Tax Morale and Pro-Social Behaviour: Evidence from a Palestinian Survey

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Main Question

Pro-social behaviour = public spirit & associational activity

What is the impact of pro-social behaviour on tax morale among Palestinians?

Tax Morale and pro-social behaviour

Tax evasion not only a matter of tax burdens and probability of audit (Andreoni et al 1998; Torgler 2005)

Tax morale approach (Torgler 2005; Frey and Torgler 2007; Cummings et al 2009)

Social norms might play a crucial role in this sense

Some individuals might be more respectful of social norms than others

Tax morale = intrinsic motivation for an individual to pay taxes beyond the probabilistic approach. Individuals are against tax evasion because it is not morally acceptable.

Tax Morale and pro-social behaviour

Palestinian Territories & tax morale: a pioneer research

Literature so far:
Cross country empirical analysis (Torgler 2005, Lago-Penas et al 2010; Frey and Torgler 2007)

Micro-level but ***high income countries*** (Cannary et al 2007, Alm and Gomez 2008; Barone and Mocetti 2009)

Why the existing gap with developing countries?
Tax morale is a relatively new topic of research (easier to focus on cross-country analysis given the data availability)
Lack of surveys in developing countries covering opinions about tax evasion

Why Palestinian Territories?

- Long tradition in terms of associational life (Sullivan 1996)

- Geopolitical condition drives to build a system of community governance that goes beyond the standard associational life

- Endogenous relationship between democratic setting and associational activities (Jamal 2007)

- Given the highly polarised associational activities in the Territories the "civic engagement" risks to be driven more by nepotism than by horizontal cooperation (Jamal 2007)

- Palestinians claim their national spirit to be officially recognised. Hence, public spirit, and sense of governance are present among Palestinians as in any other recognised State

Palestinian Territories

Pro-social behaviour

Public Spirit
positive attitude adopted by the citizens for the benefit of the community even though this might incur in personal cost or reduced personal gain (Kelman 1987)

Associational Activity
Individuals engaged in voluntary activities as expression of civic engagement

Methodology: Bivariate Probit Model

$$y_{1i}^* = \beta'_1 \, x_{1i} + u_{1i} \qquad (2)$$

$$y_{1i} = 1 \;\; if \;\; y_{1i}^* > 0$$

$$y_{1i} = 0 \quad otherwise$$

$$y_{2i}^* = \beta'_2 \, x_{2i} + u_{2i} \qquad (3)$$

$$y_{2i} = 1 \;\; if \;\; y_{2i}^* > 0$$

$$y_{2i} = 0 \quad otherwise$$

$$\mathrm{cov}(u_{1i}, u_{2i}) = \rho$$

Dependent variables of tax morale and pro-social behaviour

Table 2 Dependent variables of tax morale and pro-social behaviour

Tax morale	$\Pr(y_{Tax} = 1)$ "can't justify at all tax evasion"
	$\Pr(y_{Tax} = 0)$ *Otherwise*
Associational activity	$\Pr(y_{Asso} = 1)$ *I did volunteer in the last 12 months*
	$\Pr(y_{Asso} = 0)$ *Otherwise*
Public spirit	$\Pr(y_{Spirit} = 1)$ "can't justify at all: absence from work without reasonable reasons, assenteism in elections, no commitments to traffic rules, buying stolen products, finding a wallet and not give it back to the police, bribery at work"
	$\Pr(y_{Spirit} = 0)$ *Otherwise*

Variables

Table 1 Summary Statistics

Variables	Obs.	Mean	Std. Dev.	Min	Max
Tax morale	2,465	0.716	0.451	0	1
Public spirit	2,498	0.594	0.491	0	1
Associational Activity	2,489	0.414	0.493	0	1
Age	2,498	36.409	13.730	16	92
Female	2,497	0.503	0.500	0	1
Marital status	2,498	0.647	0.478	0	1
Education	2,498	3.765	1.520	1	8
Employed	2,498	0.435	0.496	0	1
Regulatory	2,485	2,916	0.311	1	3
Inst. Trust	2,498	17.592	6.109	0	32
Gen. Trust	2,446	0.158	0.365	0	1
Affiliation	2,437	0.441	0.497	0	1
Family	2,497	35.713	17.843	0	52
Bridging	2,413	27.981	15.247	0	52
West Bank	2,498	0.918	0.274	0	1

Bivariate Probit Baseline

Table 6 Bivariate probit and correlation between errors of (tax morale, public spirit) and (tax morale, civic engagement)

	$\Pr(y_{Tax} = 1)$ $\Pr(y_{spirit} = 1)$	$\Pr(y_{Tax} = 1)$ $\Pr(y_{Asso} = 1)$
N	2287	2279
MLL	-2630.5	-2730.2
ρ	0.59***	-0.17***
$se(\rho)$	0.027	0.036
$LR(H_0 : \rho = 0)$	321.83***	20.904***

* $p<0.1$ ** $p<0.05$ *** $p<0.01$

Marginal effects on joint probabilities of tax morale and pro-social behaviour

Variables	$\Pr(y_{Tax} = 1, y_{Asso} = 1)$		$\Pr(y_{Tax} = 1, y_{Spirit} = 1)$	
	Without working sectors	With working sectors	Without working sectors	With working sectors
	Column I	Column II	Column III	Column IV
age	0.003	0.007	0.002	0.004
	(0.004)	(0.006)	(0.004)	(0.007)
age^2	-.000	-0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
female	0.017	0.015	-0.060 ***	-0.078 **
	(0.019)	(0.029)	(0.022)	(0.032)
Marital status	-0.017	-0.012	0.051 **	0.026
	(0.021)	(0.032)	(0.025)	(0.035)
education	0.012 *	0.011	0.008	0.007
	(0.006)	(0.009)	(0.008)	(0.010)
employed	0.050 **		0.001	
	(0.020)		(0.024)	
Public sector		0.115 ***		0.047
		(0.037)		(0.040)
Private sector		0.115 ***		-0.015
		(0.037)		(0.039)
Self-employed		0.003		0.037
		(0.032)		(0.036)
Rule of law	0.081 ***	0.124 ***	0.176 ***	0.216 ***
	(0.028)	(0.038)	(0.032)	(0.042)
Institutional trust	0.007 ***	0.005 **	0.008 ***	0.005 **
	(0.001)	(0.002)	(0.002)	(0.002)
Generalised trust	-0.021	-0.013	0.028	0.019
	(0.023)	(0.033)	(0.028)	(0.038)
Affiliation	0.133 ***	0.088 ***	-0.030	-0.058 **
	(0.018)	(0.024)	(0.021)	(0.028)
Family	-0.000	-0.001	-0.002 **	-0.003 ***
	(0.001)	(0.001)	(0.001)	(0.001)
Bridging	0.002 ***	0.003 ***	0.000	0.002 *
	(0.001)	(0.001)	(0.001)	(0.001)
West Bank	-0.022	-0.055	-0.143 ***	-0.172 ***
	(0.031)	(0.046)	(0.035)	(0.048)

Marginal effects on joint probabilities of tax morale and pro-social behaviour

Variables	Pr($y_{Tax} = 0$, $y_{Asso} = 1$)	
	Without working sectors Column I	With working sectors Column II
age	−0.002	−0.003
	(0.002)	(0.004)
age²	−0.000	0.000
	(0.000)	(0.000)
female	0.044***	0.045**
	(0.013)	(0.019)
Marital status	−0.031**	−0.018
	(0.014)	(0.023)
education	0.006	0.003
	(0.004)	(0.006)
employed	0.024*	
	(0.014)	
Public sector		0.004
		(0.026)
Private sector		0.048*
		(0.028)
Self-employed		0.020
		(0.024)
Rule of law	−0.038**	−0.048*
	(0.018)	(0.026)
Institutional trust	−0.001	−0.000
	(0.001)	(0.002)
Generalised trust	−0.033**	−0.021
	(0.014)	(0.023)
Affiliation	0.060***	0.079***
	(0.012)	(0.017)
Family	0.001	0.002***
	(0.000)	(0.001)
Bridging	0.001***	0.000
	(0.000)	(0.001)
West Bank	0.005	0.008
	(0.020)	(0.031)

Predicted odds ratios for employed and unemployed

	Section I Individuals employed	
	$\dfrac{\Pr(y_{Tax}=1\mid y_{Spirit}=1)}{\Pr(y_{Tax}=1\mid y_{Spirit}=0)}$	$\dfrac{\Pr(y_{Tax}=1\mid y_{Asso}=1)}{\Pr(y_{Tax}=1\mid y_{Asso}=0)}$
*High institutional trust & high importance of the rule of law**	1.36 (36% ↑)	0.93 (7% ↓)
Low institutional trust &low importance of the rule of law	1.85 (85% ↑)	0.80 (20% ↓)
	Section II Individuals unemployed	
	$\dfrac{\Pr(y_{Tax}=1\mid y_{Spirit}=1)}{\Pr(y_{Tax}=1\mid y_{Spirit}=0)}$	$\dfrac{\Pr(y_{Tax}=1\mid y_{Asso}=1)}{\Pr(y_{Tax}=1\mid y_{Asso}=0)}$
*High institutional trust & high importance of the rule of law**	1.34 (34% ↑)	0.93 (7% ↓)
Low institutional trust &low importance of the rule of law	1.76 (76% ↑)	0.80 (20% ↓)

Predicted odds ratios for public sector and self-employed

Section III Individuals working in the public sector		
	$\dfrac{\Pr(y_{Tax}=1\mid y_{Spirit}=1)}{\Pr(y_{Tax}=1\mid y_{Spirit}=0)}$	$\dfrac{\Pr(y_{Tax}=1\mid y_{Asso}=1)}{\Pr(y_{Tax}=1\mid y_{Asso}=0)}$
High institutional trust & high importance of the rule of law	1.23 (23% ↑)	0.96 (4% ↓)
Low institutional trust &low importance of the rule of law	1.51 (51% ↑)	0.86 (14% ↓)
Section IV Individuals self employed		
	$\dfrac{\Pr(y_{Tax}=1\mid y_{Spirit}=1)}{\Pr(y_{Tax}=1\mid y_{Spirit}=0)}$	$\dfrac{\Pr(y_{Tax}=1\mid y_{Asso}=1)}{\Pr(y_{Tax}=1\mid y_{Asso}=0)}$
High institutional trust &high importance of the rule of law	1.32 (32% ↑)	0.95 (5% ↓)
Low institutional trust &low importance of the rule of law	1.69 (69% ↑)	0.83 (17% ↓)

Robustness: Volunteers, Membership and Putnam Groups

Table 11: bivariate probit and correlation between errors

	$\Pr(y_{Tax}=1)$ $\Pr(y_{Volunteer}=1)$	$\Pr(y_{Tax}=1)$ $\Pr(y_{membership}=1)$	$\Pr(y_{Tax}=1)$ $\Pr(y_{Putnam-active}=1)$
N	860	2287	2287
MLL	-866.7	-2605.3	-2659.3
ρ	-0.11*	-0.22***	-0.10***
$se(\rho)$	0.068	0.038	0.037
$LR(H_0:\rho=0)$	2.772*	32.390***	7.251***

* $p<0.1$ ** $p<0.05$ *** $p<0.01$

Conclusions

Tax morale is lower when Palestinians are involved in associational activities

This occurs even when we consider Putnam-group organisations

Tax morale increases with public spirit

Conclusions

Public spirit has more impact when there is a lack of confidence in the institutions and in the rule of law.

Interestingly, more public spirit is required for a self-employee in order to deal with tax compliance than for a worker in the public sector, regardless the level of confidence and trust in the institution

Thank you!!

Predicted odds ratios for employed and unemployed

	$\dfrac{\Pr(y_{Tax}=1 \mid y_{Spirit}=1)}{\Pr(y_{Tax}=1 \mid y_{Spirit}=0)}$	$\dfrac{\Pr(y_{Tax}=1 \mid y_{Asso}=1)}{\Pr(y_{Tax}=1 \mid y_{Asso}=0)}$
Section I Individuals employed		
The rule of law is very important	1.41 (41% ↑)	0.92 (8% ↓)
The rule of law is not important	1.69 (69% ↑)	0.83 (17% ↓)
High institutional trust*	1.48 (48% ↑)	0.90 (10% ↓)
Low institutional trust	1.59 (59% ↑)	0.86 (14% ↓)
Section II Individuals unemployed		
The rule of law is very important	1.37 (37% ↑)	0.91 (9% ↓)
The rule of law is not important	1.68 (68% ↑)	0.83 (17% ↓)
High institutional trust	1.44 (44% ↑)	0.89 (11% ↓)
Low institutional trust	1.58 (58% ↑)	0.85 (15% ↓)

Predicted odds ratios for employed and unemployed

Section III Individuals working in the public sector		
	$\dfrac{\Pr(y_{Tax}=1 \mid y_{Spirit}=1)}{\Pr(y_{Tax}=1 \mid y_{Spirit}=0)}$	$\dfrac{\Pr(y_{Tax}=1 \mid y_{Asso}=1)}{\Pr(y_{Tax}=1 \mid y_{Asso}=0)}$
The rule of law is very important	1.22 (22% ↑)	0.96 (4% ↓)
The rule of law is not important	1.48 (48% ↑)	0.87 (13% ↓)
High institutional trust	1.30 (30% ↑)	0.93 (7% ↓)
Low institutional trust	1.34 (34% ↑)	0.92 (8% ↓)
Section IV *Individuals self employed*		
	$\dfrac{\Pr(y_{Tax}=1 \mid y_{Spirit}=1)}{\Pr(y_{Tax}=1 \mid y_{Spirit}=0)}$	$\dfrac{\Pr(y_{Tax}=1 \mid y_{Asso}=1)}{\Pr(y_{Tax}=1 \mid y_{Asso}=0)}$
The rule of law is very important	1.34 (34% ↑)	0.93 (7% ↓)
The rule of law is not important	1.64 (64% ↑)	0.84 (16% ↓)
High institutional trust	1.44 (44% ↑)	0.89 (11% ↓)
Low institutional trust	1.45 (45% ↑)	0.87 (13% ↓)

Public spirit and associational activity under the baseline model

Baseline model public spirit and association

	$\Pr(y_{Spirit} = 1)$ $\Pr(y_{Asso} = 1)$
N	2304
MLL	-2904.76
ρ	-0.20***
$se(\rho)$	0.034
$LR(H_0 : \rho = 0)$	34.069***

Robustness: membership and Putnam Groups

Table 9: *bivariate probit and correlation between errors*

	$\Pr(y_{Tax} = 1)$ $\Pr(y_{Asso} = 1)$	$\Pr(y_{Tax} = 1)$ $\Pr(y_{membership} = 1)$	$\Pr(y_{Tax} = 1)$ $\Pr(y_{activity-Putnam} = 1)$
N	2279	2287	2287
MLL	-2730.2	-2605.3	-2658.2
ρ	-0.17***	-0.22***	-0.098**
$se(\rho)$	0.036	0.038	0.037
$LR(H_0 : \rho = 0)$	20.904***	32.390***	6.849**

* $p<0.1$ ** $p<0.05$ *** $p<0.01$

Marginal effects on joint probabilities (public spirit =0 and association = 1)

Marginal effect on joint probabilities (public spirit = 0 association 1)

Variables	$\Pr(y_{Spirit} = 0, y_{Asso} = 1)$
age	-0.001
	(0.003)
age^2	-0.000
	(0.000)
female	0.041***
	(0.015)
Marital status	-0.042**
	(0.017)
education	0.002
	(0.005)
employed	0.029*
	(0.016)
Rule of law	-0.058***
	(0.022)
Institutional trust	-0.001
	(0.001)
Generalised trust	-0.024
	(0.018)
Affiliation	0.095***
	(0.015)
Family	0.001*
	(0.000)
Bridging	0.001**
	(0.001)
West Bank	0.087***
	(0.019)

Unconditional joint probabilities between tax morale and public spirit

Table 3: Unconditional joint probabilities between tax morale and public spirit*

	Absence of public spirit	*Presence of public spirit*
Absence of tax morale "can justify tax evasion"	50.71%	13.64%
Presence of tax morale "can't justify tax evasion at all"	49.29%	86.36%
if age ≥ 30 *Absence of tax morale* "can justify tax evasion"	48.31%	11.30%
if age ≥ 30 *Presence of tax morale* "can't justify tax evasion at all"	51.69%	88.70%

*All this values are significant at 1% level (Chi-squared)

Structure

Relationship between tax morale and pro-social behaviour

Tax system in West Bank and Gaza Strip

Methodology & empirical model

Data and variables

Empirical results & discussion

Conclusion

Correlation between tax morale and pro-social behaviour

Table 4: tetrachoric[9] correlation between tax morale, public spirit and civic engagement (2,463 observations)

	Tax morale	Public spirit	Civic engagement
Tax morale	1.00		
Public spirit	0.61	1.00	
Associational activity	-0.16	-0.19	1.00

Unconditional joint probabilities between civic engagement and working sectors

Table 4: Unconditional joint probabilities between civic engagement and working sectors

	Public sector	Private sector	Self employed
Absence of civic engagement "I did not volunteer in the 12 months"	41.42%***	40.93% ***	56.04%**
Presence of civic engagement "I did volunteer in the 12 months"	58.58%***	59.07% ***	43.96%**

* $p<0.1$ ** $p<0.05$ *** $p<0.01$ through Chi-squared

Unconditional probabilities between civic engagement and association

Table 13 unconditional joint probabilities between civic engagement and association*

	No membership	Membership of at least one association
Absence of civic engagement "I did not volunteer in the 12 months"	77.03%	47.02%
Presence of civic engagement "I did not volunteer in the 12 months"	22.97%	52.98%

*All this values are significant at 1% level (Chi-squared)

Ranking of the institutions according to trust

Table 16: ranking of the Institutions according to trust

Ranking	Institutions	% of respondents that trust a lot this institution
1	Clan	40.32%
2	Police	12.34%
3	Juridical system	11.75%
4	Local government	11.01%
5	President	10.60%
6	Parliament	8.68%
7	Government	7.98%
8	Political parties	3.89%

Ranking of the institutions according to trust (respondents that are politically active)

Table 17: ranking of the Institutions according to trust (respondents that are politically active)

Ranking	Institutions	% of respondents politically active that trust a lot this institution
1	Clan	44.87% **
2	Juridical system	16.44% ***
3	Police	16.25% ***
4	President	15.09% ***
5	Local government	11.40% ***
6	Parliament	9.88% *
7	Government	8.64% *
8	Political parties	6.94% ***

*, **, *** indicate respectively 10%, 5% and 1% significance level of the Chi-squared test

Tax system in WBGS

Even though WBGS are regulated by a single tax system, the Palestinian fiscal policy faces **major constraints**

The political uncertainty of the Palestinians' Territories favours the building of personal and patrimonial linkages in order to assure political and personal loyalties between the institutional authority and some influential taxpayers (Fjeldstad et al 2002).

Negotiations were used to solve dispute on tax assessment especially until 2000 in order to receive discounts of exempts

Social obligations and political intervention affected the work and the integrity of the tax officers (Fjeldstad et al 2002). This situation undermines the citizens' perception of good governance and their opinion about the regulatory capacity of the authority (Fisher et al 2001)