

**India's Quest for
Sustainable Growth in a New Global Reality:
The need for a region- and sector-driven approach**

**Michael E. Porter & Christian Ketels
Harvard Business School**

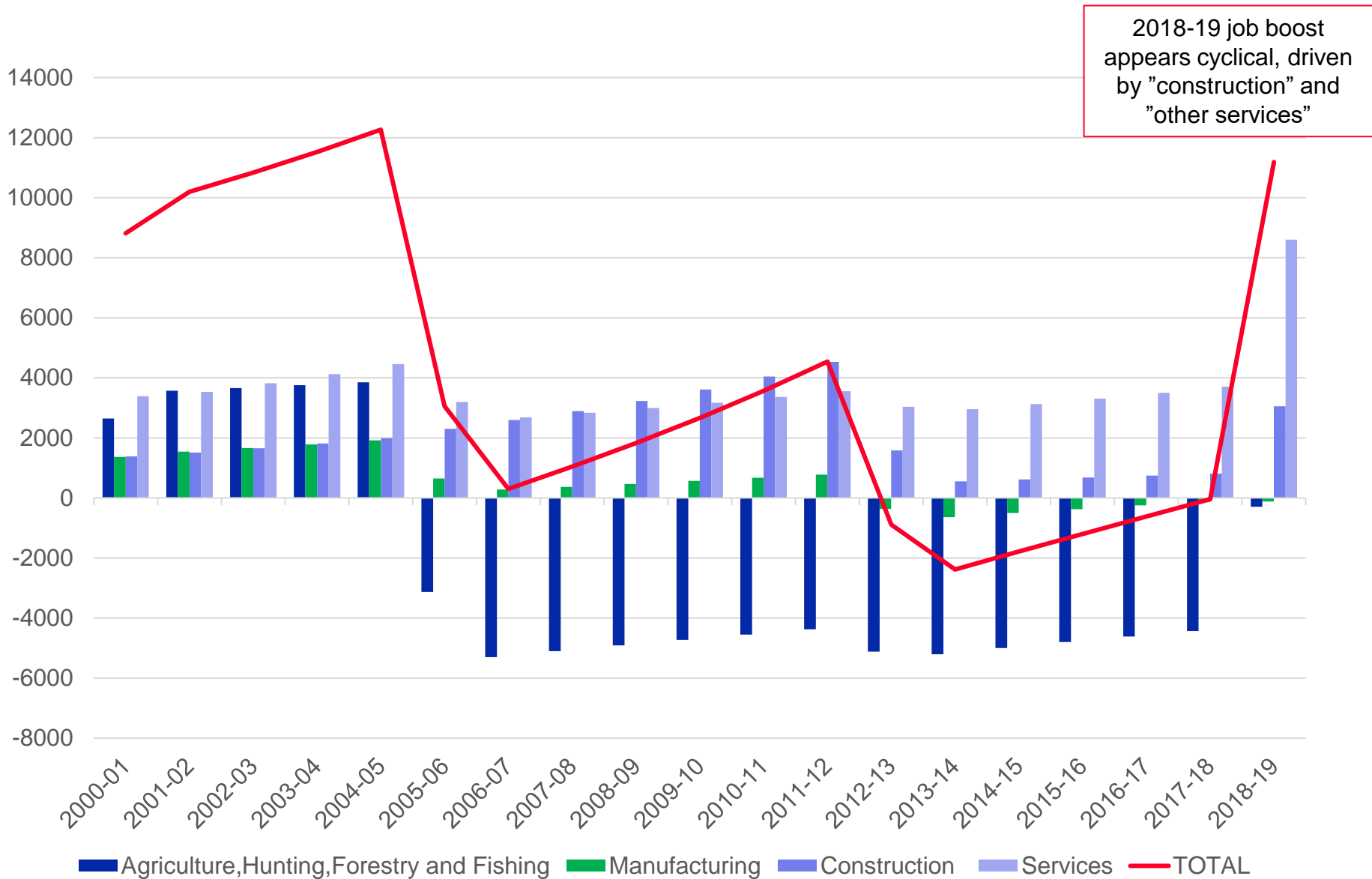
**2nd Global Conference on Regional Development
13-14 January 2023
Shenzhen, China**



MAKE IN INDIA

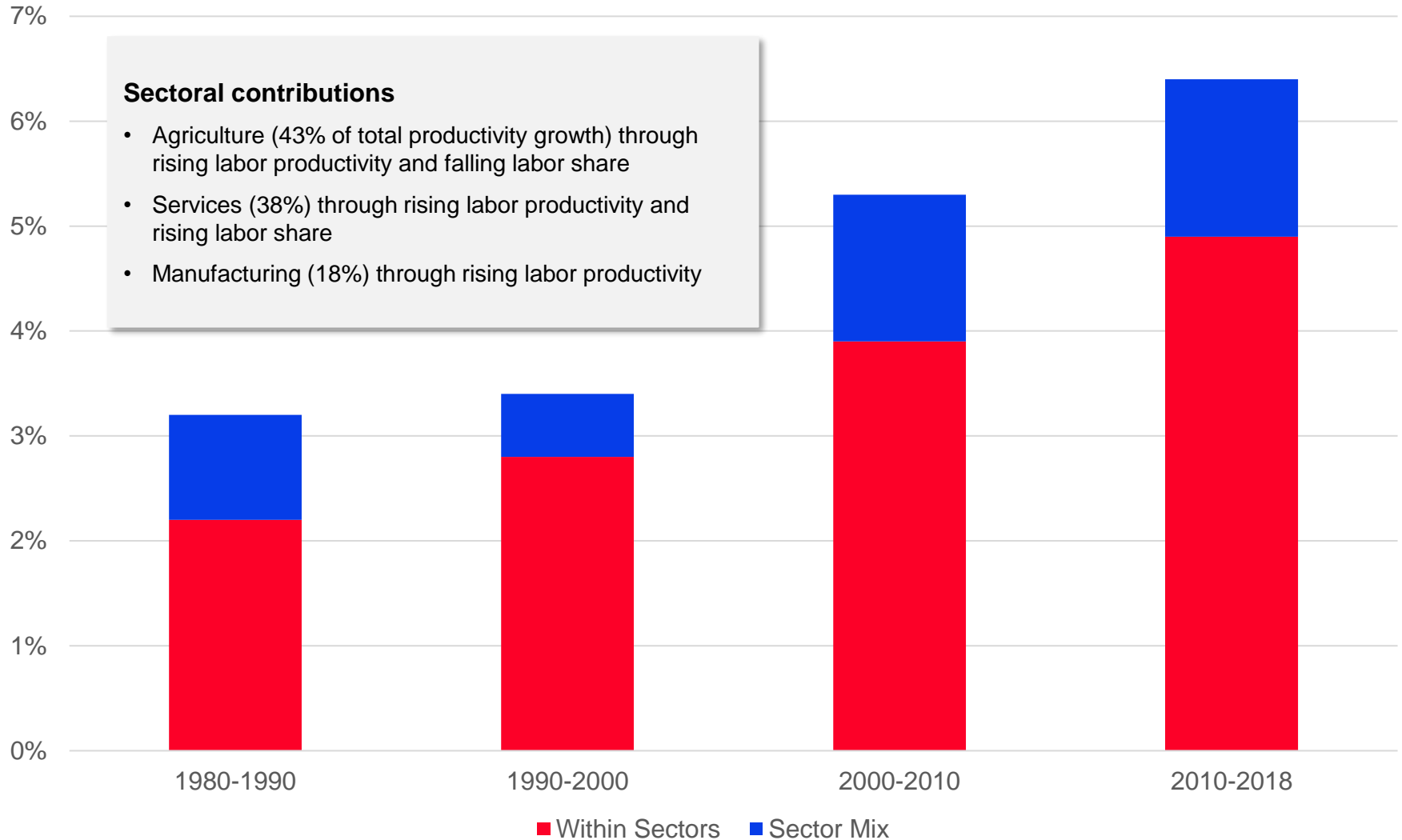


Indian Job Creation by Sector (2000-2019)



Decomposition of Indian Labor Productivity Growth

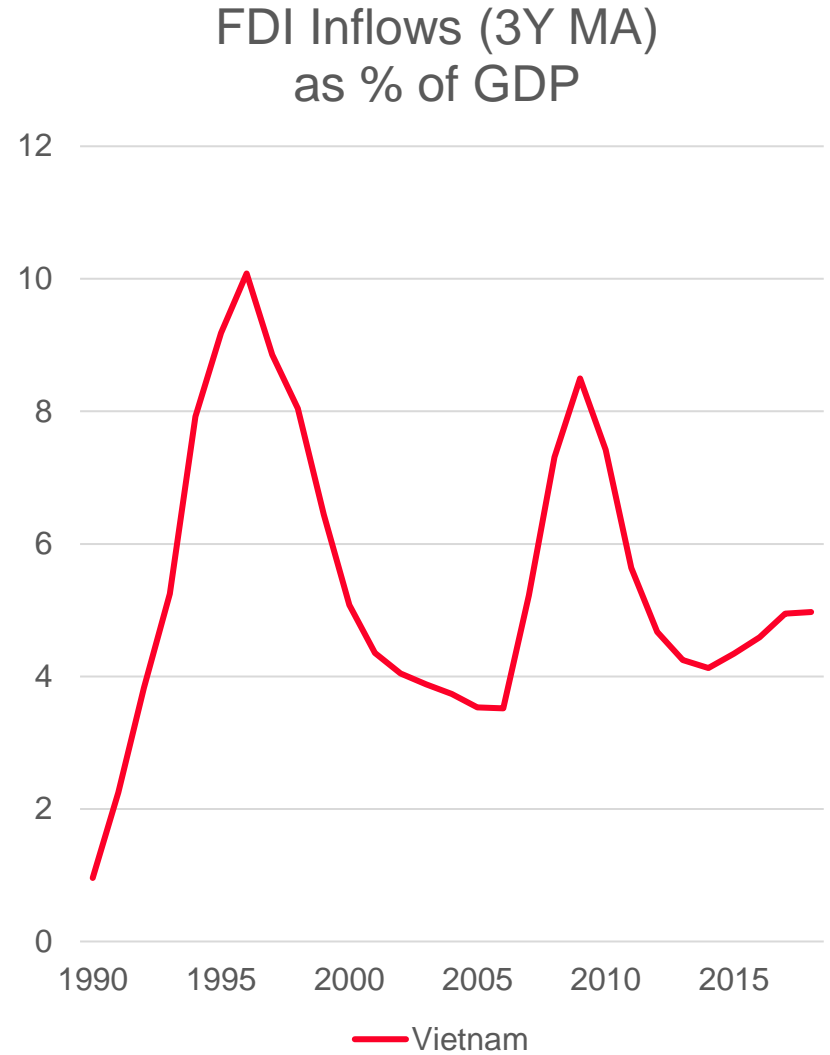
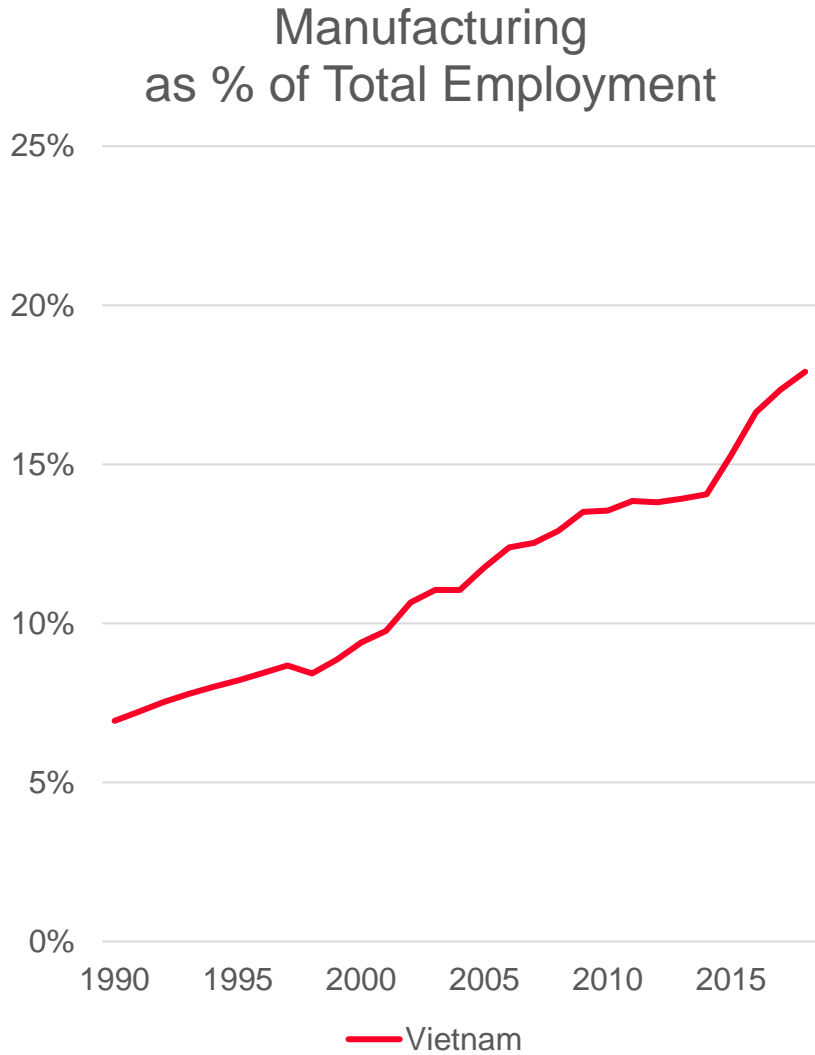
Labor Productivity Growth, CAGR



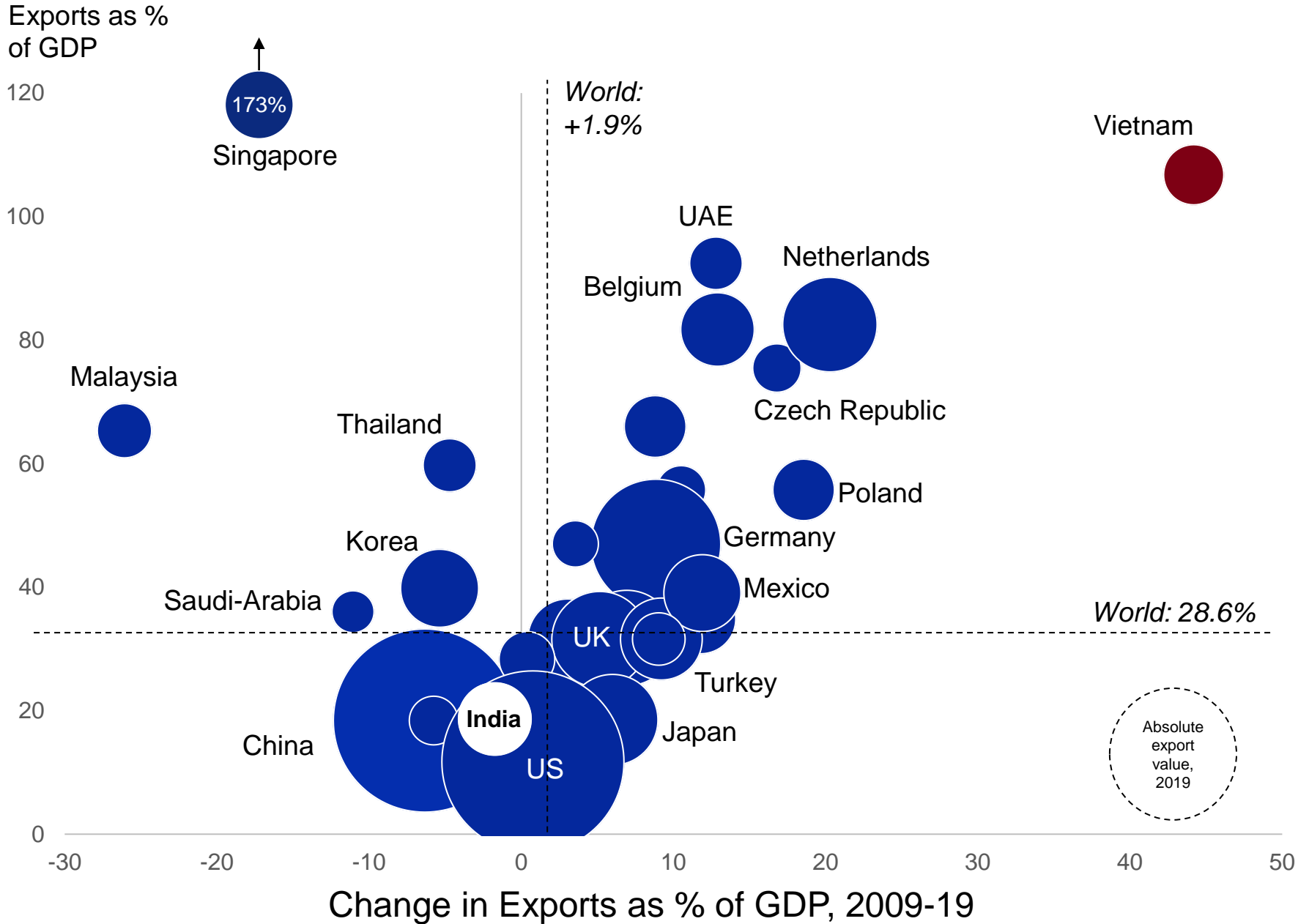
The Traditional (Asian) Way: Leverage Globalization to Accelerate Industrialization

- Growth through structural transformation from agriculture to manufacturing
- Export-oriented FDI as a key accelerator
- Export orientation overcomes limitations of local market size and provides hard incentives
- Matches unskilled domestic labor with global capital and technology, overcoming limitations of local capital markets and technology stock
- Allows labor force skills and management to upgrade
- Allows for unconditional convergence (Rodrik)

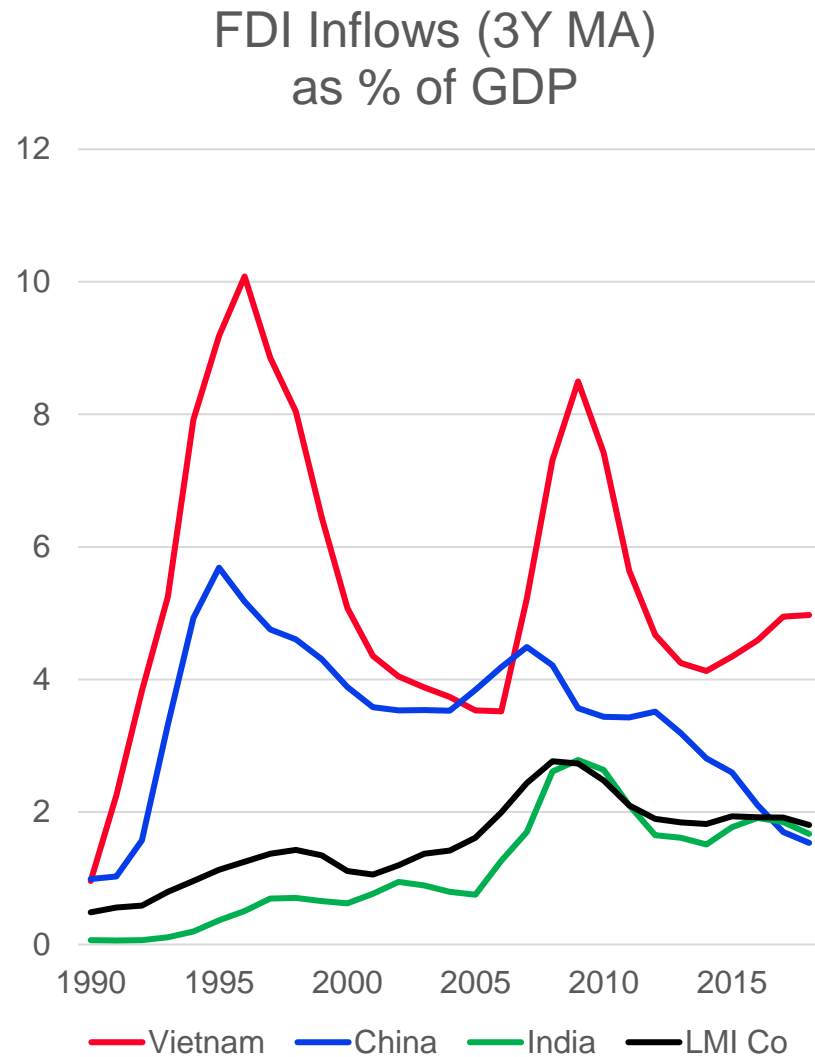
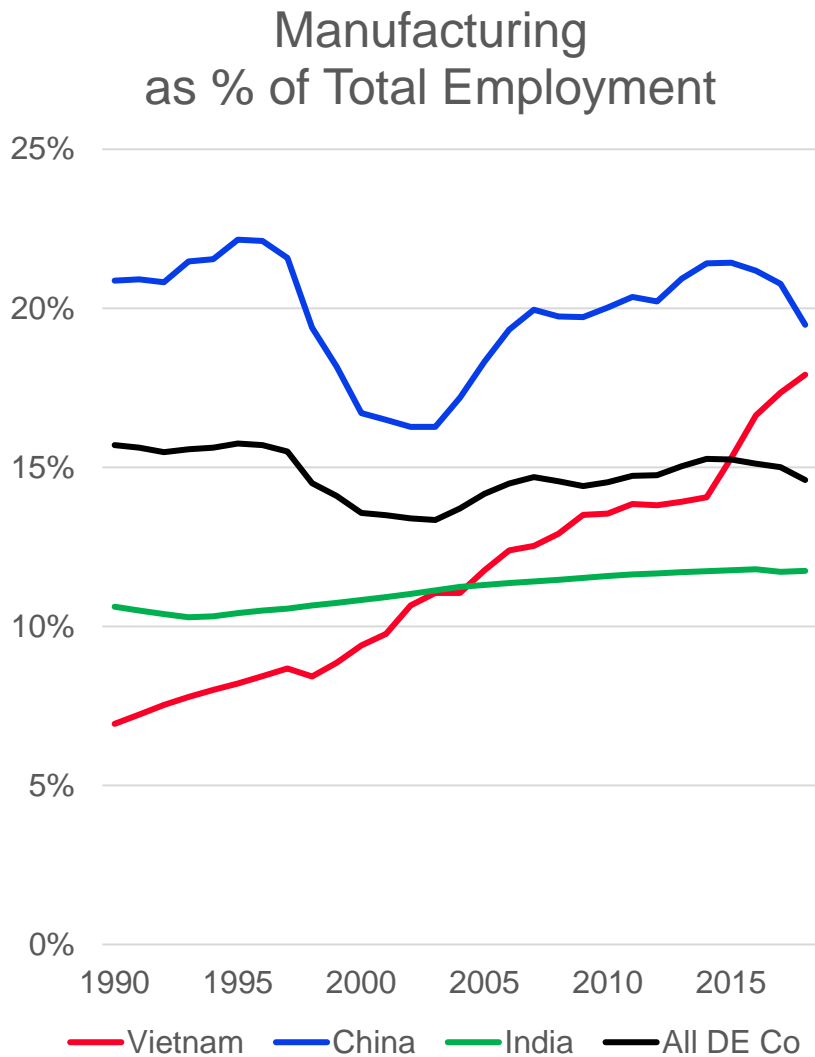
Vietnam's Structural Transformation Journey



Exports as Share of GDP, Leading Export Nations



Structural Transformation in a Global Context





Premature deindustrialization

Dani Rodrik¹

Published online: 27 November 2015
© Springer Science+Business Media New York 2015

Abstract I document a significant deindustrialization trend in recent decades that goes considerably beyond the advanced, post-industrial economies. The hump-shaped relationship between industrialization (measured by employment or output shares) and incomes has shifted downwards and moved closer to the origin. This means countries are running out of industrialization opportunities sooner and at much lower levels of income compared to the experience of early industrializers. Asian countries and manufactures exporters have been largely insulated from those trends, while Latin American countries have been especially hard hit. Advanced economies have lost considerable employment (especially of the low-skill type), but they have done surprisingly well in terms of manufacturing output shares at constant prices. While these trends are not very recent, the evidence suggests both globalization and labor-saving technological progress in manufacturing have been behind these developments. The paper briefly considers some of the economic and political implications of these trends.

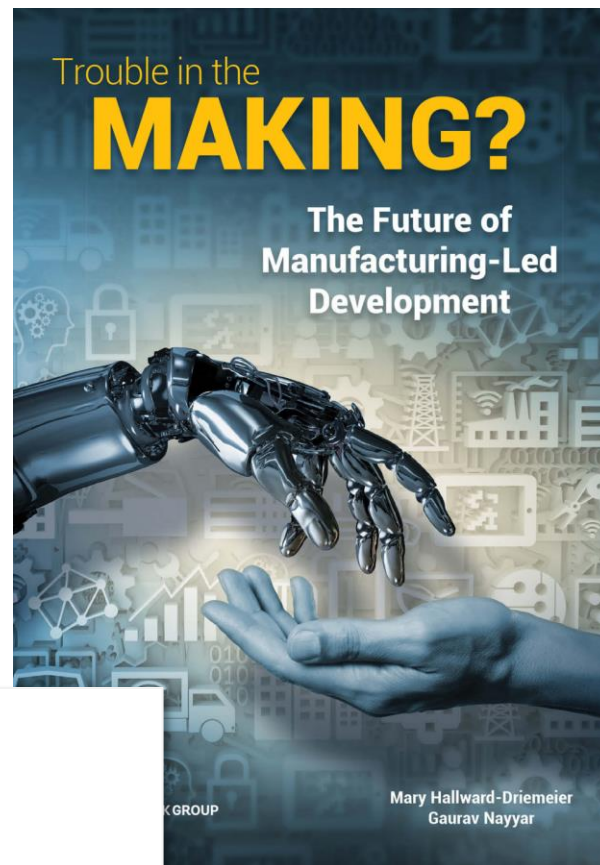
NBER WORKING PAPER SERIES

AFRICA'S MANUFACTURING PUZZLE: EVIDENCE FROM TANZANIAN AND ETHIOPIAN FIRMS

Xinshen Diao
Mia Ellis
Margaret S. McMillan
Dani Rodrik

Working Paper 28344
<http://www.nber.org/papers/w28344>

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Cambridge, MA 02138
January 2021, Revised February 2021



The Nature of **Structural Transformation 2.0**

- Manufacturing remains a meaningful driver of growth but has increasingly less potential for job creation
- Job creation is largely occurring in lower skill services and informal firms
- Skill intensity is rising across manufacturing, advanced services, and in exports
- Inequality within countries is rising with the rising returns to skills
- Convergence across countries slows and becomes more conditional. Higher workforce skills and institutional quality are becoming pre-conditions to successfully compete

Traditional economic development dynamics based on structural transformation are losing traction

**What are the implications for
REGIONS?**

**What are the implications for
LOCATION-BASED POLICIES?**

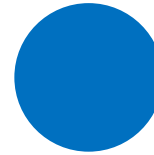
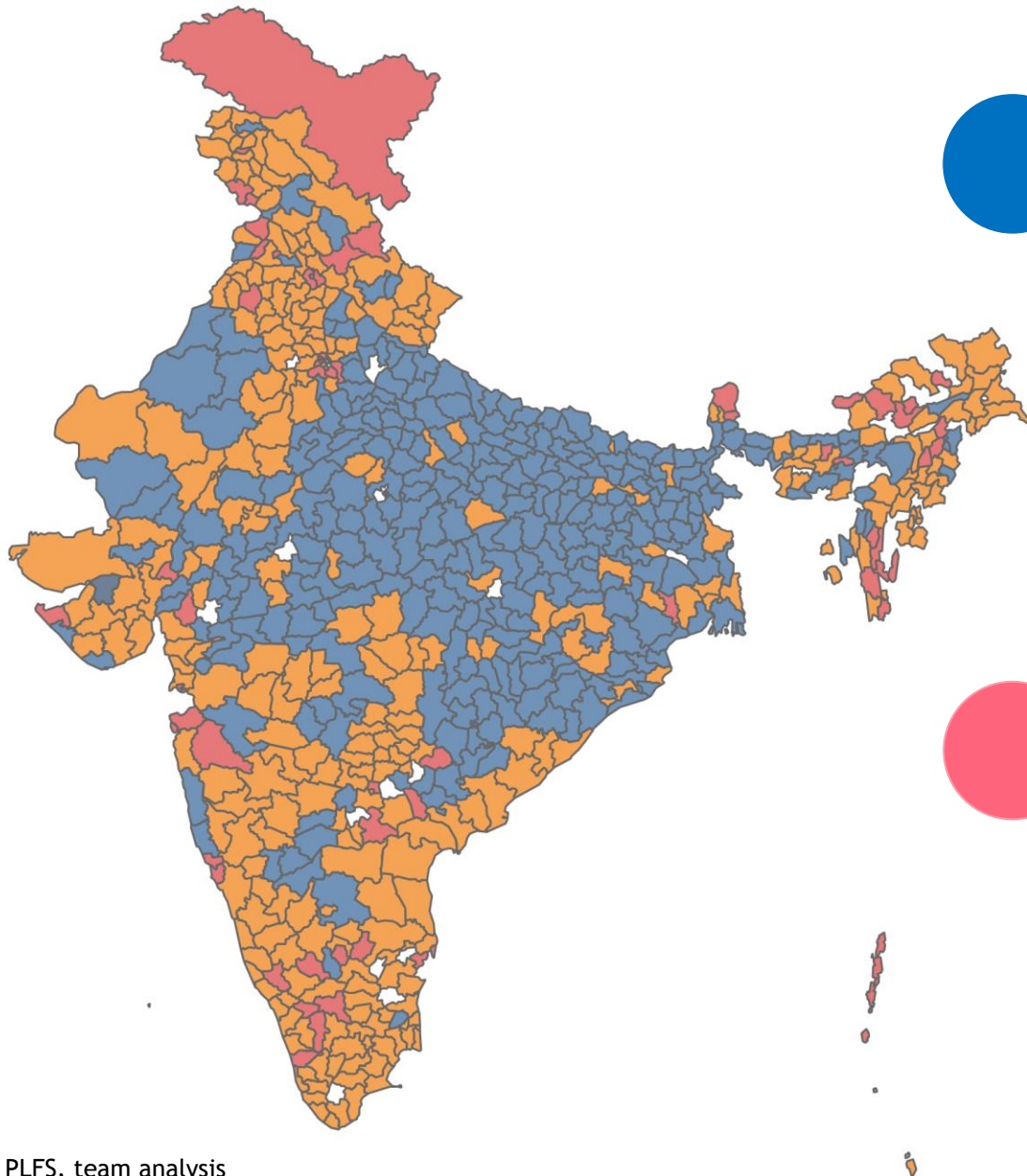
The Economic Geography of Structural Transformation in the Past

- Opportunities for regions with **large labor supply** if they create **connectivity to global markets**
- Manufacturing often locate in **semi-rural regions**, as costs in urban areas are higher while productivity gains from overall density are limited
- **Cluster-specific factors dominate**. Regional clusters can thrive based on cluster-specific locational advantages beyond general locational qualities.
- Regions are not equally prosperous but no conceptual reason that prosperity will be highly concentrated. **Convergence** dynamics work. Heterogeneity allows many regions to achieve prosperity in different ways

The Economic Geography of **Structural Transformation 2.0**

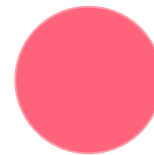
- Opportunities for urban regions with high **concentration of skilled employees** and significant **internal markets**
- Skill-intensive manufacturing (and services) concentrate in **urban regions**, because high skilled activities and employees co-locate to benefit from spill-overs. Low skilled employees follow to provide local services
- **General locational qualities** dominate. Regions succeed across the board or not at all.
- Rising urbanization and **divergence** across regions. Lagging regions have to provide much lower costs to overcome the productivity gap vs urban areas. Conditional convergence raises the bar for successful catch-up

The Economic Geography of India



Bottom 305 districts

- 50% of all employees
- Largely local or natural resource-based economies
- Average wage roughly half of the rest of the country

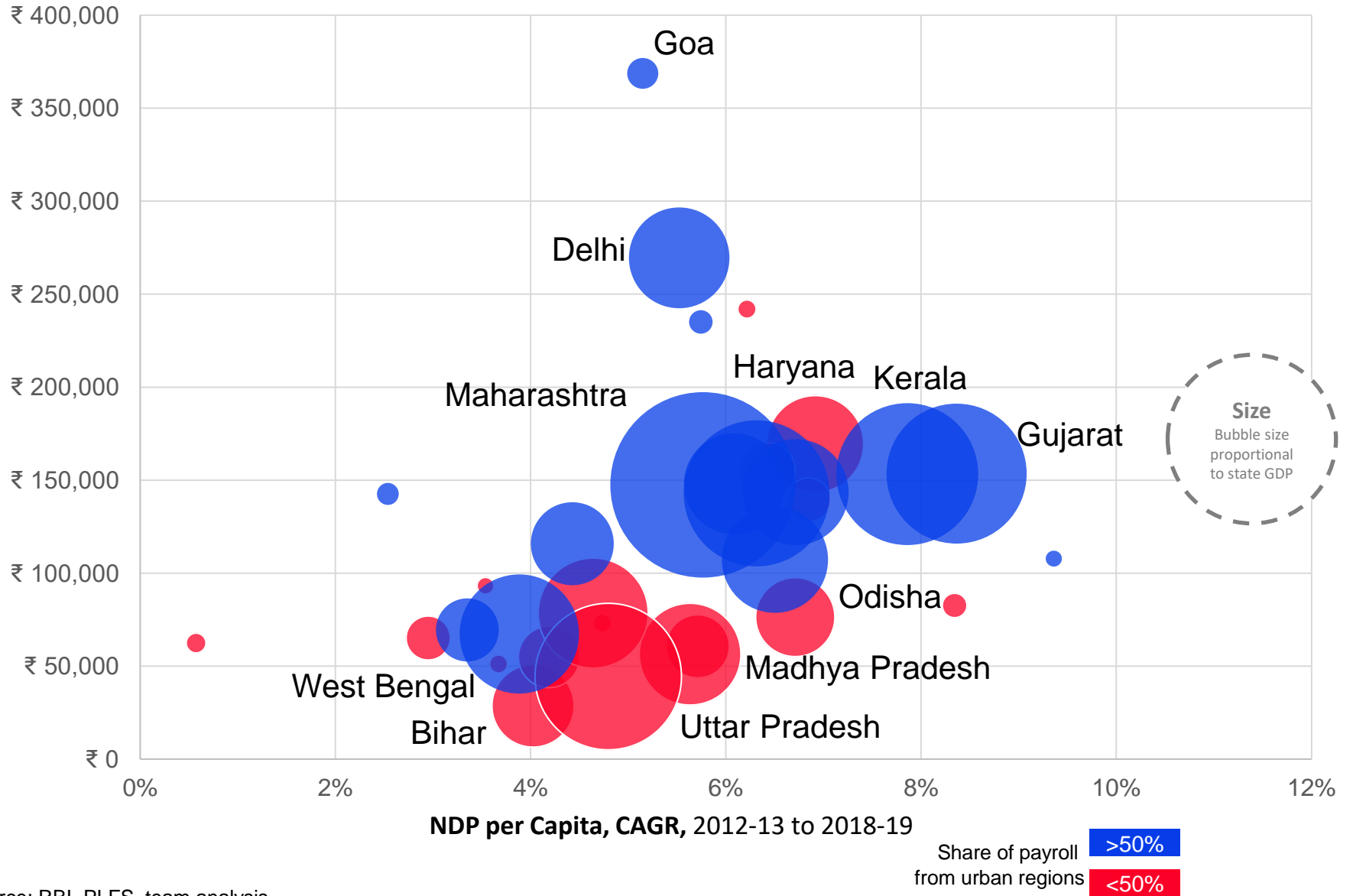


Top 70 districts

- 10% of all employees
- Strong traded, skill-based clusters
- Average wage roughly double of the rest of the country

Economic Performance of Indian States and UTs

NDP per Capita, 2018-19



India's Economy Through a Cluster Lens

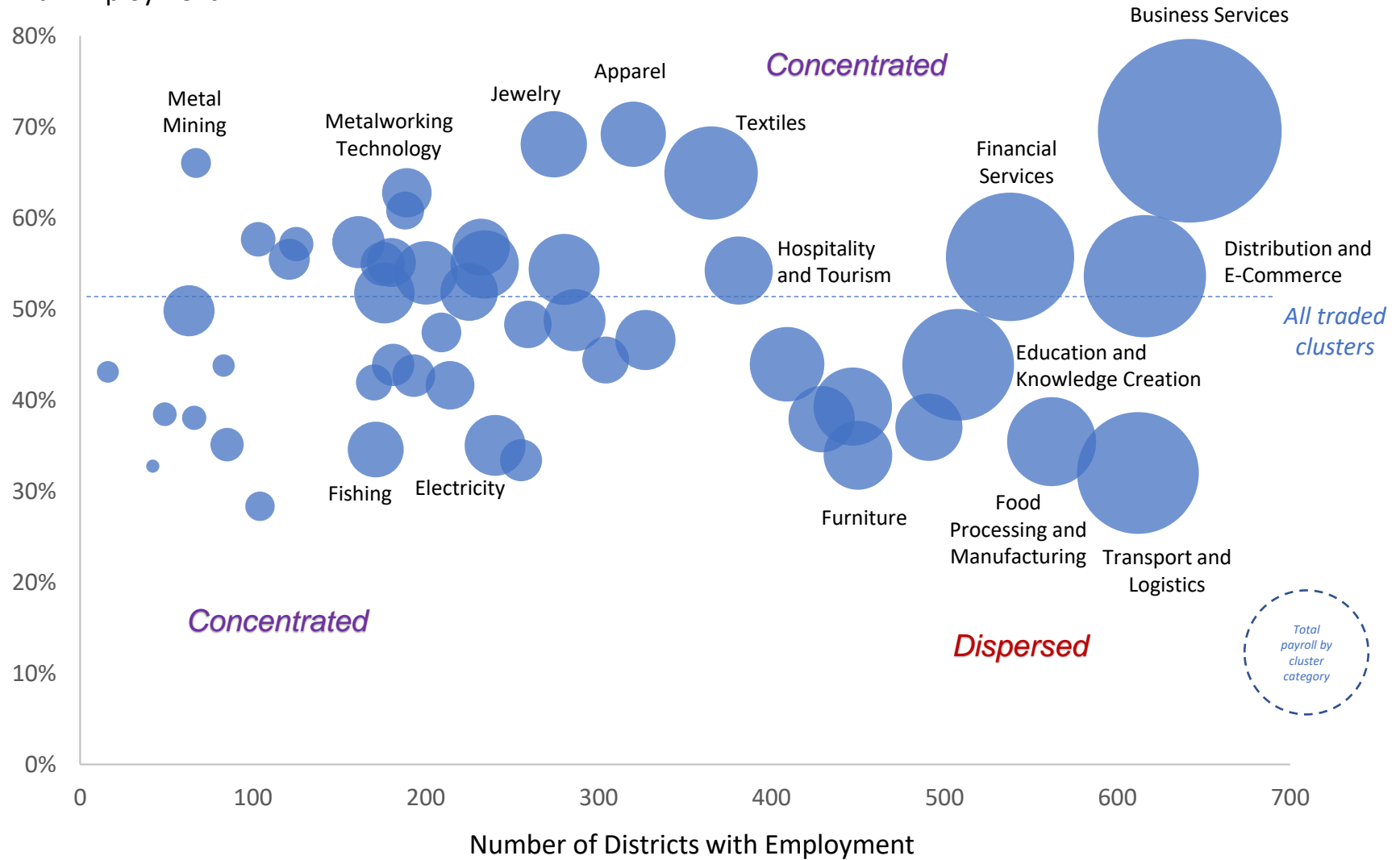
India Cluster Mapping

- Raw data was taken from the three PLFS waves between 2017/18 and 2019/20, with data reported at the district level (676 districts) on employment and wages per industry
- Industries were aggregated to 51 traded and 16 local cluster categories based on the cluster definitions developed by Delgado et al. (2016)
- To reduce measurement errors in the survey data, we have taken average employment and payroll data across the three PLFS waves between 2017/18 and 2019/20, using data if both employment and payroll data were available at a cluster levels
- The Indian cluster mapping dataset thus derived captures 415m employees, capturing roughly 85% of the country's total labor force

Concentration of Economic Activity in Traded Clusters

Payroll Share of Strong Clusters

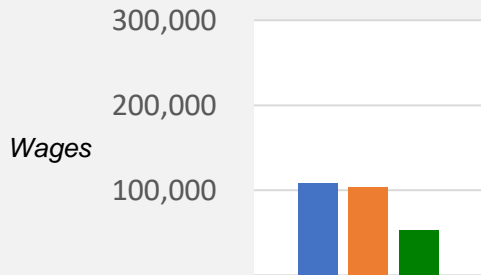
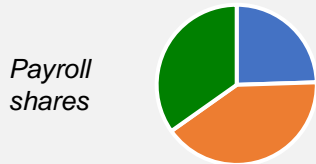
Share of Payroll in top 20% of Districts by LQ
with Employment



Profile of Districts by Prosperity Group

Bottom

- Number of districts: 305
- Average payroll: 51 bn
- Share of national payroll: 33%
- Average wage: 78,000
- Avg number of employees: 650,000



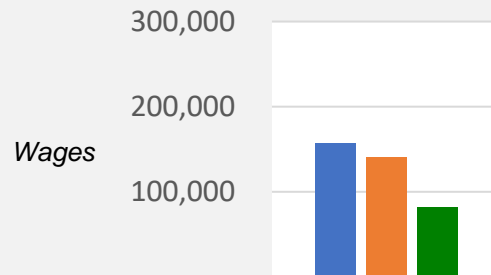
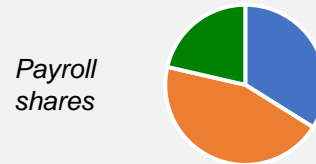
■ Traded ■ Local ■ Agriculture

Top traded clusters

- Tobacco
- Metal Mining
- Livestock Processing
- Vulcanized and Fired Materials
- Nonmetal Mining
- Wood Products
- Forestry
- Food Processing and Manufacturing
- Construction Products and Services
- Electric Power Generation and Transmission
- Coal Mining
- Transportation and Logistics
- Furniture

Medium

- Number of districts: 305
- Average payroll: 73 bn
- Share of national payroll: 47%
- Average wage: 126,000
- Avg number of employees: 580,000



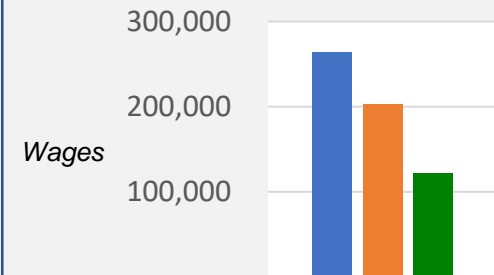
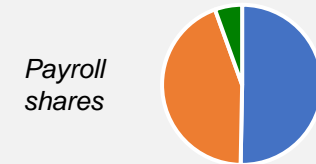
■ Traded ■ Local ■ Agriculture

Top traded clusters

- Downstream Chemical Products
- Water Transportation
- Production Technology and Heavy Machinery
- Upstream Chemical Products
- Environmental Services
- Fishing and Fishing Products
- Oil and Gas Production and Transportation
- Jewelry and Precious Metals
- Textile Manufacturing
- Automotive
- Lighting and Electrical Equipment
- Plastics
- Footwear
- Upstream Metal Manufacturing

Most Prosperous

- Number of districts: 70
- Average payroll: 129 bn
- Share of national payroll: 20%
- Average wage: 220,000
- Avg number of employees: 580,000



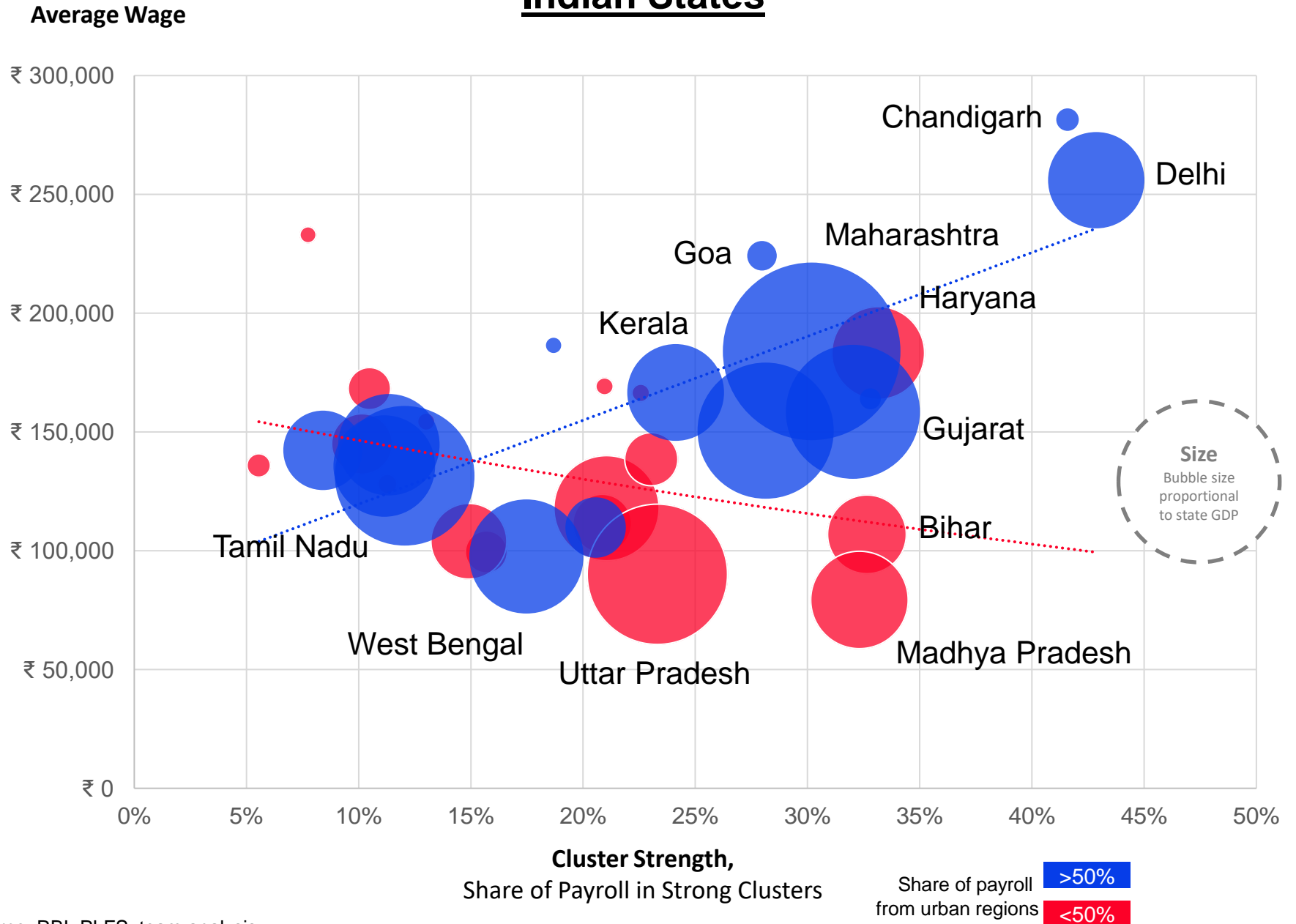
■ Traded ■ Local ■ Agriculture

Top traded clusters

- Information Technology and Analytical Instruments
- Medical Devices
- Marketing, Design, and Publishing
- Aerospace Vehicles and Defense
- Trailers, Motor Homes, and Appliances
- Biopharmaceuticals
- Business Services
- Metalworking Technology
- Automotive
- Lighting and Electrical Equipment
- Video Production and Distribution
- Hospitality and Tourism
- Printing Services
- Financial Services

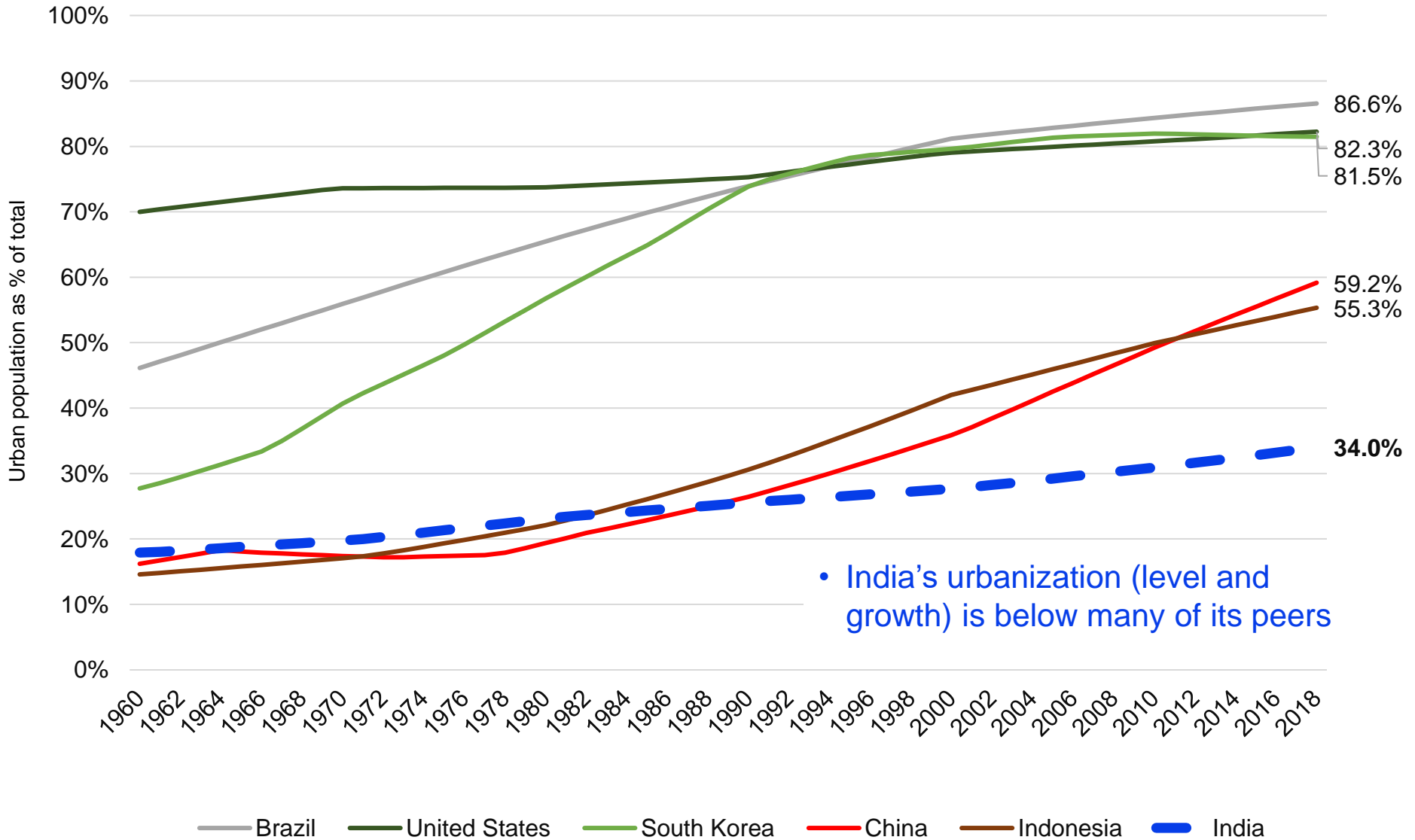
Economic Performance and Cluster Strength

Indian States



Urbanization Trends

Selected Countries



The Economic Geography of India's Structural Transformation

- There is a **"modern" India** that is integrating into the global economy, and is growing based on a combination of locational and cluster-specific advantages
- There is a **"traditional" India** that struggles to connect to these growth dynamics, and to successfully compete on its factor endowments, including abundant low cost labor



- Structural transformation processes are at work in India, both traditional and "2.0"
- But **only for those regions** and parts of the economy sufficiently "close" to the rising skill and other demands of the global economy.

Traditional economic development dynamics based on structural transformation are losing traction

What are the implications for
REGIONS?

**What are the implications for
LOCATION-BASED POLICIES?**

What's Next After Export-Oriented Industrialization?

Wednesday, March 30
9-10:30 a.m. ET

Dani Rodrik

Ford Foundation Professor of International
Political Economy at the Harvard Kennedy School



We are entering an era in which industrialization will no longer be as potent in spreading economy-wide productivity growth. Innovation in manufacturing industries to global value chains have turned into a vehicle for creating good jobs. The question is what future growth and the implications of these vulnerable populations. Invest

Figure 2: Reconsidering development policy

| | | At what stage of the economy does policy intervene? | | |
|--|---------------------|---|--|--|
| | | pre-production | production | post-production |
| Which segment of the economy do we care about? | low productivity | investments in education and training | | cash transfers; full-employment macro policies |
| | middle productivity | | promotion of higher-quality jobs in services; employer-linked training policies; job-creating customized business incentives; "appropriate technologies" | safety nets |
| | high productivity | innovation systems, IPR rules, trade agreements | Subsidies, R&D incentives | corporate tax incentives |

Traditional poverty-reduction & social protection model

Traditional industrial & growth policies

The good-jobs development model

Figure 2: Reconsidering development policy. Source: Rodrik



Which Sectors? An Answer for India

- IT services
- Biopharmaceuticals
- Telecom and IT products
- Renewable energy equipment
- Electronics

Nurture India's competitive advantages to enable future **high productivity employment**

Create entry and development opportunities today for **low-skilled workers and women**

Align skills of workforce entrants with the needs of the market to enable the **incoming generation**

Reduce poverty early in life to remove a long-lasting burden on the **next generation**

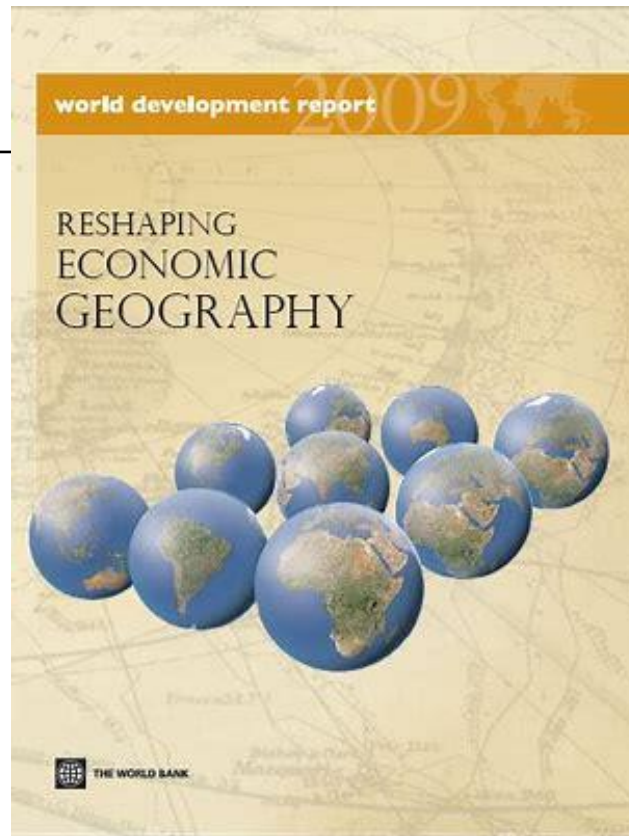
- Agriculture
- Textile, Clothing
- Education, Health Care
- Construction
- Logistics and Distribution

”Good Jobs” Development Policies and Location

- The new type of policies coming into play have a **strong locational dimension**; the specific needs they aim to address and their implementation happens in distinct locations, not at a national level
- The transition towards a ”Structural Transformation 2.0” world raises new **challenges for the locational profile of economic development**, with rising and persistent imbalances

Traditional Structural Transformation World

- **Better connectivity** allows **more regions to compete** for FDI and manufacturing
- **Lower barriers to factor mobility** enhance **specialization** and raise **growth** of the overall economy



Structural Transformation 2.0 World

- **Better connectivity** enhances consumer welfare but is **insufficient to attract economic activity**
- **Lower barriers to factor mobility** enhance **regional concentration** and **divergence**

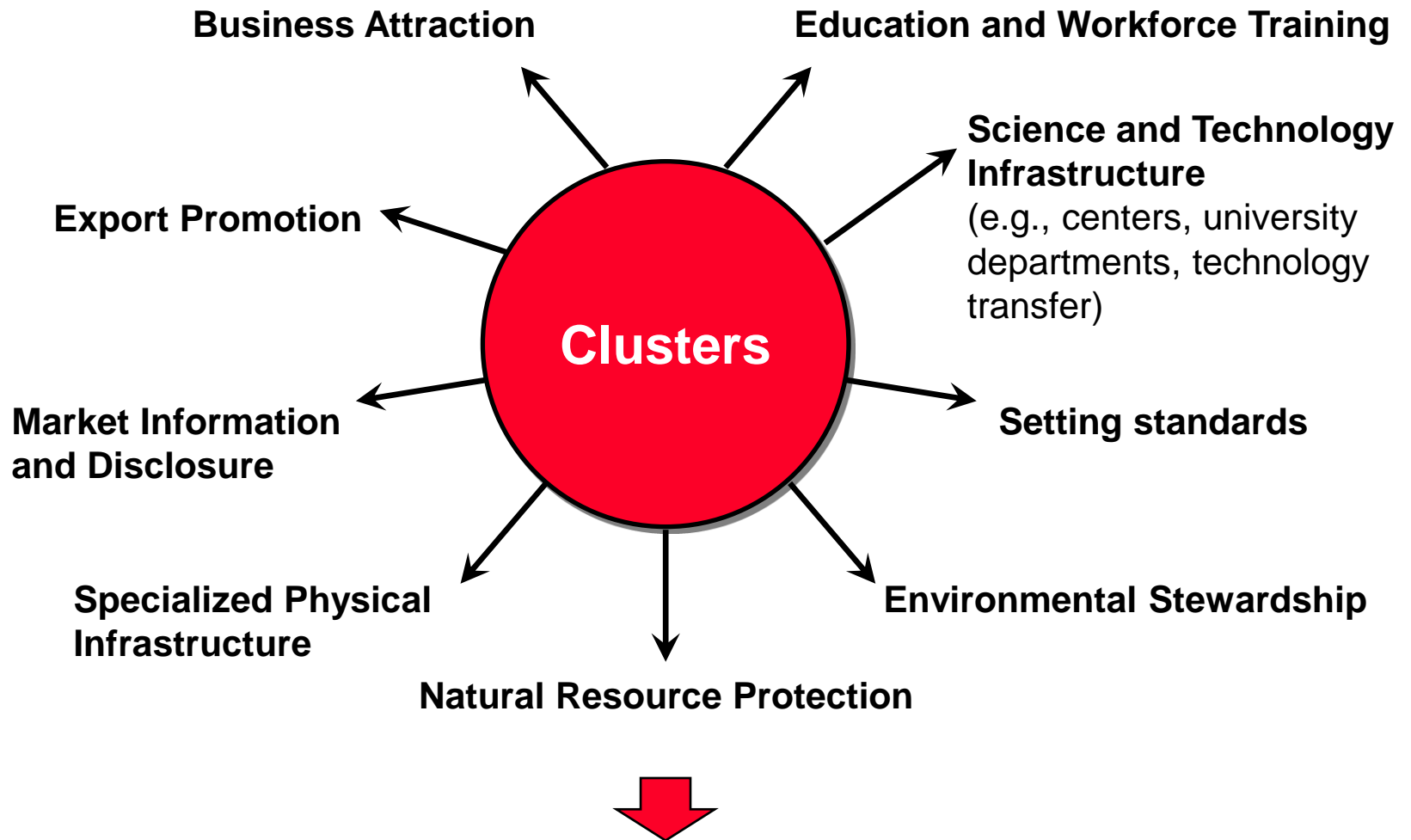
”Good Jobs” Development Policies and Location

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Policy response

- Development policy design needs to **enable locally-led application of policy tools**; critical to create an institutional architecture for **local action** and for **national-regional policy collaboration**
- Regional policy has to choose between **compensating lagging regions** while development policies focus on those regions with the highest growth capacity *or* **enabling all regions** to drive economic development based on their specific circumstances

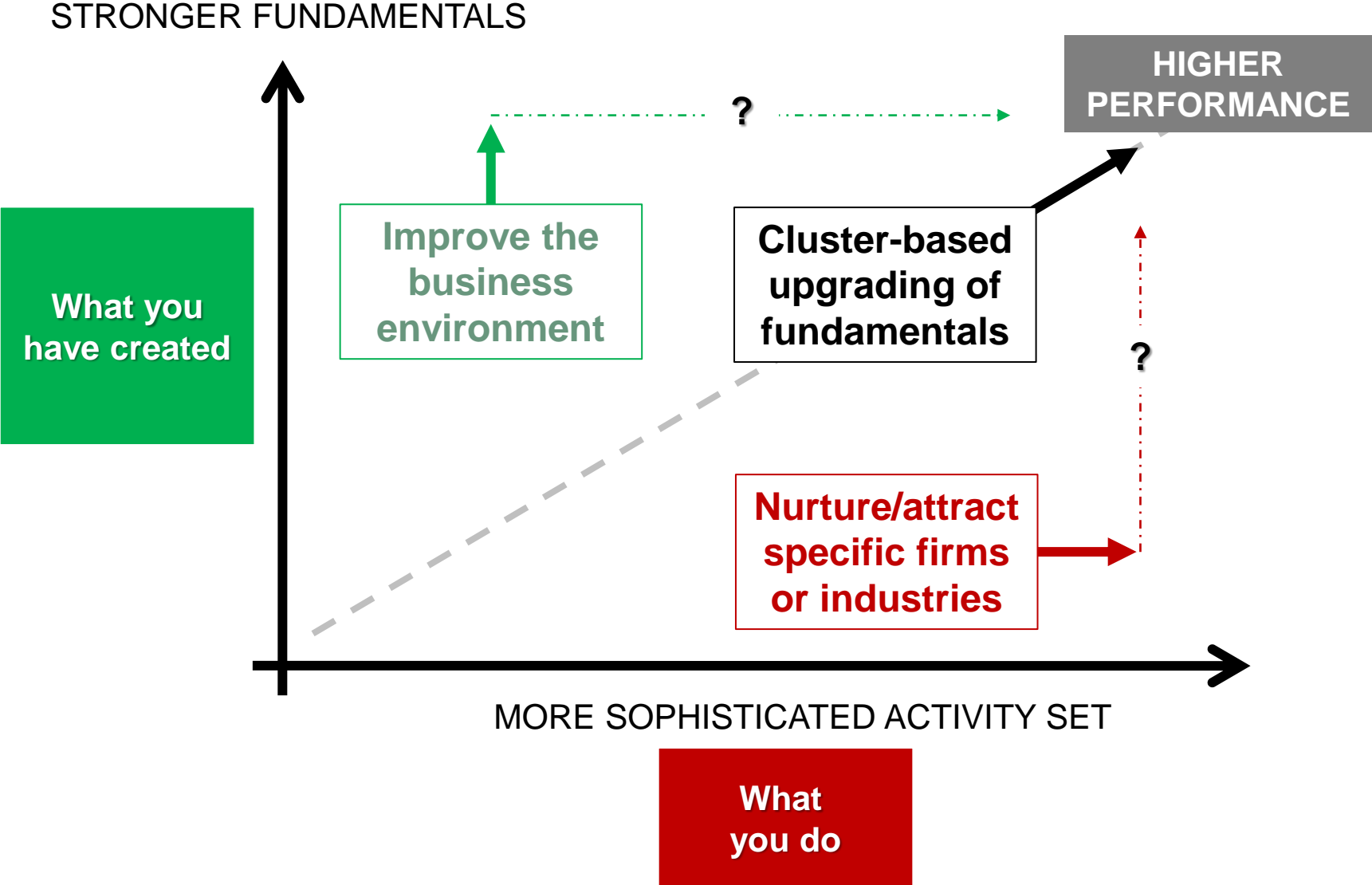
Organize Public Policy around Clusters



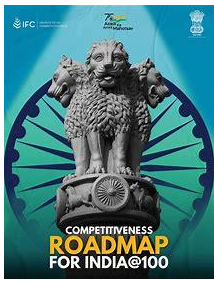
- Clusters provide a framework for **organizing the implementation** of public policy and public investments towards economic development

The Nature of Cluster-Based Economic Development

Cluster-Specific, Not Cluster-Selective



Towards Strengthened Indian Federalism



Current challenges

- No clear division of labor in areas of concurrent policy authority
- Rising fiscal space for states not systematically matched with rising capacity
- Lack of effective entities below the state level

India @ 100

- 
- Union government provides information, incentives, and tools
 - State (and regional) governments design strategies that deploy central and own tools and resources
 - Regional and especially metropolitan government entities are strengthened

Heterogeneity as a Challenge

Heterogeneity as an Advantage

- The traditional economic development approach based on structural transformation is losing traction. This change in broader development dynamics has **significant implications for regions and economic geography**
- To be effective in this new context, economic development approaches need to respond beyond which sectors to prioritize and which development policy tools to use
- Policy approaches to accelerate development need to become **more location- and sector-specific**, not location- and sector-selective. They can draw on the experience of new regional policies and of cluster-based economic development concepts over the last few decades