

# Online Appendix for "What's Fair? Preferences for Tax Progressivity in the Wake of the Financial Crisis" (Journal of Public Policy)

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Table OA1: Country Sample and Time of Fieldwork

Country	Time Period of Fieldwork
Argentina	07/2010-11/2010
Australia	12/2009-02/2010
Austria	07/2010-09/2010
Belgium	03/2009-07/2009
Chile	05/2009-06/2009
Croatia	06/2009-09/2009
Denmark	09/2009-01/2010
Estonia	06/2010-07/2010
Finland	10/2009-12/2009
France	04/2009-07/2009
Germany	05/2010-11/2010
Hungary	11/2009
Iceland	11/2009-05/2010
Israel	09/2009-02/2010
Japan	11/2009
Latvia	06/2009-07/2009
New Zealand	07/2009-11/2009
Norway	10/2009-05/2010
Philippines	10/2009
Poland	06/2010-07/2010
Russia	12/2009
Slovak Republic	09/2009-10/2009
Slovenia	03/2009-06/2009
South Africa	11/2009-12/2009
South Korea	06/2009-08/2009
Spain	11/2009
Sweden	02/2009-05/2009
Switzerland	02/2009-09/2009
Turkey	10/2009-01/2010
Ukraine	06/2009
United Kingdom	06/2009-11/2009
United States	03/2010-08/2010
Venezuela	06/2010

Table OA2: Summary Statistics of Main Micro and Macro Variables

	Country	Tax Prog.		Des. Backgr.		Des. Behav.		Des. Inst.		Growth 2009
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
1	Ukraine	4.50	0.71	3.34	1.19	4.31	0.75	3.68	1.11	-14.80
2	South Korea	4.42	0.67	3.39	1.01	4.10	0.74	3.24	1.22	0.71
3	Russia	4.38	0.80	3.09	1.19	4.18	0.77	3.47	1.19	-7.82
4	France	4.23	0.73	2.31	0.99	4.03	0.79	3.04	1.28	-2.94
5	Japan	4.22	0.70	2.55	0.92	4.11	0.74	2.26	1.33	-5.53
6	Slovenia	4.19	0.68	2.96	1.09	4.10	0.74	3.20	1.16	-7.80
7	Croatia	4.12	0.67	3.32	1.18	4.27	0.66	3.40	1.19	-7.38
8	Germany	4.11	0.72	2.92	1.05	4.14	0.61	2.55	1.33	-5.62
9	Finland	4.09	0.68	2.17	0.85	4.01	0.69	2.17	1.08	-8.27
10	Turkey	4.07	0.94	3.05	1.20	4.01	0.68	3.43	1.26	-4.83
11	Spain	4.07	0.70	2.87	1.20	3.92	0.73	2.33	1.29	-3.57
12	Latvia	4.00	0.67	3.16	1.15	4.09	0.71	2.94	1.18	-14.35
13	Hungary	4.00	0.76	3.29	1.13	4.35	0.74	3.20	1.17	-6.56
14	United Kingdom	4.00	0.71	2.35	1.00	3.94	0.73	2.29	1.12	-4.19
15	Slovak Republic	4.00	0.79	3.01	1.18	4.25	0.75	3.08	1.17	-5.49
16	Argentina	3.99	0.77	2.37	1.21	4.00	0.64	2.56	1.36	0.05
17	Austria	3.98	0.66	3.00	1.05	4.34	0.67	2.68	1.28	-3.80
18	Estonia	3.97	0.77	2.93	0.99	4.17	0.77	2.64	1.24	-14.72
19	Chile	3.92	0.86	2.92	1.23	4.03	0.66	2.26	1.17	-1.04
20	Australia	3.91	0.70	2.61	1.01	3.99	0.76	2.22	1.11	1.82
21	Sweden	3.87	0.71	2.49	0.94	4.15	0.64	1.84	1.02	-5.18
22	South Africa	3.87	0.80	3.35	1.25	4.06	0.81	2.36	1.44	-1.54
23	Iceland	3.87	0.60	2.39	0.94	4.12	0.68	2.69	1.24	-4.68
24	Poland	3.84	0.79	3.33	1.11	4.18	0.73	3.04	1.19	2.63
25	Belgium	3.84	0.75	2.60	0.86	4.09	0.69	2.67	1.09	-2.28
26	Venezuela	3.82	0.82	2.32	1.17	3.84	0.91	2.58	1.35	-3.20
27	Philippines	3.81	1.07	2.95	1.20	4.19	0.71	1.44	0.76	1.15
28	United States	3.80	0.76	2.85	1.07	4.29	0.61	2.17	1.16	-2.78
29	Norway	3.78	0.64	2.45	0.88	3.97	0.76	1.77	0.91	-1.62
30	Israel	3.78	0.78	3.09	1.04	4.09	0.76	3.09	1.15	1.27
31	Denmark	3.76	0.69	2.35	0.84	3.76	0.82	1.57	1.00	-5.09
32	New Zealand	3.65	0.70	2.25	0.93	4.18	0.67	1.72	0.86	-0.25

Table OA3: Summary Statistics of Micro and Macro Variables

Variable	N	Mean	St. Dev.	Min	Max	Comment	Data Source
<i>Micro Variables</i>							
Tax Progressivity	31,331	4.004	0.784	1	5	–	ISSP
Des. Backgr.	31,331	2.823	1.140	1	5	–	ISSP
Des. Behav.	31,331	4.097	0.745	1	5	–	ISSP
Des. Inst.	31,331	2.600	1.326	1	5	–	ISSP
Part-Time Employed	31,331	0.098	0.298	0	1	Ref. Category: Full-Time Employed	ISSP
Unemployed	31,331	0.074	0.261	0	1	Ref. Category: Full-Time Employed	ISSP
In Education	31,331	0.048	0.215	0	1	Ref. Category: Full-Time Employed	ISSP
Retired	31,331	0.200	0.400	0	1	Ref. Category: Full-Time Employed	ISSP
Not in Labour Force	31,331	0.119	0.324	0	1	Ref. Category: Full-Time Employed	ISSP
Educational Level	31,331	3.951	1.452	1	6	–	ISSP
Age	31,331	33.014	16.686	1	84	–	ISSP
Male	31,331	0.459	0.498	0	1	–	ISSP
Religiosity	31,331	3.638	2.298	1	8	–	ISSP
Income Deciles	31,331	5.311	2.829	1	10	–	ISSP
<i>Macro Variables</i>							
Growth 2009	32	–4.303	4.485	–14.800	2.634	–	World Bank (2017)
Growth 2007	32	5.198	2.741	0.426	10.834	–	World Bank (2017)
Z-Score	32	10.256	6.506	–0.945	27.488	Average 2004–2008	Cihak et al. (2012)
GDP 2009 (ln)	32	9.919	0.904	7.516	11.290	Per capita	World Bank (2017)
Net Gini	32	32.486	7.719	24.159	59.175	Year 2009	Solt (2016)
Market Gini	32	46.599	6.216	33.226	67.570	Year 2009	Solt (2016)
Introduction PIT	32	1,922.656	42.765	1,842	1,994	–	Seelkopf and Genschel (2018)
Revenue from Sales Tax	32	6.595	2.217	1.953	11.242	% of GDP, Year 2009	Prichard (2016)
Social Benefit Expenditure	29	40.138	16.760	14	73	% of GDP, Year 2009	IMF (2017)

Table OA4: Results Multilevel Models for Tax Progressivity: Robustness Checks

	DV: Preferences for Tax Progressivity				
	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Micro Variables</i>					
Part-Time Employed	-0.009 (0.015)	-0.009 (0.015)	-0.009 (0.015)	-0.009 (0.015)	-0.000 (0.016)
Unemployed	-0.014 (0.018)	-0.013 (0.018)	-0.014 (0.018)	-0.014 (0.018)	-0.001 (0.019)
In Education	-0.080*** (0.021)	-0.080*** (0.021)	-0.080*** (0.021)	-0.080*** (0.021)	-0.069*** (0.021)
Retired	-0.026* (0.015)	-0.026* (0.015)	-0.026* (0.015)	-0.026* (0.015)	-0.021 (0.015)
Not in Labour Force	-0.034** (0.015)	-0.034** (0.015)	-0.034** (0.015)	-0.034** (0.015)	-0.019 (0.016)
Educational Level	-0.010*** (0.003)	-0.010*** (0.003)	-0.010*** (0.003)	-0.010*** (0.003)	-0.012*** (0.003)
Age	0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)
Male	-0.008 (0.009)	-0.008 (0.009)	-0.008 (0.009)	-0.008 (0.009)	-0.005 (0.009)
Religiosity	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)	-0.005** (0.002)
Income	-0.021*** (0.003)	-0.021*** (0.003)	-0.021*** (0.003)	-0.021*** (0.003)	-0.023*** (0.003)
Des. Backgr.	0.020*** (0.004)	0.020*** (0.004)	0.020*** (0.004)	0.020*** (0.004)	0.025*** (0.004)
Des. Behav.	0.031*** (0.006)	0.031*** (0.006)	0.031*** (0.006)	0.031*** (0.006)	0.027*** (0.006)
Des. Inst.	0.037*** (0.004)	0.037*** (0.004)	0.037*** (0.004)	0.037*** (0.004)	0.040*** (0.004)
<i>Macro Variables</i>					
Growth 2009	-0.017** (0.007)	-0.017*** (0.006)	-0.016** (0.007)	-0.020*** (0.007)	-0.018*** (0.006)
Net Gini	-0.002 (0.004)				
Market Gini		-0.006 (0.004)			
Introduction PIT			0.000 (0.001)		
Revenue from Sales Taxes				-0.017 (0.013)	
Social Benefits Expenditure					0.003 (0.002)
(Intercept)	3.673*** (0.144)	3.893*** (0.215)	2.991** (1.421)	3.717*** (0.095)	3.523*** (0.090)
AIC	70156.174	70154.704	70156.142	70154.929	62709.331
Log Likelihood	-35055.087	-35054.352	-35055.071	-35054.465	-31331.666
Num. obs.	31331	31331	31331	31331	28679
Num. groups: country	32	32	32	32	29

\*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table OA5: Results Multilevel Models with Interaction Effects

	DV: Preferences for Tax Progressivity		
	Model 1	Model 2	Model 3
<i>Micro Variables</i>			
Part-Time Employed	-0.0102 (0.0152)	-0.0101 (0.0152)	-0.0100 (0.0152)
Unemployed	-0.0152 (0.0179)	-0.0151 (0.0179)	-0.0156 (0.0179)
In Education	-0.0769*** (0.0216)	-0.0769*** (0.0216)	-0.0766*** (0.0216)
Retired	-0.0285* (0.0151)	-0.0284* (0.0151)	-0.0284* (0.0151)
Not in Labour Force	-0.0393*** (0.0149)	-0.0395*** (0.0149)	-0.0391*** (0.0149)
Educational Level	-0.0059* (0.0035)	-0.0059* (0.0035)	-0.0060* (0.0035)
Age	0.0043*** (0.0004)	0.0043*** (0.0004)	0.0043*** (0.0004)
Male	-0.0110 (0.0089)	-0.0109 (0.0089)	-0.0110 (0.0089)
Religiosity	-0.0102*** (0.0022)	-0.0102*** (0.0022)	-0.0102*** (0.0022)
Income	-0.0225*** (0.0034)	-0.0225*** (0.0034)	-0.0225*** (0.0034)
Des. Backgr.	0.0194*** (0.0053)	0.0215*** (0.0040)	0.0213*** (0.0040)
Des. Behav.	0.0270*** (0.0058)	0.0172** (0.0077)	0.0268*** (0.0058)
Des. Inst.	0.0367*** (0.0036)	0.0366*** (0.0036)	0.0290*** (0.0049)
<i>Macro Variables</i>			
Growth 2007	-0.0053 (0.0123)	-0.0052 (0.0123)	-0.0049 (0.0123)
Z-Score	-0.0065 (0.0046)	-0.0064 (0.0045)	-0.0065 (0.0046)
GDP 2009 (ln)	-0.0249 (0.0355)	-0.0244 (0.0354)	-0.0216 (0.0355)
Growth 2009	-0.0151** (0.0071)	-0.0061 (0.0085)	-0.0110 (0.0070)
<i>Cross-Level Interaction Terms</i>			
Des. Backgr * Growth 2009	-0.0006 (0.0009)		
Des. Behav. * Growth 2009		-0.0026* (0.0013)	
Des. Inst. * Growth 2009			-0.0020** (0.0009)
(Intercept)	4.0592*** (0.3956)	4.0882*** (0.3951)	4.0418*** (0.3959)
AIC	70545.5903	70542.2662	70540.5574
Log Likelihood	-35249.7951	-35248.1331	-35247.2787
Num. obs.	31331	31331	31331
Num. groups: country	32	32	32

\*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table OA6: Results Multilevel Models for Tax Progressivity: Generalised Linear Models

	DV: Preferences for Tax Progressivity			
	Model 1	Model 2	Model 3	Model 4
<i>Micro Variables</i>				
Part-Time Employed		-0.0243 (0.0387)	-0.0226 (0.0387)	-0.0227 (0.0387)
Unemployed		-0.0274 (0.0460)	-0.0271 (0.0460)	-0.0306 (0.0460)
In Education		-0.1825*** (0.0547)	-0.1815*** (0.0547)	-0.1822*** (0.0547)
Retired		-0.0572 (0.0384)	-0.0552 (0.0384)	-0.0584 (0.0384)
Not in Labour Force		-0.0991*** (0.0384)	-0.0956** (0.0384)	-0.0986** (0.0384)
Educational Level		-0.0159* (0.0087)	-0.0157* (0.0087)	-0.0153* (0.0087)
Age		0.0118*** (0.0009)	0.0117*** (0.0009)	0.0118*** (0.0009)
Male		-0.0206 (0.0227)	-0.0209 (0.0227)	-0.0223 (0.0227)
Religiosity		-0.0265*** (0.0056)	-0.0269*** (0.0056)	-0.0274*** (0.0056)
Income		-0.0605*** (0.0044)	-0.0606*** (0.0044)	-0.0608*** (0.0044)
Des. Backgr.		0.0640*** (0.0104)	0.0636*** (0.0104)	0.0634*** (0.0104)
Des. Behav.		0.0782*** (0.0148)	0.0773*** (0.0148)	0.0771*** (0.0148)
Des. Inst.		0.1105*** (0.0094)	0.1104*** (0.0094)	0.1099*** (0.0094)
<i>Macro Variables</i>				
Growth 2009	-0.0530*** (0.0194)	-0.0462** (0.0183)		-0.0391** (0.0183)
Growth First Half 2009			-0.0519*** (0.0184)	
Growth 2007				-0.0233 (0.0350)
Z-Score				-0.0096 (0.0128)
GDP 2009 (ln)				-0.1889* (0.1033)
AIC	68901.0312	67971.9362	67970.4015	67973.4204
Log Likelihood	-34444.5156	-33966.9681	-33966.2008	-33964.7102
Num. obs.	31331	31331	31331	31331
Groups (country)	32	32	32	32

\*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table OA7: Results Multilevel Models for Tax Progressivity: Additional Party Variables

	DV: Preferences for Tax Progressivity		
	Model 1	Model 2	Model 3
<i>Micro Variables</i>			
Part-Time Employed	-0.0175 (0.0157)	-0.0175 (0.0157)	-0.0176 (0.0157)
Unemployed	-0.0198 (0.0185)	-0.0198 (0.0185)	-0.0202 (0.0185)
In Education	-0.0783*** (0.0220)	-0.0783*** (0.0220)	-0.0781*** (0.0220)
Retired	-0.0185 (0.0155)	-0.0186 (0.0155)	-0.0186 (0.0155)
Not in Labour Force	-0.0318** (0.0155)	-0.0318** (0.0155)	-0.0319** (0.0155)
Educational Level	-0.0092*** (0.0035)	-0.0093*** (0.0035)	-0.0092*** (0.0035)
Age	0.0042*** (0.0004)	0.0042*** (0.0004)	0.0042*** (0.0004)
Male	-0.0093 (0.0091)	-0.0092 (0.0091)	-0.0092 (0.0091)
Religiosity	-0.0066*** (0.0023)	-0.0065*** (0.0023)	-0.0066*** (0.0023)
Income	-0.0216*** (0.0035)	-0.0216*** (0.0035)	-0.0216*** (0.0035)
Des. Backgr.	0.0200*** (0.0041)	0.0200*** (0.0041)	0.0199*** (0.0041)
Des. Behav.	0.0261*** (0.0059)	0.0261*** (0.0059)	0.0261*** (0.0059)
Des. Inst.	0.0396*** (0.0037)	0.0396*** (0.0037)	0.0396*** (0.0037)
Left Affiliation	0.2335*** (0.0118)	0.2335*** (0.0118)	0.2335*** (0.0118)
Center Affiliation	0.0791*** (0.0133)	0.0791*** (0.0133)	0.0788*** (0.0133)
No Affiliation	0.0761*** (0.0155)	0.0761*** (0.0155)	0.0753*** (0.0155)
<i>Macro Variables</i>			
Growth 2009	-0.0169** (0.0068)		-0.0155** (0.0070)
Growth First Half 2009		-0.0195*** (0.0069)	
Growth 2007			-0.0117 (0.0155)
Z-Score			-0.0060 (0.0054)
GDP 2009 (ln)			-0.0512 (0.0400)
(Intercept)	3.6288*** (0.0567)	3.6123*** (0.0574)	4.2680*** (0.4683)
AIC	64124.2587	64122.7419	64127.8460
Log Likelihood	-32040.1294	-32039.3710	-32038.9230
Num. obs.	28837	28837	28837
Num. groups: country	29	29	29

\*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table OA8: Results Multilevel Models for Tax Progressivity: Robustness Micro Variables

	DV: Preferences for Tax Progressivity	
	Model 1	Model 2
<i>Micro Variables</i>		
Part-Time Employed	-0.0094 (0.0152)	-0.0206 (0.0247)
Unemployed	-0.0116 (0.0179)	-0.0227 (0.0280)
In Education	-0.0706*** (0.0216)	-0.0573* (0.0295)
Retired	-0.0173 (0.0151)	0.0224 (0.0329)
Not in Labour Force	-0.0393*** (0.0149)	-0.0141 (0.0279)
Educational Level	-0.0056 (0.0034)	-0.0006 (0.0098)
Age	0.0043*** (0.0004)	0.0042*** (0.0006)
Male	-0.0116 (0.0089)	-0.0228 (0.0151)
Religiosity	-0.0103*** (0.0022)	-0.0135* (0.0067)
Income	-0.0215*** (0.0017)	-0.0190*** (0.0031)
Des. Backgr.	0.0208*** (0.0040)	0.0282** (0.0130)
Des. Behav.	0.0270*** (0.0058)	0.0315** (0.0134)
Des. Inst.	0.0381*** (0.0036)	0.0783*** (0.0113)
(Intercept)	3.7908*** (0.0438)	3.6175*** (0.1123)
Adj. R <sup>2</sup>	0.0961	0.0430
Num. obs.	31331	31331
Num. groups: country	32	32
Model	Country FE	Country Clustered SE

\*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$



Figure OA1: GDP Growth 2009 and Aggregate Demand for Tax Progressivity

