



MINISTRY OF FINANCE  
GOVERNMENT OF INDIA

# Demonetisation

## Module 13.1

Contemporary Themes in India's  
Economic Development and the Economic Survey

# Overview

- Objective and Background
- Costs and Benefits
- Markers of Success



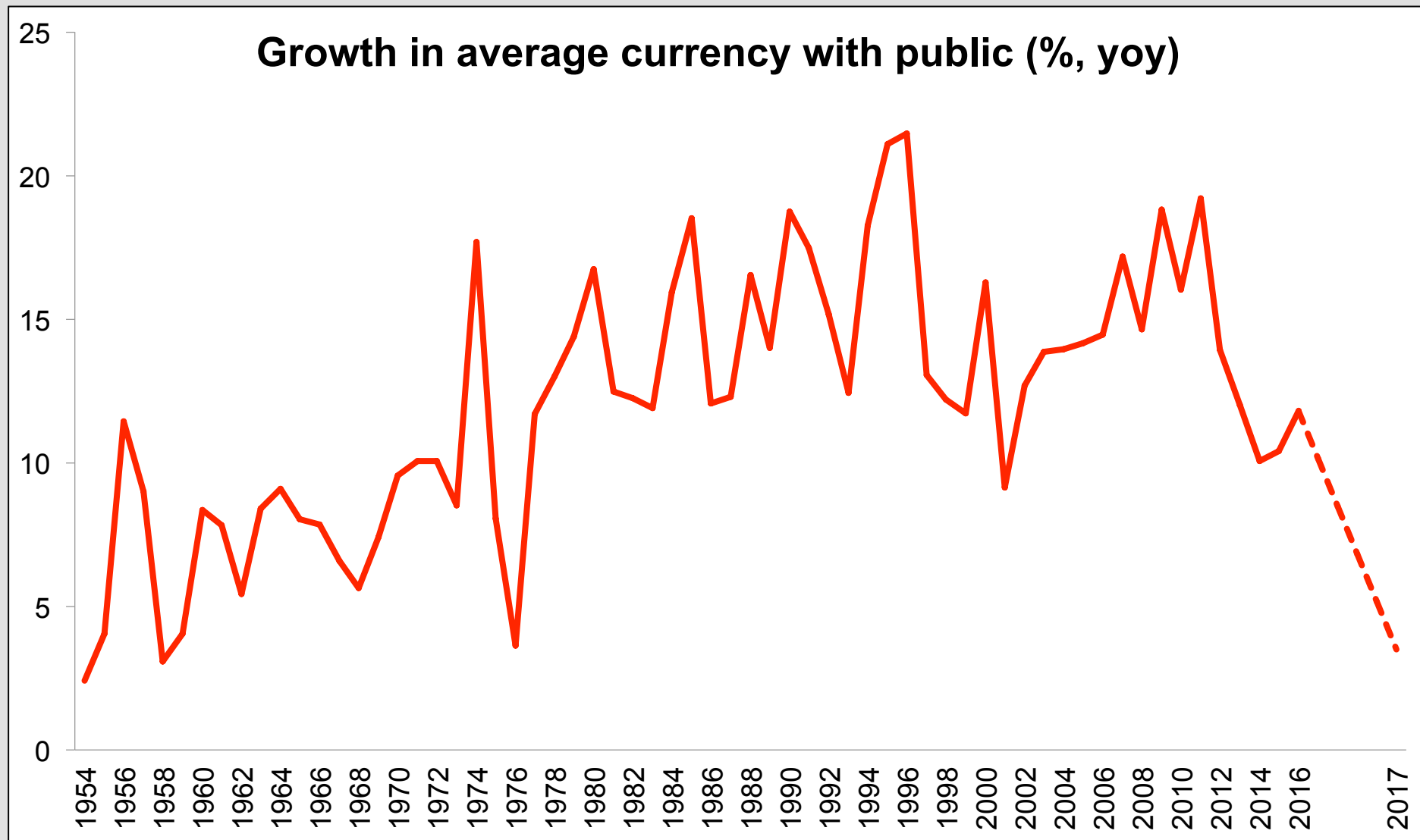
Source: NDTV, DD

17/06/17

Demonetisation and other Metachallenges (Module 14)

# Demonetization – The Beginning

1. On 8<sup>th</sup> November 2016 Prime Minister Narendra Modi announced that two of India's largest notes INR 500 and INR 1000 will cease to be legal tender except for a few purposes
2. 86 percent of cash in circulation (17.7 lakh crores) was rendered invalid, and these notes had to be deposited in banks by the 30<sup>th</sup> of December 2016 ([Go to Chart](#))
3. International example: only sudden demonetization under normal circumstances



[Go back](#)

# Cash shortages for some time



# Objectives of demonetization

To prevent/curb:

- Accumulation of 'black money' generated through income that was not declared to the tax authorities
- Corruption
- Currency counterfeiting
- Use of high denomination currency for terrorist activities
- Perhaps, most important was to signal a regime shift on tolerance for illicit activities and tax-noncompliance



# Black money rendered useless



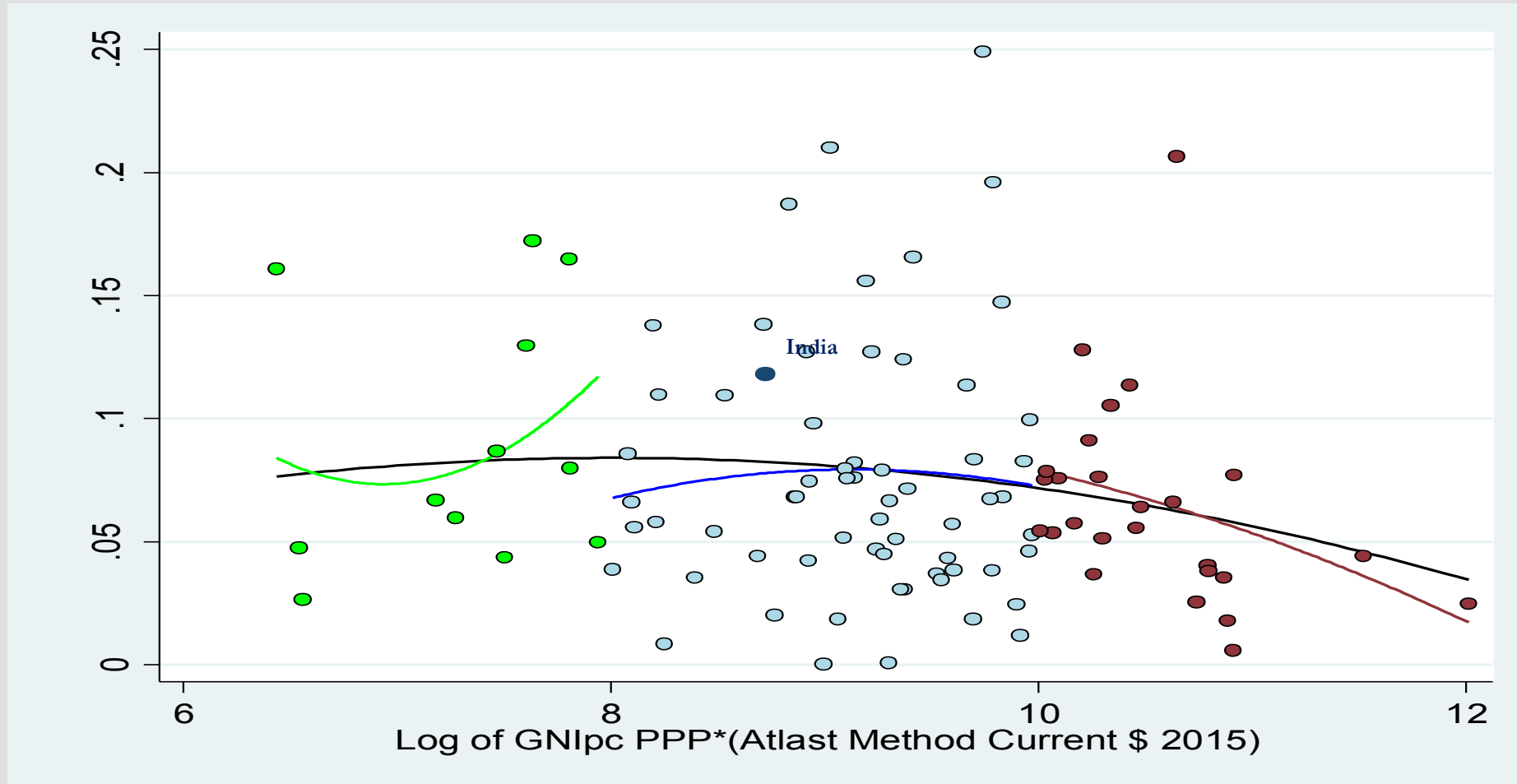


# What is black money?

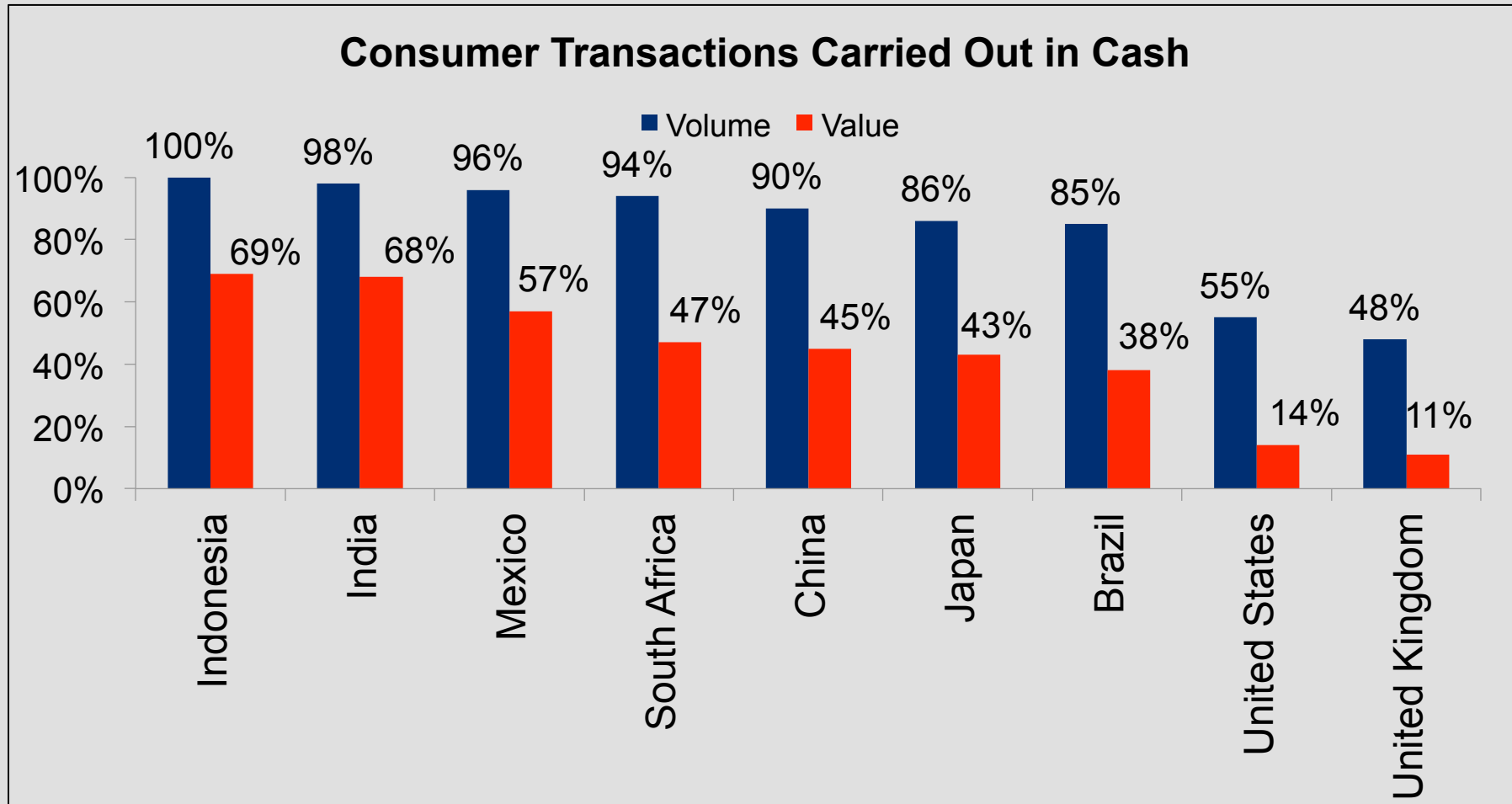
## Origin vs Function

	Origin/nature	
	White	Black
Function		
Transactions	Company pays employee salary in cash; payment and receipt are declared to tax authorities	Small enterprise pays for input in cash; neither declares the transaction to tax authorities
Store of value	Household keeps savings in cash for emergencies	Businessman hoards undeclared cash, with a view to distributing it to his candidate during elections

# Cash-to-GDP ratio in India is quite high and higher than that for comparable countries

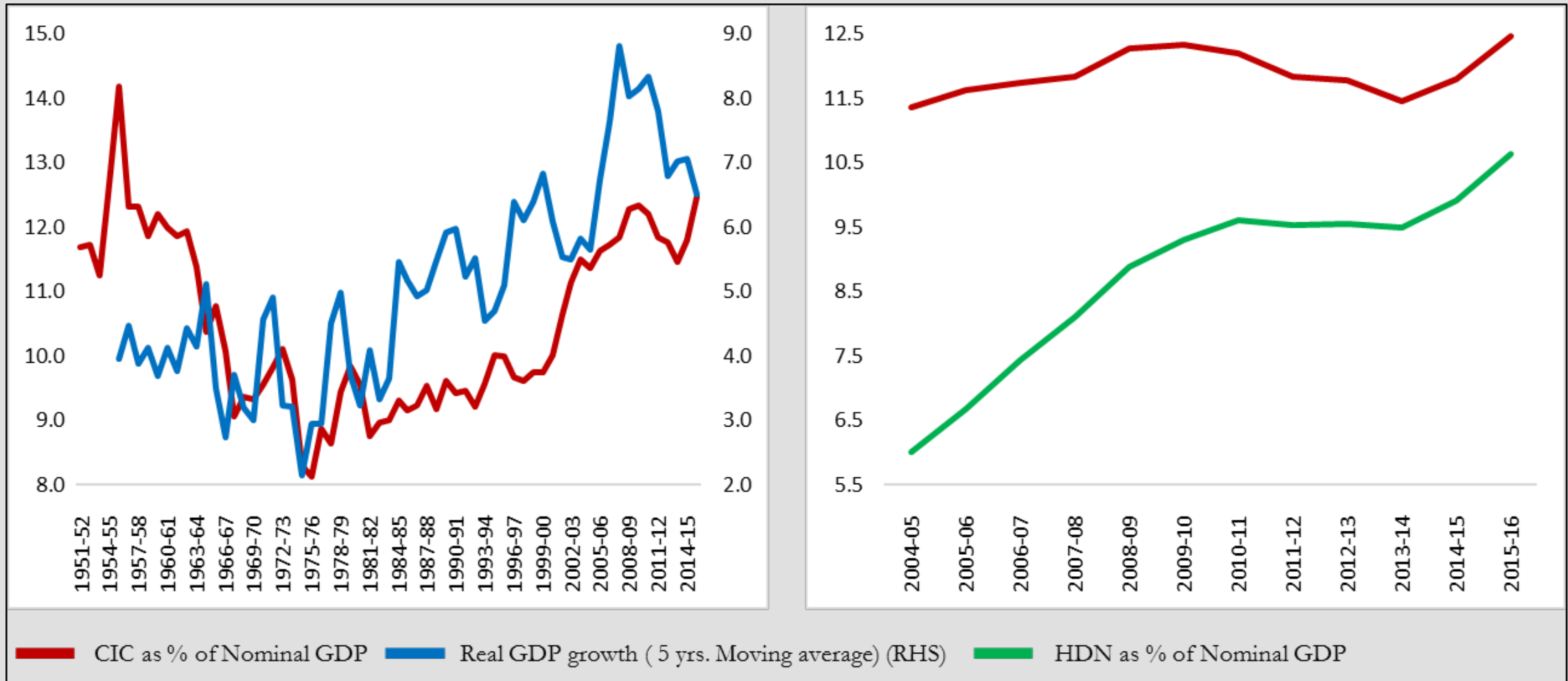


# Consumer transactions in India are predominantly carried out in cash

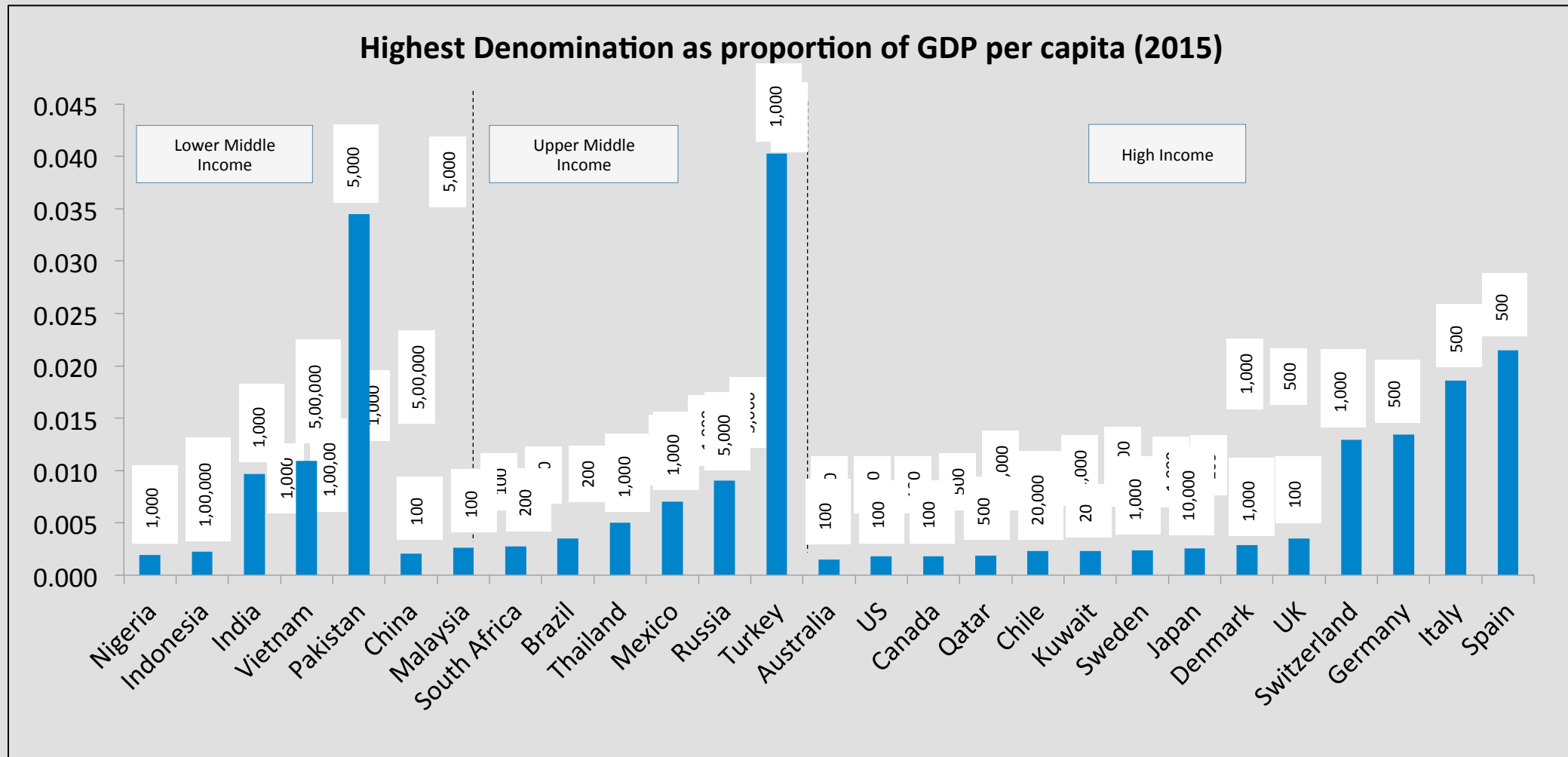


Source: PricewaterhouseCoopers 2015.

# Cash-to-GDP steadily rising over time, including high denomination notes



# HDN used mostly for transactions purposes?



Note: Numbers above bars are high denomination notes in Local Currency Units

# Estimates of black money

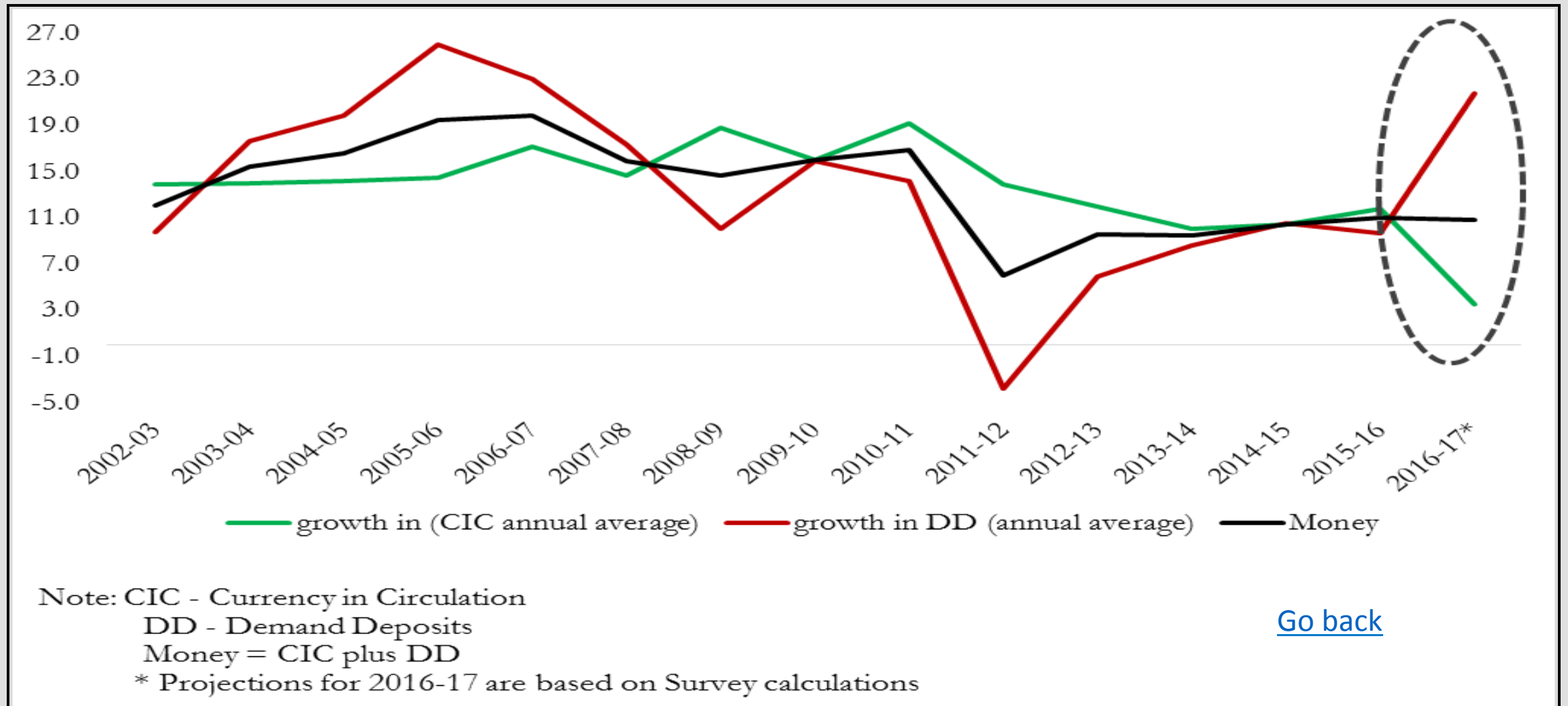
- Estimates based on soil rates
- On one assumption: Rs. 7.3 lakh crores
- On another assumption: Rs. 3 lakh crore (~2 % of GDP)

# Broader analytics of demonetization

- A money supply contraction but only of one type of “money”—cash [Go to chart](#)
- A tax on unaccounted private wealth maintained in the form of cash – black money
- A tax on savings outside the formal financial system



# Growth in Average Currency with Public and Demand Deposits (%)



# Costs and Benefits – Expected Effects (1/2)

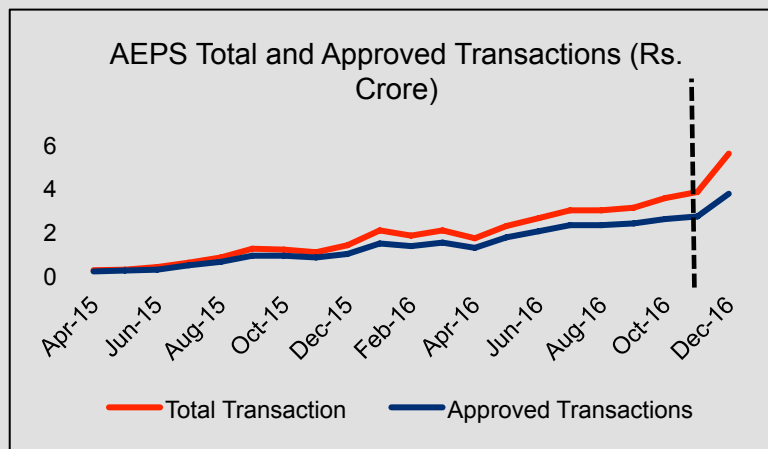
Sector	Short-Run	Long-Run
<b>Money/ interest rate</b>	Cash has declined sharply	Cash will recover but settle at a lower level
	Bank deposits have increased sharply	Moderate increase in bank deposits
	RBI's currency liabilities have fallen, liabilities to commercial banks have increased	RBI's balance sheet will shrink, if it declares outstanding notes will no longer be redeemed
	Broad money essentially unchanged	Money multiplier will rise as bank lending increases; broad money effects will depend on RBI response
	Interest rates on cash will rise but other interest rates will decline	Loan rates should fall, as the durable increase in deposits creates new lending capacity
<b>Financial System Savings</b>	Increase	Increase
<b>Unaccounted income/black money</b>	Stock of black money will fall as holders get caught in the tax net	Flow should decrease because of formalization
<b>Formalization/digitalization</b>	Digital transactions have increased sharply	Further increases

# Costs and Benefits – Expected Effects (2/2)

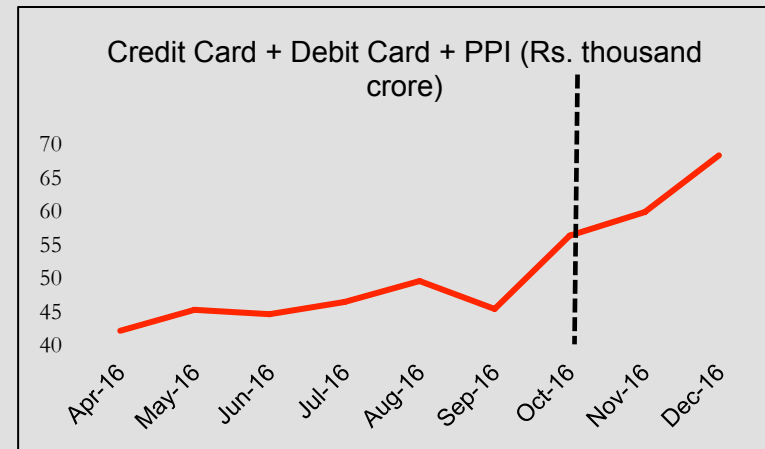
Sector	Short-Run	Long-Run
<b>Wealth</b>	Private sector wealth will decline, to the extent that high denomination notes are not returned, while real estate prices fall	
	Government/RBI's wealth will increase because unreturned cash will reduce liabilities	
<b>Real estate</b>	Prices will decline, as wealth declines and cash shortages impede transactions	Prices could rise if evasion of stamp duty/capital gains tax becomes difficult
<b>GDP</b>	Will decline, as demand (cash, private wealth) and supply (reduced liquidity and working capital) fall	Could be beneficial in the long run: greater formalization, less corruption
	Cash-intensive sectors (agriculture, real estate, jewelry) likely to be affected more	Informal output could decline but recorded GDP would increase as economy is more formalized
<b>Tax collections</b>	Will decline as growth slows, partially offset as tax net snares black money	Increase, as formalization expands and compliance improves
<b>Credibility</b>		Will be strengthened if demonetization is accompanied by complementary measures. Will be undermined if re-monetization is slow and if tax arbitrariness and harassment increase

# Digitalization – upward trend in digital transactions across all three types of consumers

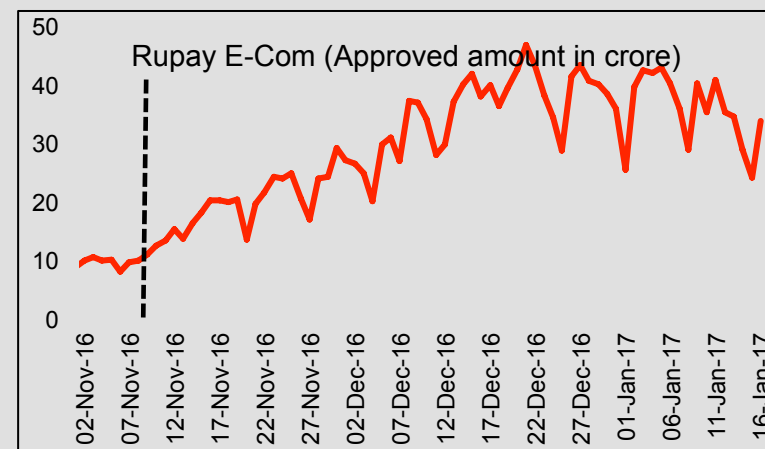
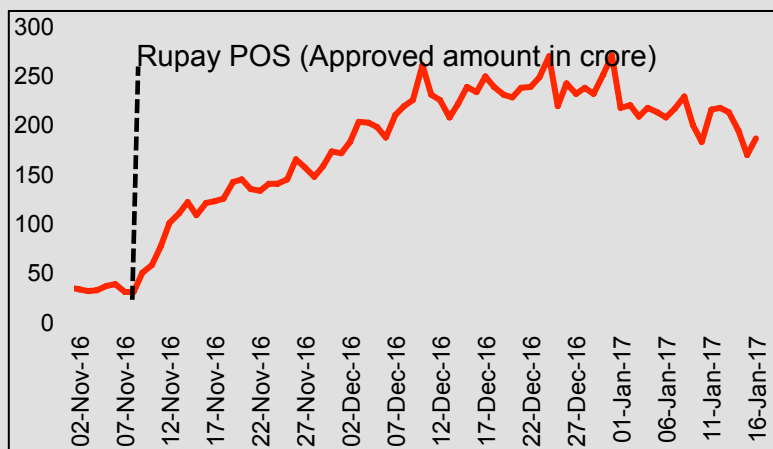
Digitally Excluded



Affluent Customers



Less Affluent Customers



Source: National Payments Corporation of India

# Real estate prices fell as black money transactions reduce

- As black money in the economy reduces illicit transactions in the real estate sector, which used to be the key sector to evade taxes on property sales, prices fell
- Early signs are evident as weighted average of real estate prices in eight major cities shows a decline

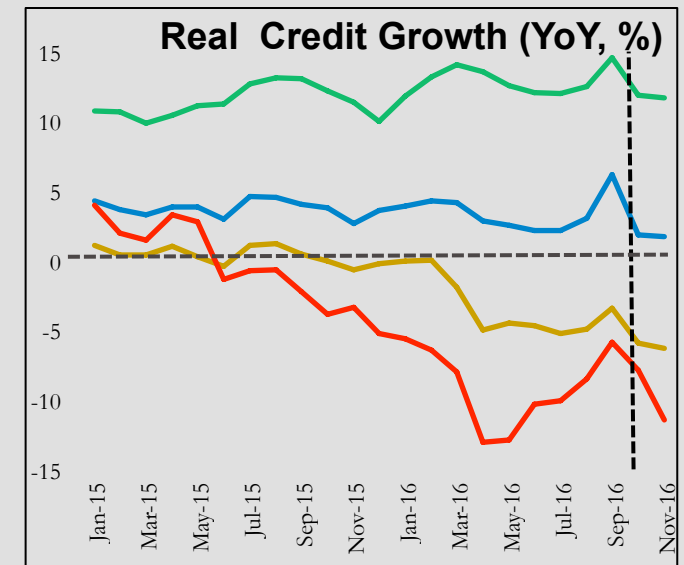
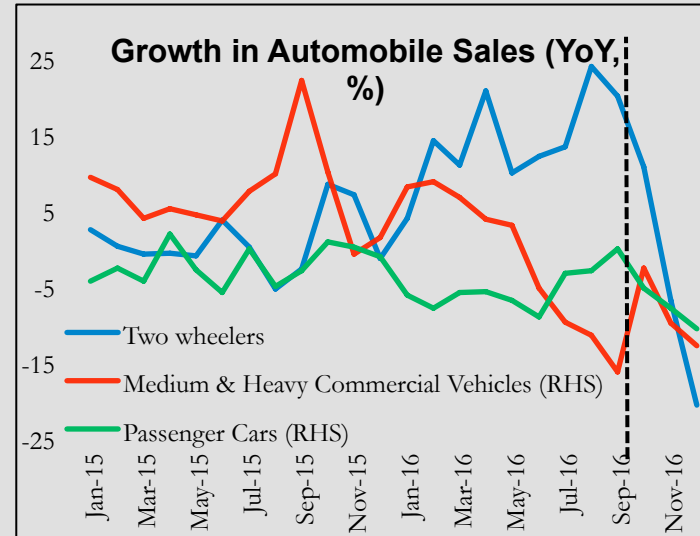
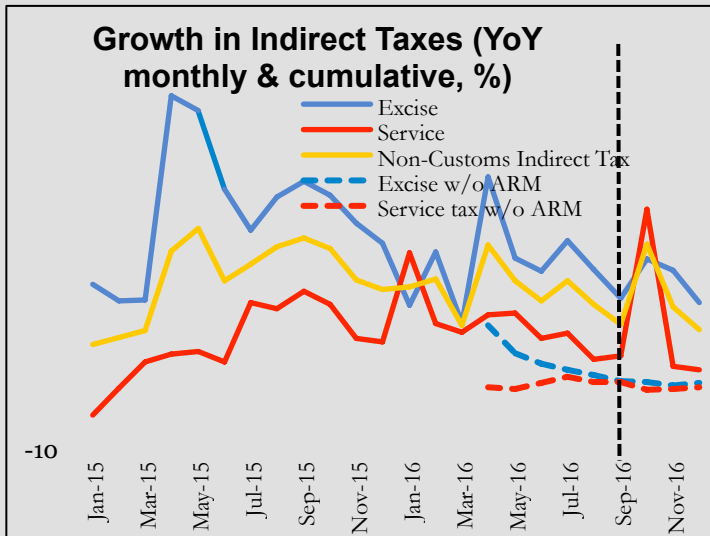
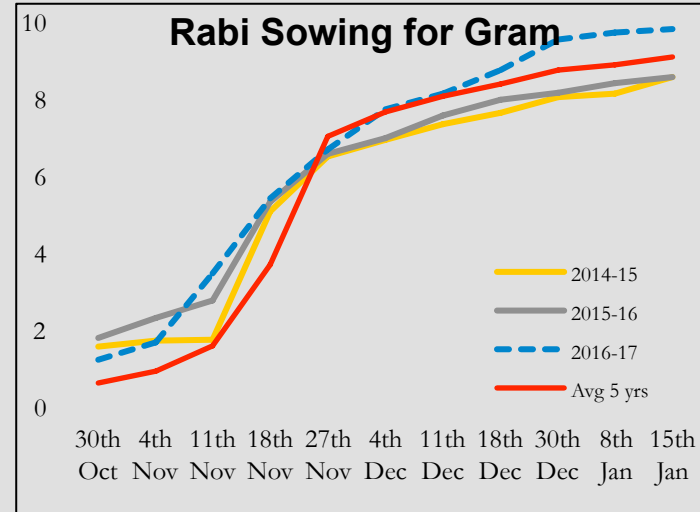
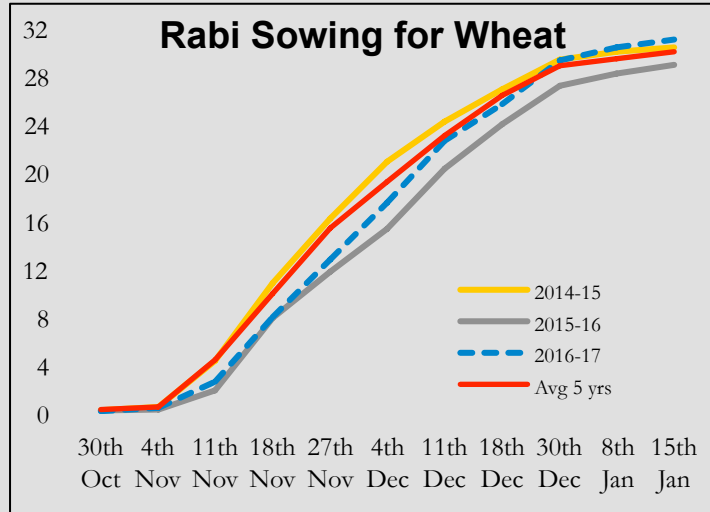


Source: Knight Frank data and Survey calculations

# Assessing the short-term macro-economic Impact

- Demonetisation is:
- An aggregate demand shock because it reduces the supply of money and private wealth
- An aggregate supply shock to the extent that cash is an input to production (for example, agriculture)
- An uncertainty shock for investors and consumers
- Impact on informal sector difficult to measure

# What are the indicators?





# The Quantity Theory of Money – Theory

$MV = PY$ , where

- M refers to the money supply
  - V is velocity, the rate at which money turns over
  - P is the price level
  - Y is real GDP
- If  $M \downarrow$ ,  $V \uparrow$  either or, the nominal GDP  $\downarrow$  (a negative impact on both price & real activity)
- For example, a reduction in cash in circulation (or cash in hand) implies that across the value chain of goods and services production, transactions that were in cash will either have to be on credit or not occur

# Quantity Theory of Money – Operationalization

Two conceptual issues to be considered to operationalize this equation:

- Definition of money supply
  - restricted convertibility between cash and bank deposits,
  - separate analysis of the two needed
- Formal and informal economy had different effects
  - we assume only the informal part of the economy affected by cash crunch
  - however there are second-round effects on the formal economy
    - workers in the informal economy may reduce their consumption in response to being laid off.

# Assumptions for projecting currency with public

- Unreturned cash (assumed to be 10 percent of cash in circulation as of 8<sup>th</sup> November) doesn't need to be replaced
- 75 percent of outstanding old high denomination notes continue to be used as legal tender till end-December
- Liquidity of Rs. 2000 notes increases over time from 75 percent in November to 85 percent in December and 100 percent January onwards
- Velocity of small denomination notes unchanged

# Assumptions for projecting currency with public

Replenishment Cycle:

*November:*

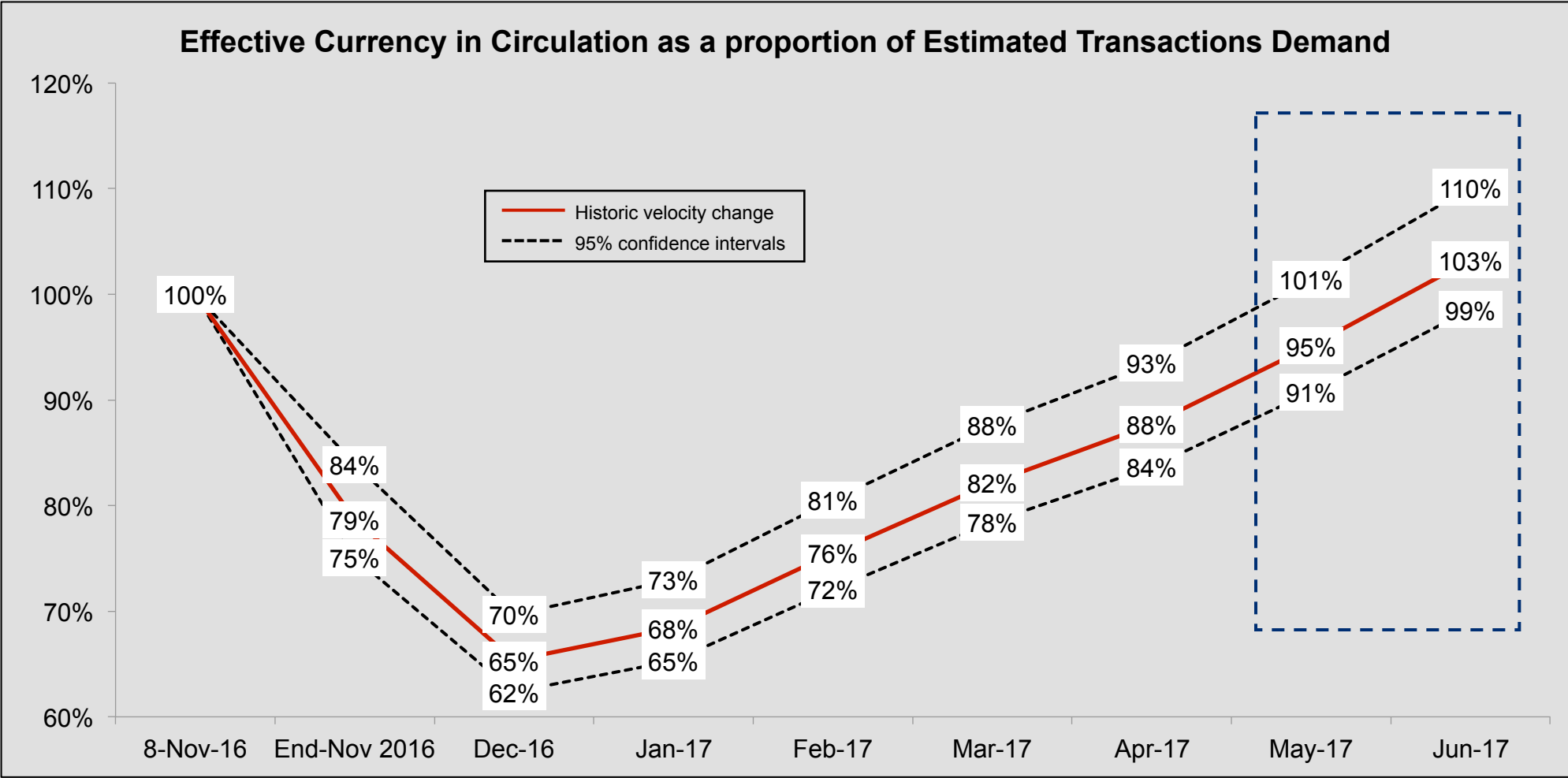
- Rs. 3.2 lakh crore replenished by 30<sup>th</sup> November (72 percent Rs. 2000 notes, 6 percent Rs. 500 and rest in small denominations)

*December*

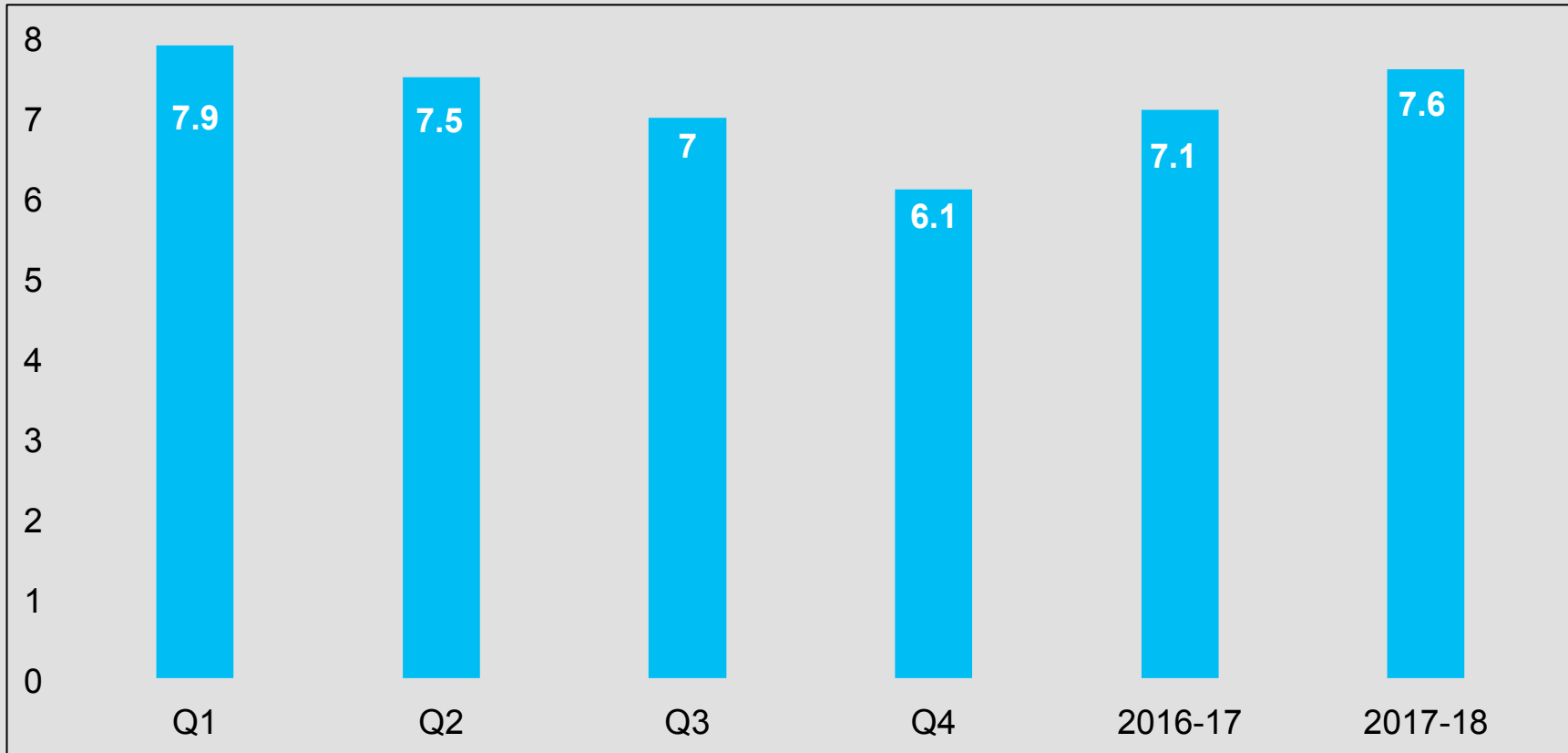
- Rs. 2 lakh crore available in stock for disbursal in December (75 percent Rs. 2000 notes and 25 percent Rs. 500)
- Rs. 0.5 lakh crore injected from RBI's reserve stock of money in December
- Rs. 1.4 lakh crore printed and injected in addition

*January onwards:* Rs. 1.4 lakh crore printed and injected every month starting January (for December this is in addition to above figures)

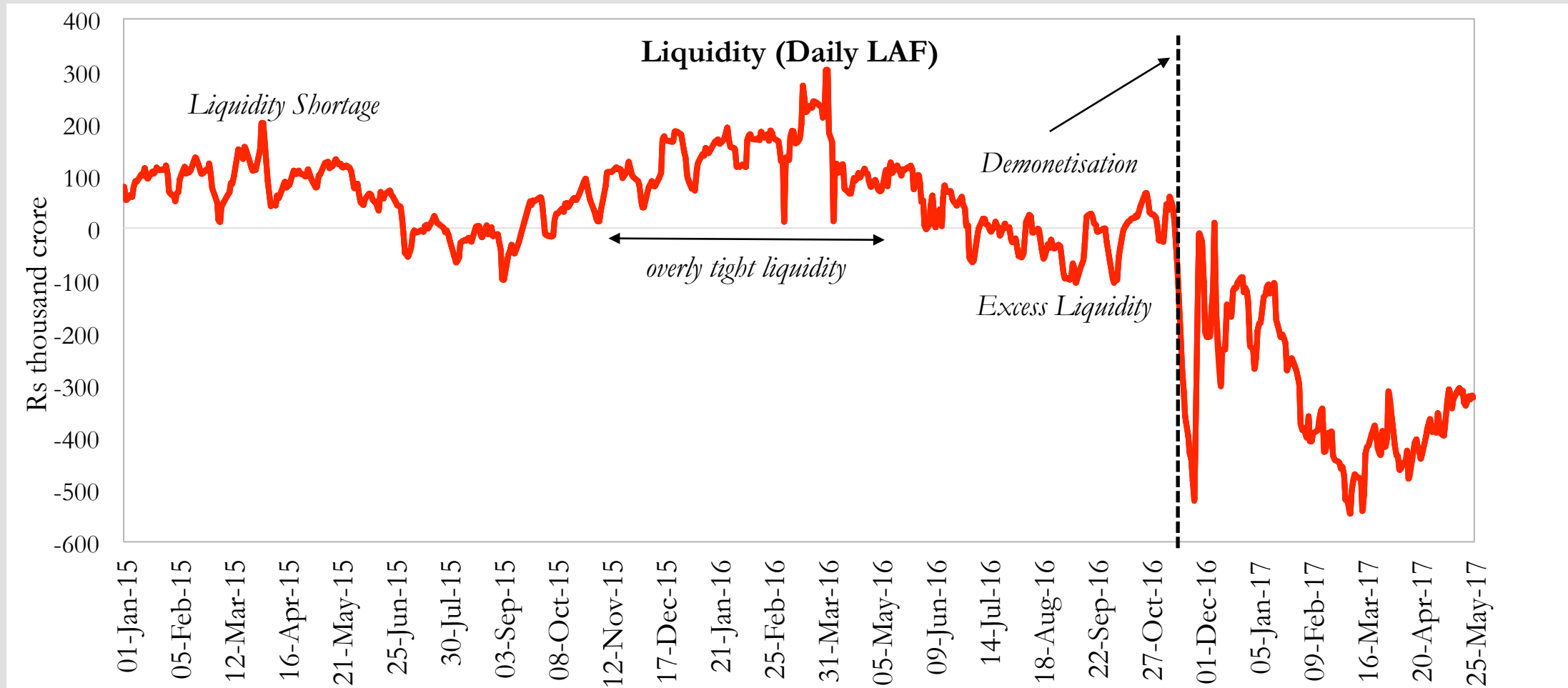
# Re-monetization timeline



# Real GDP Growth Forecasts (y-o-y %)

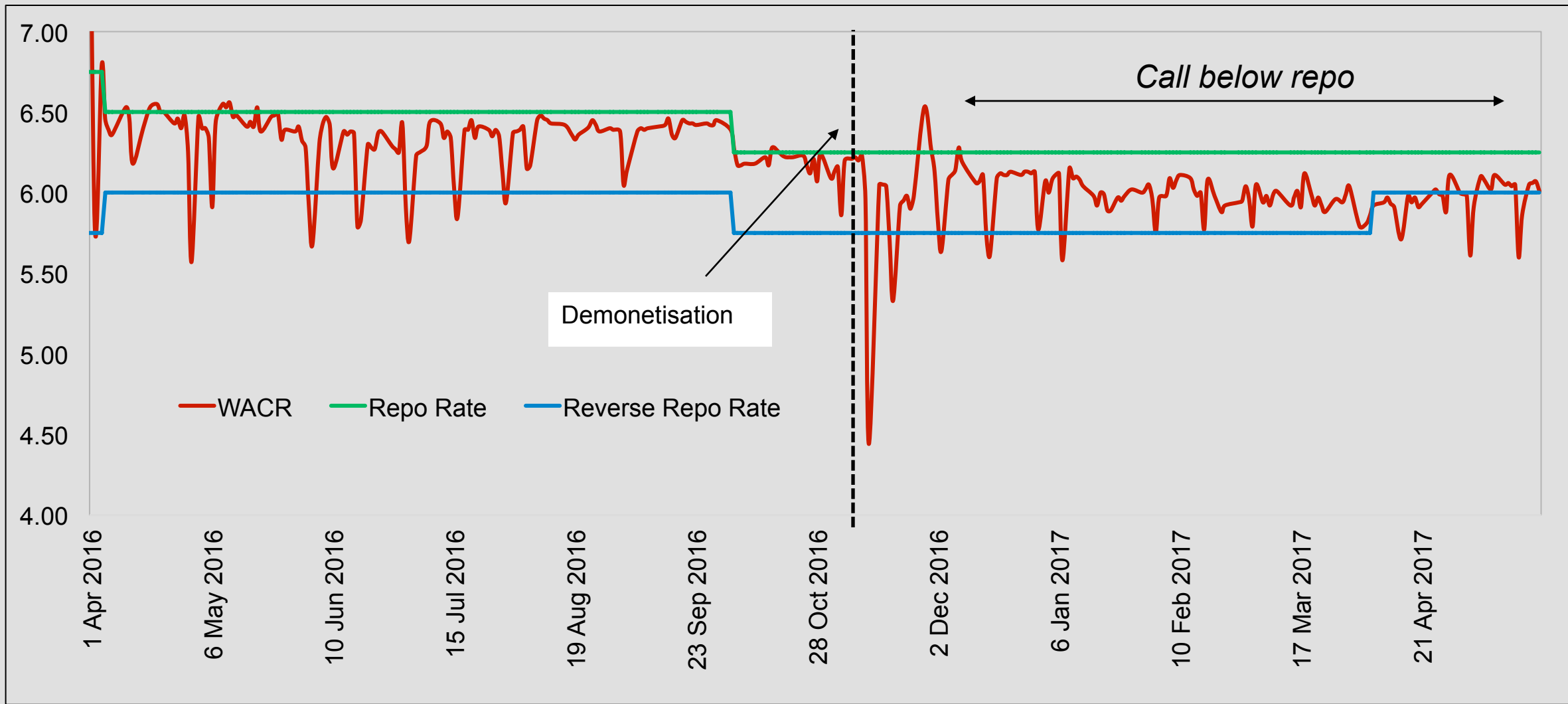


# Excess liquidity increased sharply after demonetization but has not been eliminated even after 7 months.....





..so that short-term rates still below policy rates



# Markers of Success

- Increased digitalization or a decrease in prominence of cash as a means of transactions
- Reduction in cash-GDP ratio as formal savings increase and black money falls
- Number of new income tax payers as well as the magnitude of reported and taxable income should go up over time

# Maximizing LT gains and minimizing ST costs

- Faster remonetization will reduce the duration of currency crunch and enable faster economic recovery
- Re-establish internal convertibility of cash and money deposits to build confidence in the country's financial system
- Continued impetus to digitalization bearing in mind the trade-off between cash and digital transactions, and sensitive to those currently digitally deprived
- Eventually, digitalization should also be privately profitable to sustain the digitalization efforts. Cyber-security is another important aspect of this effort

# Complement demonetization with measures to reduce incentives for tax evasion

- GST with broad coverage to include activities that are sources of black money creation—land and other immovable property—should be implemented
- Individual income tax rates and real estate stamp duties could be reduced
- Income tax net could be widened gradually and, consistent with constitutional arrangements, could progressively encompass all high incomes. (After all, black money does not make fine sectoral distinctions)
- Timetable for reducing the corporate tax rate could be accelerated
- Tax administration could be improved to reduce discretion and improve accountability



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# Exit and the Meta-challenges Facing the Indian Economy

## Module 13.2

Contemporary Themes in India's  
Economic Development and the Economic Survey.

# **The Chakravayuha Challenge of the Indian Economy (The Problem of Exit)**

# From Socialism without Entry to Capitalism/ Marketism without Exit

- The Indian economy has embraced the spirit of the market, dismantling the 'Licence-Quota-Permit Raj'.
- But these were mostly restrictions on entry not exit.





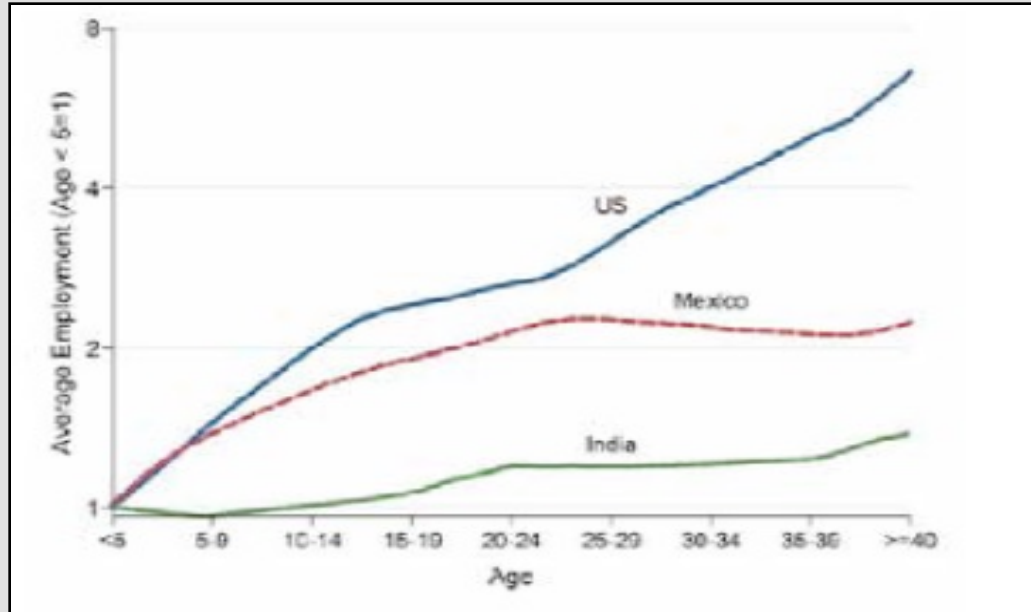
# The Theory

- A market economy requires free entry of new firms, ideas, and technologies so that factors of production are guided to most productive uses.
- But Exit must to entice resources away from inefficient deployment: Joseph Schumpeter: *'the gale of creative destruction'*.
- Problem in public and private sectors, and all economic sectors: Civil aviation, Agriculture, Welfare Schemes, Public sector banks & companies, Infrastructure, Discoms, Regulatory bodies, Labour, Small Savings

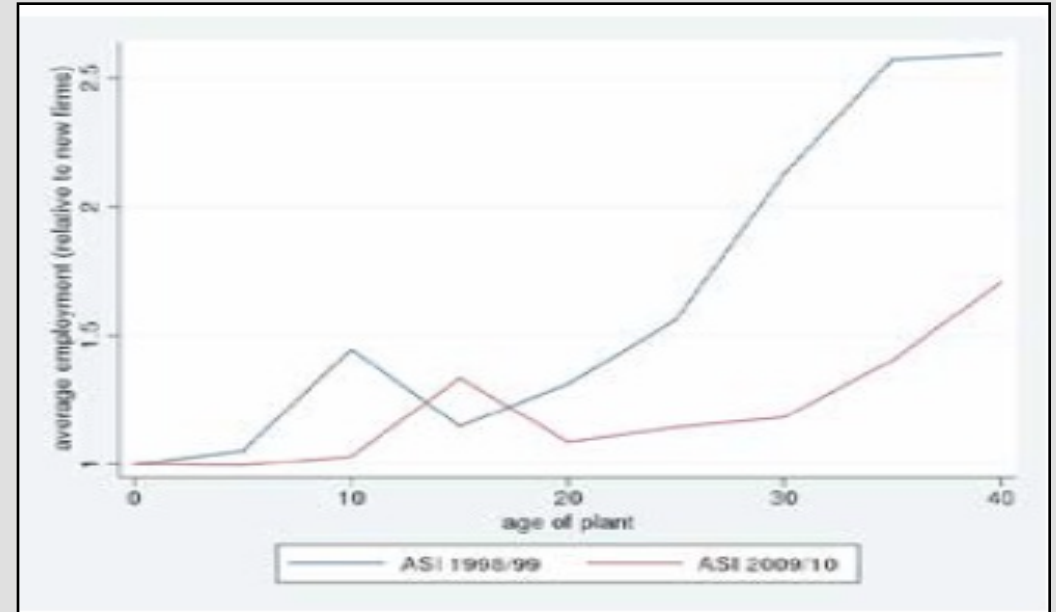
# Magnitude of the problem

- Good firms don't grow large enough over time and bad ones stick around for too long.
- Average 40 year plant only 1.5 times larger than a new one in India.
- Thick tail of badly run firms.

Average employment of old & new plants in India, Mexico & US



Average employment of old & new plants in India, FY1999 & FY2010



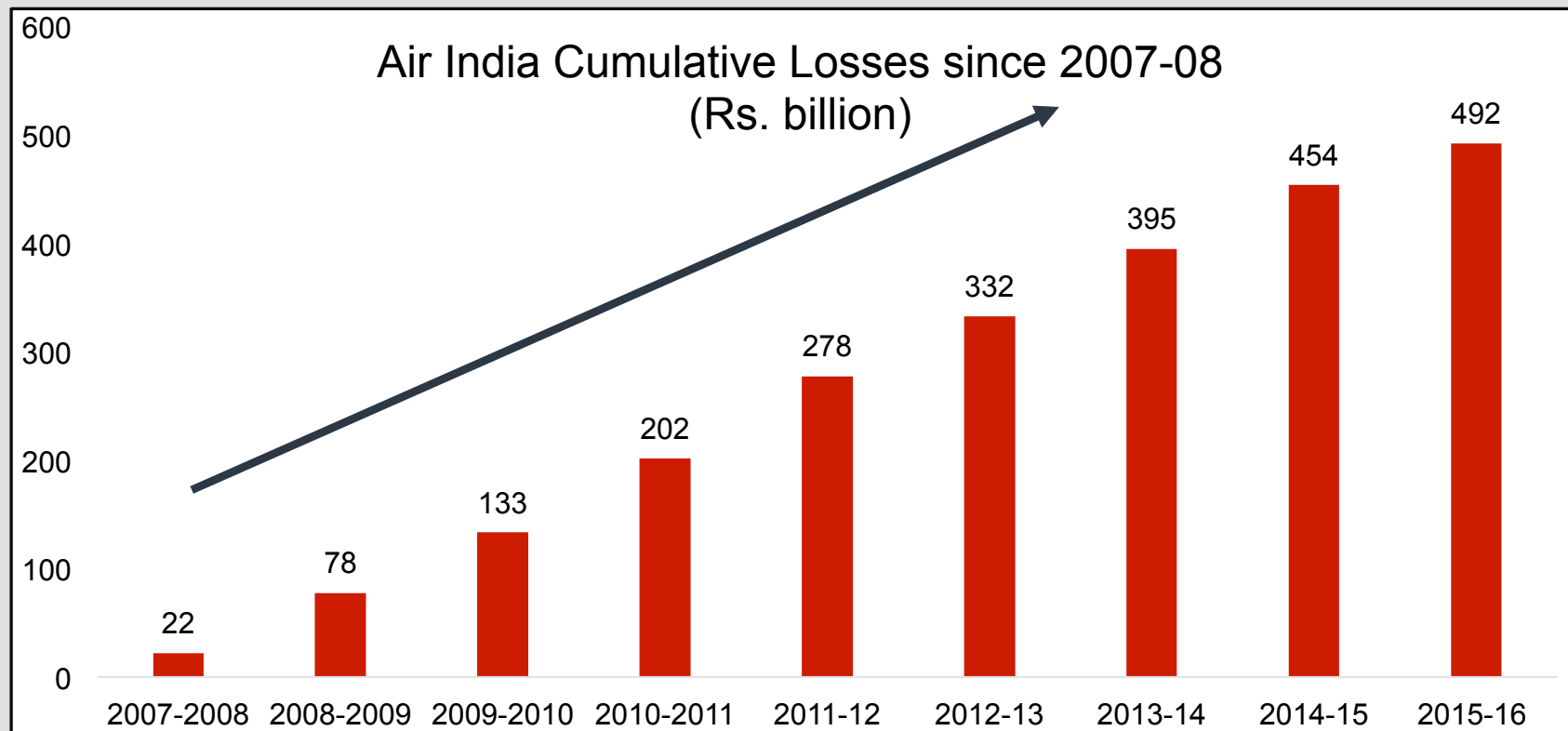
# Costs of Lack of Exit

- **Fiscal Costs:** Government supports inefficient firms/banks-explicit (bailouts) or implicit (loans).
- **Economic Costs:** Misallocation of resources.
  - Hsieh and Klenow (2009) argue that when labour and capital are hypothetically relocated within firms to equalize marginal products to the extent observed in the US it leads to productivity gains of 40-60% in India.
  - Debt and stressed assets overhang.
- **Political costs:** Perception of favouring the private sector.

# Examples

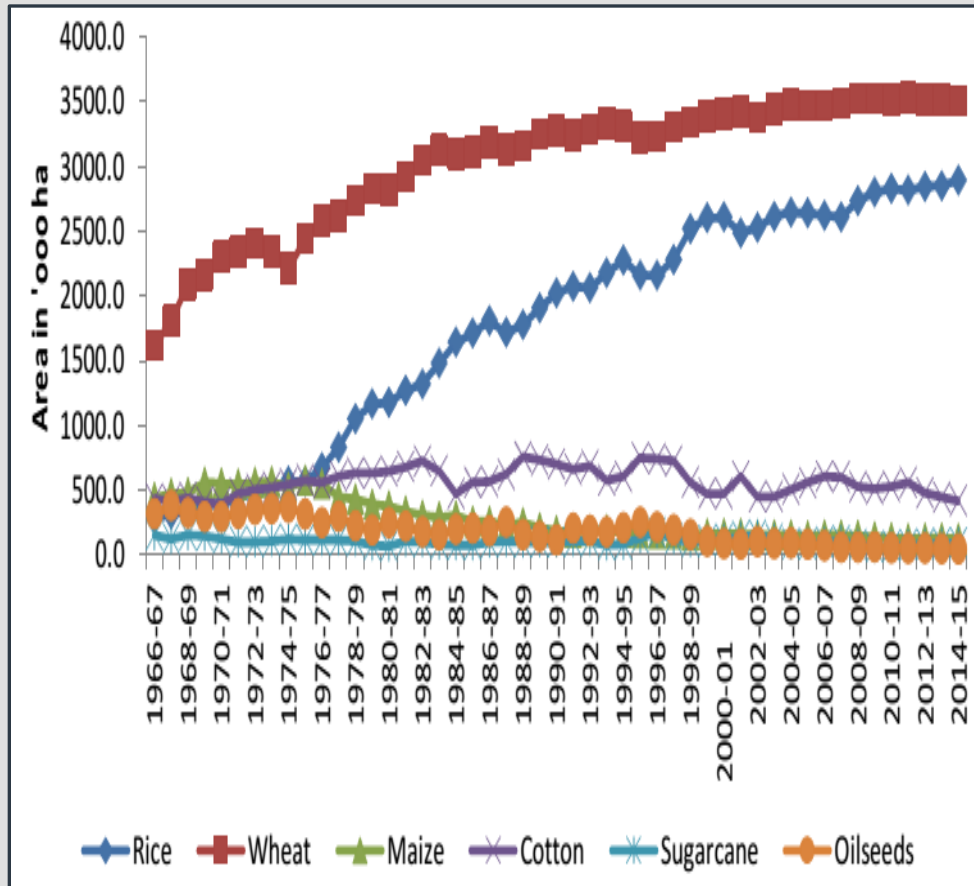
# 1. Civil Aviation: Air India

- The erstwhile pride of India today has a **negative price**.
- Cumulative losses rising.

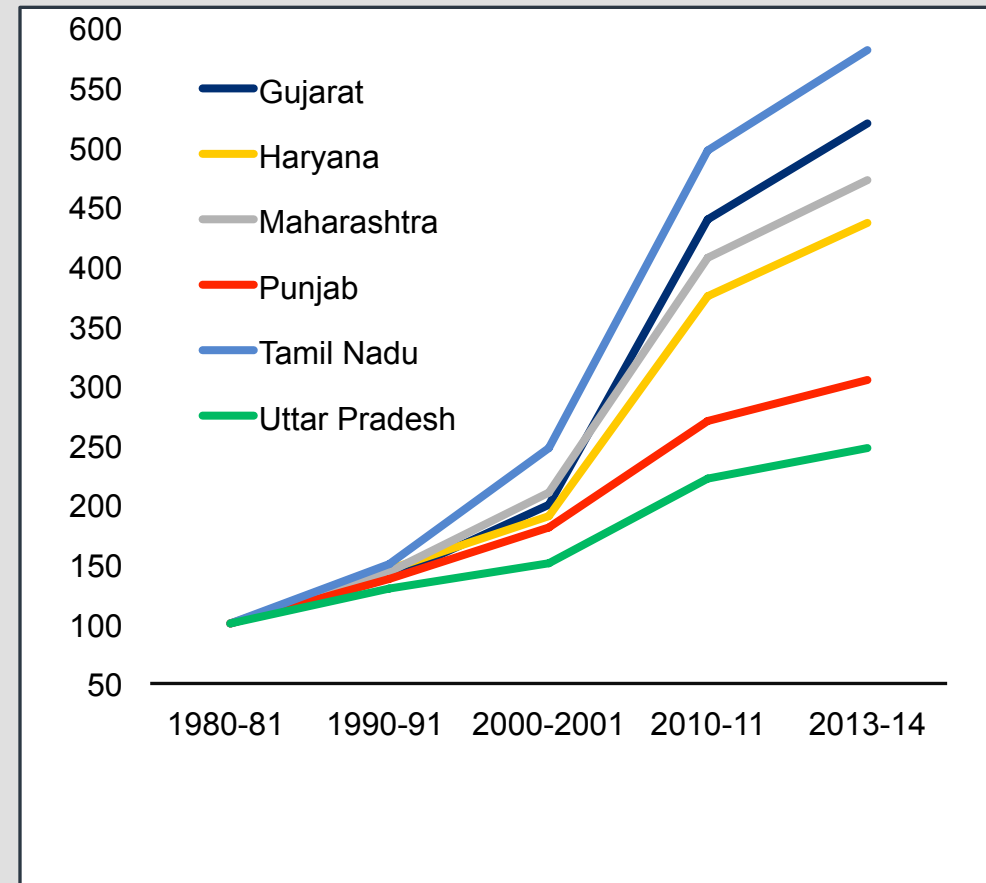


## 2. Agriculture: Lack of Exit from Cereals

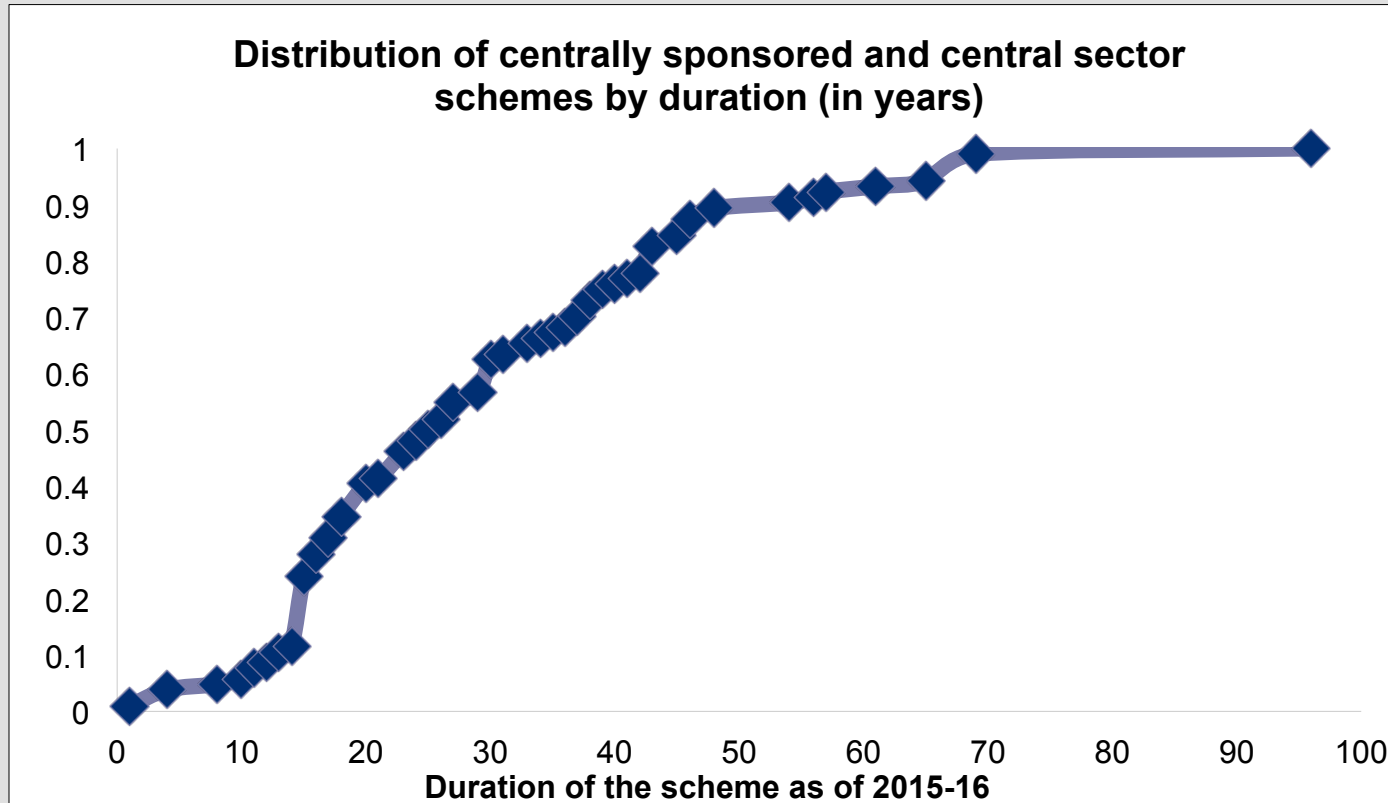
Change in Acreage under Important Crops (Area in '000 Ha)



Progression of Per Capital Income relative to 1980



# 3. Policy persistence: Government Schemes

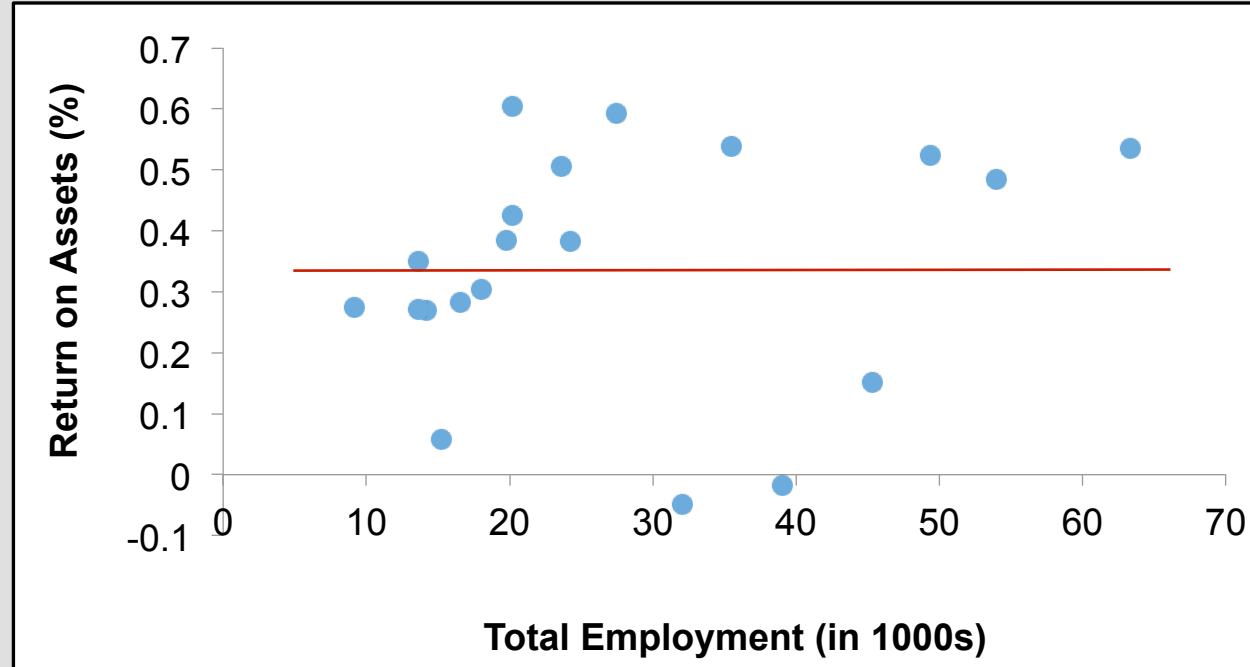


- Vested interests create a market of their own.
- Number of CS+CSS schemes increased from about 900 in 2006-07 to about 1100 in 2014-15.
- Current government moving towards consolidation. No. of schemes in 2017-18 is around 700.



## 4. Public Sector Banks: Bad Health

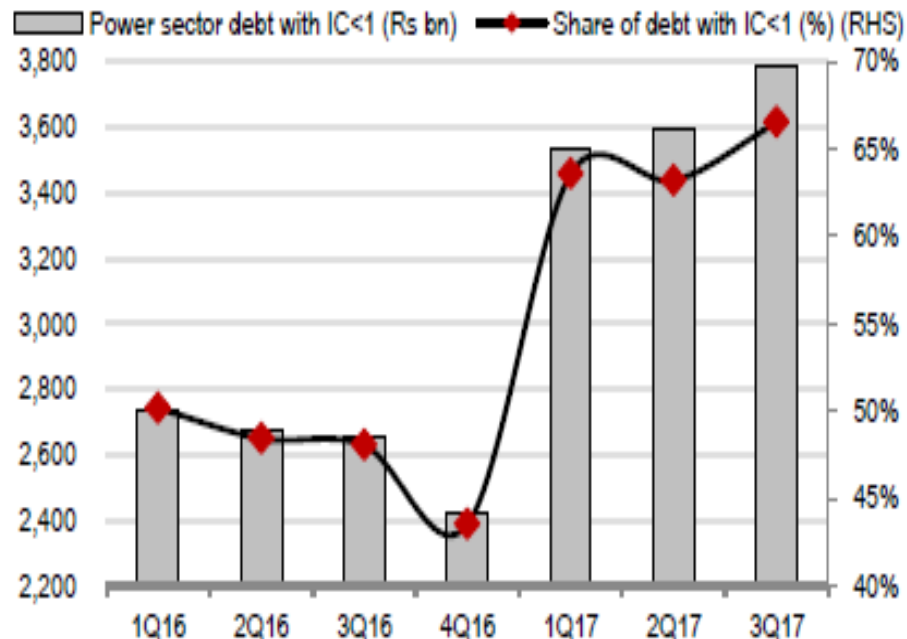
- Burdened by Non-performing Assets.
- RoA of most banks less than the **norm of 1.5 %** considered reasonable (2015-16).
- Most of these banks with small employment.
- Capital infusion between 2010 and 2016 above Rs. 1 lakh crore.



# 5. Infrastructure

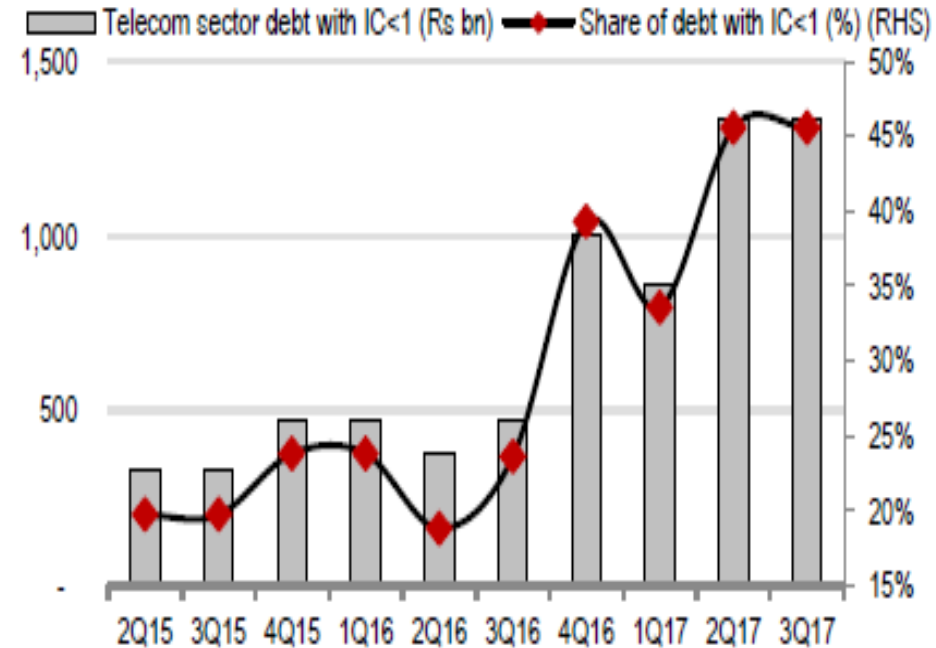
Heavily indebted firms in power and telecom sectors.

**Figure 6: 67% of power debt with IC<1 companies**



Source: Company data, Credit Suisse estimates

**Figure 7: 45% of telecom debt with IC<1 companies**



Source: Company data, Credit Suisse estimates

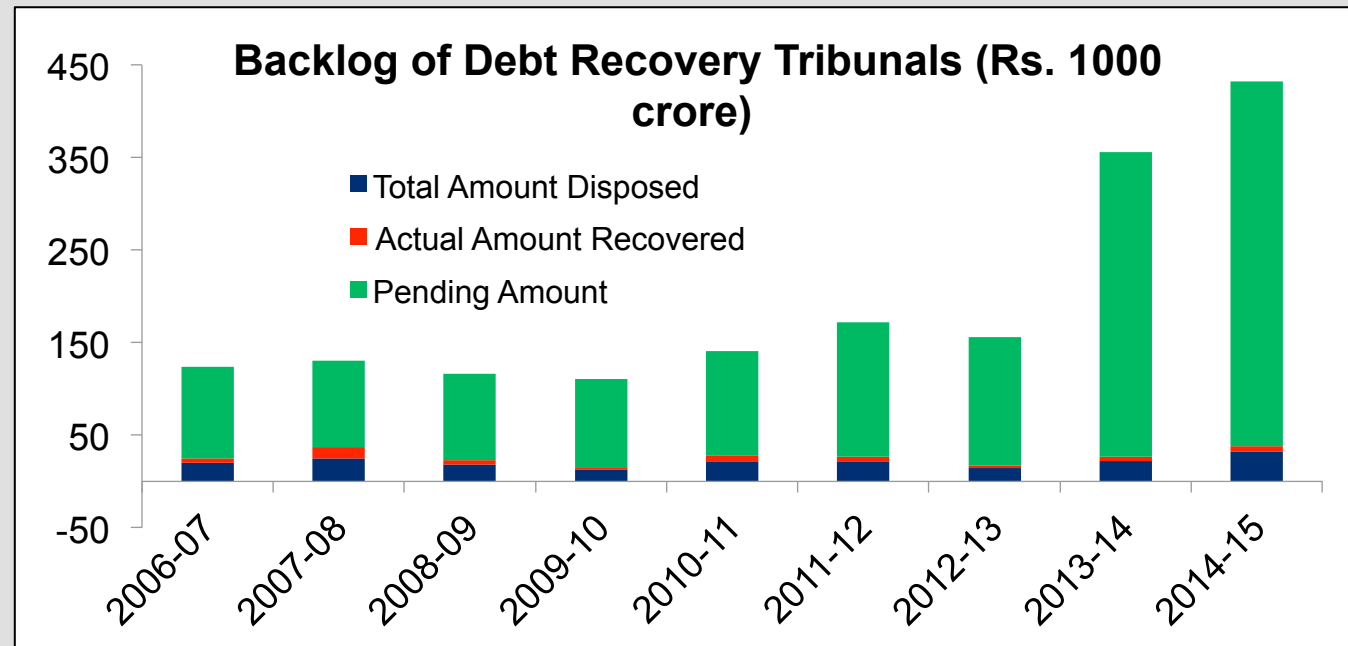
# Why no Exit?

# Why no Exit? Interests

- Interests: Concentrated producer interests (farmers, trade unions) vis-à-vis dispersed consumer interests and unrepresented (because unborn) future interests.
- The former will have the incentive and the financial ability to mobilize more easily.

# Why no Exit? Some Weak Institutions

- **Weak Institutions:** They hamper or increase costs of exit.
- Example: Debt Recovery Tribunals.
- Banks finding it hard to exit bad loans, private firms unable to exit bad balance sheets. Hence Larger recourse to DRTs but with dismal results.
- But, share of settled cases small and declining.

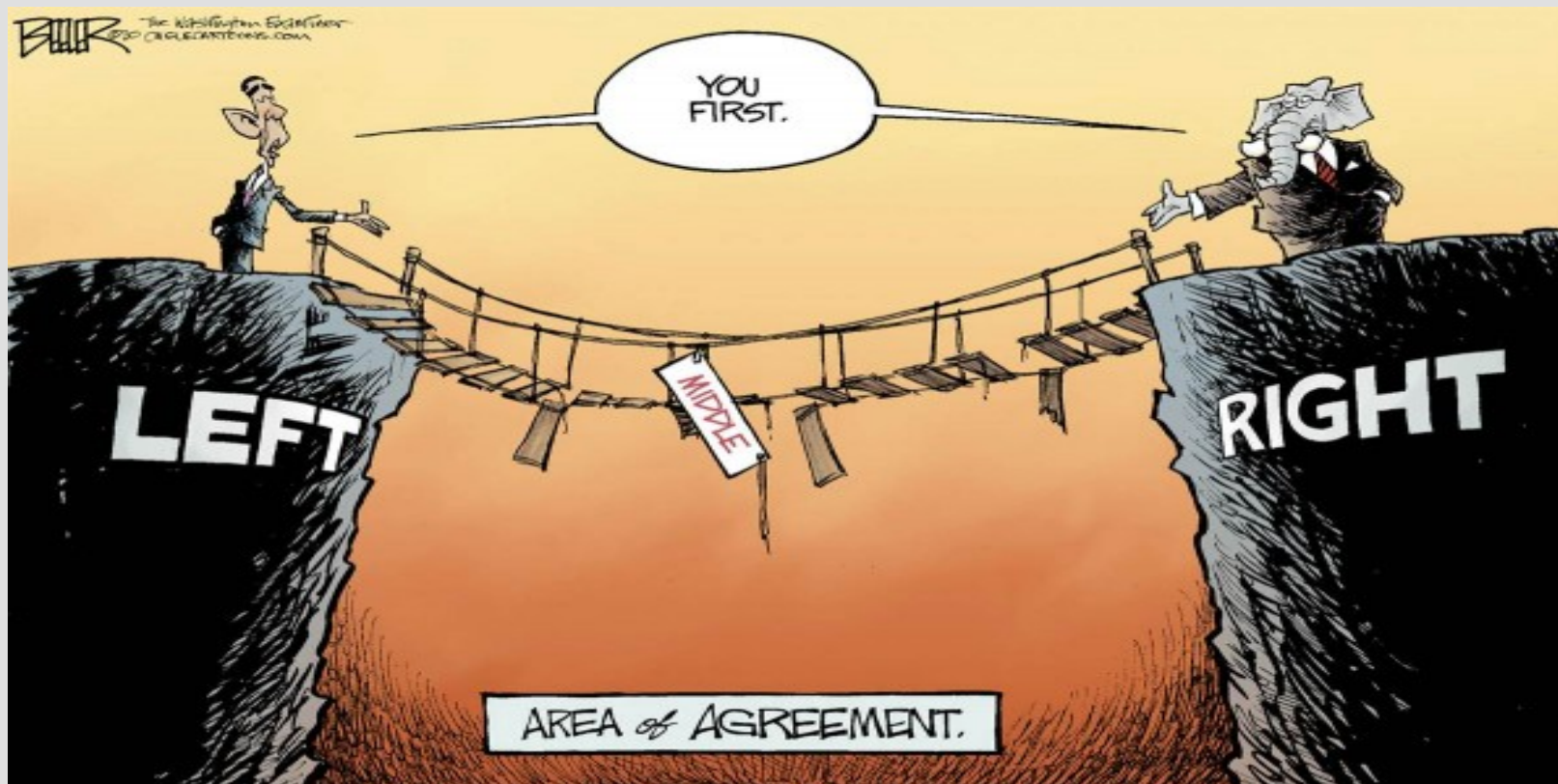


# Why no Exit? Some Strong Institutions

- **Strong ‘Referee’ Institutions:** Critical for democracy, but functioning a difficult balancing act so as to not impede calculated risk-taking.
- 4 Cs:
  - Courts.
  - Central Vigilance Commission.
  - Central Bureau of Investigation
  - Comptroller and Auditor General (CAG).

# Why no Exit? Ideology

- Difficult to phase out entitlements.
- 'Sanctification of the Small'
- Political difficulties: Perception of favouring the private sector.



# Solutions

- Avoid exit through liberal entry: aviation and telecom.
- Direct policy action: bankruptcy law.
- Technology and JAM to bypass vested interests.
- Transparency: explicitly advertise the costs of bad programs like fertilizer subsidy.
- Exit as an opportunity: disinvestment, land banks



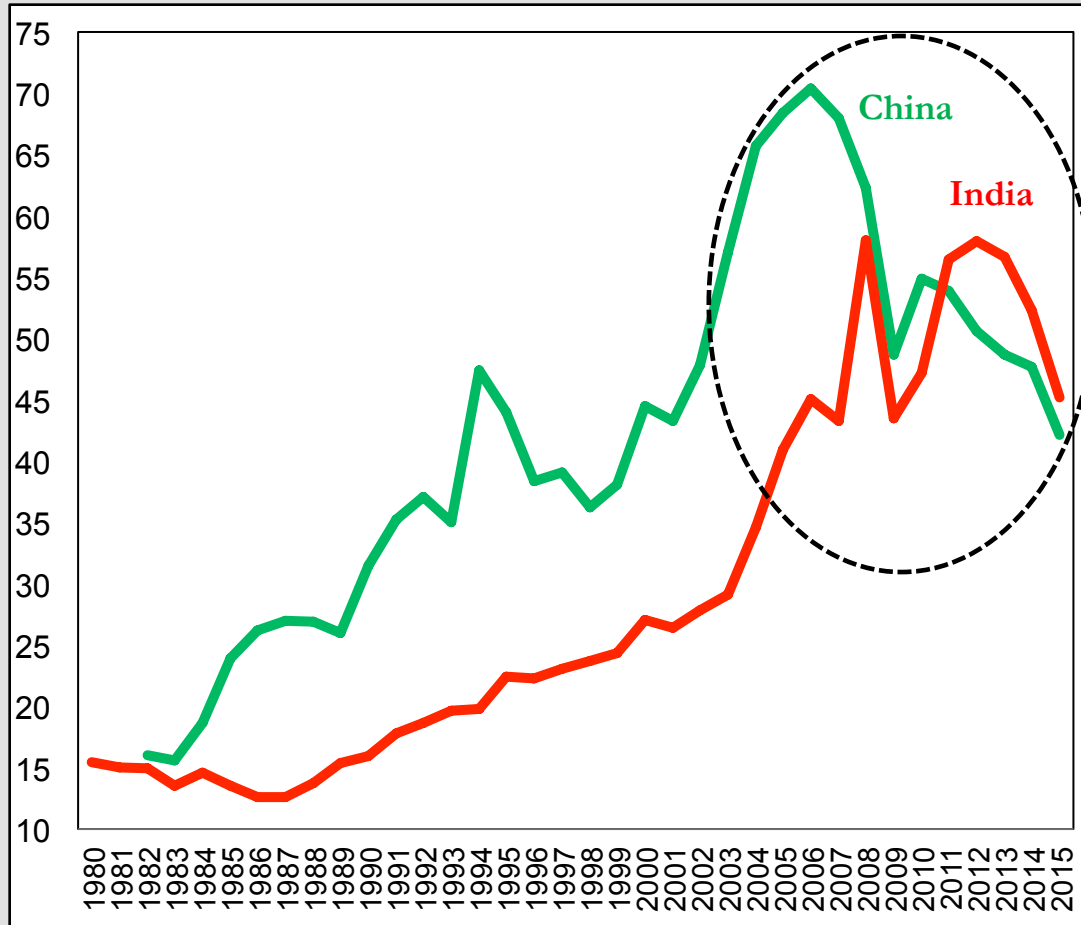
# **India's Meta-challenges: The Precocious, Cleavaged Democracy**

# Overview

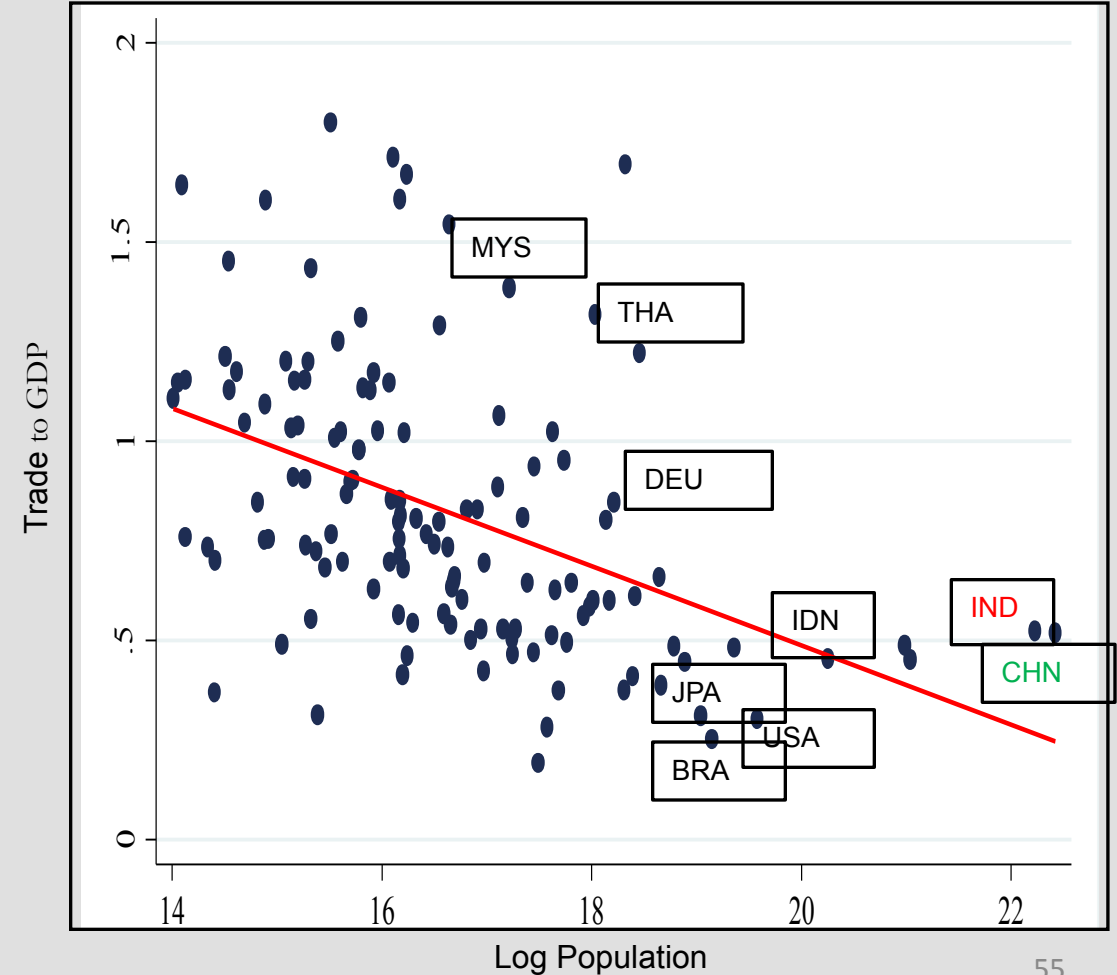
- Meta-challenges: Not about today but entire history
- India's Transformation-A “Washington Consensus”  
Economy
- But what are the underlying deeper challenges

# Openness to Trade

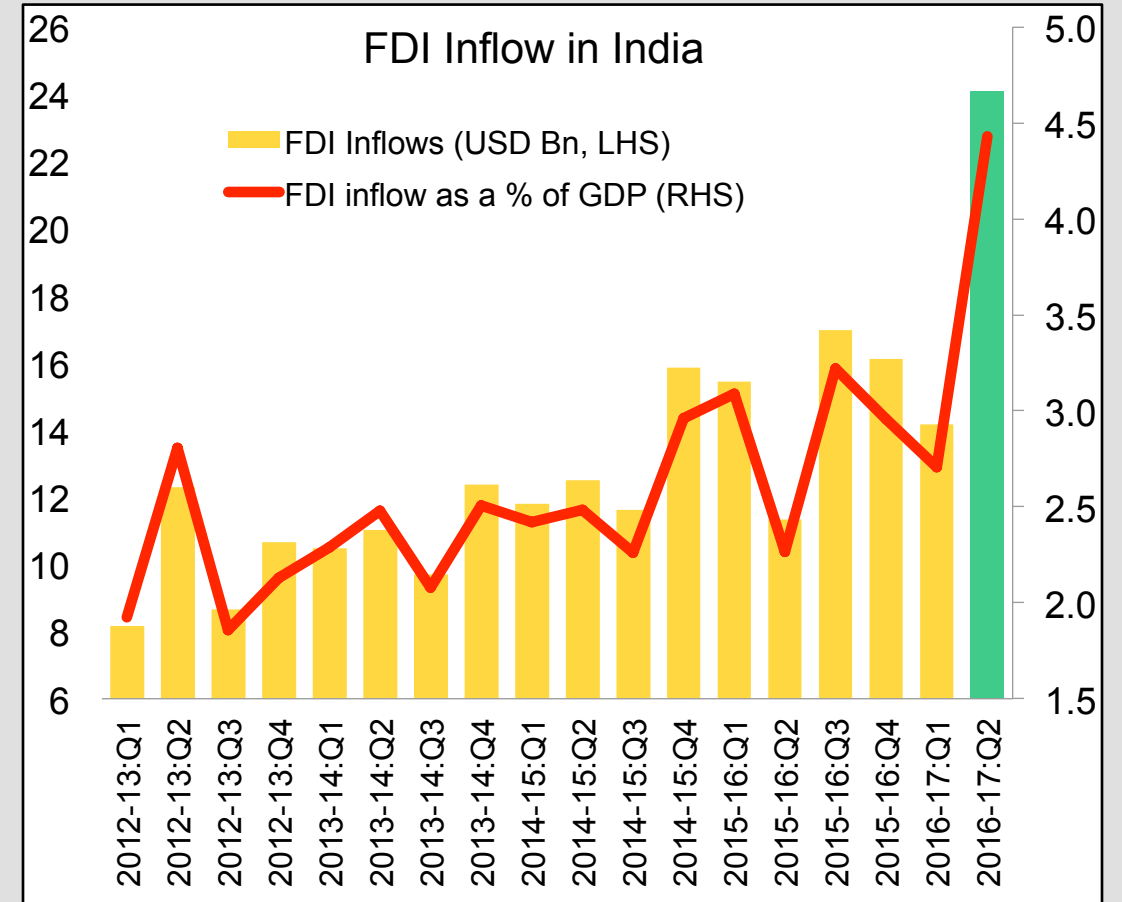
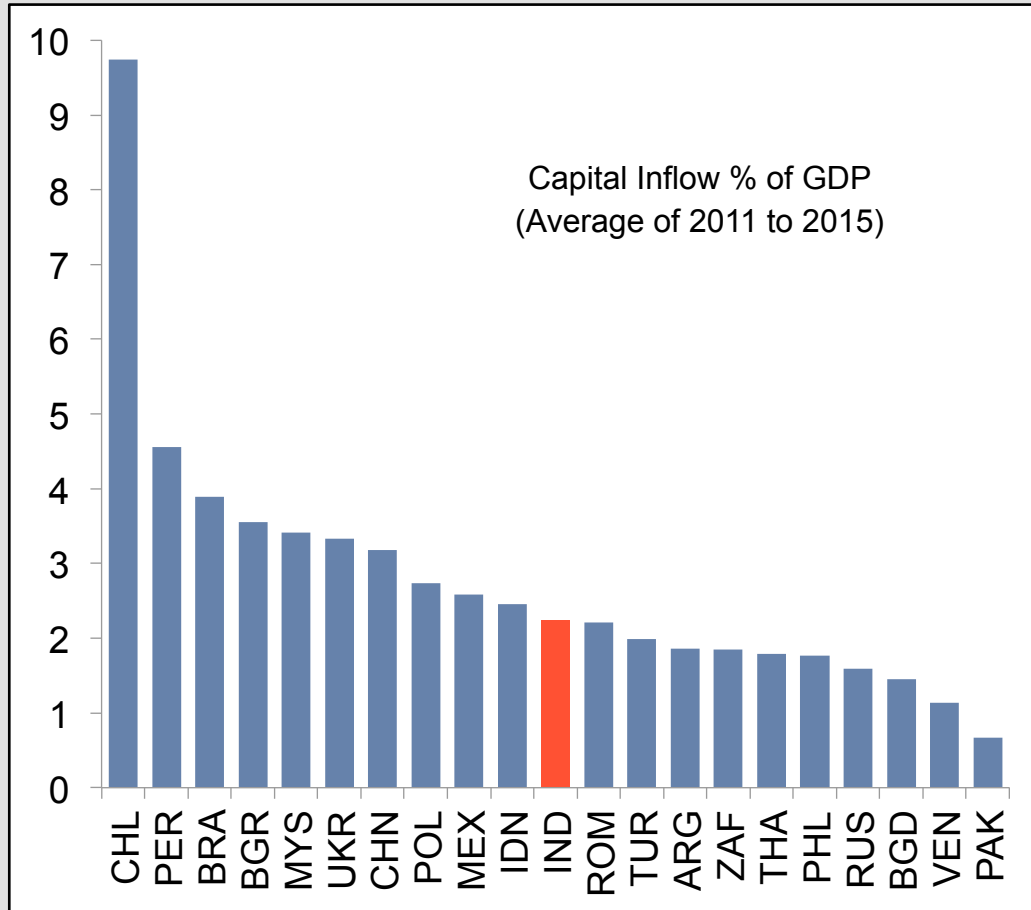
Trade to GDP ratio



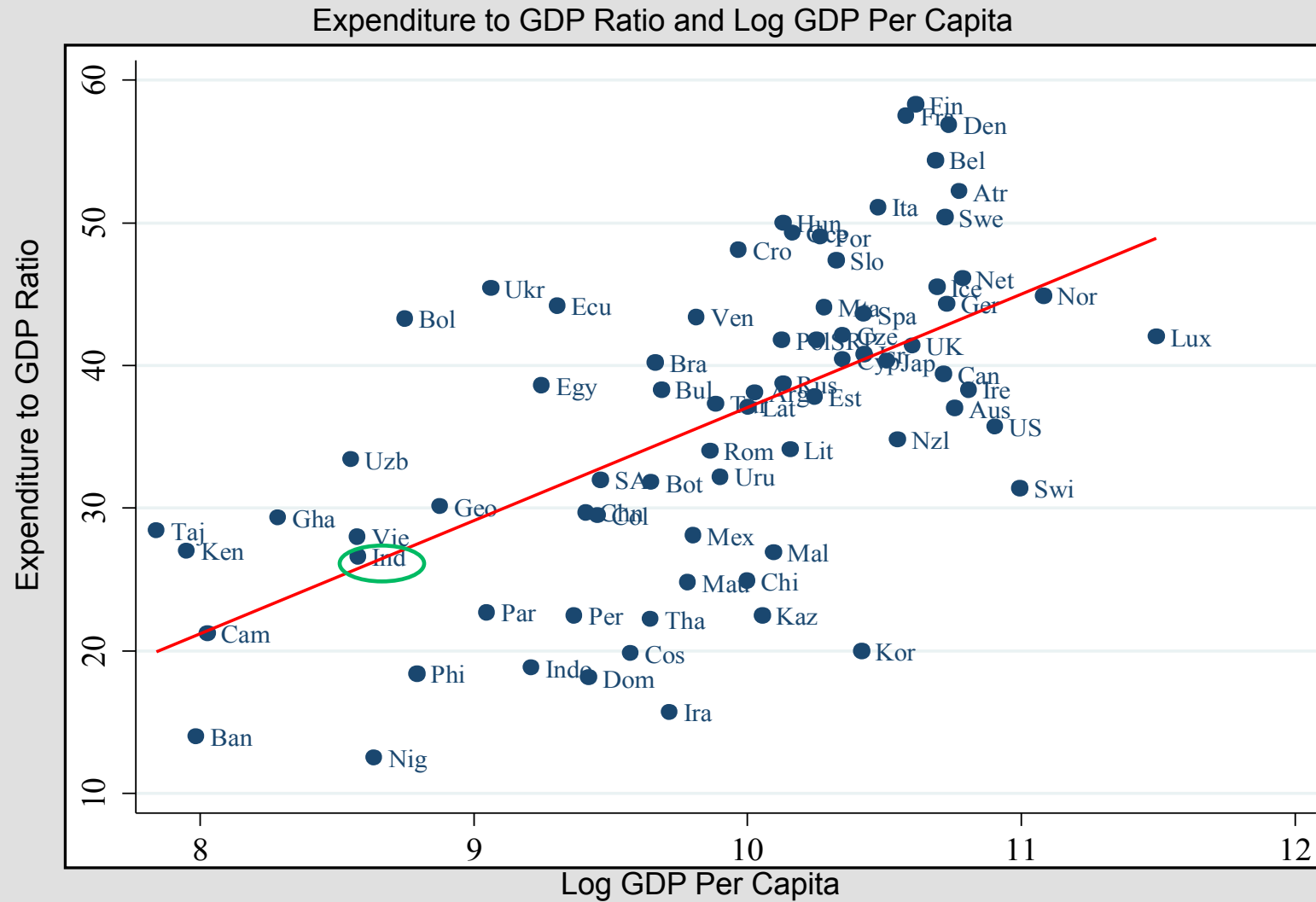
Trade to GDP and Log Population



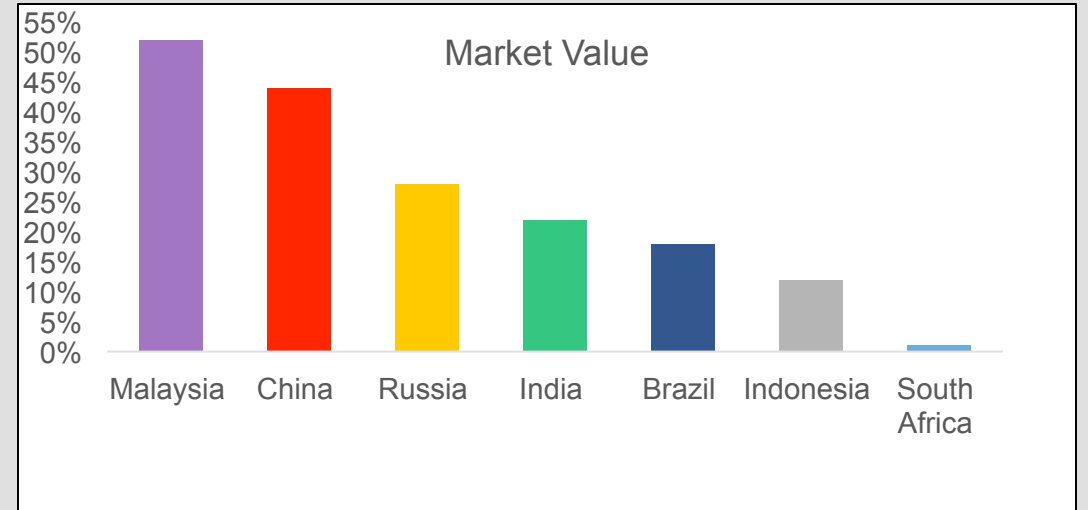
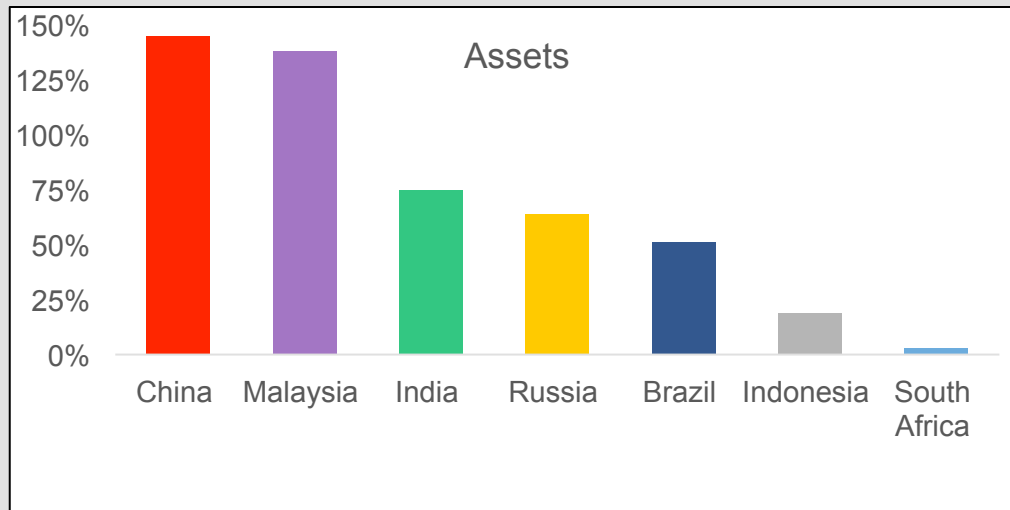
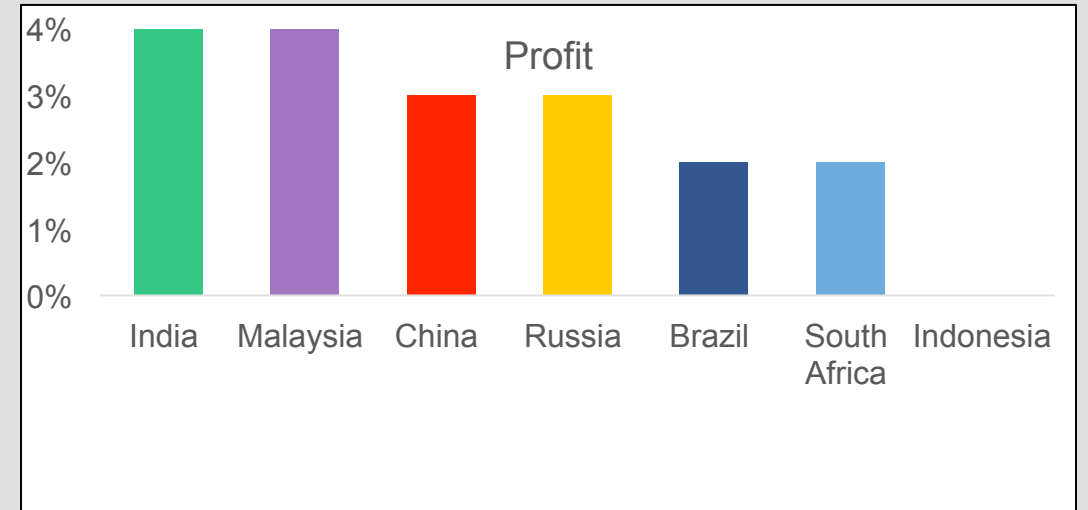
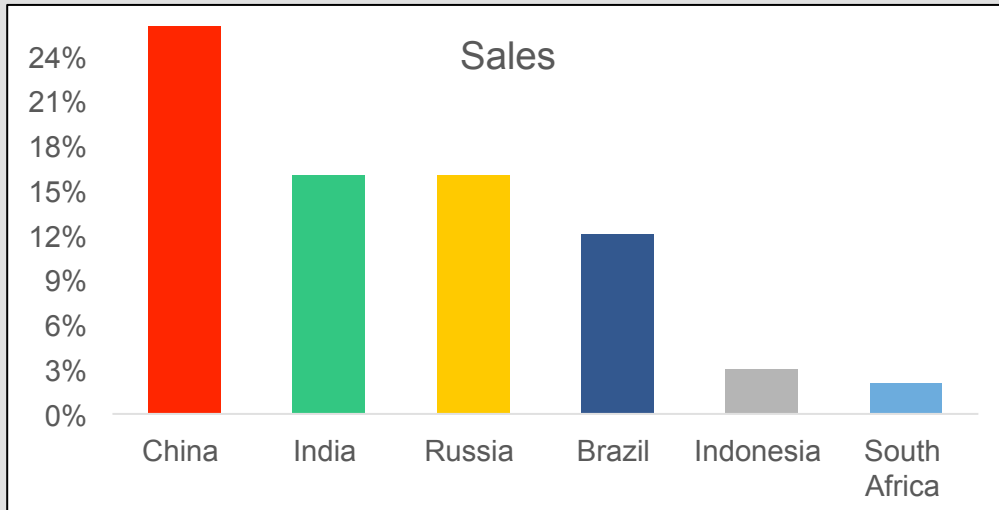
# Openness to Foreign Capital



# Size of Government: Macro



# Size of Government: Micro (Public Sector Enterprise Share of GNI)



# Solid, Remarkable Growth Performance

- Since 1980, and especially 1991, India steadily reforming
- Indian GDP has grown at 4.5% per capita for 35+ years, only 3 uninterrupted democracies have done better in the post war period (Japan, Israel and Botswana)

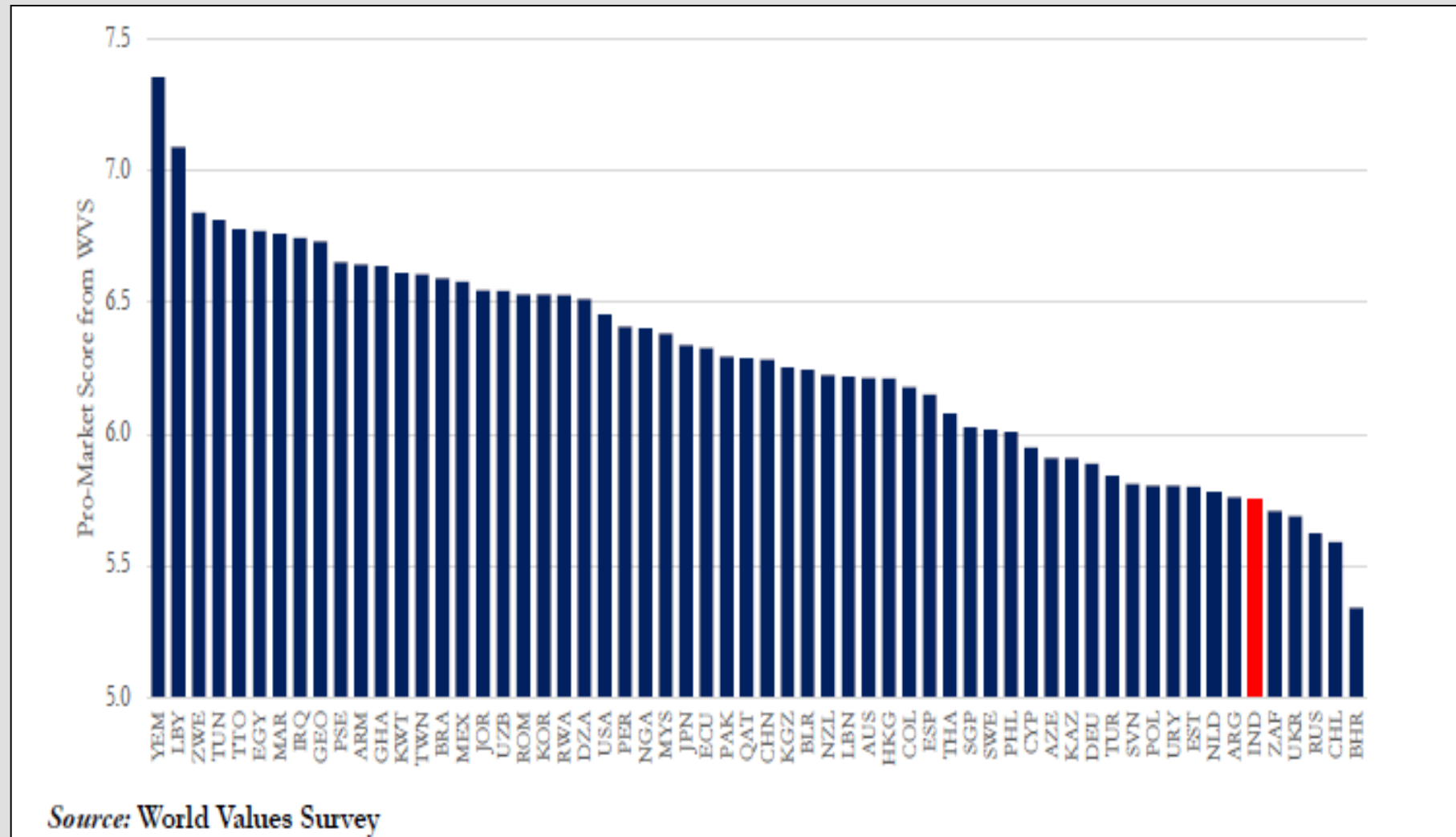


# 1. Ambivalence about: Embracing Private Sector and Protecting Property Rights

- Retrospective actions
- Twin Balance Sheet Problem
- Civil aviation
- Public sector fertilizer plants
- Strategic disinvestments
- Public sector banks
- Agriculture: Essential Commodities Act, export restrictions



# Attitude to Private Sector: India and Other Countries



## 2.State Capacity/Delivering Essential Services

- “Flailing State” with exceptions: PDS (Chattisgarh), power (Gujarat) etc.
- Health and education outcomes poor
- Weak regulatory effectiveness
- Competitive federalism visible in attracting investment and easing cost of doing business but..
- Little evidence of competitive federalism in delivering essential services (health and education)

# 3. Inefficient Redistribution

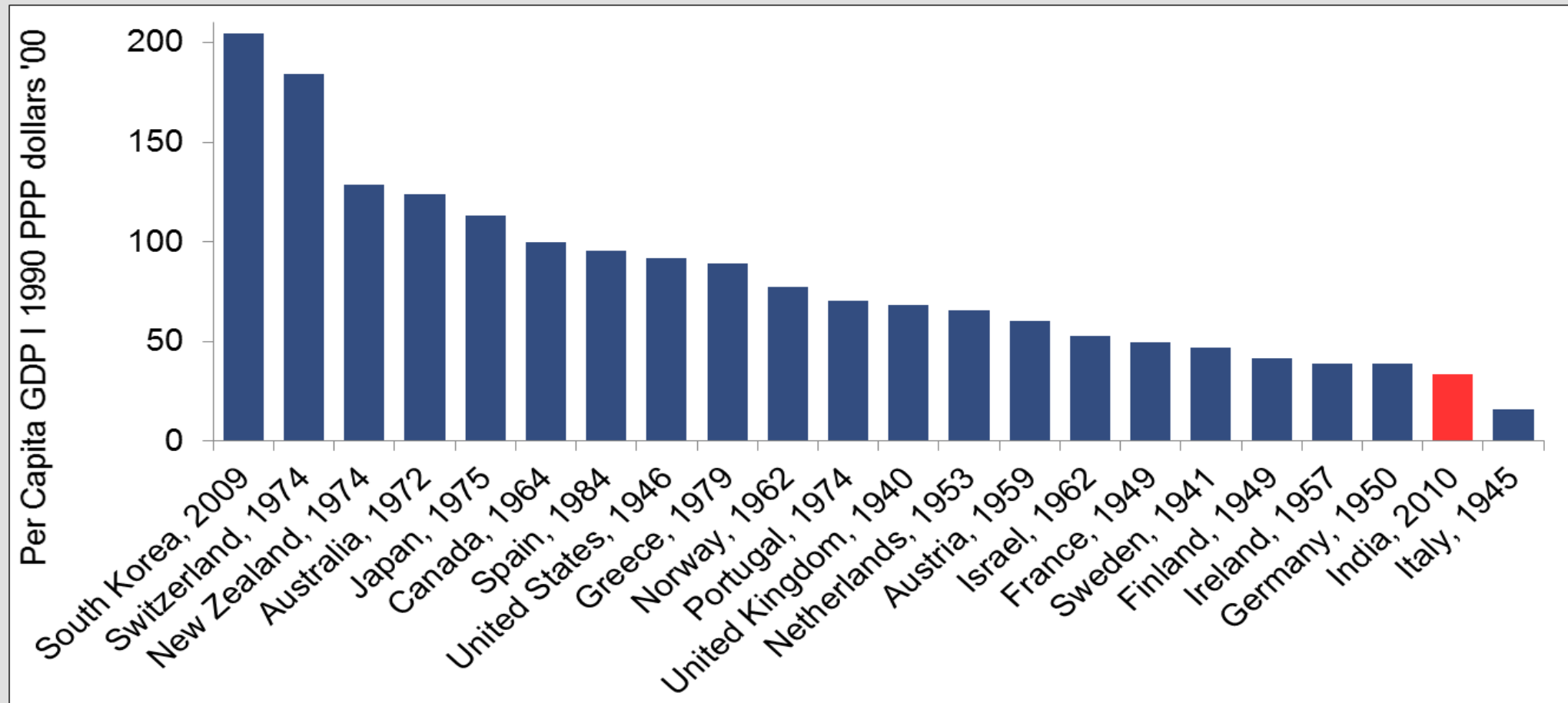
- Aggregating over major subsidies and 6 major programs, about 15-25% of central government subsidies goes to bottom 40% of population
- JAM and DBT: Eliminating leakage and duplication but changes in prices facing consumers limited to petroleum products
- Fertilizer subsidy (0.7% of GDP)
- GST experience: Few political voices for low and simple rates

# Possible Explanations

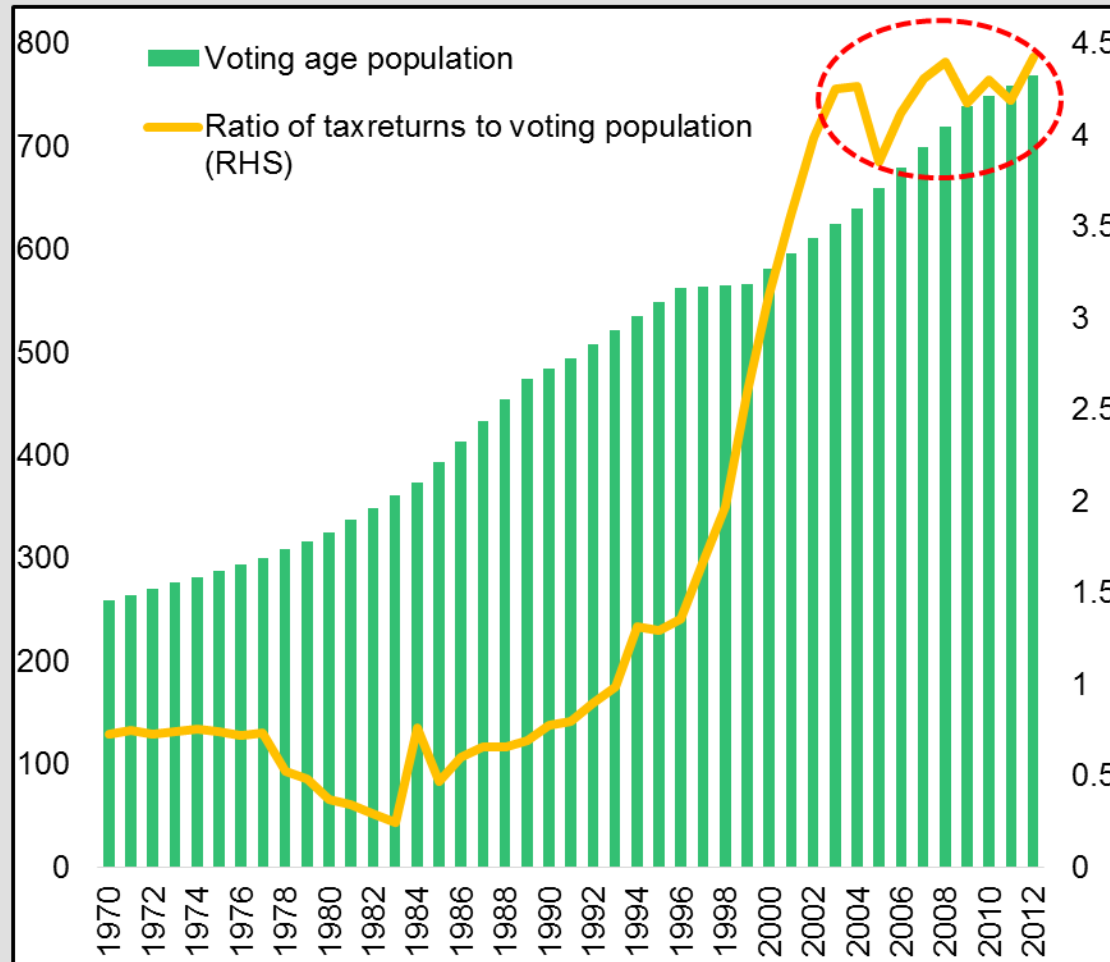
- Precocious, cleavaged democracy, shaking off colonial chains will distrust private capital
- Ambivalence about private sector instituted historically and then reinforced by license, quota, permit raj
- Precocious, cleavaged democracy forces early and ineffective redistribution: Lot of poor means need to redistribute but ability to do so effectively will be limited

# “Precocious” India : Premature Pressures to Spend

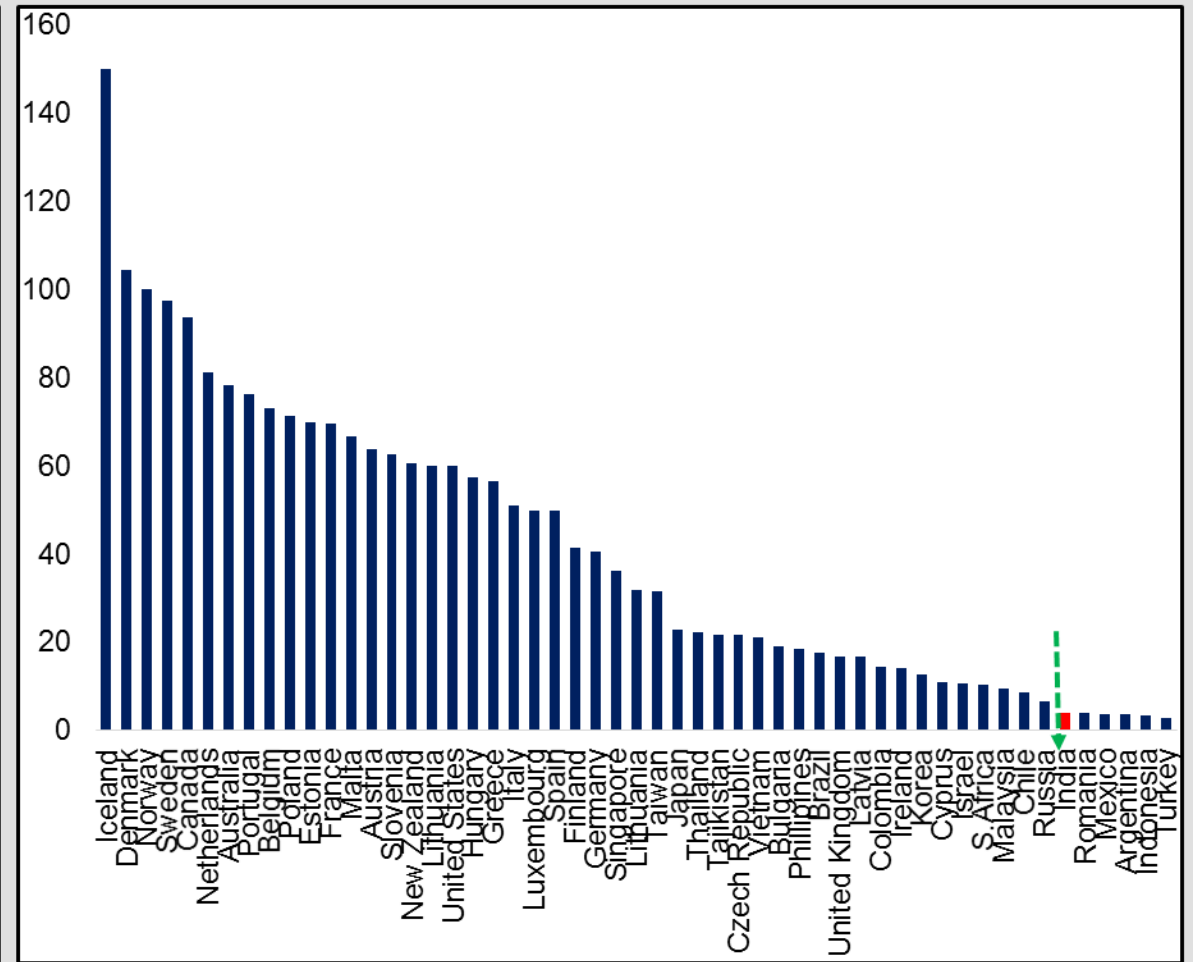
Income level at which country governments spent 27% of GDP  
(what India spent in 2010)



## Voting age population (million) and ratio of tax-returns to voting population (Per cent)

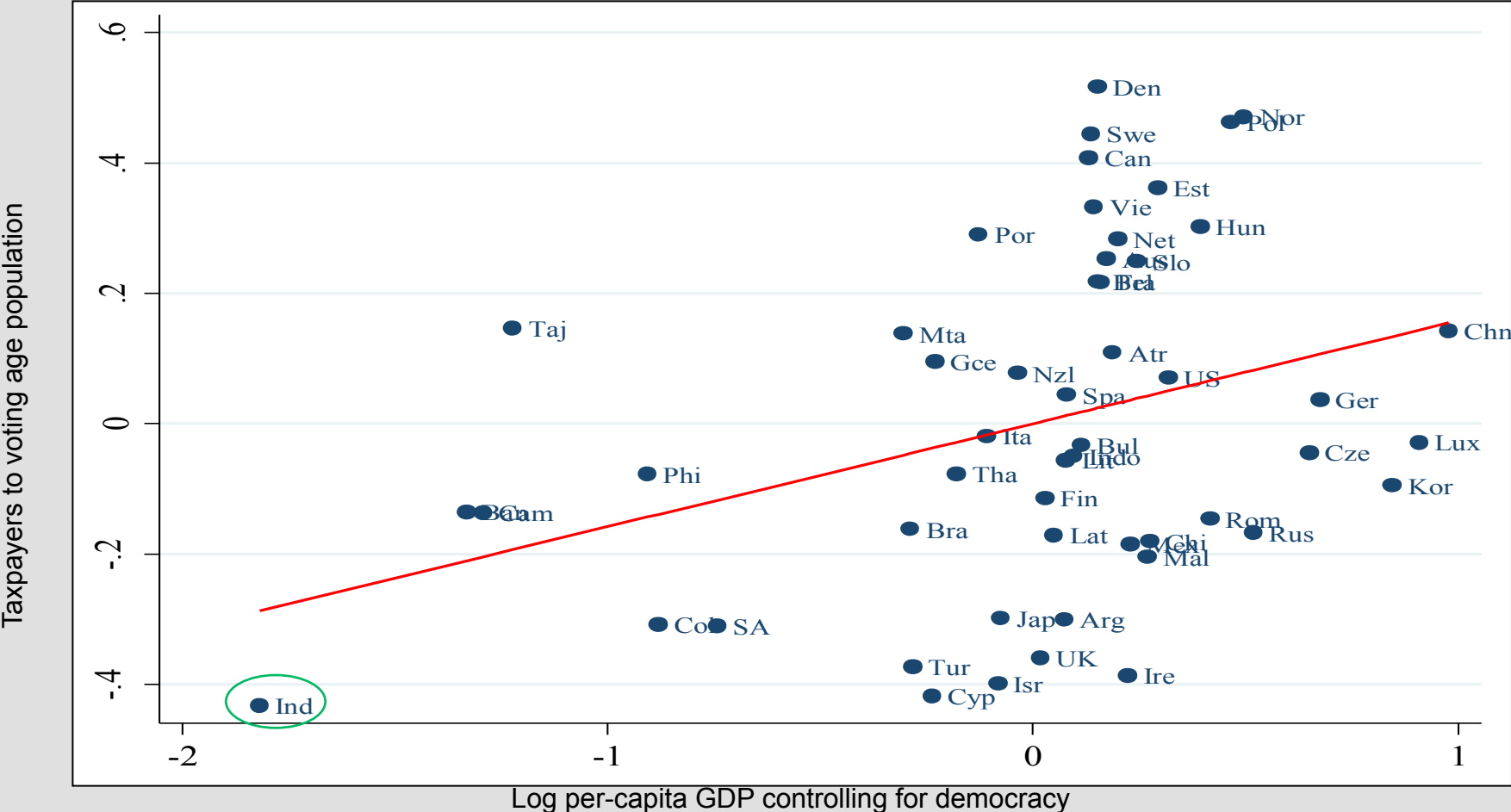


## Number of taxpayers to voting age population (Per cent)



# Few taxpayers, low tax compliance

Taxpayers to voting age population and log per-capita GDP controlling for democracy



# Ideas Ideas Ideas !!!

- Ambivalence/Ineffective redistribution/ineffective state-capacity.
- Fundamental meta-challenges—created by and/or shared across the social, political, ideological spectrum.
- Addressing them will require fundamental shifts in shared ideas.
- “[T]he ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else.” – John Maynard Keynes



# Recommended Readings

- Chapter 1, Economic Survey, 2015-16
- Chapter 3, Economic Survey, 2016-17
- Chapter 2, Economic Survey, 2015-16