

Industrial policy in developing countries: Is there a way to pick winners?

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ABCDE

World Bank Evolution: Report to Governors

Box 3: Updated Core Analytics

The updated suite will include: the *Country Climate and Development Report* (CCDR), focusing on climate adaptation and mitigation and the country's relation to a livable planet; the *Poverty and Equity Assessment* (PEA), focusing on core poverty and inequality issues; the *Country Economic Memorandum* (CEM), focusing on prosperity and key economic sectors, with a plan to be revamped into a Growth and Jobs report; the *Public Finance Review* (PFR), an expansion of the current Public Expenditure Review to focus on a country's revenues as well as expenditures; and an updated *Country Private Sector Diagnostic* (CPSD 2.0), reframed and focused on specific opportunities to increase private investment. For countries on the list of fragile and conflict-affected situations (FCS), Risk and Resilience Assessments will remain.

- Endorsement of industrial policy approach to development policy?

Open questions

1. How to identify “key economic sectors”?
2. How to develop these sectors without protectionism?

Why focus on “key economic sectors”?

Macroeconomic policy, human capital, and infrastructure have improved significantly in recent decades, relaxing “horizontal” constraints affecting all firms

Microeconomic policy interventions that help firms grow in certain contexts:

- Consulting (Anderson and McKenzie 2022; Cusolito et al. 2024)
- Market access information (Atkin et al. 2017)
- Quality certification (Zavala et al. 2023)
- Export processing infrastructure (Wang 2013)

→ Budget constraint implies need to target interventions to firms or sectors

→ Some interventions require tailoring to needs of firms or sectors

But can't target sectors by ranking market failures

- Difficult to compare market failures across industries systematically, but some efforts:
 - ❖ Scale economies
 - Bartelme et al. (2021) estimate scale economies using international I/O tables and find largest in rubber and plastics, machinery and equipment
 - But which machinery and equipment? Country specific? Not granular enough.
 - ❖ Financial frictions
 - Small firms are financially constrained in general due to fixed cost of investment; optimal subsidy to finance “latent comparative advantage” (Itskhoki and Moll 2019)
- Other market failures are case specific, with qualitative dimensions
 - Learning by doing
 - Coordination failures
 - Spillovers between sectors

→ Knowledge of market failures helps design policy within a sector but isn't sufficient to tell you where to focus

Threshold market size model of development says target sectors that export or serve the middle class

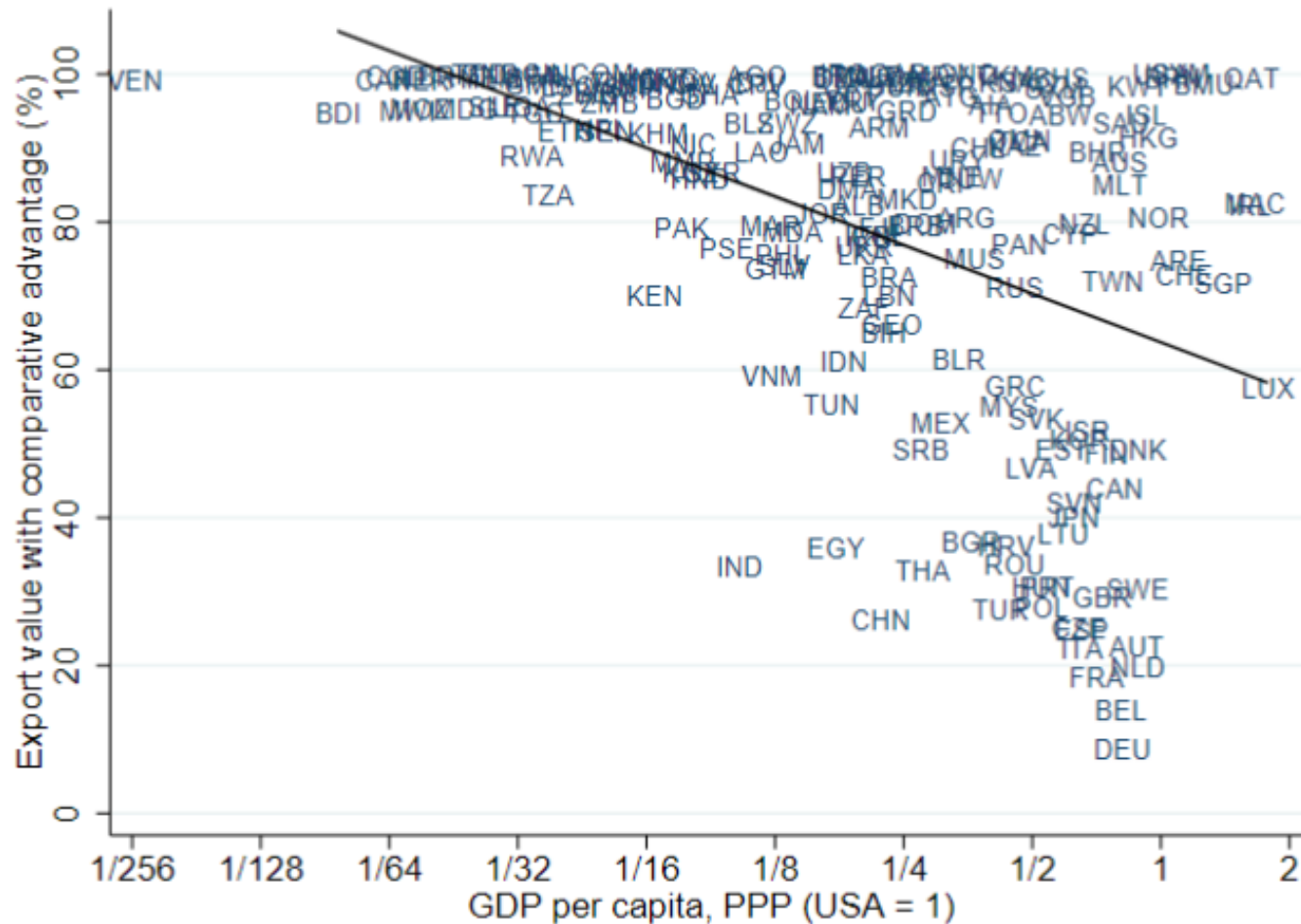
TABLE IV
THRESHOLD PROFIT FUNCTIONS.

Dependent Variable		Sustained Poverty Reduction
Market size (S)	Middle-class share of domestic population	0.503 (0.207)
	Relative population of integrated market (1000s of people)	0.154 (0.089)
	Relative GDP per capita of integrated market	0.043 (0.02)
Variable profit (V)	Constant	1.786 (0.686)
	Exports (% annual growth)	5.626 (2.73)
	Agricultural total factor productivity (annual growth)	-5.239 (7.598)
Fixed cost (F)	Constant	0.703 (0.207)

Three cases:

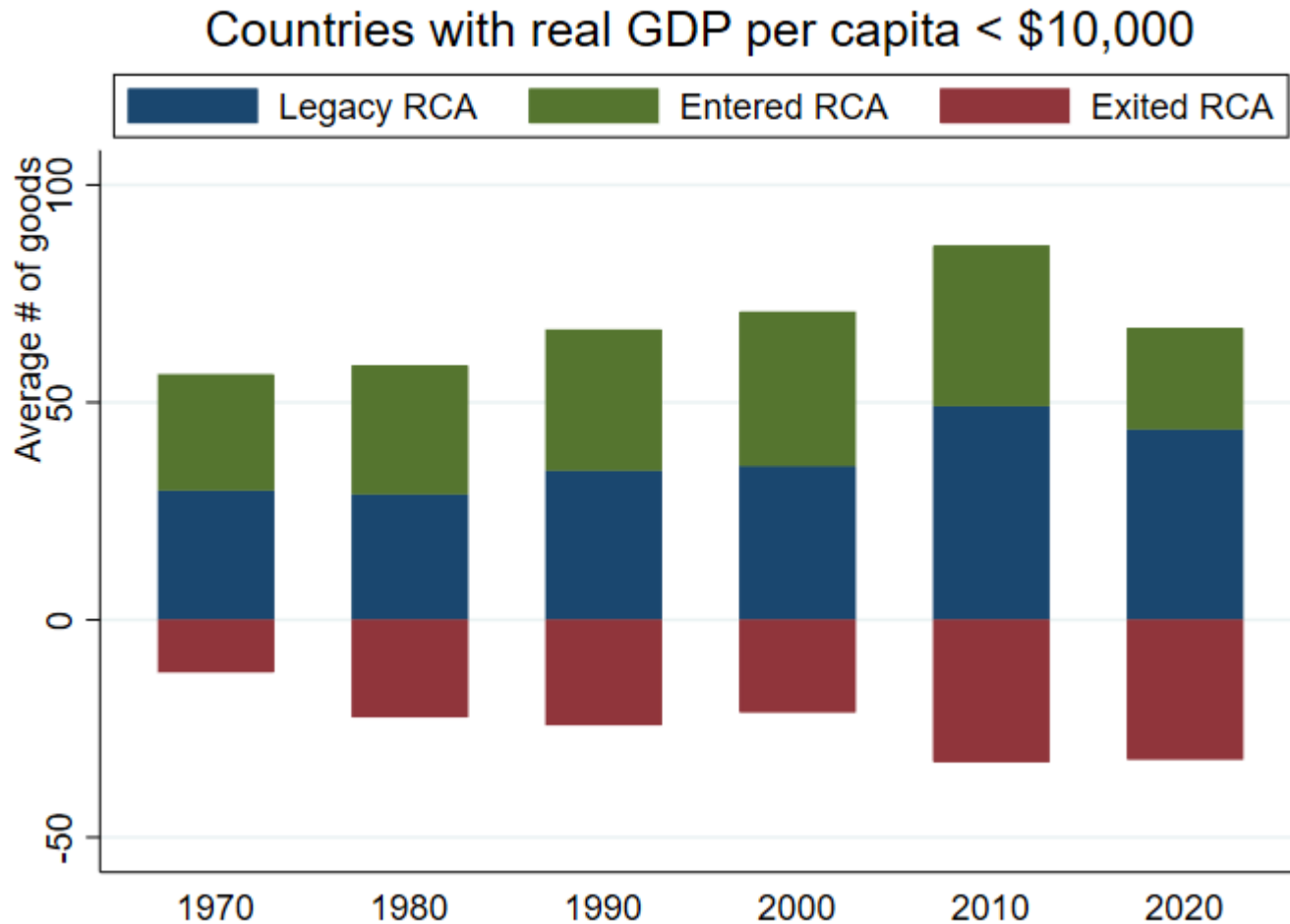
1. For small countries, exports are essential
– Goods or producer services
2. For large poor countries, exports still essential given small middle class
3. For large countries with middle class, can develop consumer services in addition to exports

Revealed comparative advantage identifies most productive export sectors



- Lower-income countries specialize in small number of sectors with revealed comparative advantage
- Industrial strategies often focus on these sectors
 - ❖ E.g., Senegal Nat'l Development Plan says phosphate mining is "growth and employment-generating" and targets "a production of more than 3.5 million tons of lime phosphates and 800,000 tons of acid"

Comparative advantage is dynamic, though slow moving



Developing countries' capabilities are:

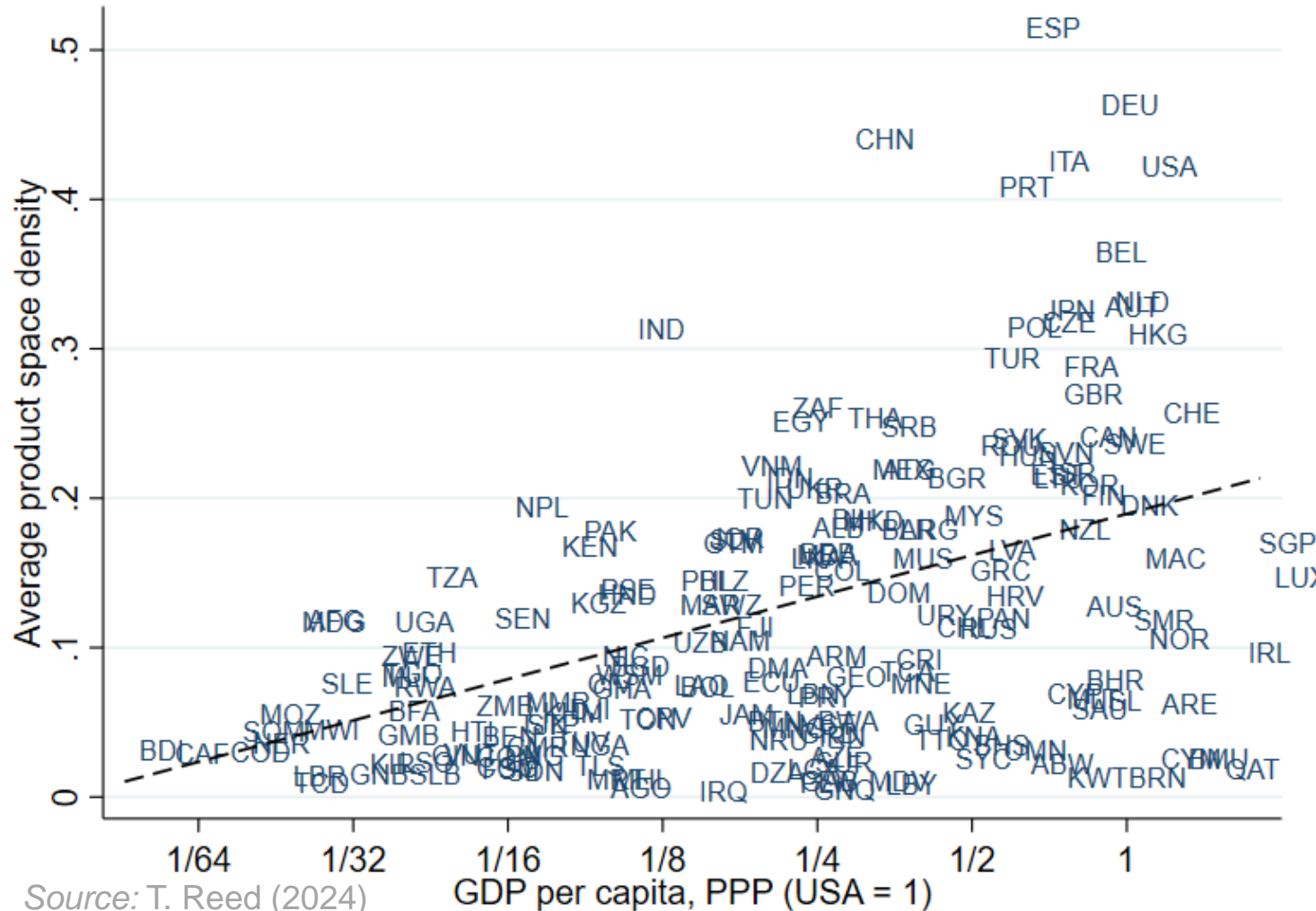
- ❖ Dynamic: 31 industries with RCA did not have RCA in last decade
- ❖ Slow-moving: 36 industries with RCA, also had RCA in last decade

→ Safe to focus on a single industry for at least one government administration:

- ❖ Hanson et al. (2015): “it will take 5.5 years for half of the initial shock to log comparative advantage to dissipate and 18.4 years for 90 percent of the initial shock to dissipate”

→ But need to support new sectors too...

Lower-income countries have far fewer products that are technologically "nearby"



Source: T. Reed (2024)

- “Product space” measure of Klinger and Hausmann (2005) predicts likelihood of comparative advantage based on existing
 - Different from “complexity” (see Atkin, Costinot, Fukui, 2021)

→ Targeting more valuable for developing countries?

→ For new sectors, need business case based on existing advantages

Benchmarks for sector targeting in diagnostics

Risk is making low return investments. Identify two sets of opportunities:

- 1 Low risk: High comparative advantage, but with low international market share and so room to grow
- 2 High risk: Low comparative advantage industries that are technologically related to existing advantages with growing markets, low competition, and access to key inputs

Claims:

- Many countries have not fully exploited comparative advantages
- Can exclude many potential diversification opportunities

Services easily incorporated

Production (tradable) services are in export data

→ Calculate revealed comparative advantage and technological relatedness directly and compare to goods exports

Consumption services are few:

- ❖ Restaurants and hospitality
- ❖ Transport and logistics
- ❖ Wholesale and retail trade
- ❖ Construction and real estate
- ❖ Utilities
- ❖ Professional services

→ Prioritize by relevance for tradable goods and services, or, if economy is large, relevance more middle class?

Industrial policy need not be protectionist

Some industrial policies “discriminate against foreign commercial interests”

- tariffs
- local content requirements
- export subsidies
- export prohibitions

- Juhász et al. (2023) define Evenett (2009) as the “what” and “how” of industrial policy, but most countries remain committed to trade rules that prohibit these measures
- IMF uses same data for discussion of industrial policies

Others are not prohibited and even encouraged under WTO and RTA rules

- ✓ product quality certification
- ✓ programs to link firms to new customers and suppliers
- ✓ sector-specific infrastructure
- ✓ sector-specific skills programs
- ✓ Industry-specific regulation
- ✓ innovation subsidies without local content, or export contingencies
- ✓ place-based policy

- **For countries committed to WTO rules, there are many options**

“Soft” industrial policy requiring high capacity but less budget than subsidies is promising

1. Export promotion agencies are models of how to provide services to individual firms
 - They help firms diversify products and destination markets (Martincus and Carballo 2008; Lederman 2010; Barteska and Lee 2023)
 - But governments underinvest. Among LMICs 55 agencies have web portal to contact them for assistance, and only 6 responded to a request for assistance. Budgets are lower in developing countries (Choi, Fernandes, et al. 2023)
2. Public-private dialogue (*mesas de dialogo*) to solve coordination failures
 - Weekly meetings between private sector and key regulators with deliverables
 - Peru case appears successful in driving reforms

Thank you!