

Beyond Manufacturing: Structural Change in Africa Reconsidered

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The Brookings Institution, IGC and UNU-WIDER

Governor's Lecture

Bank of Uganda

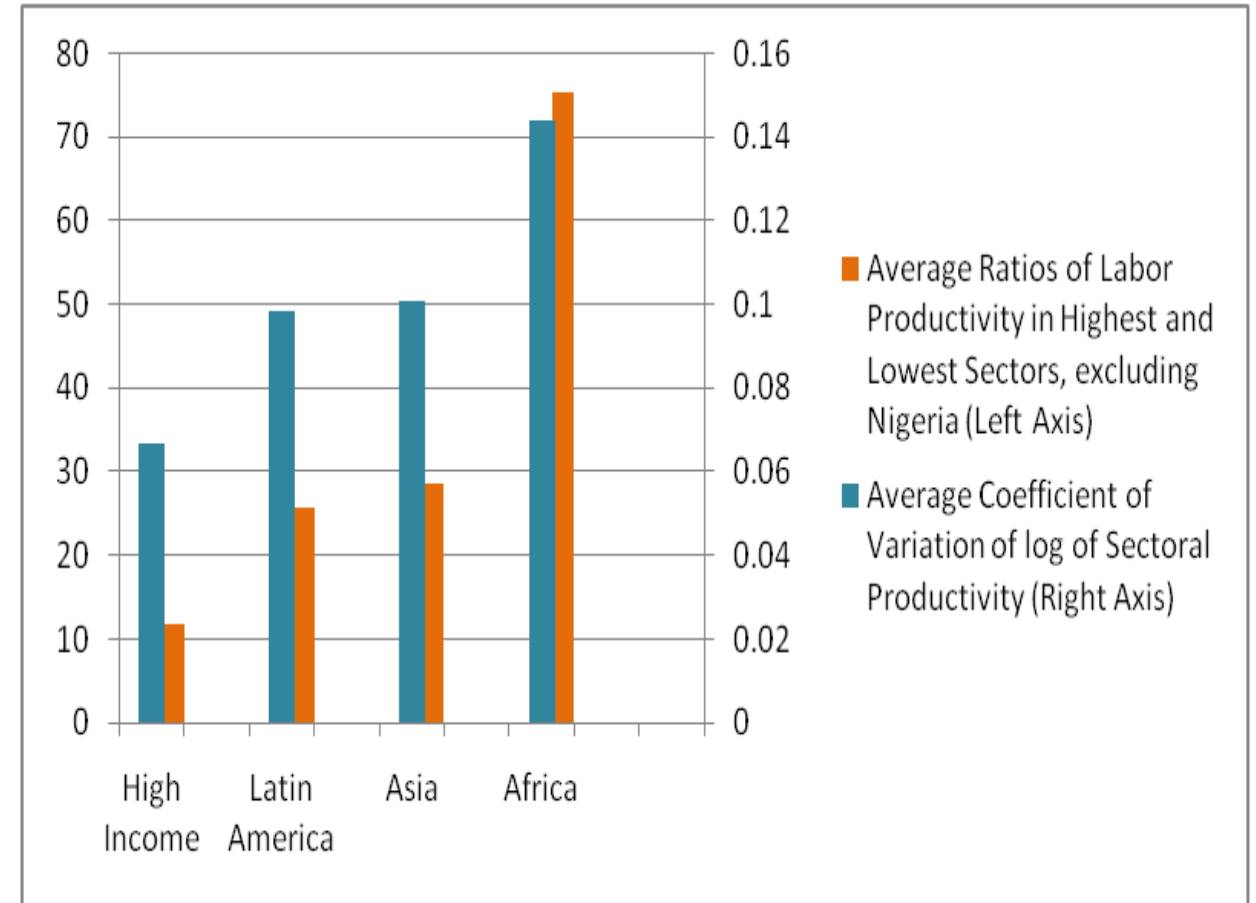
Kampala, 21 September 2018

Rediscovering Structural Change

- An idea as old as the study of economic development
 - Lewis, Kuznets and Chenery
- Academic interest in structural change waned in the 1980s & 90s
 - Cross country regressions consigned it to the “residual”
- The result for public policy was a focus on “whole economy” drivers of growth such as openness, institutions, governance, etc.
 - These prescriptions proved to be of little practical relevance to public policy
- Since 2000 a group of “new structuralists” have emerged in development economics
 - Lin, Rodrik, Stiglitz

The Potential for Structural Change

- In countries at low levels of income productivity differences between sectors are large
 - The movement of resources from low productivity to high productivity employment drives growth
 - As incomes rise, productivity differences among sectors (and enterprises) tend to converge
- Africa has the greatest differences in productivity among sectors, and therefore the greatest potential for structural change



Regional Differences in the Role of Structural Change are Striking

- In East Asia within sector productivity growth and structural change were complementary
- Between 1990 and 2000 “growth reducing” structural change slowed overall growth in In Africa and Latin America.
- Recent structural change (2000-2010) in Africa has been from agriculture into low productivity services

Figure 4.b. Decomposition of Productivity Growth by Country Group, 1990-1999 (weighted)

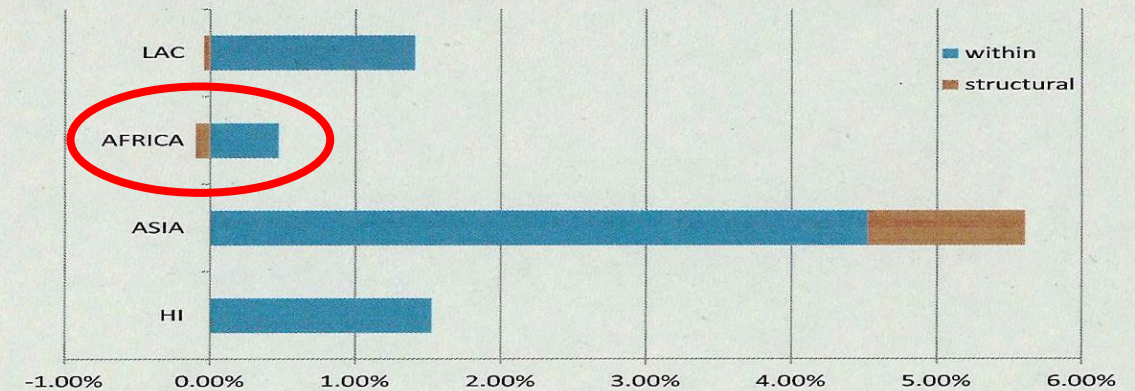
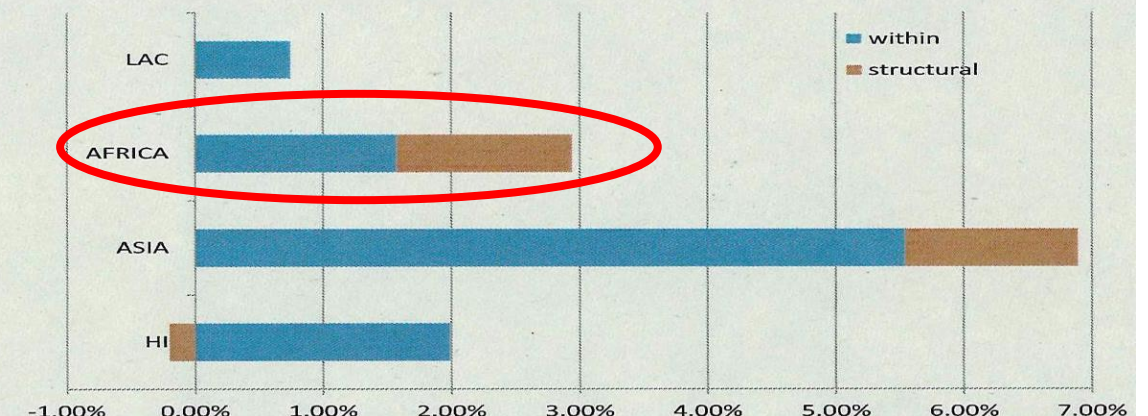
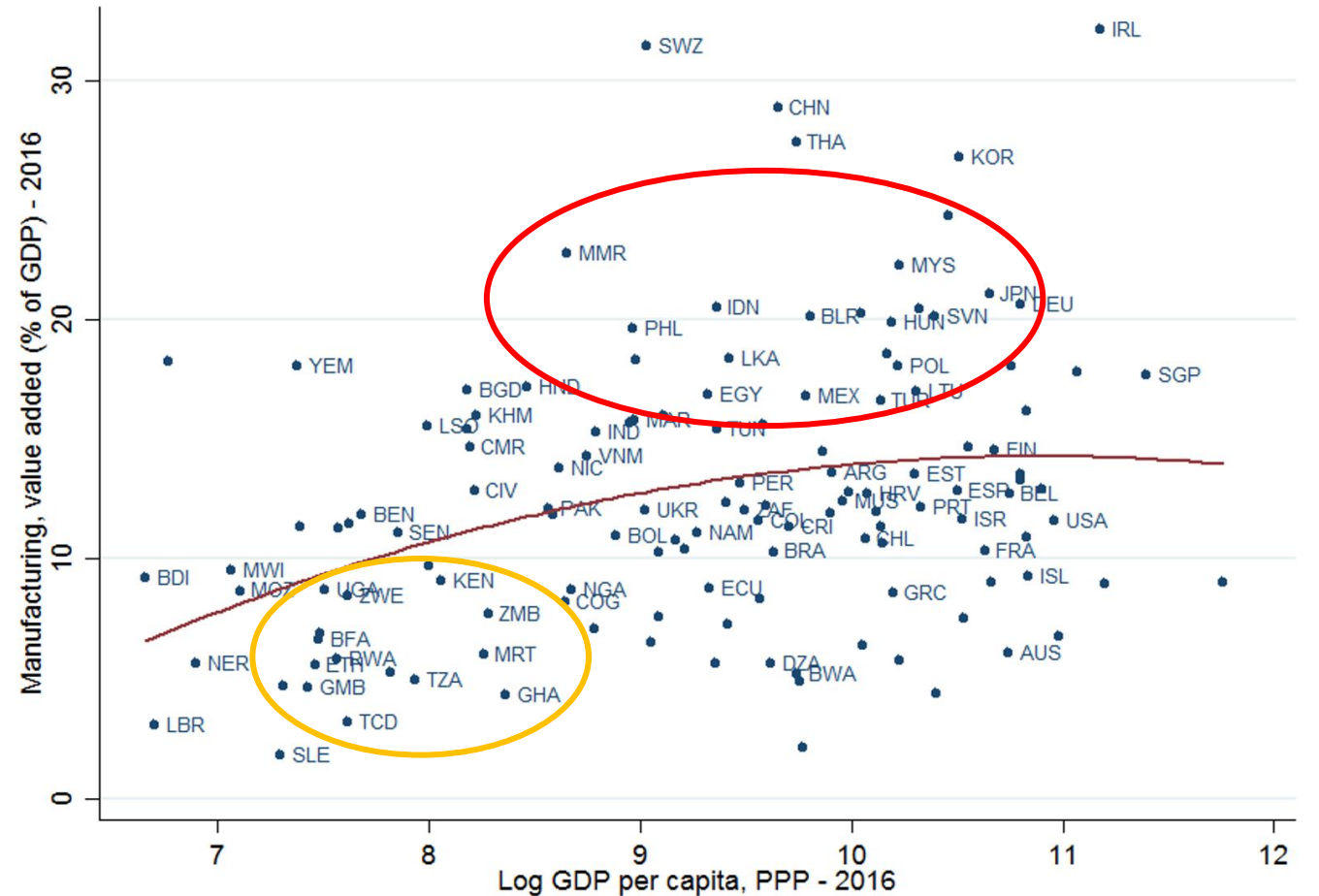


Figure 4.d. Decomposition of Productivity Growth by Country Group, Post 2000 (weighted)



As are Regional Differences in the Role of Industry

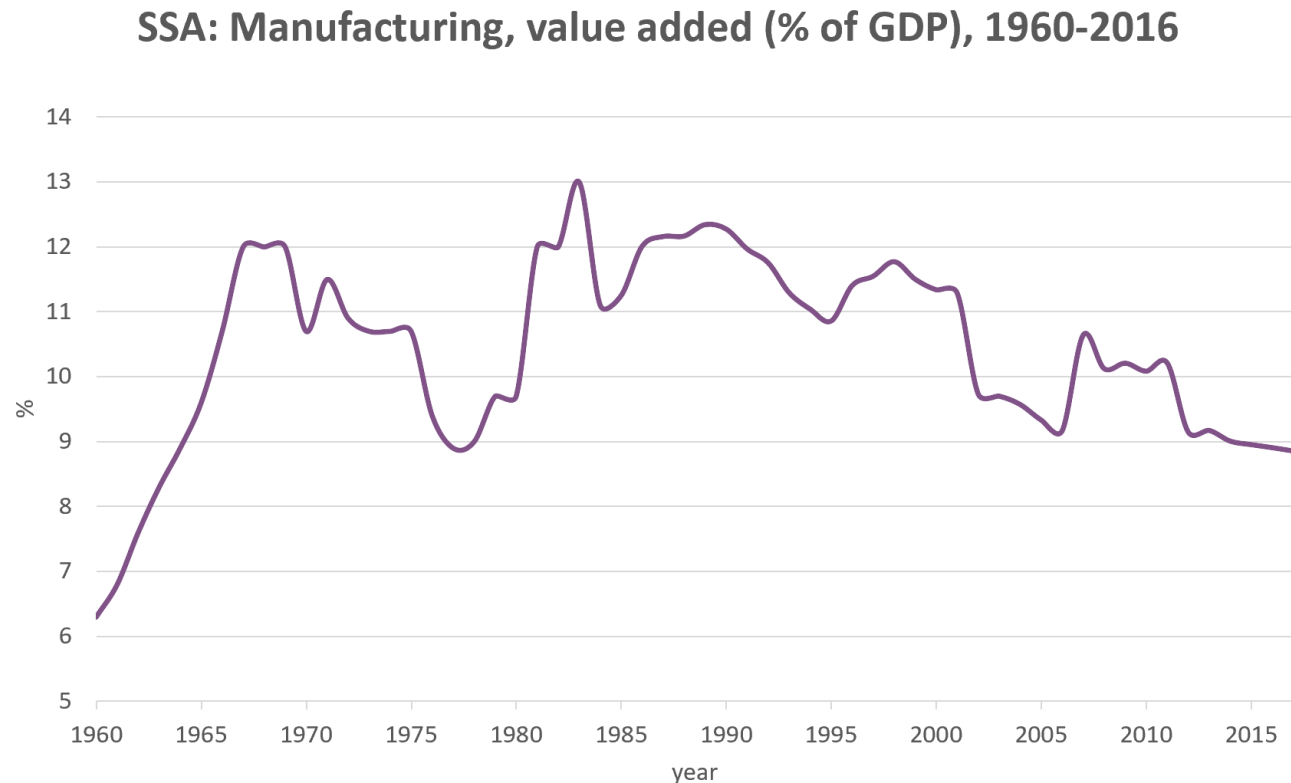
- Historically, industry has led the process of structural change
- It has played an outsized role in East Asia
- Industry has played only a minor role in Africa's growth turn around
 - The region's fast growing economies (ETH, GHA, KEN, RWA, TZA, UGA) are all negative outliers



Source: Word Bank World Development Database and World Bank Africa Development Indicators

Africa Has Deindustrialized

- **Africa's share of manufacturing in GDP is less than half of the average for all developing countries**
- **Per capita manufactured exports are about 10 per cent of the developing country average.**
- **Africa's share of global manufacturing is smaller today than in 1980**



Source: World Bank World Development Database and World Bank Africa Development Indicators. Author's calculations.
Notes: SSA excludes South Africa.

Leading Some to Question the Durability of Growth

“there is a genuine question about whether Africa’s growth can be sustained...I come down on the pessimistic side, due to what I think are **poor prospects for industrialization**”

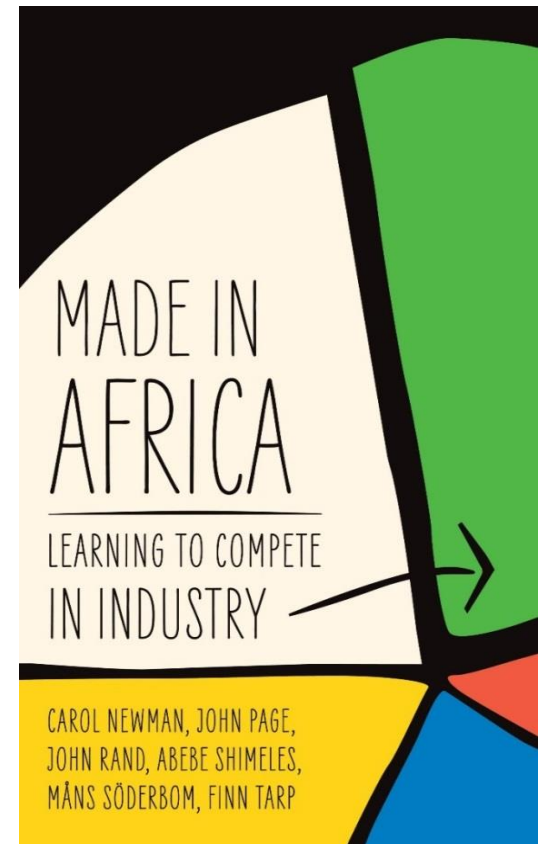
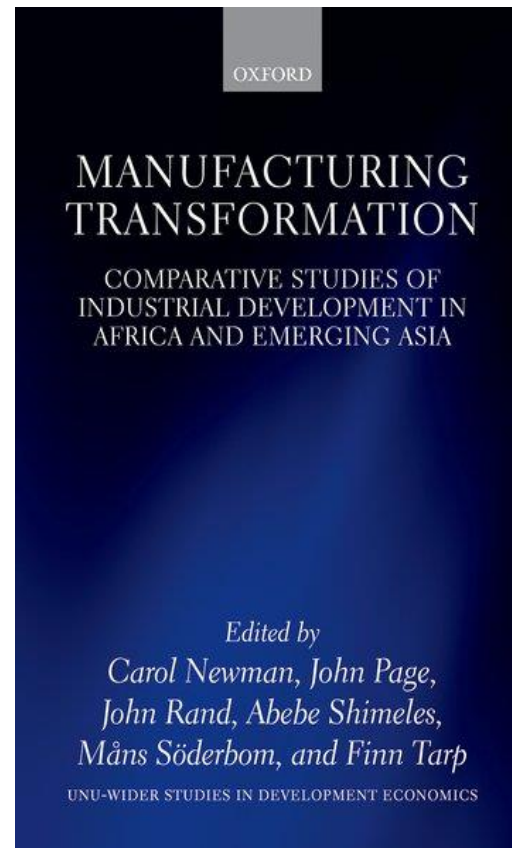
-- Dani Rodrik (2014)

“... it is unlikely that manufacturing export led growth will have the impact that it had in China and East Asia. **It cannot be the sole strategy or even at the heart of a country’s growth strategy.**”

-- Joseph E. Stiglitz (2018)

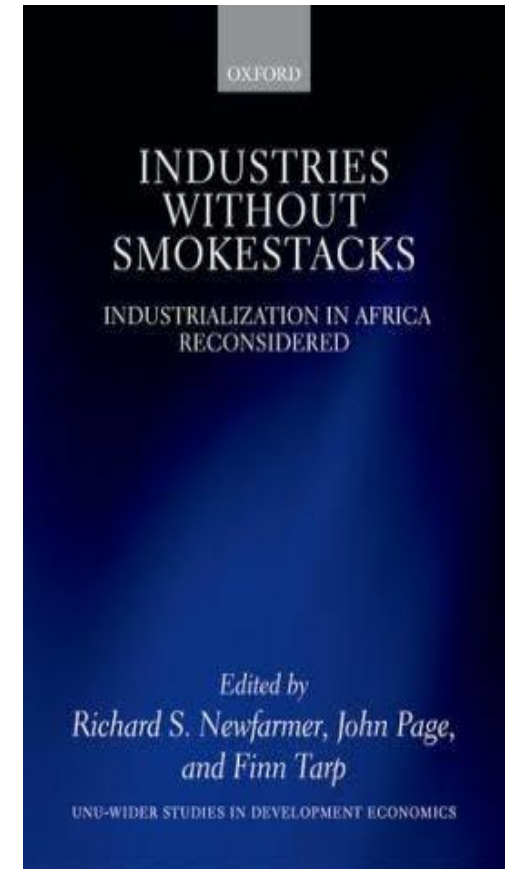
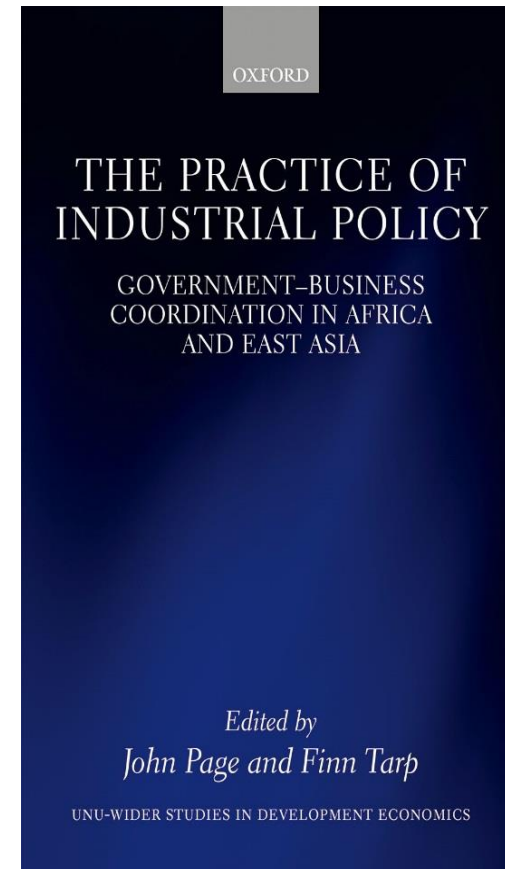
The Brookings-WIDER Research Program

- A multi-year, multi country comparative research program
- *Learning to Compete* (2016) (with AfDB) Tried to Answer a Simple Question:
Why is there so little industry in Africa?



The Brookings-WIDER Research Program

- *The Practice of Industrial Policy* (2017)
Comparative studies of business-government coordination in Africa and East Asia
- *Industries Without Smokestacks: Industrialization in Africa Reconsidered* (2018)
Expanded the definition of “industry” to tradable services and agro-industrial exports



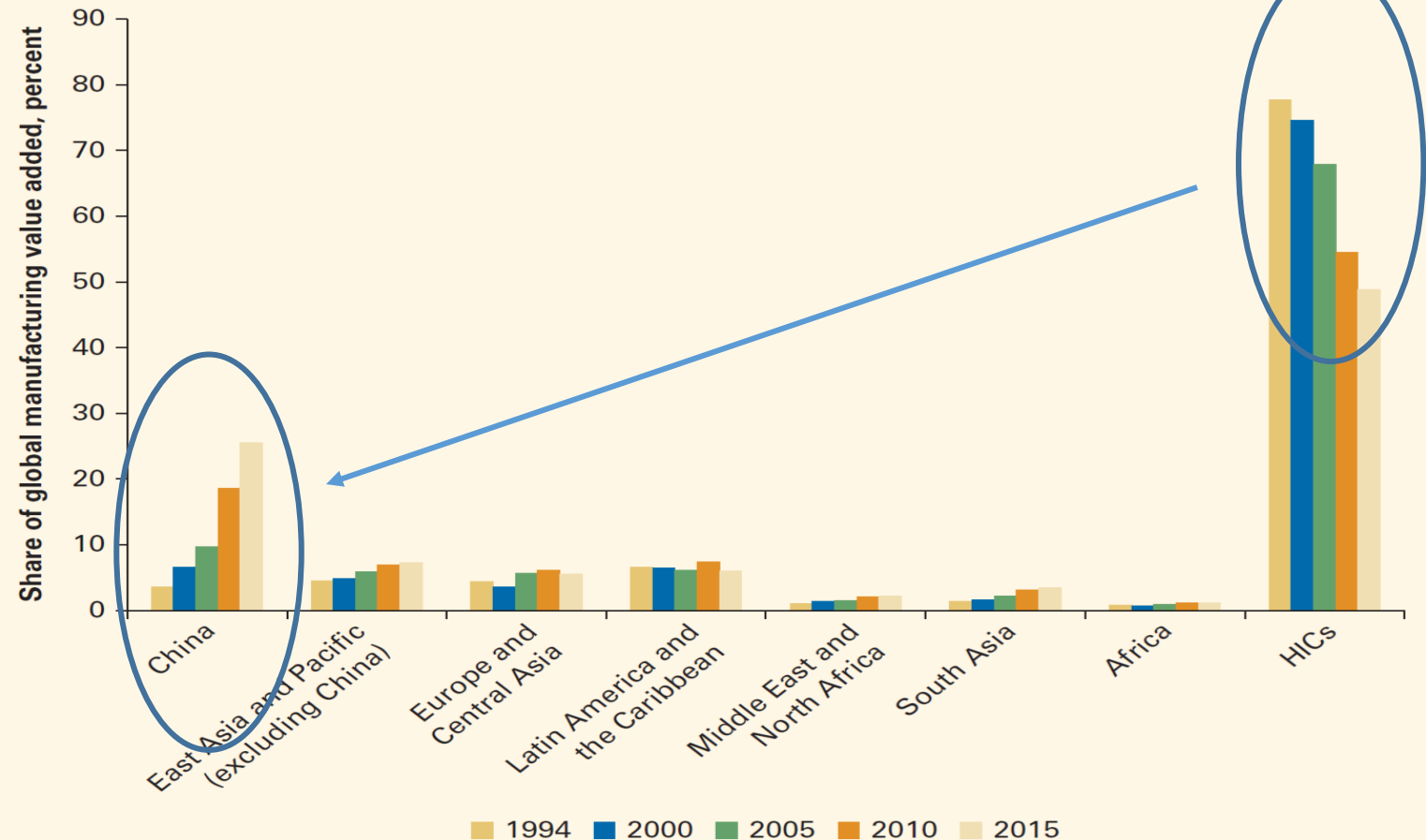
A Focus on Firms

- Most analysis of Africa's lagging industrial development has focused on the investment climate.
 - Regulatory reform ...*Doing Business*
 - Infrastructure and Skills
- Investment climate studies focus explicitly on the environment *external* to the firm.
- But, the key issues in industrial policy reflect what happens *within* ("firm capabilities") and *between* firms (externalities and coordination failures).
- We wanted to learn: (1) What makes firms more competitive and (2) what makes countries more attractive to competitive firms.

Three changes in the global economy make industrialization more difficult for Africa....

- **1- China and East Asia dominate as manufacturing centers...**

Share of global manufacturing value added in China, global regions, and high-income countries



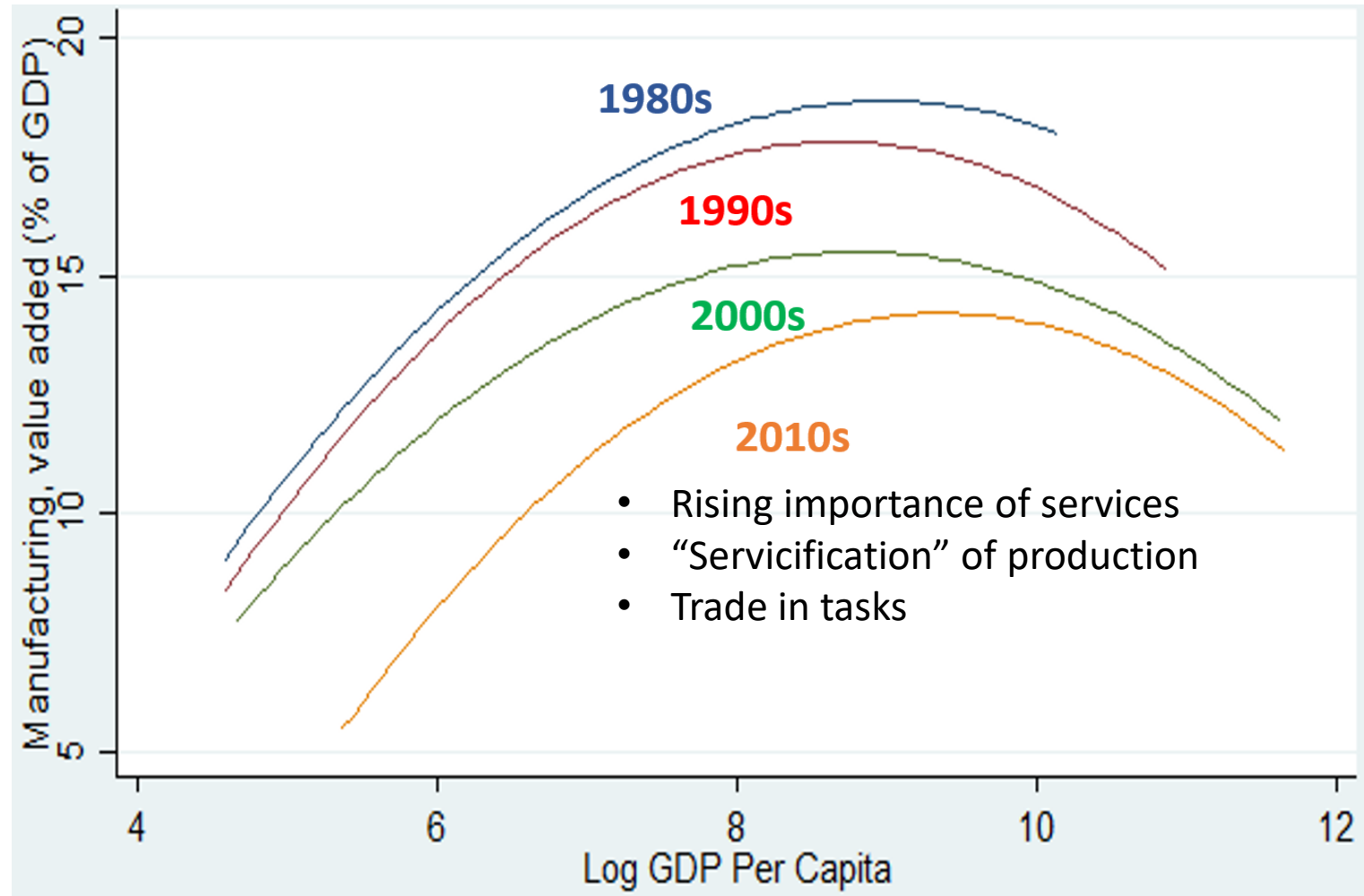
Source: World Development Indicators database.

Note: High-income countries (HICs), as defined in 1994, are those whose gross national income per capita was at least US\$8,955.

Three changes in the global economy make industrialization more difficult for Africa....

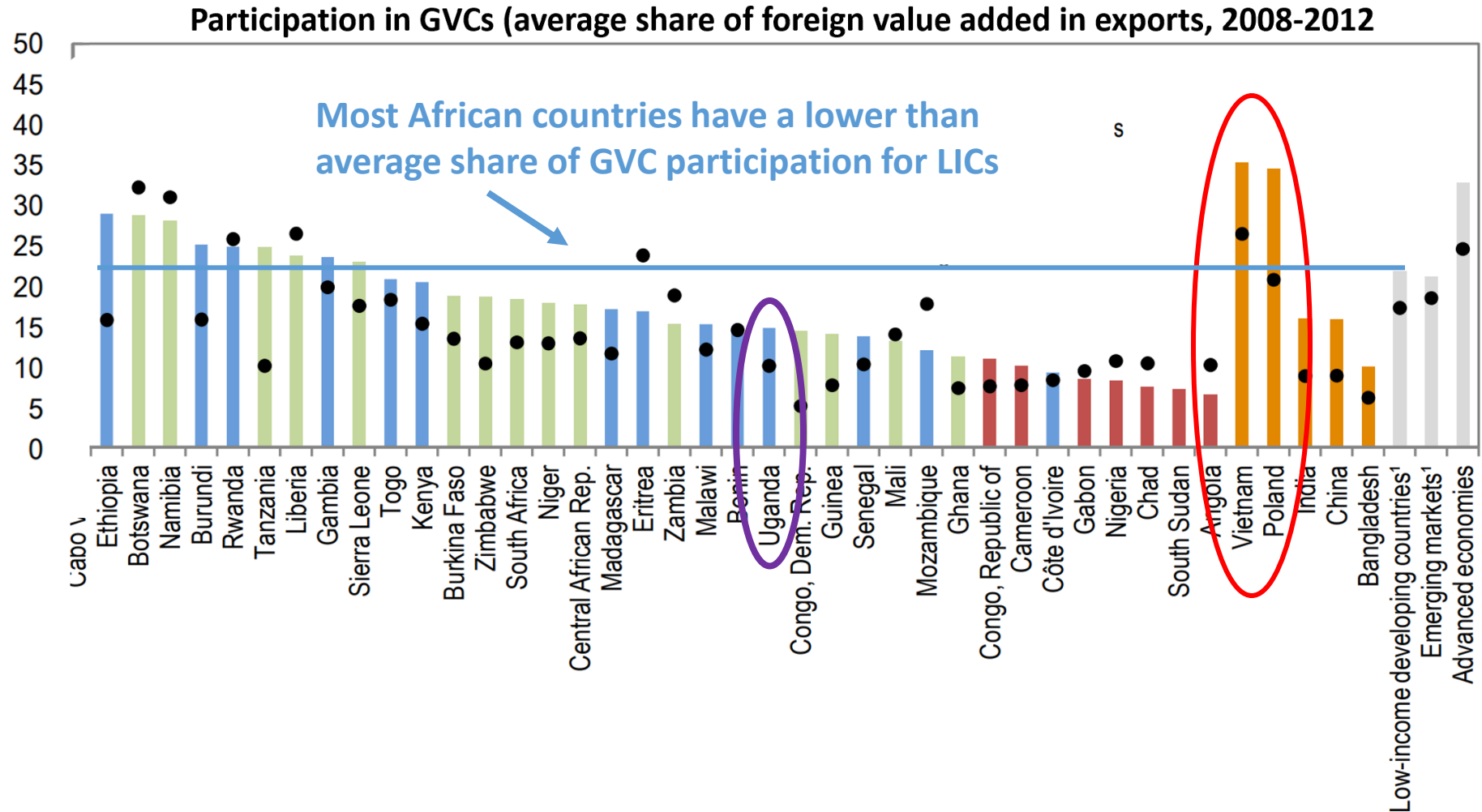
- 1- China and East Asia dominate as manufacturing centers...
- 2 - Manufacturing as a share of GDP is falling everywhere on average

Manufacturing as share of GDP on average declines over four decades



Three changes in the global economy make industrialization more difficult for Africa....

- 1- China and East Asia dominate as manufacturing centers...
- 2 - Manufacturing as a share of GDP is falling everywhere on average
- 3 - Selling to the global market increasingly requires participating in global value chains



The Rise of “Industries Without Smokestacks”

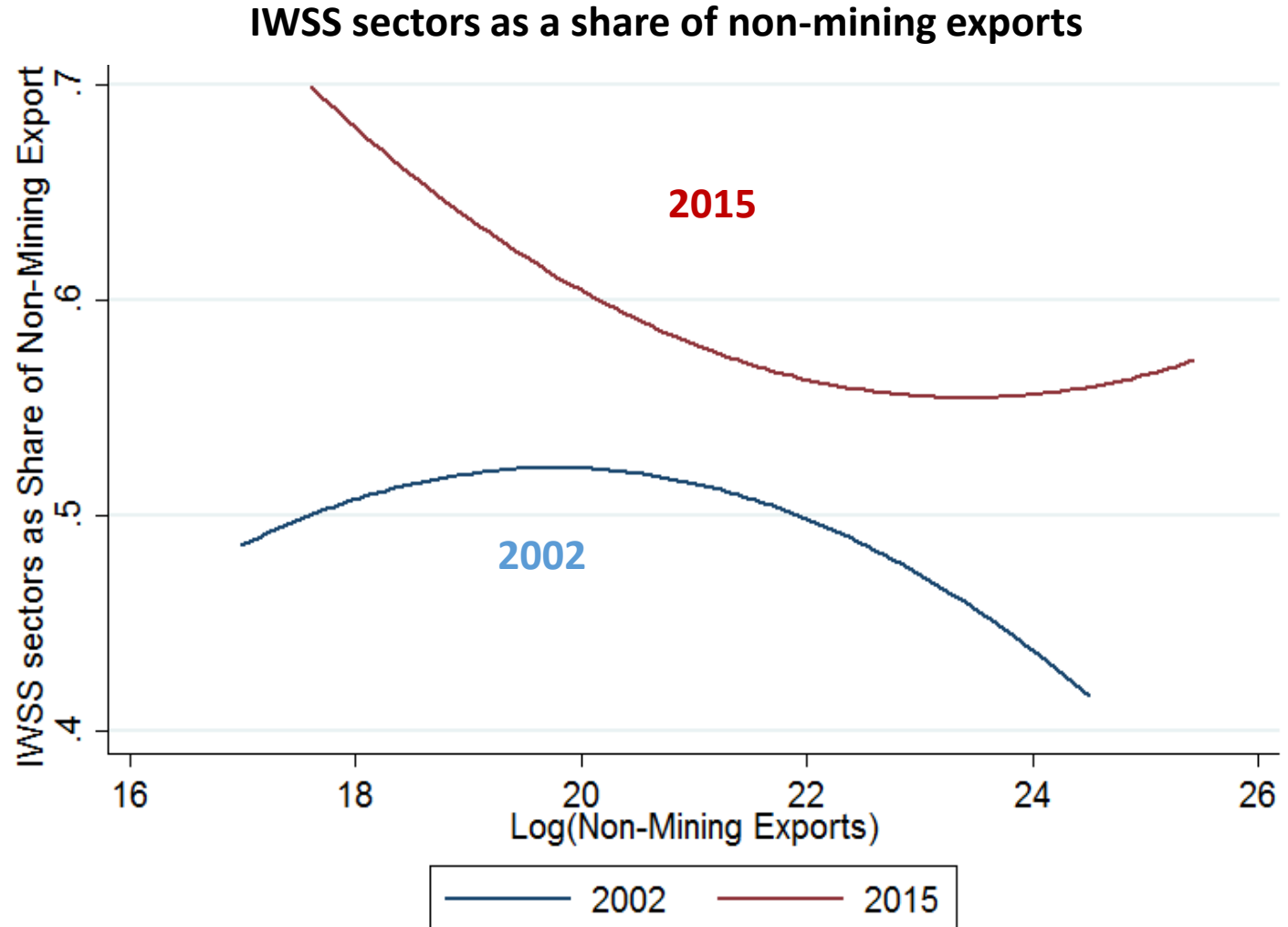
- Technology and falling transport costs have created a class of tradable services and agro-industry that are more similar to manufacturing than to traditional services or agriculture
 - Think call centers versus restaurants; cut flowers versus subsistence agriculture
- These “industries without smokestacks” share many of the firm characteristics of manufacturing
 - Technical change, learning, agglomeration
- They also offer a broader array of options for structural change.
 - Horticulture and agro-processing
 - Tourism
 - Tradable services, such as Information and communication services
 - Transit trade and logistics

“Industries Without Smokestacks” Have Become More Important in Africa

In 33 African countries with relevant data:

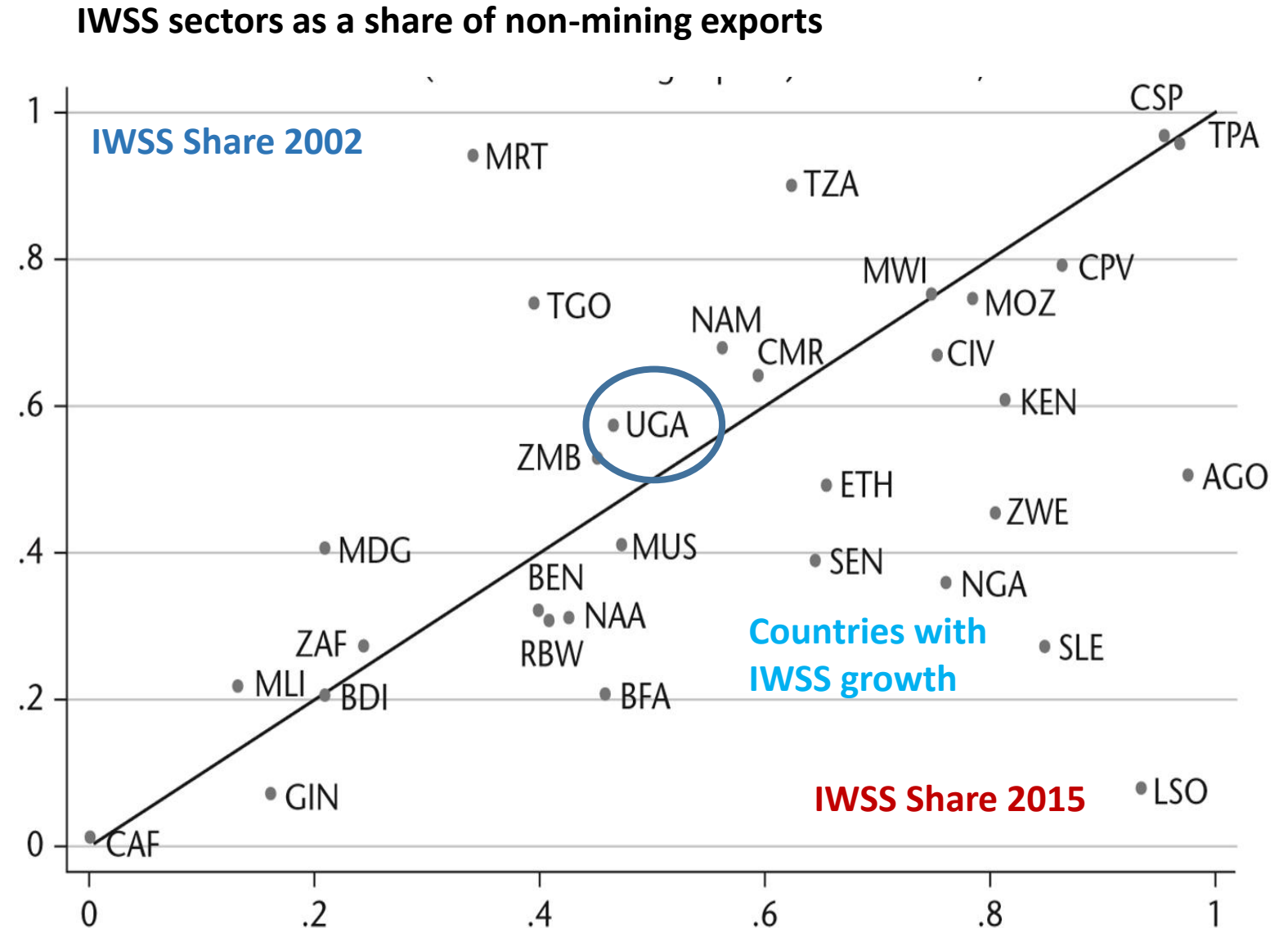
IWSS grew more rapidly and became more important in export portfolios

Both large and small exporters saw gains in these sectors



“Industries Without Smokestacks” Have Become More Important in Africa

IWSS sectors grew more rapidly, or at least as fast, as traditional sectors in two thirds of African countries – and faster in half of the countries.



Rethinking African “Industrialization”

- Patterns of structural change in contemporary low income countries will differ substantially from historical experience.
- Africa’s resource endowments suggest that many internationally competitive activities will be “industries without smokestacks.”
- The challenge for policy makers is to promote the growth of high productivity sectors capable of absorbing large numbers of moderately skilled workers.

“Industrial Policy” for the 21st Century

- Market imperfections mean that the social returns in growth-promoting investments exceed private returns
 - A case for public action
- Externalities and coordination failures call for a coherent strategy of public action
 - Put differently, Africa needs a strategy for structural change
- Because “industries without smokestacks” share many firm characteristics with smokestack industries, they also respond to broadly similar policies.
- But to design effective industrial policies we need to understand what drives the choice of “industrial” location.

Four Drivers of Industrial Location

- The “basics” (AKA the “Investment Climate”)
 - Infrastructure and skills
 - Institutions and regulation
- Exports
 - Scale is important
 - Firms in low income countries increase their productivity by exporting
- Firm capabilities
 - The tacit knowledge and working practices that affect both productivity and quality
- Agglomerations
 - Industrial clusters confer significant productivity gains

Lacking the “Basics”

- Country case studies highlight large gaps in infrastructure:
 - Power is the biggest constraint
 - Transport and logistics come a close second
- Skills related to production and management are lacking in many countries
 - Deficiencies in post-primary education
 - Poorly performing vocational and technical education
- **The basics are necessary but not sufficient**
 - Exports, geography and capabilities are interrelated

New Directions for Industrial Policy

Mounting an “Export Push”

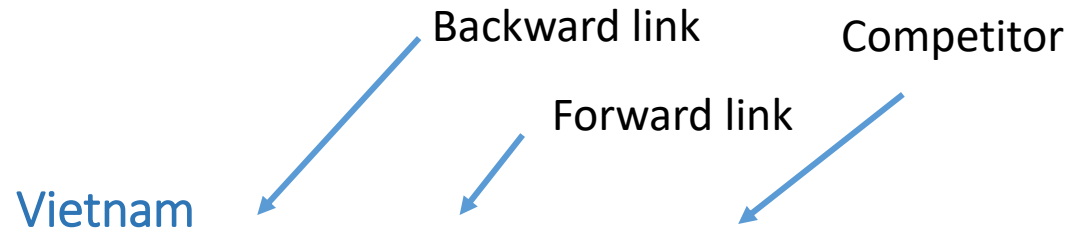
- High social returns to exporting but high private costs of entry
 - The classic rationale for public action
- Entering global markets requires an “East Asian style” export push
 - Broad ownership and effective institutions (leadership from the top)
 - Trade related infrastructure and trade logistics
- Support for regional institutions and infrastructure
- Sustaining an open trading system and rationalizing preferences

New Directions for Industrial Policy

Building Firm Capabilities

- Africa lacks capable mid-sized firms (50-70 workers)
 - Management of a growing labor force is a major constraint
- An export push is a major source of capabilities
 - Demanding buyers; repeated relationships
- FDI is another
 - Build effective FDI agencies
- New approaches to management training

Strengthening Domestic Value Chain Relationships:



FDI Firm				Supplier		Customer		Competitor	
No	Province	Investor	Product	I No	Inputs	C No	Products	I No	Products
1	Hanoi	Japan	Porcelain products	1	Chemical	2	Porcelain products	x	Porcelain products
						2	Porcelain products		
						3	Porcelain products		
2	Hanoi	Japan	Furniture	2	Glass	4	Furniture	x	Furniture
				3	Wood	5	Furniture	x	Furniture
				4	Wood	6	Furniture		
3	Hanoi	Singapore	Tyres and tubes	5	Chemical	7	Tyres and tubes	x	Tyres and tubes
				6	Chemical	8	Tyres and tubes	1	Tyres and tubes
				7	Chemical	x	Tyres and tubes		
4	Hanoi	China	Electrical equipment	8	Copper wire	9	Transformers	x	Transformers
				9	Copper wire	10	Transformers	2	Transformers
5	Hanoi	Japan	Motor components	10	Iron	11	Auto assembling	x	Auto spare parts
				11	Iron	x	Auto assembling	3	Auto spare parts
				12	Iron	x	Auto assembling		
6	Hanoi	Multiple	Rubber components	13	Rubber materials	12	Rubber products	x	Rubber products
				14	Raw rubber	13	Rubber products	x	Rubber products
				15	Raw rubber	14	Rubber products	x	Rubber products
7	Hanoi	Japan	Metal components	16	Steel	15	Locks	4	Metal products
				17	Steel	16	Misc. mechanical products	x	Metal products
				18	Steel	17	Antennas	x	Metal products
8	Hanoi	Taiwan	Fibre optic cable	19	Special printing ink	18	Optic cable	5	Fibre optic cable
				20	PP bags	19	Optic cable		
						20	Optic cable		
9	Hanoi	Japan	Paint	21	Packing bags/boxes	21	Auto assembling	6	Paint
						22	Misc. equipment	x	Paint
						23	Misc. equipment		
10	Hanoi	Multiple	Paint	22	Chemical	24	Doors	x	Paint
				23	Chemical	25	Concrete	x	Paint
				24	Products for packing				
11	Hanoi	Multiple	Chemical products	25	Acid	26	Construction	7	Chemicals for construction
				26	Chemical	27	Concrete	x	Chemicals for construction
				27	Chemical	28	Construction		
12	Hanoi	Multiple	Carton products	28	Paper	29	Beer	8	Paper
				29	Paper	30	Milk	x	Carton
				30	Printing	31	Mechanical items	x	Paper bags
13	Hanoi	Japan	Plastic products	31	Amorlon	32	Plastic door	9	Plastic products
						33	Plastic door	x	Plastic products
						34	Misc. plastic products	x	Plastic products
14	Hanoi	Singapore	Electrical equipment	32	Electric wires	35	Transformers	10	Electric wires
				33	Misc. electronic products	36	Transformers	x	Electric wires
				34	Misc. electronic equipment	37	Radio	x	Electric wires
15	Hanoi	Japan	Printing products	35	Printing paper	38	Misc. printing products	11	Printing
				36	Printing paper	39	Misc. printing products	x	Printing
				37	Printing paper	40	Misc. printing products	x	Printing

Note: Out of the 88 identified none refused to participate in the survey. An additional 3 FDI/MNCs were interviewed but their interlinkages were not traced.

FDI Firm				Supplier		Customer		Competitor	
No	City	Investor	Product	I No	Inputs	C No	Products	I No	Products
1	Nairobi	India	Packaging	1	Thouse and Hygiene products	1	Dairy/Food processing	x	Carton packaging
						x	Dairy/Food processing	1	Packaging
								x	Packaging
2	Nairobi	Switzerland	Footwear	x	Textiles			x	Misc. rubber products
								2	Food and Footwear
3	Nairobi	USA	Automotive Industry			2	Cement	3	Automotive Industry
4	Nairobi	UK	Pharmaceuticals					4	Pharmaceuticals
5	Nairobi	Mauritius	Iron and Steel Industry					5	Steel
								x	Steel
6	Nairobi	Taiwan	Textile	2	Carton manufacturer				
7	Nairobi	UK	Tobacco	3	Printers			6	Tobacco
8	Nairobi	Netherlands	Petroleum	4	General plastics	x	Sugar		
				x	Misc products				
9	Nairobi	USA	Beverages					7	Beverages
10	Nairobi	France	Cement					8	Cement
								x	Cement
								x	Cement

Note: Out of the 14 identified for interview 9 refused to participate in the survey.

New Directions for Industrial Policy

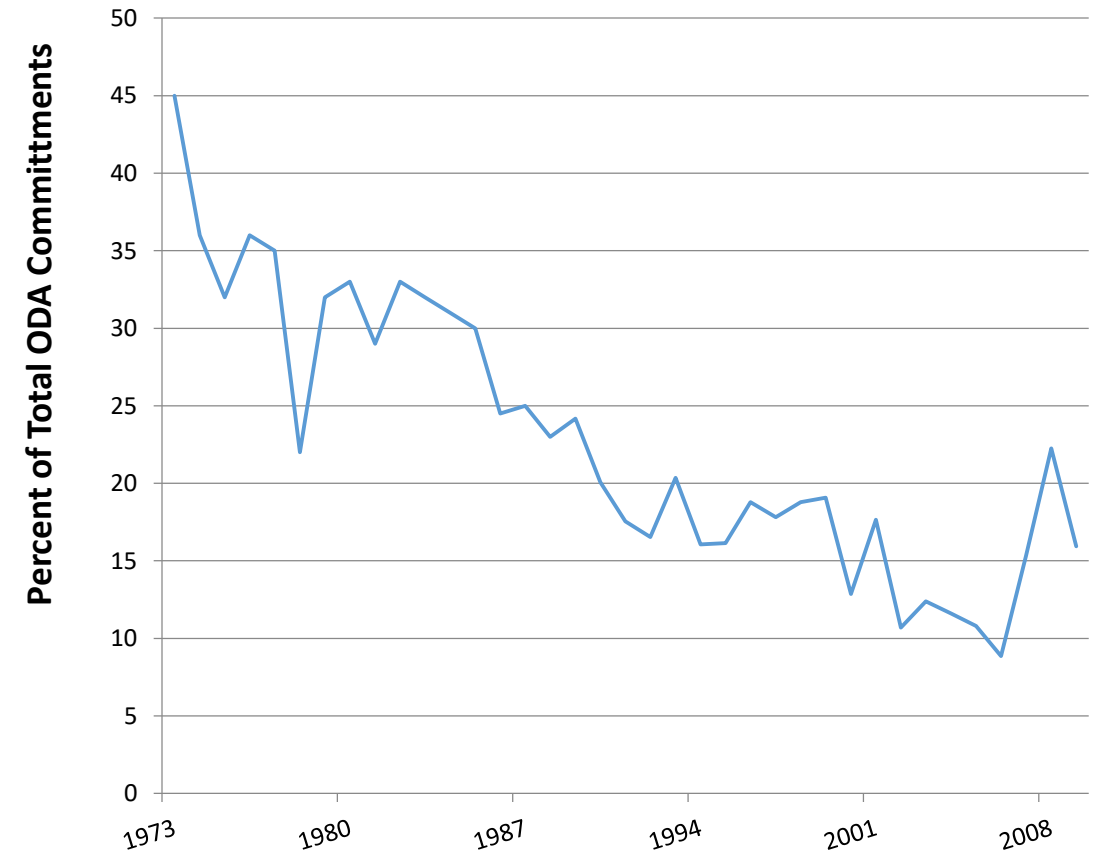
Creating Clusters

- Agglomeration economies create a collective action problem
- SEZs are a means of creating clusters
 - Bring Africa's SEZs up to world class
- Strengthen the links between firms in the SEZ and domestic suppliers/purchasers
 - "Open architecture" in SEZs and better integration with urban planning

An Agenda for Aid

- Focus on power, transport and skills
 - Aid will be insufficient but can be leveraged better
- Support for an export push
 - Fix “aid for trade” and tie it to trade logistics
 - Unify and streamline trade preferences (start with AGOA and EPA)
- Capability building
 - Help create world class FDI agencies
 - Support management information and training

ODA for Economic Infrastructure 1973-2009

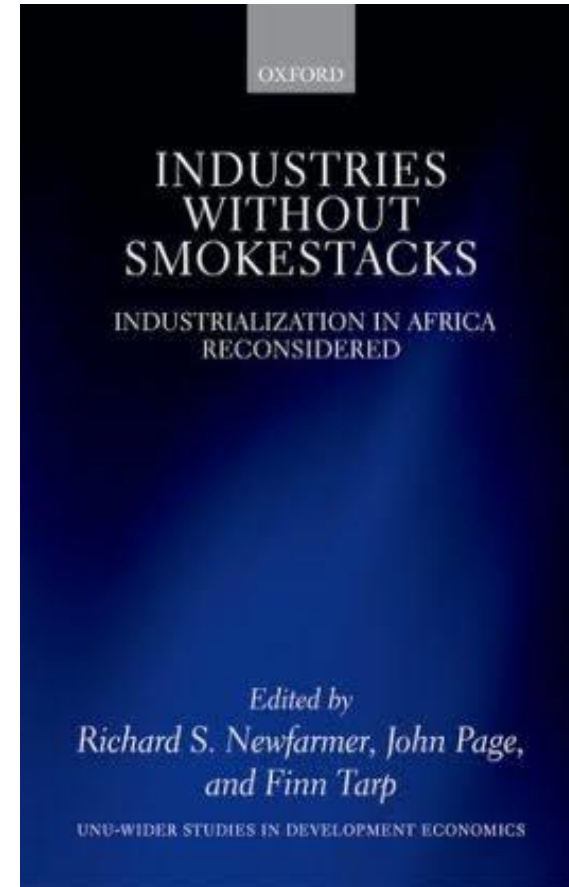


An Agenda for Aid

- Supporting industrial clusters
 - Focus aid for trade first on making EPZs world class
 - Support institutional reforms to integrate and raise the profile of FDI agencies and SEZ administrations
 - Watch China and learn from successes and failures
- Give African governments the policy space to take initiatives and make mistakes!

Three Take-Aways

- **Africa can create a new growth miracle, but its form will be much different than East Asia, relying in part on industries without smokestacks**
- **Policies should not focus obsessively on manufacturing...nor ignore manufacturing.**
- **The key to growth will be policies that promote higher-productivity activities and exports... in agri-business, tradable services and manufacturing**



Thank You



**International
Growth Centre**