

Tax compliance in India: An experimental approach

Suranjali Tandon

Assistant Professor

National Institute of Public Finance and Policy,
India

Why is tax compliance an important issue for India?

- India's tax-GDP ratio (17 per cent) is considered low when compared to that of OECD countries.
- Tax exemptions are used to incentivize economic activity
- The number of taxpayers were 1.7 per cent of the population in 2015-16
- There are resource constraints- revenue collected and administrative

Therefore the instruments should be used judiciously

Features of personal income tax in India

Slab based rates

Income	Tax Rate
Financial Year 2017-18	
Upto 250,000	Nil
Between 250,001-500,000	5 per cent of income exceeding INR 250,000
Between 500,001-1 million	20 per cent of Income exceeding INR 5,00,000
Above 1 million	30 per cent of Income exceeding INR 1 million
Financial Year 2013-14	
Upto 200,000	Nil
Between 200,001-500,000	10 per cent of income exceeding INR 200,000
Between 500,001-1 million	20 per cent of Income exceeding INR 500,000
above 1 million	30 per cent of Income exceeding INR 1 million
Financial Year 2011-12	
Upto 180,000	Nil
Between 180,001-500,000	10 per cent of income exceeding INR 180,000
Between 500,001-800,000	20 per cent of Income exceeding INR 500,000
above 800,000	30 per cent of Income exceeding INR 800,000
Financial Year 2010-11	
Upto 160,000	Nil
Between 160,001-500,000	10 per cent of income exceeding INR 160,000
Between 500,001-800,000	20 per cent of Income exceeding INR 500,000
above 800,000	30 per cent of Income exceeding INR 800,000
Financial Year 2008-09	
Upto 150,000	Nil
Between 150,001-300,000	10 per cent of income exceeding INR 150,000
Between 300,001-500,000	20 per cent of Income exceeding INR 300,000
above 500,000	30 per cent of Income exceeding INR 500,000
Financial Year 2007-08	
Upto 110,000	Nil
Between 110,001-150,000	10 per cent of income exceeding INR 110,000
Between 150,001-250,000	20 per cent of Income exceeding INR 150,000
above 250,000	30 per cent of Income exceeding INR 250,000
Financial Year 2006-07	
Upto 100,000	Nil
Between 100,001-150,000	10 per cent of income exceeding INR 100,000
Between 150,001-250,000	20 per cent of Income exceeding INR 150,000
above 250,000	30 per cent of Income exceeding INR 250,000
Financial Year 2004-05	
Upto 50,000	Nil
Between 50,001-60,000	10 per cent of income exceeding INR 50,000
Between 60,001-150,000	20 per cent of Income exceeding INR 60,000
above 150,000	30 per cent of Income exceeding INR 150,000

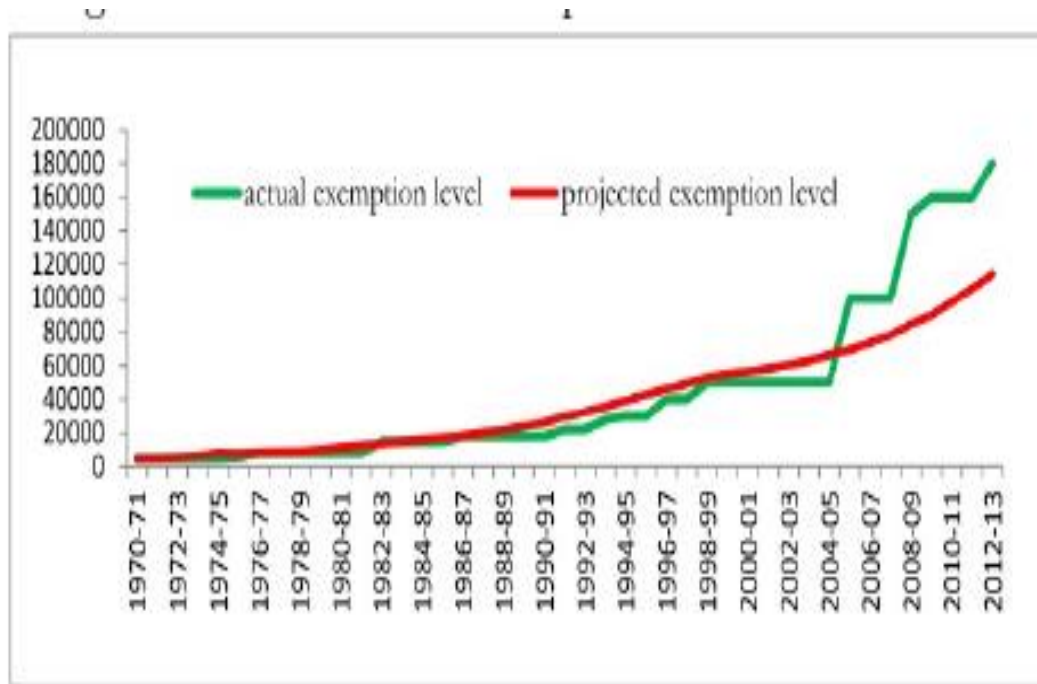
Features of personal income tax in India

Reduction in tax rates

- In the 1970s there were eleven tax slabs with peak rate of 85 per cent on incomes above INR 0.2 million.
- The number of slabs are now three and the peak rate is 30 per cent for incomes above INR 1 million.

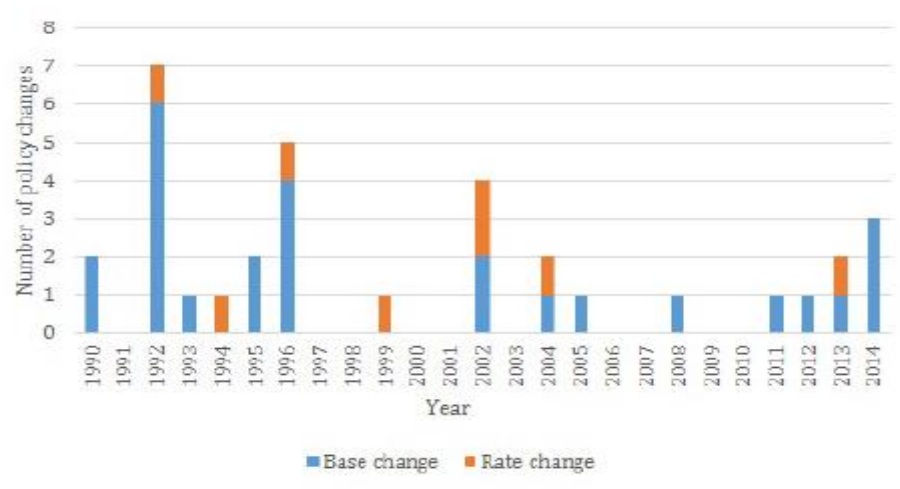
Features of personal income tax in India

- **Regular upward revision of the exemption threshold:**
not in line with the rise in purchasing power



Features of personal income tax in India

- Frequent changes in the rate and base



Source: Tax Policy Reform Database, IMF

- Reduced scrutiny assessments and shift towards information collection through mandatory reporting of PAN for certain transactions
- Penalties are between 50-200 per cent

Why a laboratory experiment?

- No such information is available on taxpayers
- Laboratory experiments can help elicit propensity to evade
- Given that many policy measures are adopted frequently and there are resource constraints, the relatively effective measures must be identified.

Design of the experiment

- The design of the experiment was based on the features of the existing tax system.
- Five policy measures are selected based on the government's preference for these in the past.

Round	Policy change
1	Baseline scenario-tax rate is 20 per cent, audit probability is 20 per cent and penalty is 100 per cent of tax evaded.
2	Reduction in tax rate from 20 to 15
3	Increase in penalty rate from 100 to 150
4	Reduction in audit probability from 20 per cent to 10 per cent
5	Shaming of taxpayers found evading
6	Increase in the exemption threshold from 10,000 to 20,000

Design of the experiment

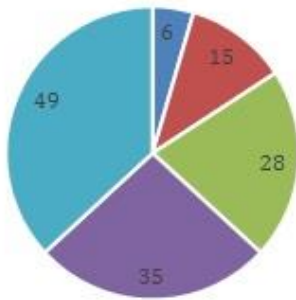
- Attempt was to assess the *knee-jerk* response to policy changes and if any policy measure is found to be relatively effective.

What does literature have to say?

- Audit probability and penalty can improve compliance rates (Slemrod et al., 2001, Park and Hyun, 2003; Beck et al., 1991; Blackwell, 2007)
- Impact of tax rates is ambiguous (Takatas and Papp, 2008; Blackwell, 2007)
- Shaming tax evaders works (Blaufus et al., 2016)

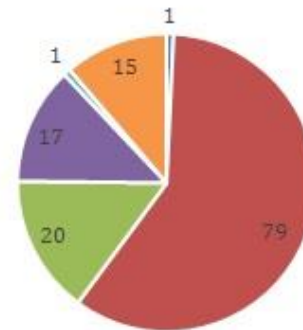
Sample characteristics

Income



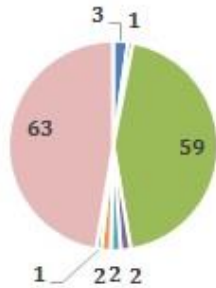
■ 10,00,000 or above ■ 0-2,50,000 ■ 2,50,001 - 4,99,999 ■ 5,00,000 - 9,99,999 ■ Nil

Age group



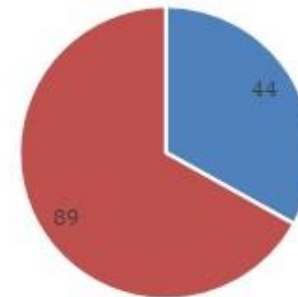
■ >60 ■ 18-30 ■ 30-40 ■ 40-50 ■ 40-60 ■ 50-60

Profession or Sector



■ Business ■ Education
 ■ Government ■ Other Private Sector
 ■ Other (Please specify) ■ Professional (CA, Lawyer, Doctor)
 ■ Research ■ Student

Gender



■ Female ■ Male

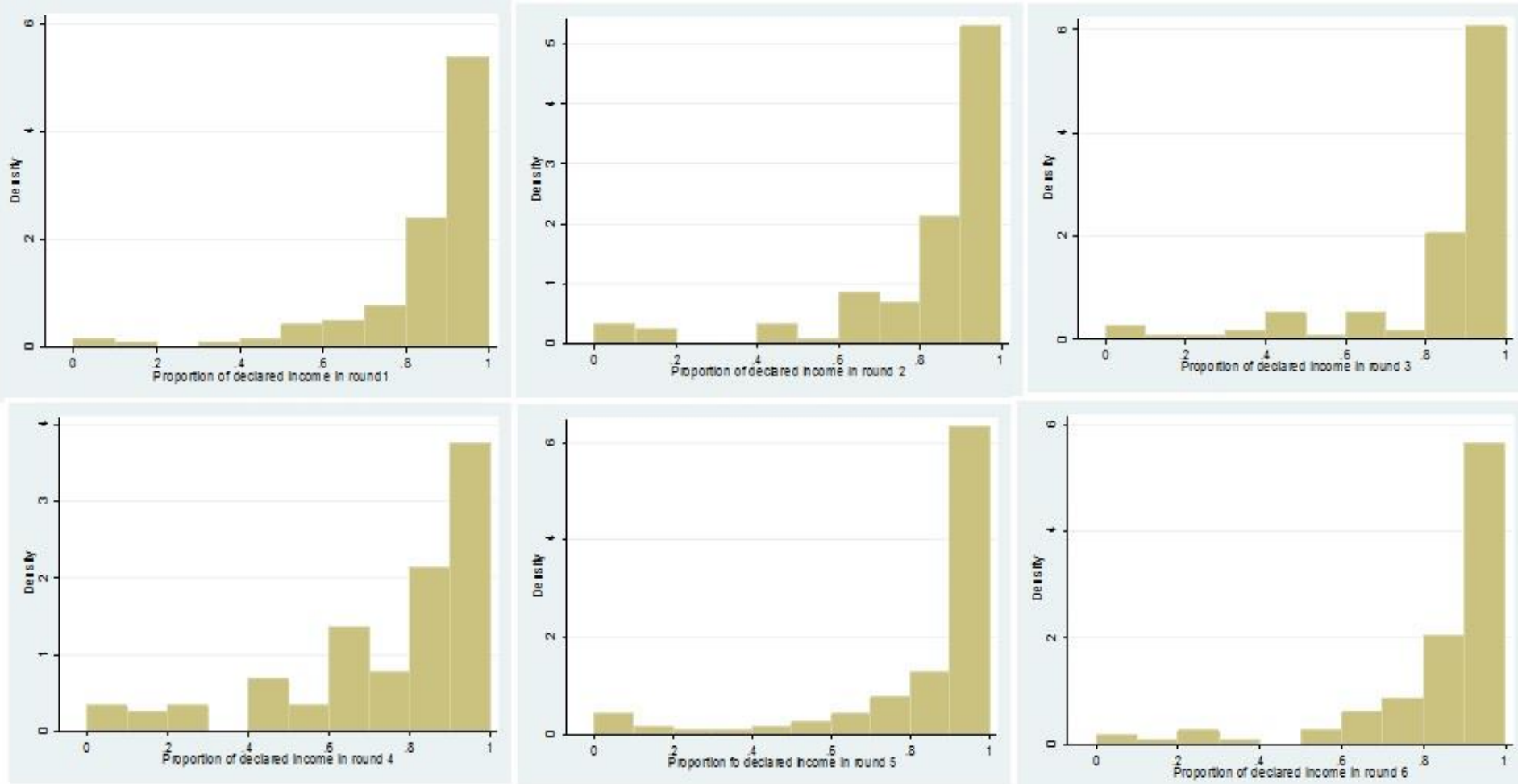
117 participants; Equal number of working and non-working people

Main hypothesis

- 1. Which policy measure is relatively effective?**
- 2. Do audits correct compliance behavior?**
- 3. What impact does each policy measure have on revenues?**

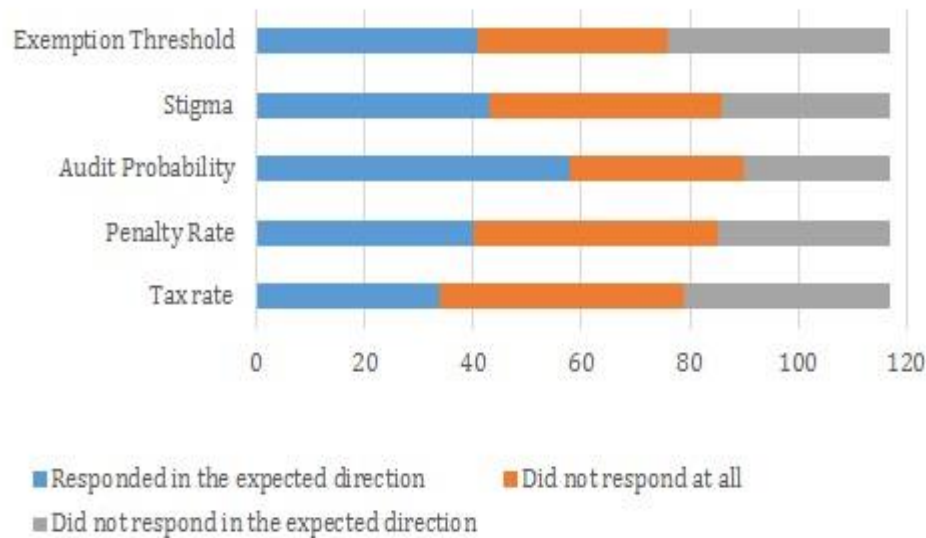
Which is the most effective policy instrument?

Distribution of compliance rates

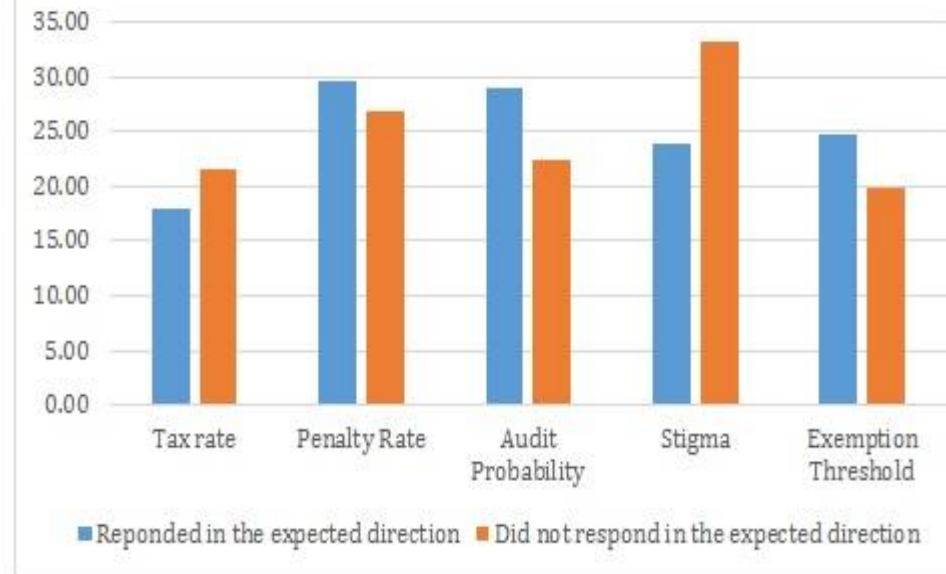


Which is the most effective policy instrument?

Number of participants



Percentage change in compliance rate



Do those who respond to audit also respond to other measures?

Response to pair of policy measures

Policy	Tax rate	Penalty rate	Audit probability	Shaming evaders	Exemption threshold
Penalty rate	26				
Audit probability	16	20			
Shaming evaders	29	32	16		
Exemption threshold	26	28	14	36	
Total that responded in the expected direction	34	40	58	43	41

Number of policy measures to which individuals responded

Number of policy changes	Tax rate	Penalty rate	Audit probability	Shaming evaders	Exemption threshold
1	0	1	31	0	1
2	3	6	10	7	8
3	6	6	2	9	7
4	18	20	8	20	18
5	7	7	7	7	7
Total	34	40	58	43	41

Do audits correct reporting behavior?

Response to past audits in each round identified by policy change

Measure	Penalty		Audit	Exemption	
	Tax rate	rate	probability	Shaming	threshold
Responded in the right direction as a percentage of audited	38.2	37.8	51.6	33.3	60
Responded in the right direction as a percentage of not audited	25.3	32.5	48.8	37.3	32.9
t-test for difference in average change in compliance rates between those audited and not audited	-0.93	0.67	1.15	-0.08	-0.43

T-test for difference in average change in compliance rates

Value	Audited more than once	Audited once or less
Average change in compliance rate	-0.0157	-.0008
t-value (df=117)		-0.4141

Revenue implications of policy intervention

Measure	Revenue collected in million	Average compliance rate
Baseline scenario	1.779	0.862
Reduction in tax rate	1.28	0.835
Increase in penalty	1.774	0.861
Reduced audit probability	1.548	0.764
Shaming of evaders	1.77	0.852
Increase in exemption threshold	1.53	0.854

Conclusions

- Changes in a policy parameter generate different responses from taxpayers.
- For every policy change there are participants whose response was counter-intuitive.
- Audit probability stands out as the most effective tool
- Two kinds of individuals, those who respond to audit and those who respond to all other instruments.
- While audit probability emerges as a very important tool to influence behaviour, the actual audit does not appear to correct reporting behaviour.

Policy conclusions

- If the objective is to generate revenues, then change in penalty rate and shaming tax evaders could be more useful than mere changes in tax rate or the exemption threshold.
- In order to improve compliance *and* revenue generation simultaneously, increase in audit probability along with the shaming of taxpayers can be an effective combination of policies.