

# Pre-analysis plan: Citizens Preferences for Direct vs Indirect Taxation: Vertical vs Horizontal Equity

World Bank Group

August 23, 2022

*“Income tax data analysis suggests that a major portion of personal income-tax collection comes from the salaried class. Perceptions of fairness suffer when the employee class is forced to contribute disproportionately to income taxes while the class of self-employed gets away with paying minimal taxes.”*

Finance Minister of India, 2018

# Contents

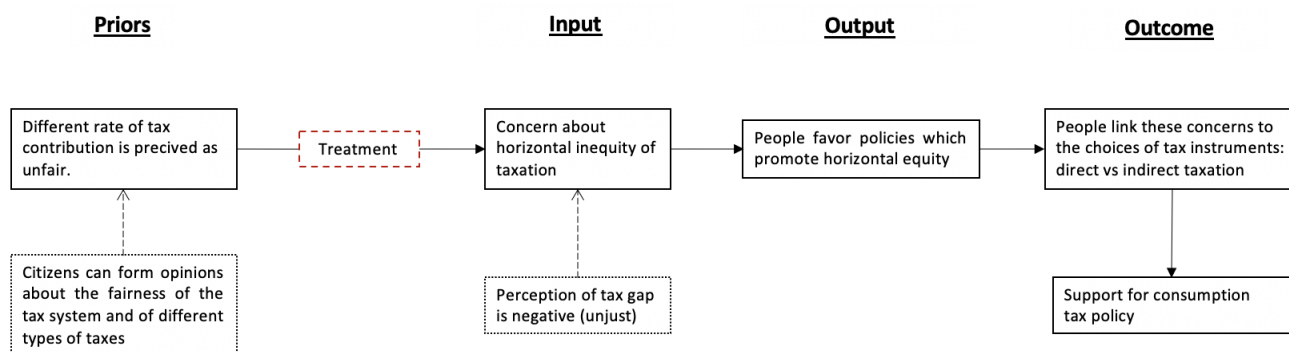
<b>1</b>	<b>Objective of study</b>	<b>3</b>
<b>2</b>	<b>Theory of Change</b>	<b>3</b>
<b>3</b>	<b>Survey and survey experiment</b>	<b>4</b>
3.1	Overview: . . . . .	4
3.2	Survey Variables . . . . .	4
3.3	Theory of Change - Hypothesis . . . . .	6
3.3.1	<b>Hypothesis 1:</b> Respondents perceive that the self-employed pay less taxes than salaried employees at baseline. . . . .	6
3.3.2	<b>Hypothesis 2:</b> Respondents think that the difference in tax contributions between the self-employed and employees is not fair. . . . .	6
3.3.3	<b>Hypothesis 3:</b> Respondents think that it is not justified that the self-employed pay less taxes. . . . .	6
3.3.4	<b>Hypothesis 4:</b> Respondents think that horizontal inequity of taxation between self-employed and employed is concerning and should be addressed. . . . .	6
3.3.5	<b>Hypothesis 5:</b> Horizontal inequity concerns raises support for indirect taxes relative to direct taxes. . . . .	6
3.3.6	<b>Hypothesis 6:</b> Explaining how equity concepts relate to choices of tax instruments, re-enforces the support for tax policies which reduce horizontal inequity. . . . .	6
3.4	Understanding why Theory of Change might not operate and where it breaks down . . . . .	7
3.4.1	<b>Hypothesis 7:</b> Although respondents think self-employed unjustifiably pay lower taxes, they don't think that horizontal tax equity is concerning. . . . .	7
3.4.2	<b>Hypothesis 8:</b> Although respondents think horizontal equity of the tax system is concerning, they don't support indirect taxes (relative to direct taxes). . . . .	7
3.5	Heterogeneity . . . . .	7
3.5.1	<b>Hypothesis 9:</b> Support for the Theory of Change is more likely by salaried employees. . . . .	7
3.5.2	<b>Hypothesis 10:</b> Support for the Theory of Change is more likely to be supported by people paying the income tax and of high socio-economic status. . . . .	7
<b>4</b>	<b>Tables related to results of the experiment</b>	<b>8</b>

# 1 Objective of study

In developing countries, a large share of the workforce works in self-employment, a hard to tax segment, compared to salaried employees. We study citizens' views on fairness of the tax system, focusing on their perception of horizontal inequity of taxation between salaried and self-employed individuals, in five large middle-income countries. We conjecture that the prevalence of self-employment, strengthens horizontal equity concerns, which in turn lowers demand for tax interventions, especially direct income taxation. To test this hypothesis, we conduct online surveys eliciting perception on horizontal equity, tax fairness, relation to vertical equity and how these preferences relate to the tax instruments used by their governments. To test whether increased awareness of horizontal inequity affects tax preferences, we conduct a within-survey information treatments aimed at increasing the salience of this issue.

# 2 Theory of Change

Citizens can form opinions about the fairness of the tax system and of different types of taxes. Two key dimensions of fairness are concerns about the share of taxes paid by rich vs poor (vertical equity) and the share of taxes paid by the self-employed vs salaried employees, at the same income level (horizontal equity). Information on the actual gap in tax contributions of the self-employed vs. employees could convince citizens that the difference in taxes paid is unjustified, which might raise horizontal equity concerns and could change respondent's perception of the tax system's fairness. Moreover, due to the pedagogical treatment which explains the equity impact of different types of taxes (income vs. consumption taxes), citizens might favour policies that curb horizontal equity, even if they worsen vertical equity, and in particular prefer consumption taxes.



## 3 Survey and survey experiment

### 3.1 Overview:

- We conduct a survey, which includes a survey experiment, to measure how information about current taxes paid and types of taxes changes citizens views on the fairness of the tax system and preferences regarding tax objectives.
- The experiment contains three treatment arms (specified below) and a control group. The treatments provide information about taxes paid by self-employed vs. employees, pedagogical treatment on the equity impacts of consumption vs income taxes, and a combination of both.
- The treatment is stratified across six groups by gender and age (specified below).
- The intervention takes place in five middle-income countries, with equal sample size. These are: Colombia, India, Indonesia, Nigeria and the Philippines.
- The standard errors are clustered at the strata level and the country level.
- All treatment effects shown in the PAP are estimated using pilot data, which will not be part of the final sample. We will generate results for the tables in the section below using the actual data only once the PAP has been filed.

### 3.2 Survey Variables

#### Demographics and Priors

- **Employment status** Q1: What is your current employment status? (*Answers: Salaried employee / Self-employed (own account, small business owner, family worker, casual daily labourer) / Not working*)
- **Income group** Q2: Imagine the total population of the [Country] is divided into 5 income groups from poorest to richest, each with the same number of people. In which of these income groups do you place your household? (*Answers: Poorest group / 2nd poorest group / Middle group / 2nd richest group / Richest group*)
- **Education** Q3: What is the highest level of education you completed? (*Answers: Primary or less/ Secondary/ Post-secondary vocational training/ Bachelor's degree/ Master's degree or higher*)
- **Prior believes - horizontal equity** Q4: Think of two people with the same income, one is self-employed and one is a salaried employee. How do you think the taxes paid by these individuals differ? (*Answers: Self-employed individual pays LESS than the Employee / Self-employed individual pays MORE than the Employee / They pay the same amount*)

#### Primary Outcomes:

- **Gap concern** Q7: Do you agree or disagree with the following statement: In India, differences in taxes paid between self-employed individuals and employees is a serious problem that needs to be addressed. (*Answers: Likert scale*)
- **Gap Unfair** Q8: Consider a self-employed individual earning the same income as an employee. Differences in taxes paid between these people are: (*Answers: Fair/ Unfair / Neither fair nor unfair*)

- **Gap Unjustified** Q9: Do you agree or disagree with the following statement: It is justified for self-employed individuals and employees to pay different amounts of tax, even if they have the SAME INCOME (*Answers: Likert scale*)
- **Horizontal objective** Q10: To achieve a fair tax system, which is more important? (*Answers: A- Ensuring people with the SAME income pay the SAME amount in taxes B- Ensuring that RICHER people pay a HIGHER share of their income in taxes than poorer people - They are equally important*)
- **Consumption Support** Q11: Do you agree or disagree with the following statement: Instead of raising income taxes on the rich, the consumption tax should be increased in India so that employees and self-employed individuals contribute more evenly (*Answers: Likert scale*)
- **Tax importance** Q12: Do you agree or disagree with the following statement: It is important for people to pay taxes: (*Answers: Likert scale*)
- **Gap index:** Index that measures the impact of the treatments on people's perceptions across the first three outcomes (i.e. Q7, 8 and 9). Index will be constructed from variables Q7, Q8 and Q9.

#### **Treatments and Control Groups:**

- **T1:** Information treatment: "Share of taxes paid by self-employed versus employees"
- **T2:** Pedagogical treatment: "Information on who pays the income tax and who pays the consumption tax"
- **T3:** Information + Pedagogical treatment
- **Control:** Click message

#### **Stratification:**

- **Gender and age group categories:** Female Young (18-34 years), Female Middle aged (35-54 years), Female Old (55+ years), Male Young (18-34 years), Male Middle aged (35-54 years), Male Old (55+ years)
- **Countries:** Colombia, India, Indonesia, Nigeria, Philippines

#### **Control variables:**

- **Smartphone** (dummy): 1 if respondent used smartphone device to complete survey and 0 otherwise.
- **Answer order:** Order in which were answers shown to the respondent.
- **Strata**

### 3.3 Theory of Change - Hypothesis

**3.3.1 Hypothesis 1:** Respondents perceive that the self-employed pay less taxes than salaried employees at baseline.

- The Hypothesis will be tested by looking at the mean of the variable Prior Believes - Horizontal Equity variable (Q4).

**3.3.2 Hypothesis 2:** Respondents think that the difference in tax contributions between the self-employed and employees is not fair.

- The Hypothesis will be tested by interaction of Treatment and the outcome variable Gap Unfair (Q10) shown in Table 1 (Columns 3 and 4).

**3.3.3 Hypothesis 3:** Respondents think that it is not justified that the self-employed pay less taxes.

- The Hypothesis will be tested by interaction of Treatment and the outcome variable Gap Unjustified (Q9) shown in Table 1 (Columns 5 and 6).

**3.3.4 Hypothesis 4:** Respondents think that horizontal inequity of taxation between self-employed and employed is concerning and should be addressed.

- The Hypothesis will be tested by interaction of Treatment and the outcome variable Gap Concern (Q7) shown in Table 1 (Columns 1 and 2).

**3.3.5 Hypothesis 5:** Horizontal inequity concerns raises support for indirect taxes relative to direct taxes.

- The Hypothesis will be tested by interaction of a treatment and the outcome variable Consumption Support (Q11) shown in Table 2 (Columns 3 and 4).
- The Hypothesis will be partially tested by interaction of Treatment and the outcome variable Horizontal Objective (Q10) shown in Table 2 (Columns 1 and 2).

**3.3.6 Hypothesis 6:** Explaining how equity concepts relate to choices of tax instruments, re-enforces the support for tax policies which reduce horizontal inequity.

- Difference between interaction of Treatment (T1) with Hypothesis H5 and Treatments (T2 and T3) with Hypothesis H5 is positive (towards T2 or/and T3).

### **3.4 Understanding why Theory of Change might not operate and where it breaks down**

**3.4.1 Hypothesis 7:** Although respondents think self-employed unjustifiably pay lower taxes, they don't think that horizontal tax equity is concerning.

- If Hypothesis H7 holds true the link between H1-3 and H4 breaks down, because respondents do not think it is important to pay taxes.
- This can be partially tested by mean comparison of outcome variable Importance (Q12).

**3.4.2 Hypothesis 8:** Although respondents think horizontal equity of the tax system is concerning, they don't support indirect taxes (relative to direct taxes).

- If Hypothesis H8 holds true the link between H1-4 and H5 breaks down, because respondents do not link the fairness concepts to the tax instruments.
- Another reason why Hypothesis H8 might hold true is that respondents are more concerned about vertical equity than horizontal equity and the treatments fail to substantially alter this. preference.

### **3.5 Heterogeneity**

**3.5.1 Hypothesis 9:** Support for the Theory of Change is more likely by salaried employees.

- The Hypothesis will be tested by the interaction of Employment Status (Q1) and treatment arms on outcome variables as shown in Table 3. and 4.

**3.5.2 Hypothesis 10:** Support for the Theory of Change is more likely to be supported by people paying the income tax and of high socio-economic status.

- The Hypothesis will be tested by interaction of Income group (Q2) and treatment arms on outcome variables as shown in Table 5. and 6
- Further interactions will involve:
  - Education level
  - Prior believes about horizontal about horizontal equity (Q4)
  - Socio-Economic-Status (combining education and income)
  - Salaried employees \* high-income (likely paying the income tax)
  - SE for these further tests will be adjusted for multiple hypothesis testing

## 4 Tables related to results of the experiment

Table 1: Overall effects of the treatments on horizontal fairness views

	Gap concern		Gap unfair		Gap unjustified	
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Panel A: Any treatment (pilot)</b>						
Pooled treatment	0.001 (0.030) [0.04]	0.015 (0.027) [0.55]	0.027 (0.026) [1.04]	0.017 (0.034) [0.50]	-0.009 (0.018) [-0.50]	-0.017 (0.026) [-0.66]
P-value pooled	0.972	0.608	0.347	0.638	0.640	0.537
<b>Panel B: Treatment arms (pilot)</b>						
T1	0.009 (0.017) [0.52]	0.022 (0.018) [1.21]	0.040 (0.050) [0.80]	0.028 (0.057) [0.50]	0.029 (0.029) [0.99]	0.017 (0.035) [0.50]
T2	0.030 (0.048) [0.62]	0.044 (0.046) [0.96]	-0.003 (0.022) [-0.15]	-0.014 (0.028) [-0.48]	-0.055 (0.030) [-1.82]	-0.062 (0.035) [-1.76]
T3: T1 + T2	-0.039 (0.045) [-0.86]	-0.025 (0.039) [-0.63]	0.049* (0.021) [2.36]	0.041 (0.028) [1.48]	0.007 (0.028) [0.26]	0.002 (0.026) [0.07]
P-value joint	0.272	0.203	0.067	0.054	0.265	0.297
N	940	940	940	940	940	940
Mean of control	.638	.638	.397	.397	.323	.323
Controls	No	Yes	No	Yes	No	Yes

Note: Table shows OLS the effects of treatments on horizontal fairness views. *Gap concern*: Based on Q7, which asks respondents whether they consider differences in taxes paid between self-employed individuals and employees as a serious problem (variable takes value of 1 if they select "Strongly Agree" or "Agree" and 0 otherwise). *Gap unfair*: Based on Q8, which asks respondents whether the difference in tax paid by self-employed individual and employee earning the same income is fair (variable takes value of 1 if they select "Unfair" and 0 otherwise). *Gap unjustified*: Based on question Q9, which asks respondents if its justified for self-employed individual and employee with the same income to pay different amount of taxes (variable takes value 1 if respondents select "Strongly disagree" or "Disagree" and 0 otherwise). The unit of observation is the individual. All specifications include stratum fixed effects. Clusters standard errors are in parentheses and t-values in square brackets. Stars: \* for  $p < .10$ , \*\* for  $p < .05$ , \*\*\* for  $p < .01$

Table 2: Overall effects of the treatments on tax policy and tax importance views

	Horizontal objective		Consumtion support		Important	
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Panel A: Any treatment (pilot)</b>						
Pooled treatment	-0.014 (0.015) [-0.95]	-0.008 (0.011) [-0.73]	-0.025** (0.009) [-2.64]	-0.036* (0.014) [-2.52]	0.045** (0.017) [2.59]	0.050* (0.020) [2.51]
P-value pooled	0.388	0.496	0.046	0.053	0.049	0.054
<b>Panel B: Treatment arms (pilot)</b>						
T1	-0.016 (0.022) [-0.73]	-0.007 (0.027) [-0.25]	-0.051 (0.027) [-1.88]	-0.062* (0.031) [-2.02]	0.035 (0.026) [1.35]	0.040 (0.027) [1.48]
T2	-0.023 (0.040) [-0.58]	-0.017 (0.030) [-0.57]	-0.023 (0.019) [-1.24]	-0.034 (0.018) [-1.96]	0.095*** (0.013) [7.52]	0.100*** (0.011) [8.99]
T3: T1 + T2	-0.003 (0.025) [-0.11]	0.001 (0.030) [0.03]	-0.001 (0.021) [-0.05]	-0.012 (0.016) [-0.72]	-0.002 (0.039) [-0.05]	0.002 (0.043) [0.06]
P-value joint	0.827	0.827	0.094	0.081	0.000	0.000
N	940	940	940	940	940	940
Mean of control	.288	.288	.24	.24	.697	.697
Controls	No	Yes	No	Yes	No	Yes

Note: Table shows OLS the effects of treatments on horizontal fairness views . *Horizontal objective*: Based on question Q10, which asks respondents what tax policy objective is more important to achieve a fair tax system (variable takes value of 1 if respondents select “People with the SAME income paying the SAME taxes” and 0 otherwise). *Consumtion support*: Based on question Q11, which asks respondents whether they support increase in consumption tax instead of increase in income tax on rich (variable takes value of 1 if they select “Strongly Agree” or “Agree” and 0 otherwise). *Important*: Based on question Q12, which asks respondents it is important for people to pay taxes (variable takes value of 1 if they select "Strongly Agree" or "Agree" and 0 otherwise). The unit of observation is the individual. All specifications include stratum fixed effects. Clusters standard errors are in parentheses and t-values in square brackets. Stars: \* for  $p < .10$ , \*\* for  $p < .05$ , \*\*\* for  $p < .01$

Table 3: Heterogeneous effects based on employment status - horizontal fairness views

	Gap concern		Gap unfair		Gap unjustified	
	(1)	(2)	(3)	(4)	(5)	(6)
T1	0.022 (0.029) [0.76]	0.041 (0.031) [1.34]	0.084 (0.050) [1.67]	0.073 (0.056) [1.31]	0.077** (0.030) [2.58]	0.070* (0.034) [2.08]
T2	0.019 (0.051) [0.36]	0.036 (0.046) [0.77]	0.044* (0.018) [2.39]	0.036 (0.029) [1.21]	-0.059* (0.025) [-2.35]	-0.063 (0.036) [-1.75]
T3: T1 + T2	-0.026 (0.054) [-0.49]	-0.008 (0.052) [-0.15]	0.053 (0.028) [1.91]	0.044 (0.027) [1.64]	0.069 (0.064) [1.08]	0.064 (0.059) [1.09]
Employed	0.064 (0.033) [1.94]	0.059 (0.040) [1.46]	0.064*** (0.010) [6.30]	0.070** (0.019) [3.68]	0.085 (0.058) [1.47]	0.092 (0.048) [1.94]
Employed x T1	-0.042 (0.042) [-1.00]	-0.057 (0.044) [-1.30]	-0.118** (0.035) [-3.38]	-0.121** (0.043) [-2.80]	-0.132* (0.061) [-2.18]	-0.144* (0.066) [-2.19]
Employed x T2	0.015 (0.054) [0.28]	0.010 (0.057) [0.17]	-0.124*** (0.016) [-7.56]	-0.129*** (0.019) [-6.81]	-0.004 (0.062) [-0.06]	-0.013 (0.058) [-0.23]
Employed x T3	-0.038 (0.048) [-0.80]	-0.051 (0.056) [-0.91]	-0.016 (0.065) [-0.24]	-0.013 (0.065) [-0.21]	-0.168 (0.122) [-1.38]	-0.170 (0.125) [-1.36]
N	940	940	940	940	940	940
Mean	.638	.638	.397	.397	.323	.323
Controls	No	Yes	No	Yes	No	Yes

Note: Table shows OLS the heterogeneous effects of treatments on tax policy and tax importance views. *Gap concern*: Based on Q7, which asks respondents whether they consider differences in taxes paid between self-employed individuals and employees as a serious problem (variable takes value of 1 if they select "Strongly Agree" or "Agree" and 0 otherwise). *Gap unfair*: Based on Q8, which asks respondents whether the difference in tax paid by self-employed individual and employee earning the same income is fair (variable takes value of 1 if they select "Unfair" and 0 otherwise). *Gap unjustified*: Based on question Q9, which asks respondents if its justified for self-employed individual and employee with the same income to pay different amount of taxes (variable takes value 1 if respondents select "Strongly disagree" or "Disagree" and 0 otherwise). The unit of observation is the individual. All specifications include stratum fixed effects. Clusters standard errors are based are in parentheses and t-values in square brackets. Stars: \* for  $p < .10$ , \*\* for  $p < .05$ , \*\*\* for  $p < .01$

Table 4: Heterogeneous effects based on employment status - on tax policy and tax importance views

	Horizontal objective		Consumtion support		Important	
	(1)	(2)	(3)	(4)	(5)	(6)
T1	0.037 (0.035) [1.07]	0.042 (0.038) [1.10]	-0.035 (0.038) [-0.92]	-0.049 (0.039) [-1.27]	0.084* (0.034) [2.51]	0.090* (0.036) [2.48]
T2	0.036 (0.034) [1.08]	0.039 (0.021) [1.85]	-0.029 (0.039) [-0.74]	-0.041 (0.049) [-0.84]	0.099*** (0.020) [4.91]	0.104*** (0.025) [4.20]
T3: T1 + T2	0.028 (0.039) [0.72]	0.030 (0.047) [0.64]	-0.001 (0.042) [-0.04]	-0.015 (0.039) [-0.38]	-0.002 (0.040) [-0.05]	0.003 (0.045) [0.08]
Employed	0.134*** (0.017) [7.75]	0.129*** (0.023) [5.54]	-0.051 (0.038) [-1.35]	-0.047 (0.046) [-1.02]	0.085* (0.040) [2.10]	0.082 (0.045) [1.84]
Employed x T1	-0.151* (0.063) [-2.42]	-0.140* (0.069) [-2.03]	-0.034 (0.035) [-0.97]	-0.026 (0.032) [-0.82]	-0.135** (0.037) [-3.62]	-0.137** (0.043) [-3.20]
Employed x T2	-0.165*** (0.023) [-7.17]	-0.155*** (0.031) [-4.97]	0.023 (0.084) [0.28]	0.025 (0.092) [0.27]	-0.024 (0.062) [-0.39]	-0.024 (0.068) [-0.35]
Employed x T3	-0.092 (0.065) [-1.42]	-0.089 (0.066) [-1.35]	0.006 (0.053) [0.12]	0.014 (0.061) [0.23]	-0.008 (0.057) [-0.13]	-0.010 (0.058) [-0.18]
N	940	940	940	940	940	940
Mean	.288	.288	.24	.24	.697	.697
Controls	No	Yes	No	Yes	No	Yes

Note: Table shows OLS the heterogeneous effects of treatments on tax policy and tax importance views . *Horizontal objective*: Based on question Q10, which asks respondents what tax policy objective is more important to achieve a fair tax system (variable takes value of 1 if respondents select “People with the SAME income paying the SAME taxes” and 0 otherwise). *Consumtion support*: Based on question Q11, which asks respondents whether they support increase in consumption tax instead of increase in income tax on rich (variable takes value of 1 if they select “Strongly Agree” or “Agree” and 0 otherwise). *Important*: Based on question Q12, which asks respondents it is important for people to pay taxes (variable takes value of 1 if they select "Strongly Agree" or "Agree" and 0 otherwise). The unit of observation is the individual. All specifications include stratum fixed effects. Clusters standard errors are in parentheses and t-values in square brackets. Stars: \* for  $p < .10$ , \*\* for  $p < .05$ , \*\*\* for  $p < .01$

Table 5: Heterogeneous effects based on income group - horizontal fairness views

	Gap concern		Gap unfair		Gap unjustified	
	(1)	(2)	(3)	(4)	(5)	(6)
T1	0.002 (0.042) [0.05]	0.006 (0.045) [0.14]	0.025 (0.088) [0.29]	0.020 (0.092) [0.22]	-0.017 (0.039) [-0.44]	-0.022 (0.041) [-0.54]
T2	0.041 (0.027) [1.50]	0.048 (0.032) [1.50]	-0.052 (0.055) [-0.93]	-0.054 (0.059) [-0.91]	-0.102 (0.051) [-2.00]	-0.101* (0.048) [-2.10]
T3: T1 + T2	-0.069 (0.039) [-1.76]	-0.056 (0.036) [-1.56]	0.007 (0.044) [0.15]	0.001 (0.046) [0.01]	-0.023 (0.036) [-0.64]	-0.025 (0.037) [-0.66]
Top 40pct income	-0.056 (0.059) [-0.95]	-0.073 (0.037) [-1.95]	-0.075 (0.130) [-0.58]	-0.055 (0.107) [-0.52]	-0.071 (0.069) [-1.03]	-0.049 (0.049) [-1.00]
Top 40pct income x T1	0.007 (0.080) [0.08]	0.031 (0.083) [0.37]	0.030 (0.109) [0.27]	0.011 (0.102) [0.11]	0.135** (0.047) [2.89]	0.120** (0.045) [2.67]
Top 40pct income x T2	-0.034 (0.097) [-0.36]	-0.017 (0.078) [-0.22]	0.130 (0.116) [1.12]	0.110 (0.099) [1.11]	0.127 (0.069) [1.84]	0.105 (0.068) [1.54]
Top 40pct income x T3	0.081 (0.061) [1.34]	0.081* (0.040) [2.02]	0.114 (0.088) [1.30]	0.110 (0.069) [1.59]	0.079 (0.080) [0.98]	0.071 (0.068) [1.04]
N	940	940	940	940	940	940
Mean	.638	.638	.397	.397	.323	.323
Controls	No	Yes	No	Yes	No	Yes

Note: Table shows OLS the heterogeneous effects of treatments on horizontal fairness views. *Gap concern*: Based on Q7, which asks respondents whether they consider differences in taxes paid between self-employed individuals and employees as a serious problem (variable takes value of 1 if they select "Strongly Agree" or "Agree" and 0 otherwise). *Gap unfair*: Based on Q8, which asks respondents whether the difference in tax paid by self-employed individual and employee earning the same income is fair (variable takes value of 1 if they select "Unfair" and 0 otherwise). *Gap unjustified*: Based on question Q9, which asks respondents if its justified for self-employed individual and employee with the same income to pay different amount of taxes (variable takes value 1 if respondents select "Strongly disagree" or "Disagree" and 0 otherwise). The unit of observation is the individual. All specifications include stratum fixed effects. Clusters standard errors are in parentheses and t-values in square brackets. Stars: \* for  $p < .10$ , \*\* for  $p < .05$ , \*\*\* for  $p < .01$

Table 6: Heterogeneous effects based on income group - on tax policy and tax importance views

	Horizontal objective		Consumtion support		Important	
	(1)	(2)	(3)	(4)	(5)	(6)
T1	0.000 (0.036) [0.01]	0.005 (0.038) [0.13]	-0.117 (0.061) [-1.91]	-0.121 (0.064) [-1.89]	0.014 (0.047) [0.31]	0.016 (0.048) [0.34]
T2	-0.001 (0.028) [-0.04]	-0.002 (0.028) [-0.08]	-0.078 (0.044) [-1.75]	-0.083* (0.038) [-2.21]	0.088*** (0.020) [4.33]	0.090*** (0.021) [4.22]
T3: T1 + T2	0.030 (0.035) [0.87]	0.031 (0.039) [0.78]	-0.067* (0.028) [-2.40]	-0.076** (0.025) [-3.06]	0.002 (0.054) [0.05]	0.006 (0.054) [0.11]
Top 40pct income	0.091 (0.046) [1.97]	0.072* (0.035) [2.07]	-0.133 (0.095) [-1.40]	-0.118 (0.073) [-1.63]	-0.084** (0.031) [-2.68]	-0.092** (0.029) [-3.22]
Top 40pct income x T1	-0.031 (0.068) [-0.45]	-0.018 (0.062) [-0.30]	0.184 (0.109) [1.70]	0.165 (0.109) [1.52]	0.046 (0.086) [0.53]	0.055 (0.087) [0.63]
Top 40pct income x T2	-0.055 (0.076) [-0.73]	-0.036 (0.068) [-0.54]	0.143 (0.082) [1.74]	0.128 (0.067) [1.91]	0.013 (0.081) [0.16]	0.022 (0.074) [0.29]
Top 40pct income x T3	-0.085 (0.048) [-1.76]	-0.078 (0.044) [-1.75]	0.174 (0.109) [1.60]	0.173 (0.087) [1.98]	-0.021 (0.055) [-0.38]	-0.019 (0.047) [-0.41]
N	940	940	940	940	940	940
Mean	.288	.288	.24	.24	.697	.697
Controls	No	Yes	No	Yes	No	Yes

Note: Table shows OLS the heterogeneous effects of treatments on tax policy and tax importance views. *Horizontal objective*: Based on question Q10, which asks respondents what tax policy objective is more important to achieve a fair tax system (variable takes value of 1 if respondents select "People with the SAME income paying the SAME taxes" and 0 otherwise). *Consumtion support*: Based on question Q11, which asks respondents whether they support increase in consumption tax instead of increase in income tax on rich (variable takes value of 1 if they select "Strongly Agree" or "Agree" and 0 otherwise). *Important*: Based on question Q12, which asks respondents it is important for people to pay taxes (variable takes value of 1 if they select "Strongly Agree" or "Agree" and 0 otherwise). The unit of observation is the individual. All specifications include stratum fixed effects. Clusters standard errors are in parentheses and t-values in square brackets. Stars: \* for  $p < .10$ , \*\* for  $p < .05$ , \*\*\* for  $p < .01$