State of the States: Today and Over Time

Module 8
Contemporary Themes in India’s Economic Development and the Economic Survey

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Overview

• State of the States

• Is there an Aid or Resource Curse in India?

• India’s distinctive demographic dividend
Section 1
State of the States
Overview

• Indian States: Getting to Know Them
• Models of Development among Indian States
• Regional Inequality Over Time: Convergence and Divergence
• A Puzzle
“Please understand, Your Excellency that India is two countries: an India of Light, and an India of Darkness. The ocean brings light to my country. Every place on the map of India near the ocean is well-off. But the river brings darkness to India.”

“The White Tiger” by Aravind Adiga
How rich are the Indian states?

Per Capita Gross State Domestic Product in 2014

Thousands of INR (2011-12 prices)

Urban Poverty Line (Tendulkar; Updated)
How do Indian states compare with China?

Per Capita Income in 2014

Thousands of PPP dollars (2011 prices)

Poverty Line (World Bank Definition)
How many poor are there in the Indian states?

Head Count Ratio as of 2011

Source: Rangarajan Committee Report, 2011, Tendulkar Methodology
What is the overall well-being of people in the Indian states?

Human Development Index Scores as of 2015*

China HDI Ranking: 90/188
India HDI Ranking: 130/188

Source: “Why Kerala is like Maldives and Uttar Pradesh, Pakistan”, Livemint, 2015
How many infants die within 1 year of birth in the Indian states?

Infant Mortality Rate (per 1,000 live births) as of 2014

Source: Sample Registration Survey data
How well do children in schools learn in the Indian states?

Reading Outcomes at Primary Level as of 2016

Arithmetic Outcomes at Primary Level as of 2016

Source: ASER 2016 Report
Overall, human development and income are highly correlated: J&K and Kerala are outliers.

Data available only for 16 states.
Headcount Ratio and Incomes

Head Count Ratio (% of population) 2011 vs. Per Capita GSDP (log) 2014
Are IMR and TFR correlated?

\[ y = 14.4x + 3.1 \]
\[ R^2 = 0.47 \]

TFR or IMR data not available for few states. They have not been kept in the figure.
Models of Development among Indian States

• Peninsular/Coastal models:
  • Manufacturing (Gujarat, Tamil Nadu)
  • Remittance-Reliance and Human Development (Kerala)
  • Skilled Services (Karnataka, Andhra Pradesh, Tamil Nadu)

• Hinterland models:
  • Agriculture (Madhya Pradesh, Punjab, Haryana)
  • Natural resources* (Jharkhand, Chhattisgarh, Odisha & Rajasthan)
  • “Aid” or Special Status (North-Eastern States, J&K)
  • Policy-induced manufacturing (Himachal Pradesh, Uttarakhand)

* Coal, Onshore Oil and Natural Gas, Major and Minor minerals
Manufacturing Model of Development: Higher share of manufacturing associated with greater income
Natural Resources Model of Underdevelopment: Higher share of natural resources associated with lower income

States with < 1% mining share and Goa have been dropped
Indian “Aid” Model of Underdevelopment: Higher share of “aid” associated with lower income

Per Capita Redistributive Resource Transfers (RRTs) in 2015 in Thousands of INR (Current Prices) vs. Per Capita Income in 2014 in Thousands of INR (Current Prices)
International Remittances Model: Higher share of remittances associated with greater income

States with High International Remittances

Legend

- Top 10 States with Highest International Remittances

Source: Chinmay Tumbe: Remittances in India: Facts & Issues

Total remittances (in Thousands of INR Cr.)

KL  MH  TN  PB  AP  DL  GJ  KA  UP  RJ  GA  WB

2007-08
Regional Inequality Over Time: Convergence and Divergence
Growth in most recent decade much higher than growth in previous two decades

* Combined numbers for Bihar, Madhya Pradesh, Uttar Pradesh, Andhra Pradesh have been used
Income divergence “Big Time” in India (increase in regional inequality) for the last 3 decades

* Combined States
Income Convergence Observed in World and within China, But Divergence within India
India and most Indian states have higher Infant Mortality Rate (IMR) for their levels of income.
India and Indian states have lower Total Fertility Rate (TFR) for their level of income.
A Puzzle

• Evidence of high internal integration and porous borders: internal trade and migration are higher than ever before

• Income and consumption divergence despite these equalizing forces

• Is it because governance or institutional traps keep real returns low even where capital is low?

• Is it because of Indian development patterns that favour skill-intensive sectors over low skill sectors?

• Still puzzling given dynamic of competitive federalism and competition between states
Section 2
Is there an Aid or Resource Curse in India?
Overview

• Aid and Natural Resources: Manna from Heaven?
• Redistributive Resource Transfers (RRTs): Aid in India
• The RRT curse?
• How to make RRT’s more effective?
Aid and Natural Resources: Manna from Heaven

• Old view: Developing countries poor as they lacked capital. People too poor to save.

• Possible solutions?
  • Foreign Aid
  • Natural Resources
But is it really Manna from Heaven?!

• No robust positive relationship found between aid/natural resources and economic growth*

• Why?
  • Aid perpetuates resource dependency. As revenues flow in, recipient countries may fail to develop internal tax base or strengthen institutions which are key to long-run development
  • Dutch Disease: As spending increases, prices rise, economy becomes uncompetitive and manufacturing suffers

The Indian Experience of “Aid”: Gross Devolutions

• “Aid” within India exists: Centre provides transfers to certain poorer states

• Transferred funds referred to as “Gross Devolution” in the form of:
  1. a share of central taxes, as stipulated by Finance Commissions;
  2. plan and non plan grants; and
  3. plan and non-plan loans and advances
Measurement of Redistributive Resource Transfers (RRTs)

- Redistributive Resource Transfers defined as gross devolution to the state adjusted for the respective state’s share in aggregate Gross Domestic Product

\[ \text{RRT}_i = \text{GD}_i - S_i \times \text{GD} \]

- Redistributed resources from the Centre differ from traditional “aid” in two important aspects.
  a) These are intra-country transfers and do not augment overall national disposable income like foreign aid does;
  b) The donor-recipient relationship is very different because states benefiting from transfers are part of national governance structures that have determined them.
Which are the highest RRT recipients?
Is there an Aid and Natural resource curse in India?

Manufacturing share & RRT

Governance & RRT
Is there an Aid and Natural resource curse in India?

• Analysis shows that higher the Aid:
  • Slower is the growth
  • Smaller is the share of manufacturing in GSDP
  • Lower is own tax revenues
  • Poorer performance in overall governance (ATC losses)

• This is not necessarily true for natural resources:
  • Mineral wealth neither a boon nor a bane
  • Post bifurcation, new states have managed natural resources less efficiently

• Neither the bounty of aid or natural resources seems to increase consumption
How to obviate the Aid and Natural Resource curse?

• Redirecting flows directly to households: Channel a quantum of RRTs/gains from resources directly to households as part of a Universal Basic Income (UBI) scheme

• Performance-contingent transfers: Offset the fiscal bias uncovered by the above analysis, in which states to relax their own tax effort. Perhaps revert to conditioning transfers on revenue performance of states (12th FC)

• Governance-contingent transfers: Fund transfer mechanism could explicitly include a few easily monitored institutional indicators.
Section 3
India’s Distinctive Demographic Dividend
What is the demographic dividend?

• The demographic dividend refers to the increase in a country’s growth potential due to having a young population: a large share of WA population appear brings economic dynamism.

• Younger populations are more productive and save more → larger fiscal base because of higher economic growth and fewer dependents.

• However, the real demographic sweet spot arises from not only from a large WA/NWA ratio but also a growing one.
Overview

• A Unique Demographic Profile
• A Rapidly Closing Demographic Sweet Spot
• Demographic Heterogeneity: An Equalizing Force
India’s demographic profile is distinctive:
Peaks later, at lower levels, but lasts longer
India’s demographic sweet spot is rapidly closing

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<th>Decade</th>
<th>Additional growth</th>
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<td>2001-10</td>
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<tr>
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<td>1.92</td>
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<tr>
<td>2041-50</td>
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India’s demographic profile is highly heterogeneous: Soon-to-age South vs. Young Hinterland India

Ratio of Working age to Non-Working Age Population
Two demographic India’s offering possibilities of mutual help through migration
Demographic heterogeneity is an equalizing force: Dividend greater in currently poorer states (with exceptions)
Instrumental Variables
How do we determine causality? Instrumental Variables

https://xkcd.com/552/
Instrumental Variables

• Separate out the part of RRTs that is unrelated to economic outcomes (growth, manufacturing share, fiscal effort) or governance.

• Identify an instrumental variable (IV) for the explanatory variable (i.e. RRT), which is strongly correlated with RRT but not with outcomes or governance.
Instrumental Variables

Two IVs are proposed:

(i) the distance of the state capital from New Delhi.

(ii) the distance of the state capital from the nearest international border.
Is proximity of states to foreign countries or proximity to New Delhi a good proxy for recovering RRTs?

**RRT and distance from international border**

**RRT and distance from New Delhi**
Do the Effects change?

Manufacturing share (%) and per-capita RRT controlling for landlocked nature

Governance index and per-capita RRT controlling for landlocked nature
Recommended Readings

• Chapters 1, 12, 13, Economic Survey 2016-2017
• “Alms Dealers”, Philip Gourevitch, The New Yorker, October 2010
  http://www.newyorker.com/magazine/2010/10/11/alms-dealers