



# **Economic Survey 2017-18**

**Volume I**

Government of India  
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## Preface

The response to last year's *Economic Survey* was overwhelming, humbling, and of course, burdening. According to behavioral economics, humans place greater welfare weights on avoiding loss than experiencing equivalent gain. If true, the response to last year's *Survey* has created a heightened performance anxiety of falling short relative to higher expectations.

The other challenge doing this year's *Survey*, the fourth of the current team and the last in the term of this government, is avoiding the risk of jadedness. How can the *Survey* consistently maintain a freshness of approach, rigor of analysis, relevance of material, and novelty of ideas?

Luckily, to the rescue comes the Indian economy with its infinite richness and complexity, throwing up limitless opportunities for investigation. Luckily too, economic policy over the past four years has been a crucible for many policy experiments that cry out for understanding and analysis. Thankfully too, colleagues across government have been so generous with sharing data, which has allowed ideas to be pursued so that new facts and evidence can find utterance.

In response to popular demand, we have this year reverted to the tradition of bringing out Volumes 1 and 2 at the same time. Volume 1 contains the analytical overview and more research-cum-analytical material. Volume 2 provides the more descriptive review of the current fiscal year, encompassing all the major sectors of the economy.

Without consciously pursuing an over-arching theme, a large part of Volume 1 focuses on what are perhaps more long-term challenges. So, in addition to the overview and chapters of contemporary relevance such as the GST, the investment-saving slowdown, and fiscal federalism and accountability, there are five chapters devoted to challenges of long-term economic convergence, gender inequality, climate change and agriculture, delays in the appeals and judicial process, and science and technology.

As in last year's *Survey*, Big Data has been mined to shed light on the economy, and, for the *Survey's* authors, there have been some truly "wow" moments of epiphanic understanding. For example, the implementation of the GST combined with the availability of detailed new data from the Employees' Provident Fund Organisation (EPFO) and the Employees' State Insurance Corporation (ESIC) has allowed a whole new perspective to be gained into the Indian economy—its external and internal trade in the aggregate and state-wise, the size and distribution of the tax net, and levels of formality and informality. Similarly, spatially granular data on temperature and climate have been used to analyze the potential impact of climate change. Household level data from the Demographic and health Survey (DHS) and the National Family Health Survey (NFHS) have underpinned the analysis of gender issues.

The color of this year's survey cover was chosen as a symbol of support for the growing movement to end violence against women, which spans continents. Addressing the deep societal meta-preference in favor of sons, and empowering women with education and reproductive and economic agency are critical challenges for the Indian economy addressed in Chapter 7.

Increasingly, a number of universities are adopting the *Survey* as a pedagogical tool for courses on the Indian economy. Inspired by that, The Economic Division of the Ministry of Finance did a full-fledged Massive Open Online Course (MOOC) for students and teachers all across India with the help of the Ministry of Human Resources Development (MHRD). Hopefully, those traditions can be built upon going forward even after these volumes.

As always, deep gratitude is owed to the staff of the Economic Division, whose heroic efforts have produced this *Survey*. Their research, however, has only been possible because so many government colleagues provided their time, support, and data. An indicative but far from exhaustive list would include colleagues from the Goods and Services Tax Network (GSTN); the Departments of Revenue, Bio-Sciences, Biotechnology, Science and Technology, Agriculture, and Women's and Child Development; the Indian Meteorological Department (IMD); the EPFO; the ESIC; the various economic appellate tribunals; the Central Board of Excise and Customs (CBEC); the Central Board of Direct Taxes (CBDT); the State Bank of India (SBI); and National Sample Survey Office (NSSO).

The *Survey* strives to combine rigor with readability, a challenge that increases in the same proportion as attention spans shrink (from absorbing op-eds to scrolling down tweets). The *Survey's* aim is always to build a portfolio of contributions, combining description, new data creation, deep-dive research, and provocative policy ideation.

In addition to the entirely new perspective on the economy that the GST has provided, some of the many questions this *Survey* discusses are: Can we expect the current investment slowdown to reverse quickly based on understanding other countries' experience? Do second and third tier of governments collect the direct taxes that they are empowered to, and if not, what does that signify? On gender, why should we focus on the sex ratio of the last child? Under what conditions, to what extent, and where will the agricultural impact of climate change be most felt? Will there be a stall in India's four decades long, dynamic process of economic convergence? Should the government and judiciary agree to a Cooperative Separation of Powers like the center and states do in the form of Cooperative Federalism to improve the conditions of doing business? Should there be a number of science and technology missions to propel India to the ranks of the world's top knowledge producers?

In addition to the many challenges involved in such an effort, all writers of the *Survey* must guard against the dangers of staleness expressed by T.S. Eliot: "For last year's words belong to last year's language. And next year's words await another voice."

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## ABBREVIATIONS

3MMA	3 Month Moving Average	DGFT	Directorate General of Foreign Trade
AAY	Antyodaya Anna Yojana	DIPAM	Department of Investment and public Asset Management
ARM	Additional Resource Mobilization	DIPP	Department of Industrial Policy and Promotion
ASEAN	Association of South East Asian Nations	DISCOMS	Distribution Companies
ASER	Annual Status of Education Report	DSIR	Department of Scientific & Industrial Research
AT&C	Aggregate Technical and Commercial	DTA	Domestic Tariff Area
BCM	Billion Cubic Meter	EBRD	European Bank for Reconstruction and Development
BE	Budget Estimates	EFTA	European Free Trade Association
BPCL	Bharat Petroleum Corporation Limited	EIB	European Investment Bank
BRICS	Brazil, Russia, India, China and South Africa	e-NAM	Electronic National Agriculture Market
CAA&A	Controller of Aid Accounts and Audit	EPCG	Export Promotion on Capital Goods
CAD	Current Account Deficit	ER&D	Engineering R&D
CAG	Comptroller and Auditor General of India	ETF	Exchange Traded Fund
CAGR	Compound Annual Growth Rate	EU	European Union
CBR	Cultivated Biological Resources	EWRs	Elected Women Representatives
CFPI	Consumer Food Price Index	FAO	Food & Agriculture Organisation
CGA	Controller General of Accounts	FC	Financial Creditor
CGST	Central Goods and Services Tax	FCI	Food Corporation of India
CIC	Currency in Circulation	FDI	Foreign Direct Investment
CIRP	Corporate Insolvency Resolution Process	FEEs	Foreign Exchange Earnings
CLSS	Credit Linked Subsidy Scheme	FFPI	FAO Food Price Index
CoC	Committee of Creditors	FII	Foreign Institutional Investor
COP	Conference of Parties	FIPB	Foreign Investment Promotion Board
CPI	Consumer Price Index	FTAs	Foreign Tourist Arrivals
CPI (AL)	Consumer Price Index (Agricultural Labourers)	FTP	Foreign Trade Policy
CPI (C)	Consumer Price Index (Combined)	FY	Financial Year
CPI (IW)	Consumer Price Index (Industrial Workers)	GCA	Gross Cropped Area
CPI (RL)	Consumer Price Index (Rural Labourers)	GCC	Gulf Cooperation Council
CRAR	Capital to Risk-weighted Asset Ratio	GCCA	Grants for creation of capital assets
CSA	Climate Smart Agriculture	GCF	Gross Capital Formation
CSO	Central Statistics Office	GDP	Gross Domestic Product
CTA	Customs Tariff Act	GFCE	Government Final Consumption Expenditure
CV	Coefficient of Variation	GFCF	Gross Fixed Capital Formation
CwP	Currency with Public	GII	Global Innovation Index
DALYs	Disability Adjusted Life Years	GNI	Gross National Income
DARE	Department of Agricultural Research and Education	GNPA	Gross Non-Performing Advances
DBT	Direct Benefit Transfer	GPI	Gender Parity Index
DBTL	Direct Benefit Transfer of LPG	GSDP	Gross State Domestic Product
DDA	Doha Development Agenda	GST	Goods and Services Tax
DGCI&S	Directorate General of Commercial Intelligence and Statistics		

GSVA	Gross State Value Added	MMR	Maternal Mortality Ratio
GT	Gross Tonnage	MMT	Million Metric Tonne
GVA	Gross Value Added	MMTPA	Million Metric Tonnes Per Annum
GW	Gigawatt	MNEs	Manufacturing Multinational Enterprises
HFCs	Housing Finance Companies	MoEFCC	Ministry of Environment, Forest and Climate Change
HFCs	Hydrofluorocarbons	MPC	Monetary Policy Committee
HPCL	Hindustan Petroleum Corporation Limited	MSF	Marginal Standing Facility
HPI	Housing Price Index	MSME	Micro, Small & Medium Enterprises
HYVs	High Yielding Varieties	MSP	Minimum Support Price
IBC	Insolvency and Bankruptcy Code	MSS	Market Stabilisation Scheme
ICAR	Indian Council of Agricultural Research	MT	Metric Tonne
IGS	The International Ground Station	MW	Megawatt
IGST	Integrated Goods and Services Tax	NABARD	National Bank for Agriculture and Rural Development
IMF	International Monetary Fund	NAREDCO	National Real Estate Development Council
IPO	Indian Patent Office	NAS	National Accounts Statistics
IPP	Intellectual Property Products	NBFC	Non-Banking Financial Company
IPR	Intellectual Property Rights	NBFCs	Non-Banking Financial Companies
IPU	Inter-Parliamentary Union	NCDs	Non-Convertible Debentures
IRS	Indian Remote Sensing	NCLT	National Company Law Tribunal
ISS	Interest Subvention Scheme	NCT	National Capital Territory
IT-BPM	Information Technology – Business Process Management	NCW	National Commission for Women
ITC	Input Tax Credit	NDTL	Net Demand and Time Liabilities
KCC	Kisan Credit Card	NFC	Non Food Credit
KWh	Kilowatt Hour	NFSA	National Food Security Act
LAF	Liquidity Adjustment Facility	NHA	National Health Accounts
LEB	Life Expectancy at Birth	NHB	National Housing Bank
LED	Light-Emitting Diode	NHDP	National Highways Development Project
LEO	Low Earth Orbit	NICRA	National Innovations on Climate Resilient Agriculture
LFPR	Labour Force Participation Rate	NITI	National Institution for Transforming India
LIC	Life Insurance Corporation of India	NPAs	Non-Performing Assets
LPG	Liquefied Petroleum Gas	NSDC	National Skill Development Council
LPI	Logistics Performance Index	NSSO	National Sample Survey Office
M/o DWS	Ministry of Drinking Water & Sanitation	ODF	Open Defecation Free
M/o H&FW	Ministry of Health & Family Welfare	OMSS	Open Market Sale Scheme
M/oPR	Ministry of Panchayati Raj	OoPE	Out of Pocket Expenditure
M0	Reserve Money	P2P	Peer to Peer
M3	Broad money	PA	Provisional Actuals
MC11	Eleventh Ministerial Conference	PDS	Public Distribution System
MDGs	Millennium Development Goals	PE	Private Equity
MEIS	Merchandise Exports from India Scheme	PFCE	Private Final Consumption Expenditure
MEP	Minimum Export Price	PL	Personal Loan
MIG	Middle Income Group	PMAY	Pradhan Mantri Awas Yojana
MIP	Minimum Import Price	PMFBY	Pradhan Mantri Fasal Bima Yojana
MLAs	Member of Legislative Assemblies		

PMI	Purchasing Manager's Index	SEBI	Securities and Exchange Board of India
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana	SEIS	Services Exports from India Scheme
POL	Petroleum Oil and Lubricants	SGST	State Goods and Services Tax
PoS	Point of Sale	SHG	Self Help Group
PPI	Producer Price Index	SLR	Statutory Liquidity Ratio
PRIs	Panchayati Raj Institutions	SRR	Seed Replacement Rate
PSB	Public Sector Bank	SSA	Sarva Shiksha Abhiyaan
PSBs	Public Sector Banks	SUUTI	Specified Undertaking for Unit Trust of India
PSE	Public Sector Enterprise	TAN	Tax Deduction Account Number
PSF	Price Stabilization Fund	TB	Treasury Bill
PTR	Pupil Teacher Ratio	TPDS	Targeted Public Distribution System
PVB	Private Sector Bank	TRAI	Telecom Regulatory Authority of India
QFI	Qualified Foreign Investor	UDAY	Ujjwal Discom Assurance Yojna
R&D	Research and Development	UDISE	Unified District Information System for Education
RBI	Reserve Bank of India	ULBs	Urban Local Bodies
RE	Revised Estimates	UN	United Nations
REITs	Real Estate Investment Trusts	UNCTAD	United Nations Conference on Trade and Development
RGI	Registrar General of India	UNDP	United Nations Development Programme
RMSA	Rashtriya Madhyamik Shiksha Abhiyan	UNESCO	United Nations Educational, Scientific and Cultural Organization
RoA	Return on Assets	USD	United States Dollar
RoE	Return on Equity	USGS	United States Geological Survey
RRBs	Regional Rural Banks	UTs	Union Territories
RRR	Reverse Repo Rate	VGf	Viability Gap Funding
RSA	Restructured Standard Advances	VRR	Varietal Replacement Rate
RTE	Right to Education	WACR	Weighted Average Call Rate
SA	Stressed Advances	WPI	Wholesale Price Index
SBM(G)	Swachh Bharat Mission (Gramin)	WTO	World Trade Organization
SCB	Scheduled Commercial Bank		
SDG	Sustainable Development Goal		
SDGs	Sustainable Development Goals		
SDR	Special Drawing Rights		



# TEN NEW FACTS ON THE INDIAN ECONOMY

## 1. There has been a large increase in registered indirect and direct taxpayers

- A 50 percent increase in unique indirect taxpayers under the GST compared with the pre-GST system (Figure 1A).
- Similarly, there has been an addition (over and above trend growth) of about 1.8 million in individual income tax filers since November 2016 (Figure 1B).

Figure 1A

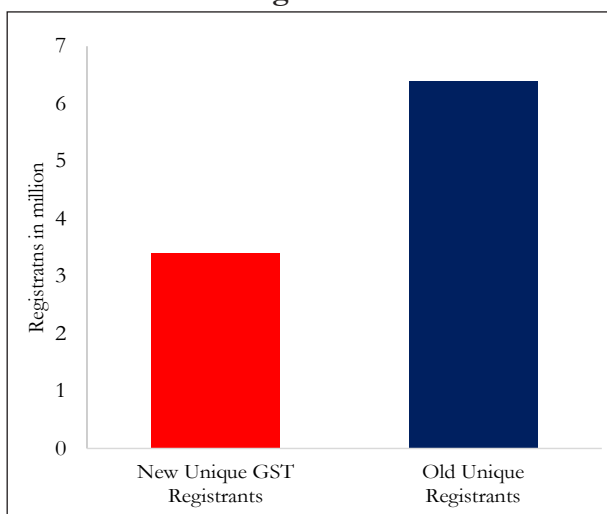
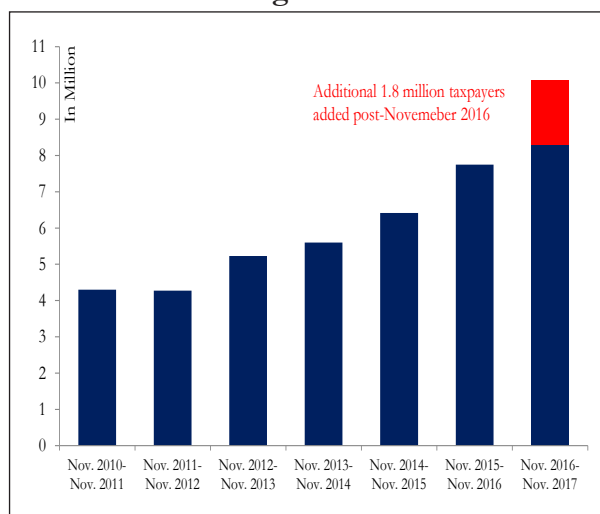
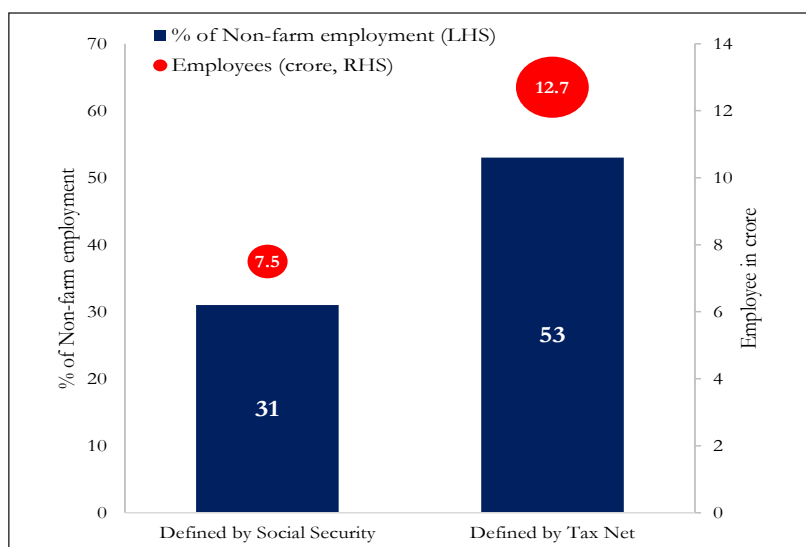


Figure 1B



## 2. Formal non-agricultural payroll is much greater than believed

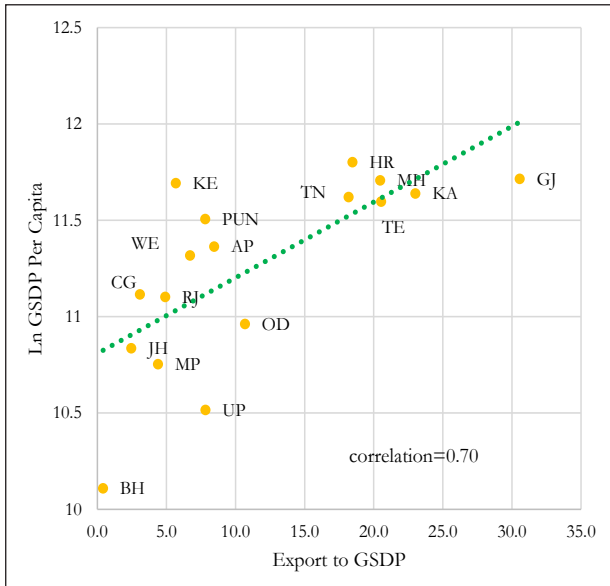
- More than 30 percent when formality is defined in terms of social security (EPFO/ESIC) provision;
- More than 50 percent when defined in terms of being in the GST net.



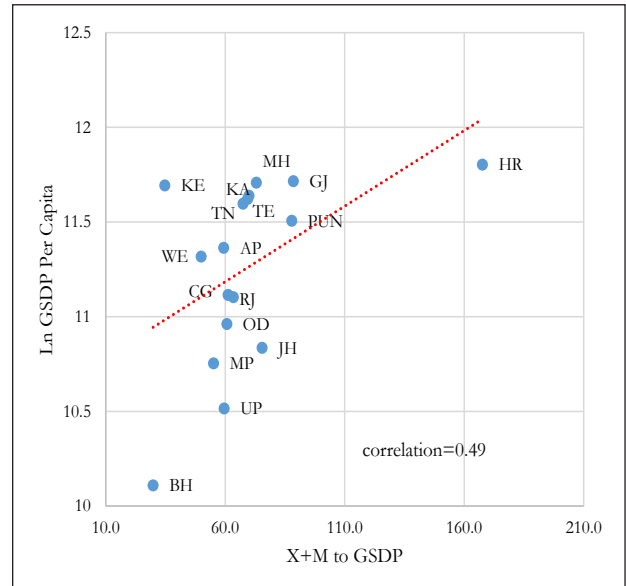
### 3. States' prosperity is correlated with their international and inter-state trade

States that export more internationally, and trade more with other states, tend to be richer. But the correlation is stronger between prosperity and international trade.

**International Exports and States' Prosperity**

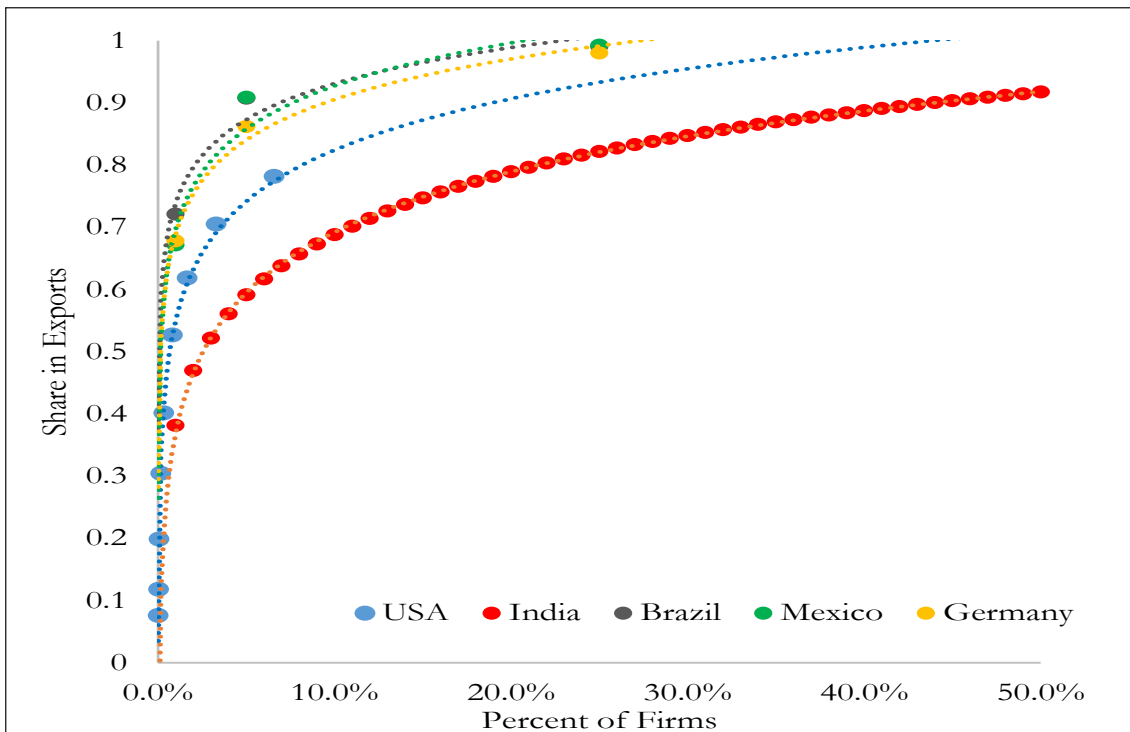


**States' Inter-state Gross Trade and Prosperity**



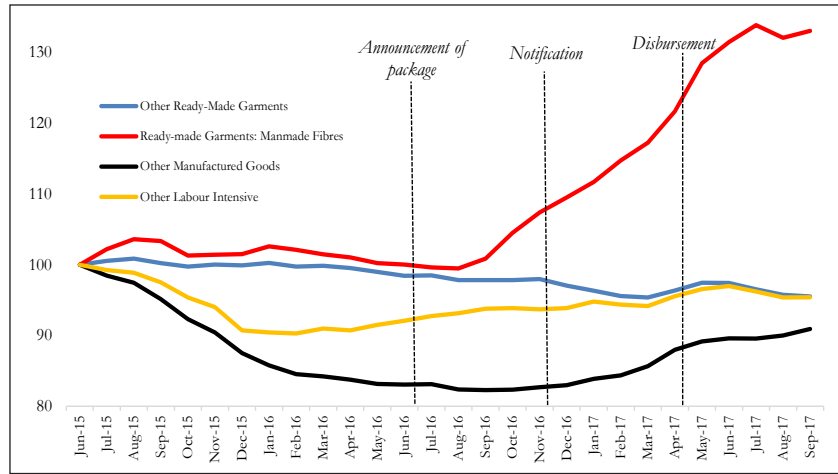
### 4. India's firm export structure is substantially more egalitarian than in other large countries

Top 1 percent of Indian firms account for 38 percent of exports; in all other countries, they account for a substantially greater share (72, 68, 67, and 55 percent of exports in Brazil, Germany, Mexico, and USA respectively). And this is true for the top 5 percent, 10 percent, and so on.



### 5. The clothing incentive package boosted exports of readymade garments

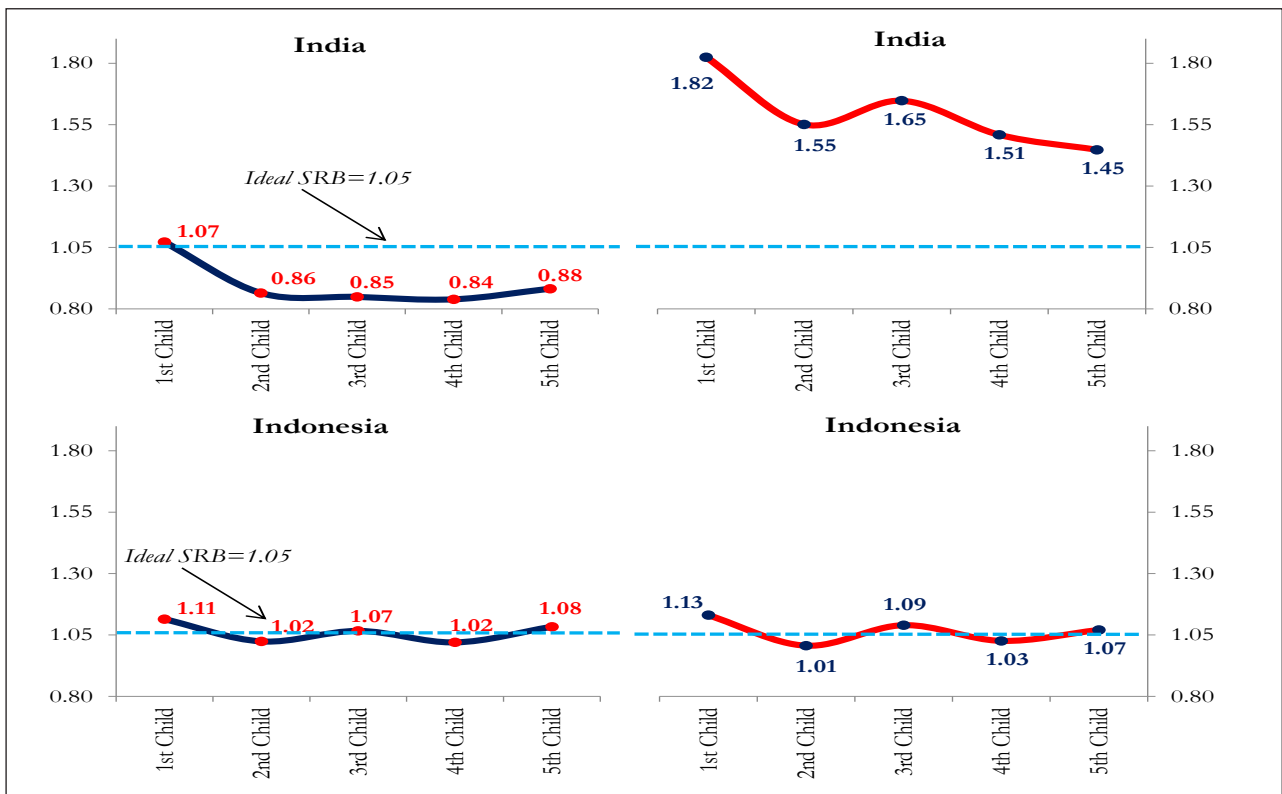
The relief from embedded state taxes (ROSL) announced in 2016 boosted exports of ready-made garments (but not others) by about 16 percent.



### 6. Indian society exhibits strong son “Meta” Preference

Parents continue to have children until they get the desired number of sons. This kind of fertility-stopping rule leads to skewed sex ratios but in different directions: skewed in favor of males if it is the last child, but in favor of females if it is not the last (see the top two panels on India). Where there are no such fertility-stopping rules, ratios remain balanced regardless of whether the child is the last or not (see bottom panels on Indonesia).

Sex Ratio by Birth when child is not the last (2015-16)    Sex Ratio by Birth when child is the last (2015-16)



**7. There is substantial avoidable litigation in the tax arena which government action could reduce**

The tax department’s petition rate is high, even though its success rate in litigation is low and declining (well below 30 percent).

- Only 0.2 percent of cases accounted for 56 percent of the value at stake; whereas
- About 66 percent of pending cases (each less than Rs. 10 lakhs) accounted for only 1.8 percent of the value at stake.

**Petition Rate and Success Rate of Tax Department, March 2017**

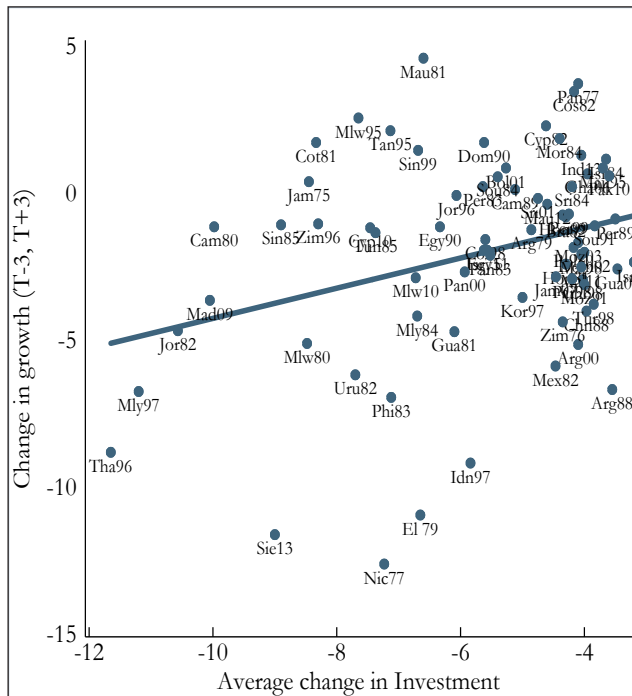
Court	Direct Tax Cases		Indirect Tax Cases	
	Success Rate	Petition Rate	Success Rate	Petition Rate
Supreme Court	27%	87%	11%	63%
High Courts	13%	83%	46%	39%
ITAT/CESTAT	27%*	88%*	12%	20%

\* Provisional estimates

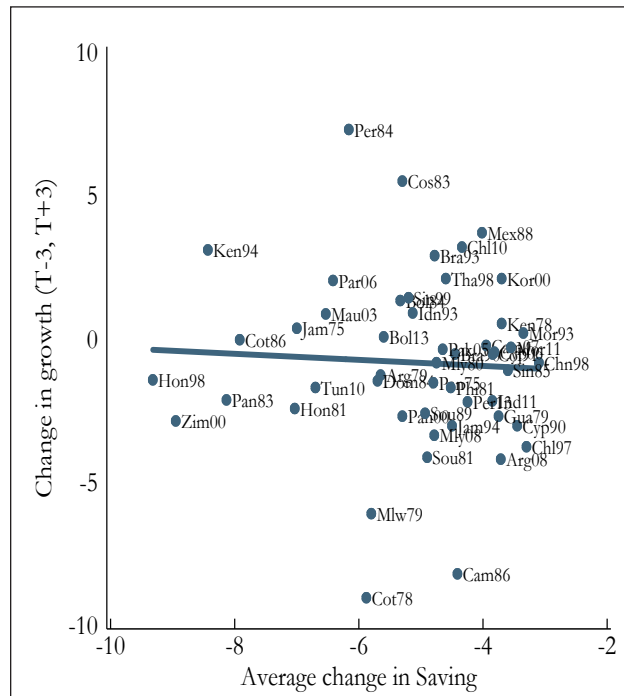
**8. To re-ignite growth, raising investment is more important than raising saving**

Cross-country experience shows that growth slowdowns are preceded by investment slowdowns but not necessarily by savings slowdowns may not.

**Change in investment and change in growth**



**Change in saving and change in growth**

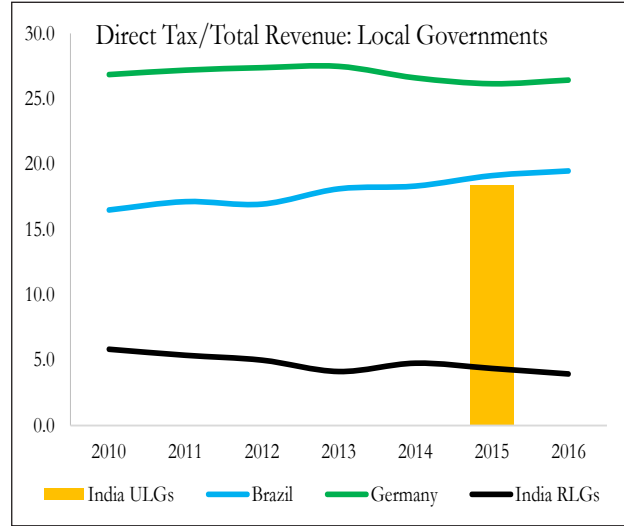
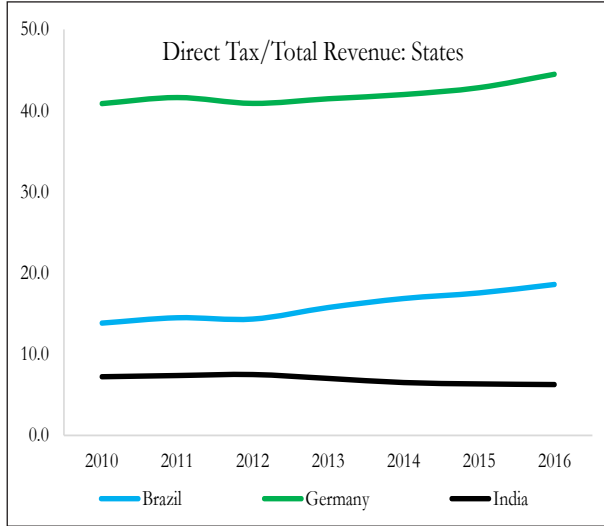




**9. Own direct tax collections by Indian states and local governments are significantly lower than those of their counterparts in other federal countries**

This share is low relative to the direct taxation powers they actually have.

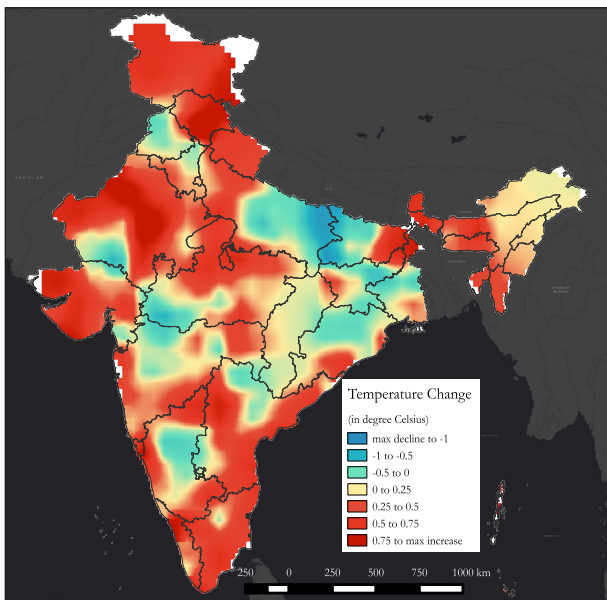
**Direct Tax to Total Revenue: States and Local Government (in percent)**



**10. The footprint of climate change is evident and extreme weather adversely impacts agricultural yields**

- The impact of weather is felt only with extreme temperature increases and rainfall deficiencies
- This impact is twice as large in unirrigated areas as in irrigated ones

**Spatial Distribution of Temperature Changes (Degrees Celsius change between average of 2005-15 and average of 1950-80)**



**Impact on Agricultural Yields of Temperature Changes (Kharif, in percent) according to Temperature Deciles**

