

# INDUSTRIAL POLICIES: HANDLE WITH CARE

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## Industrial Policies: Handle with Care

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STAFF DISCUSSION NOTE

# Assessing the potential impacts of industrial policy (IP)

- Industrial policies (IPs): Interventions targeting specific sectors or firms to change the structure of economic activity.
- So far, the empirical evidence on IPs has been mixed:
  - Import substitution limited long-run productivity growth (Latin America)
  - Fast export-led growth (Asia)
- The SDN develops a global analysis (109 countries) to tackle three main questions:

## 1. Trends:

How has the use of industrial policy evolved in the last two decades?

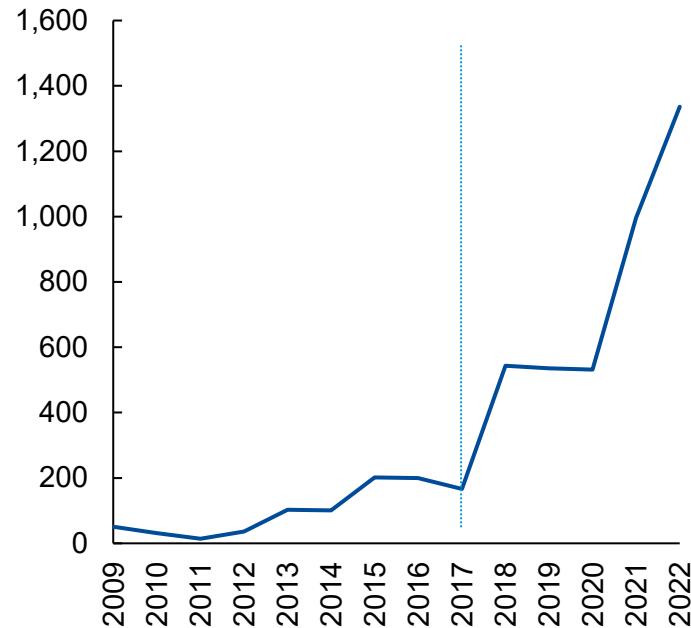
## 2. Potential effects:

Under which conditions do IPs improve economic performance? Which instrument or characteristics make them more effective?

## 3. Opportunity cost:

How does the impact of IPs compare to structural policies? How do they interact?

**Industrial policies (IPs) have gained momentum since 2017**  
(Total number of IPs over time)



Sources: Juhász and others (2023), Global Trade Alert.

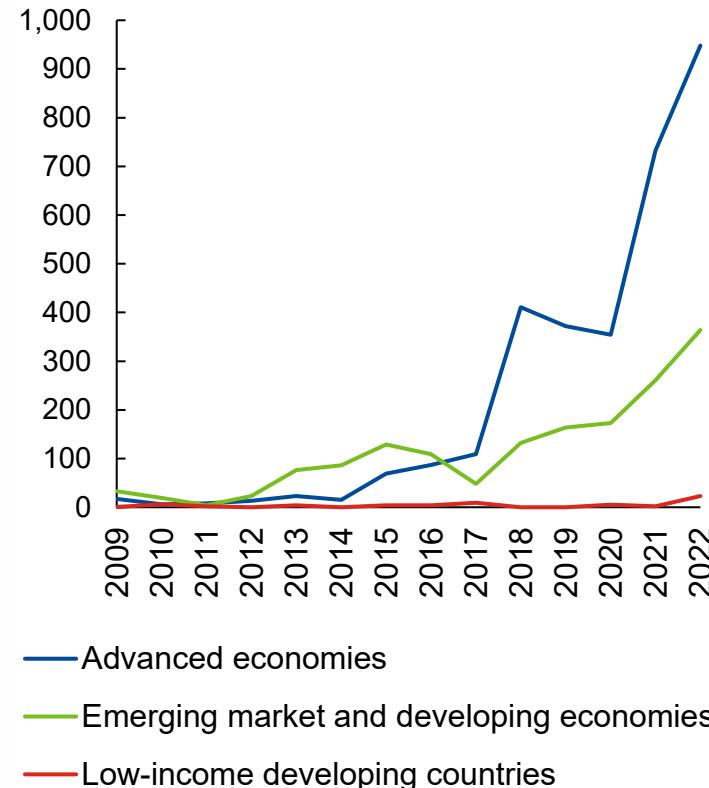
## **1. Trends:**

**How has the use of industrial policy evolved in the last two decades?**

# IPs have been on the rise since 2017, particularly in AEs, with domestic subsidies and export incentives being the most common instruments

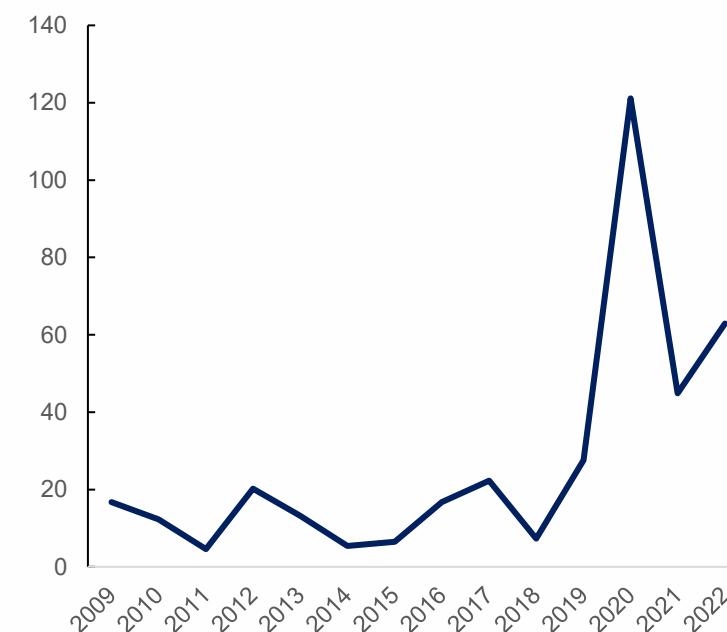
IPs by Country Income Group

(total)



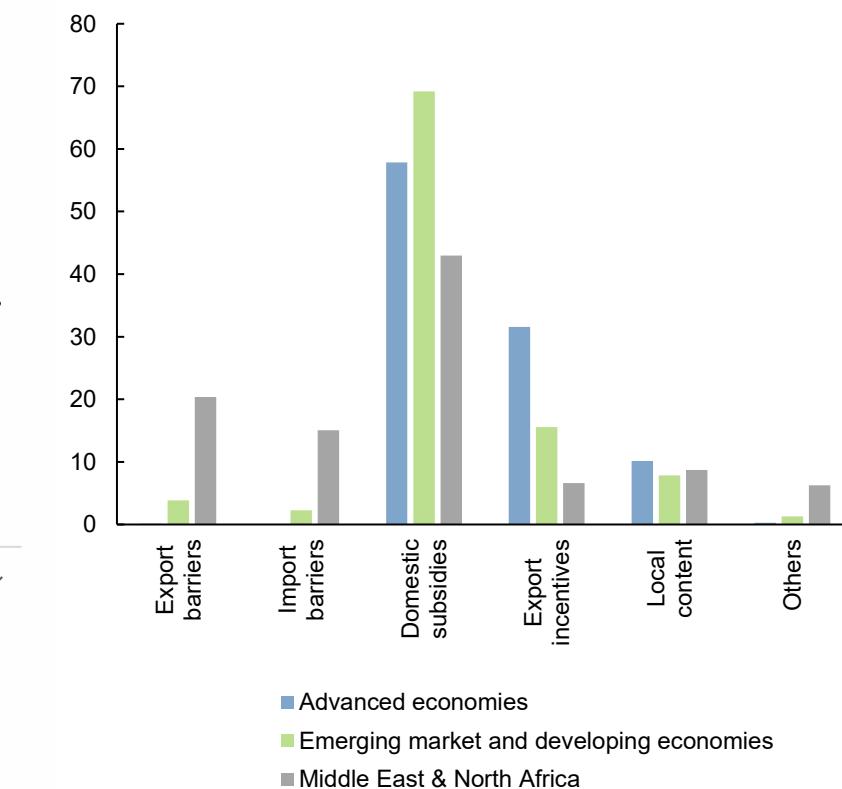
IPs in the MENA region

(total)



IPs by Instrument, 2018-2022

(percent)



Sources: Juhasz and others (2023), Global Trade Alert (GTA), and Baquie and others (2025).

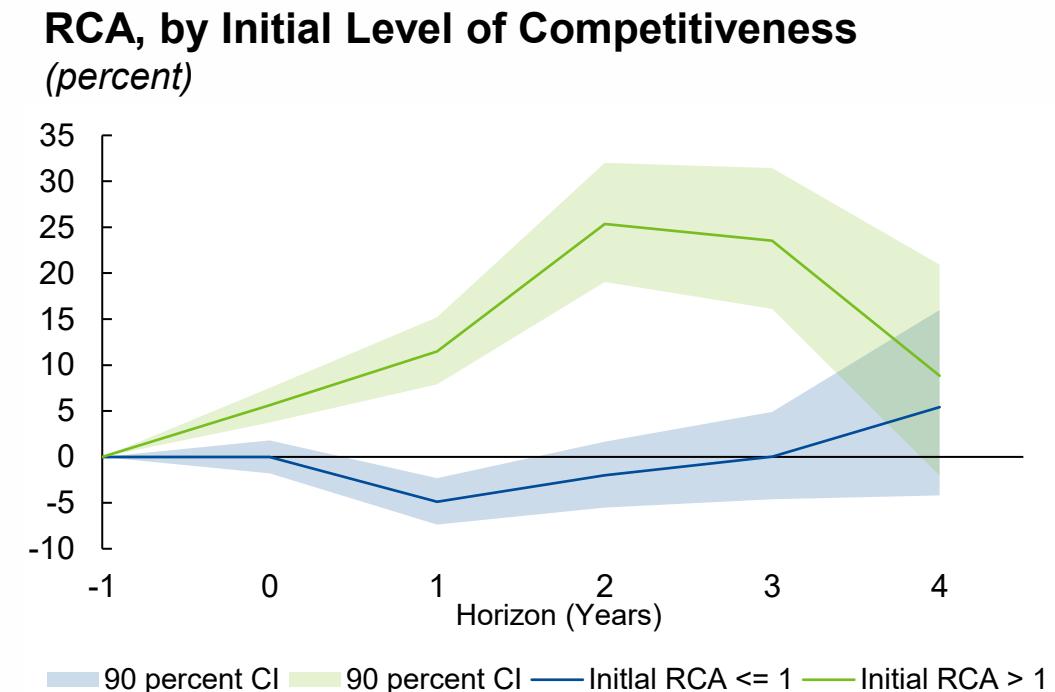
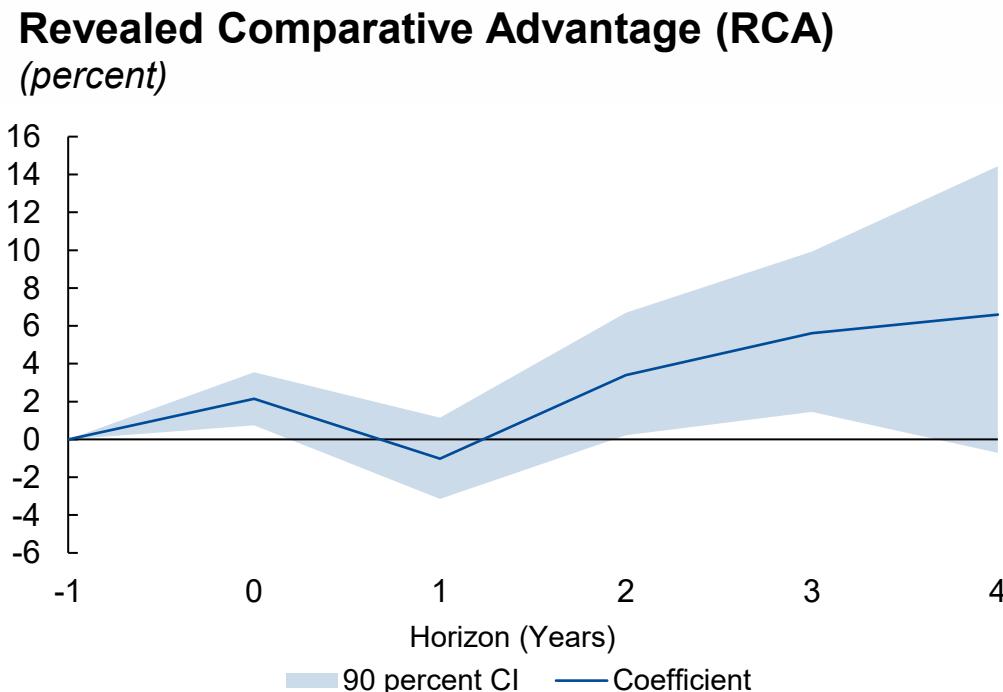
Note: IPs = industrial policies. "Others" includes, among other, policies affecting foreign direct investment into specific sectors and public procurement.

## **2. Potential effects:**

**Under what conditions IPs improve economic performance?  
Evidence from product, firm and sector level analysis**

# Competitiveness matters: IPs are associated with improvements in comparative advantage, especially for products with an initial edge

- One additional IP is linked to 5.6 percent increase in targeted product's RCA 4 years down the road
- Initial competitiveness matters: RCA increases by 9 percent for initially competitive products; short-term decreases in non-competitive products



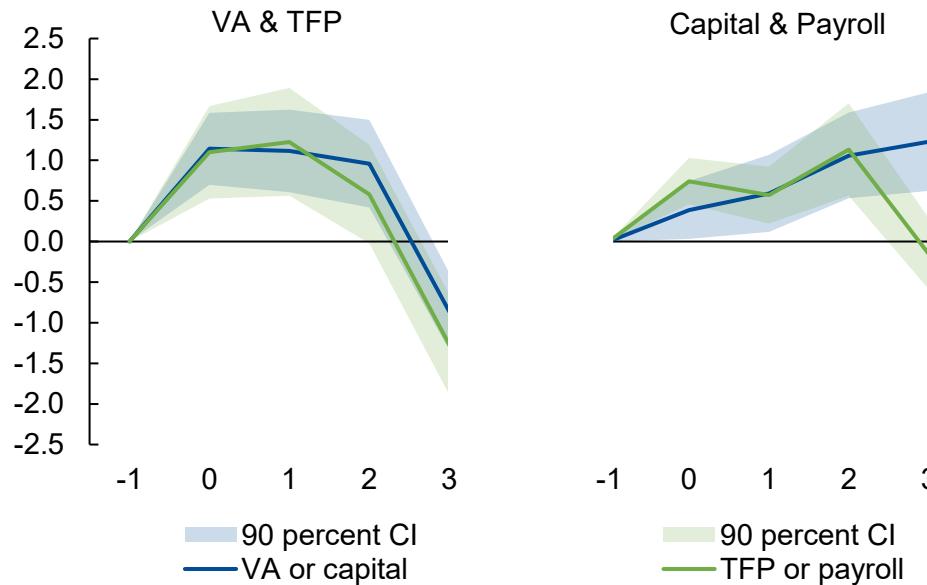
Sources: Juhasz and others (2023), Global Trade Alert (GTA), Gaulier and Zignago (2010), and Baquie and others (2025).

Note: The analysis is based on a local projection difference-in-difference framework proposed by Dube and others (2023). Shaded areas and whiskers are 90% confidence intervals. CI=confidence interval; RCA=revealed comparative advantage.

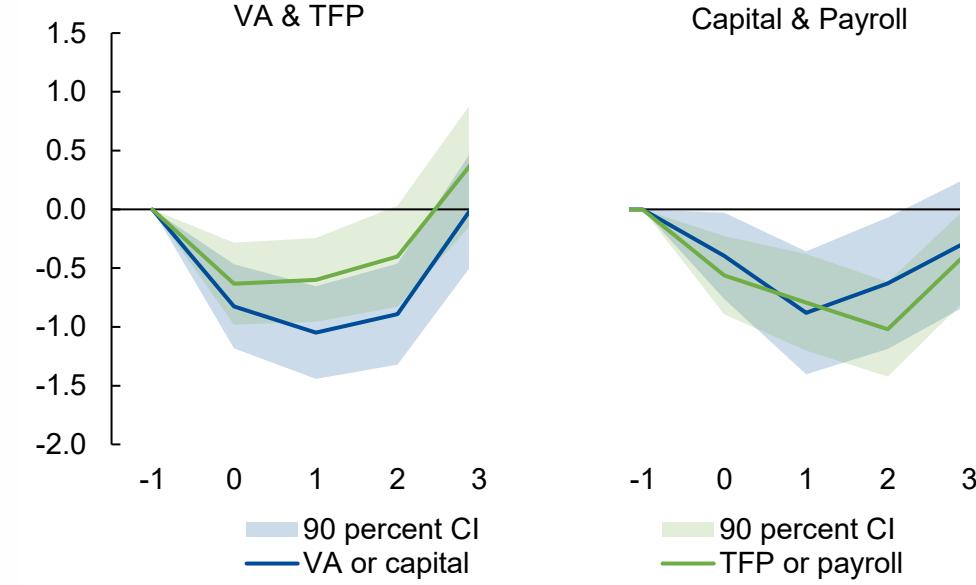
# Policy instruments matter: domestic subsidies vs. export incentives

- Subsidies linked to a 1-percent temporary increases in TFP and VA; sustained increases in capital
- Export incentives linked to short-term adjustment costs, but a medium-term TFP boost
- Similar patterns for product-level analysis and sectoral analysis of value-added and TFP.

**Domestic Subsidies and Firm Performance**  
(percent)



**Export Incentives and Firm Performance**  
(percent)

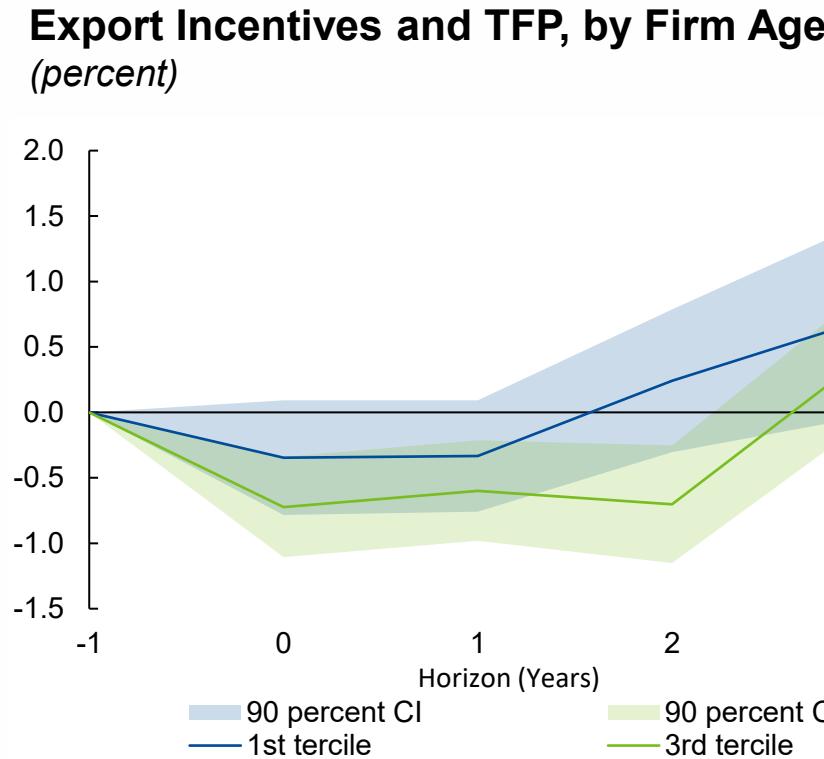
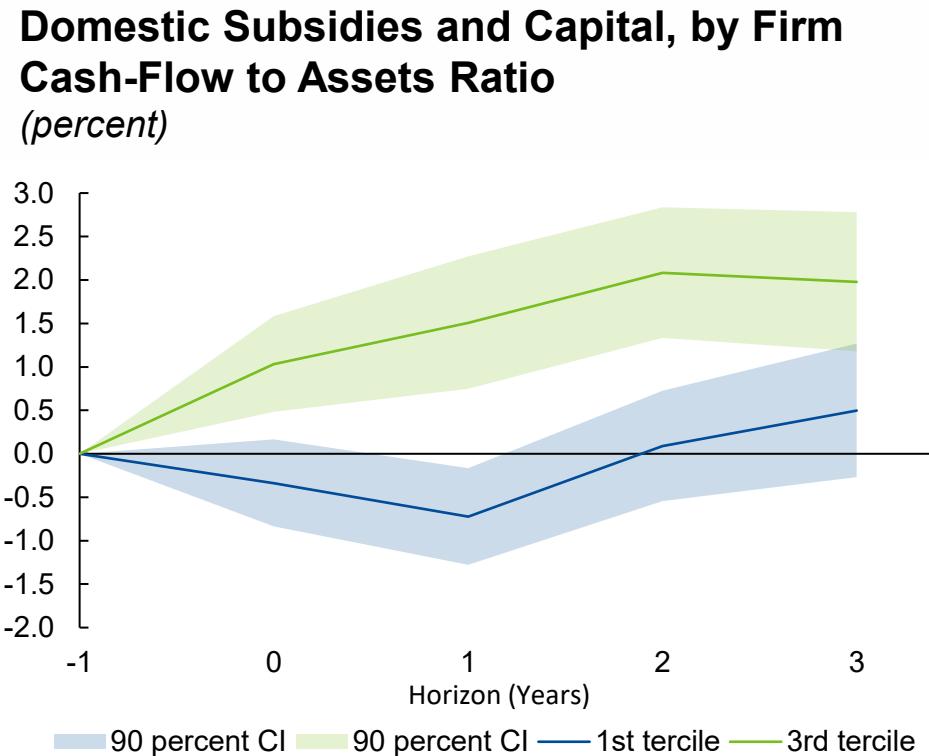


Sources: Juhasz and others (2023), BvD Orbis, and Baquie and others (2025).

Note: All panels estimate the impact of IPs using the local projection framework. Shaded areas are 90% confidence intervals. CI=confidence interval; VA = value-added; TFP=total factor productivity, VA=value added.

# Firm characteristics matter: IPs are more effective on young and financially constrained firms

- Capital accumulation responds more strongly to subsidies in *financially constrained* firms
- Positive association between export incentives and firm performance occurs faster for *younger* firms



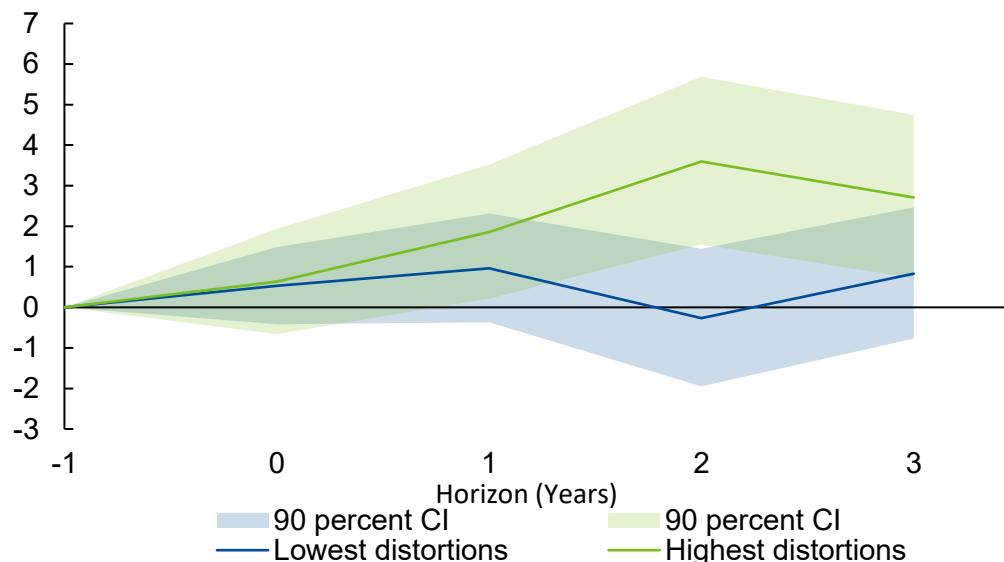
Sources: Juhasz and others (2023), BvD Orbis, and Baquie and others (2025).

Note: All panels estimate the impact of IPs using the local projection framework. Allocative efficiency measures the efficiency of the allocation of resources across firms within sectors in each country, following Chapter 3 of April 2024 WEO. Shaded areas are 90% confidence intervals. CI=confidence interval; TFP=total factor productivity.

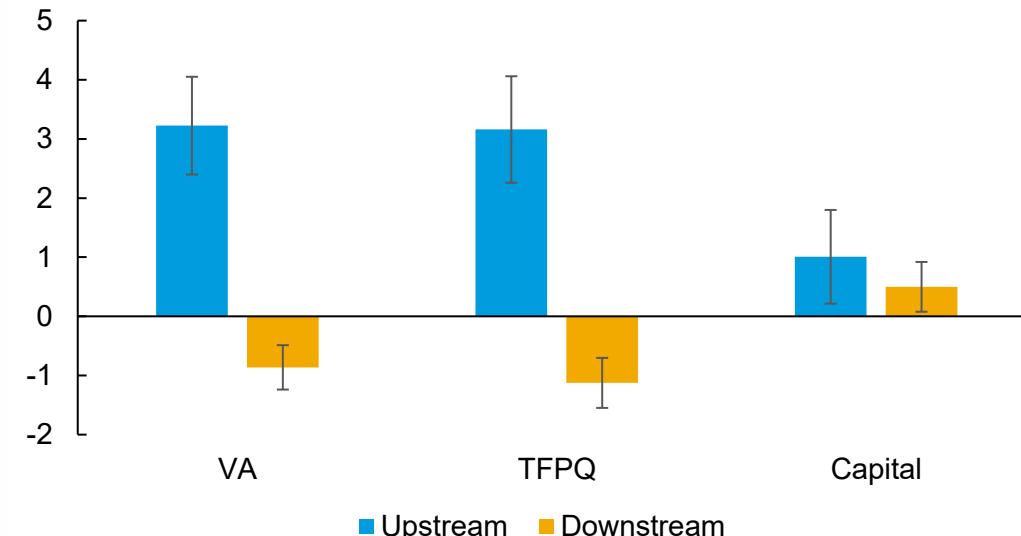
# Industry characteristics matter: the role of distortions and position in the value chain

- Highly distorted industries experience 4 percent increase in medium-term VA; not the case for low distortion industries.
- IPs targeting upstream sectors associated with improved medium-term outcomes downstream

## IPs and Industry Value Added: The Role of Distortions (protectionist IPs, percent)



## Impact of IPs Along the Value Chain (Year 3) (protectionist IPs, percent)



Sources: Juhasz and others (2023), BvD Orbis database, Baquie and others (2025) and 2025 October WEO Chapter 3 (Forthcoming).

Note: The charts estimate the impact of IPs using the local projection framework. Left: The coefficient for IPs varies with the sector's level of distortions by interacting the change in IPs with a dummy equal to one if the sector has both high markups and high external financial dependence, a dummy equal to one if the sector has both low markups and low external financial dependence, and a dummy that equals one if neither of the previous dummies is one. Only the interactions with the first and second dummies are plotted. Right: medium term impact of protectionist IPs on sectors economic performance (value added, TFP and capital stock) from Baquie and others (2025). Shaded areas and whiskers are 90% confidence intervals. CI=Confidence interval; VA=Value-Added; TFPQ=total factor productivity-Q.

### **3. Opportunity cost:**

**How does the impact of IPs compare to structural policies? How do they interact?**

# Structural Policies vs. Industrial Policies

- Both **aim** at boosting economic activity by **tackling frictions** hampering growth and productivity.

## Structural Policies

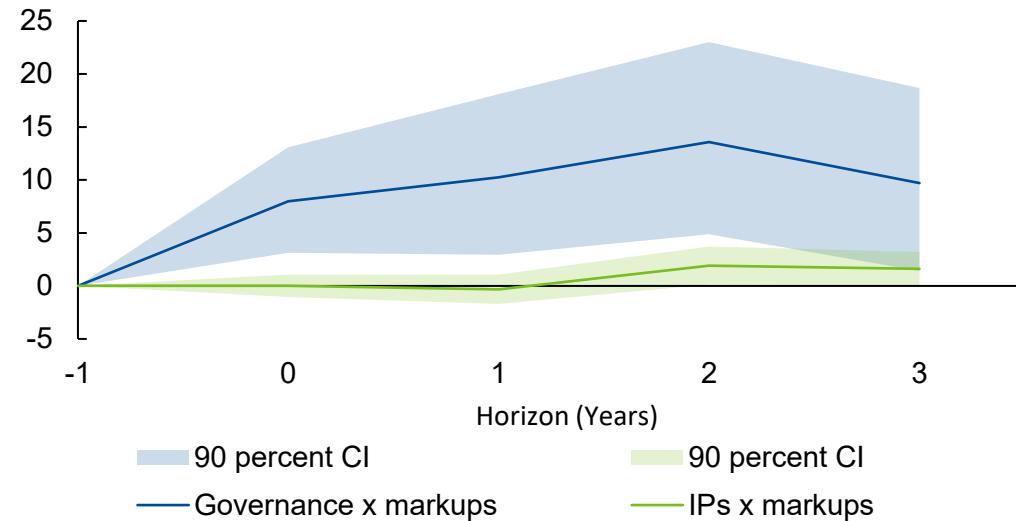
- Tackle **economy-wide** frictions by changing overarching factors.
- Their effectiveness does **not rely on precise information** about distortions and other sectoral characteristics.
- Likely entail **lower fiscal costs** than IPs, and some can even enhance tax collection.
- Expected to **create fewer distortions than IPs** as they do not target specific sectors.

## Industrial Policies

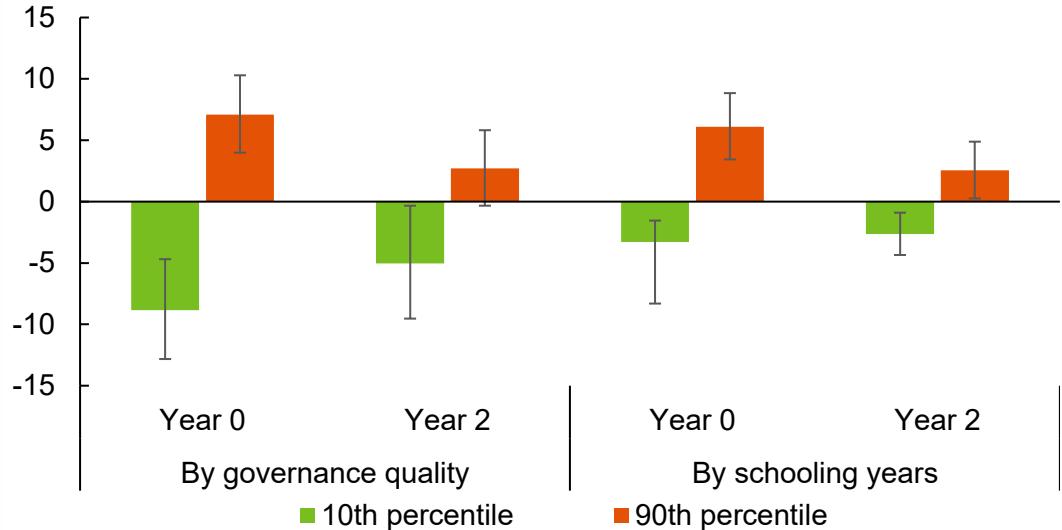
- Tackle **sectoral** frictions by changing the sectoral composition of the economy.
- Their effectiveness depends on informed and judicious **targeting**.
- May entail **larger fiscal costs** than structural reforms.
- Sectoral targeting raises concerns about potentially **welfare-reducing reallocations**.

# Structural policies may be more effective than IPs to address distortions and they amplify the effect of IPs by strengthening structural fundamentals.

## Comparison of IPs and Improvements in Governance – Value-added (percent)



## IPs and VA in EMDEs, by Governance and Education (percent)



Sources: Juhasz and others (2023), BvD Orbis database, Labelle and others (2024), and Baquie and others (2025).

Note: The charts estimate the impact of IPs using the local projections. The variables of interest are the interaction between the change in IPs and a sectoral characteristic (mark-ups) and the interaction between the same sectoral characteristics and the structural variable of interest (governance). Shaded areas are 90% confidence intervals. CI=confidence interval; IPs=Industrial policies.

- Structural reforms have a higher effect on value-added in high-distortion industries; differential effects are larger than for IPs.
- They may also entail smaller fiscal costs and lower risks of misallocation and spillovers.
- Structural fundamentals can strengthen the positive association between IPs and firm performance.
- In EMDEs, strong fundamentals are pre-conditions for impactful IPs.

## **Conclusions**

# Conclusions

- IPs can improve economic outcomes for targeted sectors under certain conditions, such as by targeting younger and financially constrained firms, sectors with large distortions, upstream or infant industries.
- However, structural policies typically yield larger benefits at smaller expected fiscal costs.
- When IPs' desirability is clearly established, the design of IPs should follow four broad principles, consistent with recent IMF guidance (IP Coverage in IMF Surveillance: Broad Considerations):
  1. IPs should be clearly targeted (sectors with large distortions or upstream), with carefully assessed costs and benefits, potential cross-sectoral spillovers, and alternative policies.
  2. Structural reforms are key to maximize the likelihood of IPs' success, and IPs require good governance and implementation capacity.
  3. Not all IPs are equal, and the choice of instruments and targeting are crucial.
  4. IPs entail cross-sectoral and cross-border spillovers, which countries must consider.

**Thank you!**

# Bibliography

Aghion, P., M. Dewatripont, L. Du, A. Harrison, and P. Legros. 2015. "Industrial Policy and Competition." *AEJ: Macroeconomics*

Baqué, S., Y. Huang, F. Jaumotte, J. Kim, R. Machado Parente, and S. Pienknagura. Forthcoming. "Industrial Policies: Handle with Care." *IMF Staff Discussion Note*

Barwick, P. J., H. Kwon, S. Li, Y. Wang, and N. B. Zahur. 2024. "Industrial Policies and Innovation: Evidence from the Global Automobile Industry." Working Paper. Working Paper Series. National Bureau of Economic Research. <https://doi.org/10.3386/w33138>.

Bown, C. P., and D. Wang. 2024. "Semiconductors and Modern Industrial Policy." *Journal of Economic Perspectives* 38 (4): 81–110. <https://doi.org/10.1257/jep.38.4.81>.

Cherif, R., and F. Hasanov. 2019. "The Return of the Policy that Shall Not Be Named: Principles of Industrial Policy." IMF Working Paper 2019/074, International Monetary Fund, Washington, DC.

Jordà, Ò. 2005. "Estimation and Inference of Impulse Responses by Local Projections." *American Economic Review* 95 (1): 161–82. <https://doi.org/10.1257/0002828053828518>.

Juhász, R., and N. Lane. 2024. "A Short Guide to Thinking About Industrial Policy: Takeaways from the New Economics of Industrial Policy." *IMF/PIIE Volume*.

Juhász, R., and N. Lane. 2024. "The Political Economy of Industrial Policy." *Journal of Economic Perspectives* 38 (4): 27–54. <https://doi.org/10.1257/jep.38.4.27>.

Juhász, R., N. Lane, E. Oehlsen, and V. C. Pérez. 2023. "The Who, What, When, and How of Industrial Policy: A Text-Based Approach." Unpublished manuscript, University of British Columbia

Juhász, R., N. J. Lane, and Dani Rodrik. 2024. "The New Economics of Industrial Policy." Working Paper. Working Paper Series. National Bureau of Economic Research. <https://doi.org/10.3386/w31538>.

LaBelle, J., I. Martínez-Zarzoso, A. M. Santacreu, and Y. Yotov. 2024. "Cross-Border Patenting, Globalization, and Development." *Working Papers*, Working Papers, , June. <https://ideas.repec.org/p/fip/fedlwp/97470.html>.

Lane N. 2022. Manufacturing revolutions: industrial policy and industrialization in South Korea. CSAE Work. Pap. Ser., Cent. Stud. Afr. Econ., Univ. Oxford, Oxford, UK

Liu, E., and Song M. 2021. "Innovation Networks and R&D Allocation." Working Paper. Working Paper Series. National Bureau of Economic Research. <https://doi.org/10.3386/w29607>.