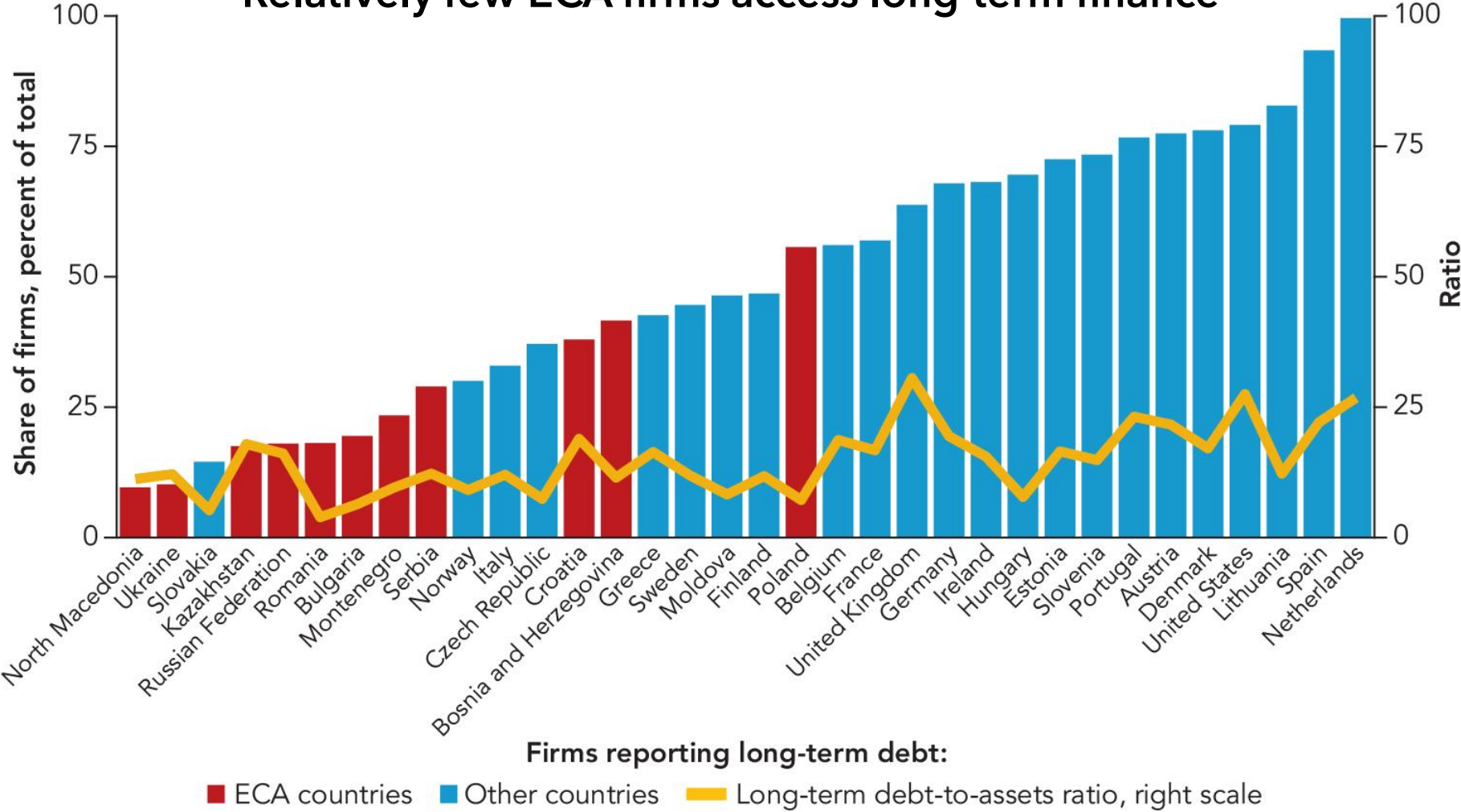


Sources: National statistical offices; Orbis (<https://www.moodys.com/web/en/us/capabilities/company-reference-data/orbis.html>).

Note: Each specification includes market fixed effects and controls for aggregate market productivity and capital intensity, changes in market size, and measure of functioning (the covariance term of the Olley-Pakes static decomposition) and concentration (the Herfindahl-Hirschman Index). Country-year effects and activity-year effects and the presence of foreign firms are included, using the same criteria as for exposure to state-owned enterprises. Whiskers show 95 percent level confidence intervals. Gross job creation is jobs created as a result of entry of new firms and net expansion of incumbent firms; gross job destruction is job losses caused by exiting firms and the contraction of incumbents. Job churn is the sum of gross job creation and gross job destruction.

Availability of long-term finance is an issue ...

Relatively few ECA firms access long-term finance

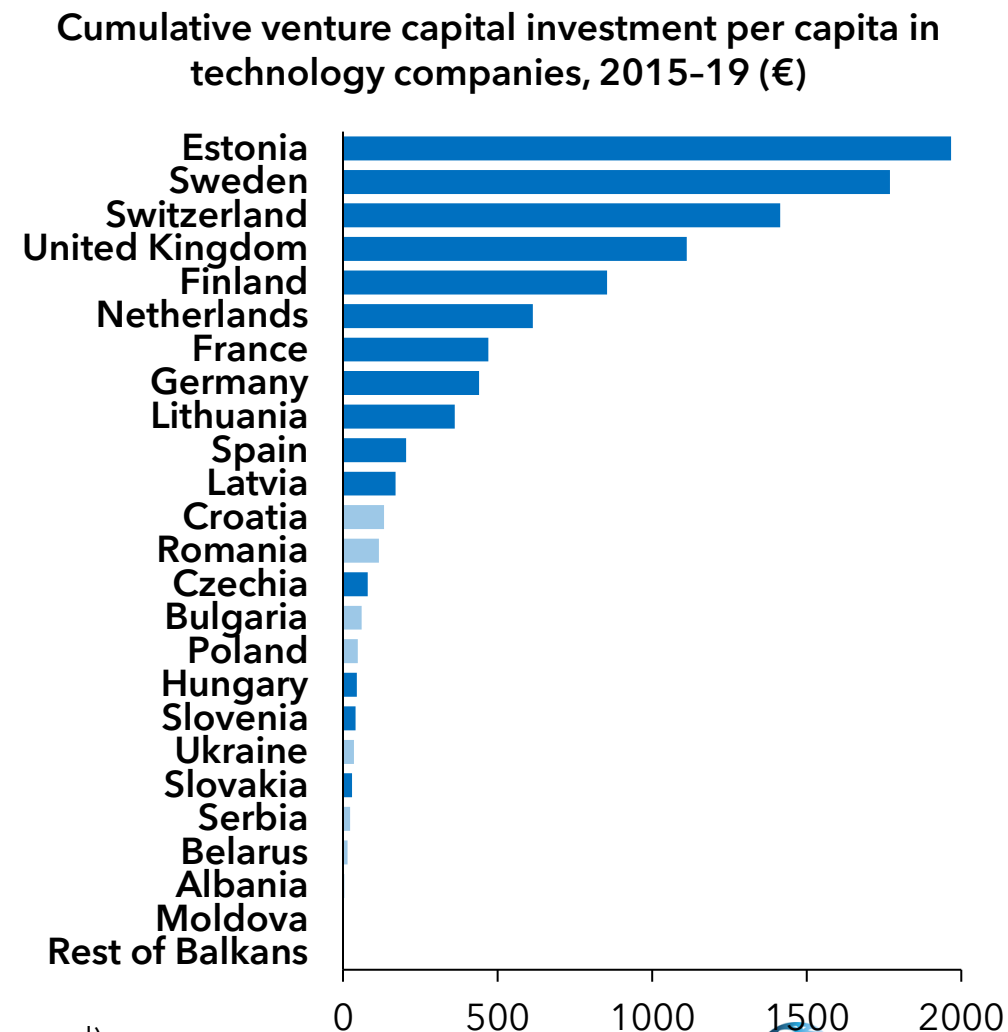
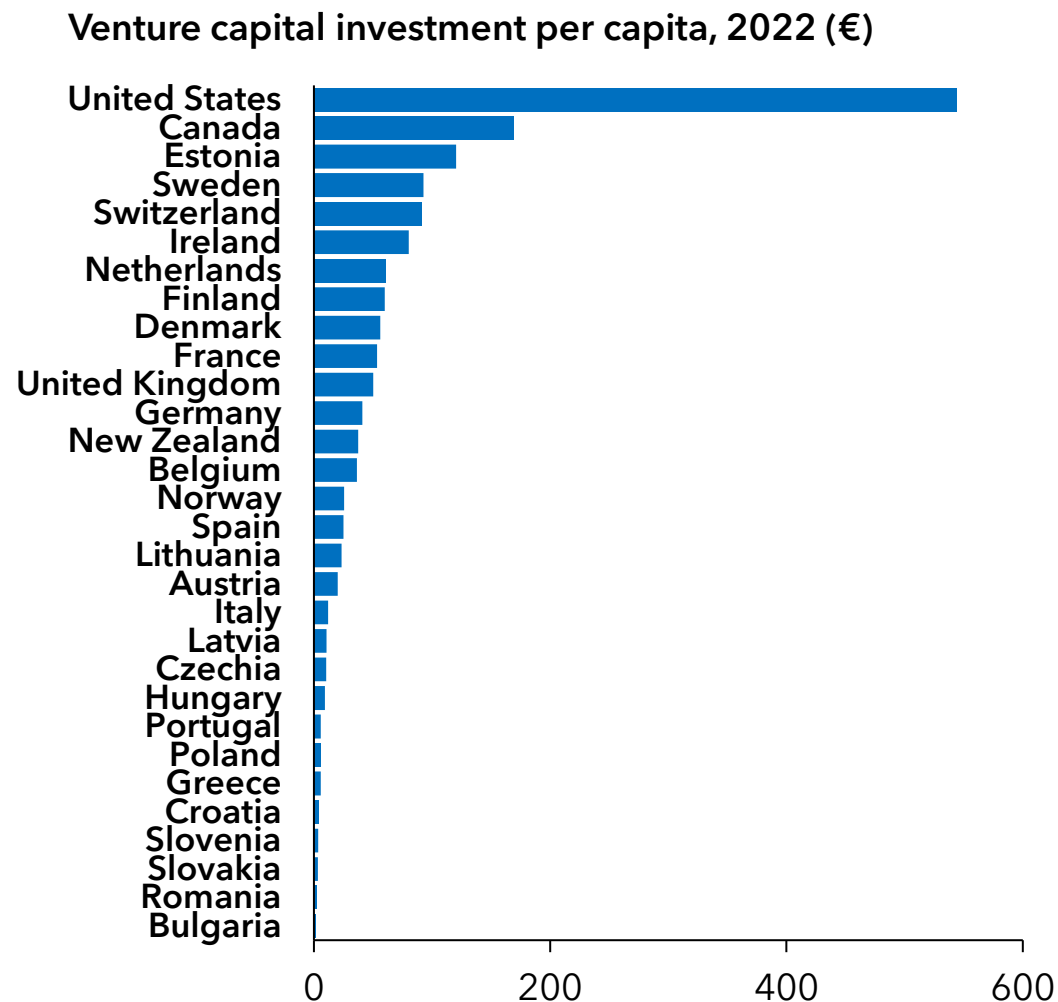


Source: World Bank elaboration based on Orbis.

Notes: Average 2010-19; Countries with at least 1,000 annually consolidated. Light bars are ECA countries.

... as is the lack of venture finance

Venture capital is underdeveloped in ECA



Source: World Bank elaboration based on OECD (left panel) and Dealroom (2021; right panel).

Note: Light blue bars denote ECA countries.

Policy recommendations

To boost growth, focus on the wide-ranging agenda that remains

Improve business environment and market functioning

- Enhance the competition framework to encourage entry and growth of more productive businesses
- Facilitate internationalization and integration with global economy - key opportunity for more productive businesses
- Discipline incumbents and reduce the state footprint in the economy

Advance productive development policies

- Don't focus on SMEs in general, focus on young and more dynamic businesses
 - It's not about "picking" or supporting businesses but implementing policies that specifically address the constraints of these types of businesses
- Incentives to invest in management and innovation (tech adoption & R&D)
- Upgrade the capacities and skills of workers - and deepen the link between businesses and academia

Improve access to finance & finance allocation

- Deepen capital markets and reduce the debt-equity bias
- Expand venture capital to support early-stage businesses
- De-risk investments in upgrading and international integration



Thank You

